

INCREASING TEACHER AWARENESS  
OF SELF-DETERMINATION

A dissertation submitted to the  
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by

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LIFESPAN DEVELOPMENT  
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INCREASING TEACHER AWARENESS OF SELF-DETERMINATION (156 pp.)

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The main purpose of this study was to measure differences in pre-service teachers' awareness levels of when self-determination behaviors are demonstrated in others. The current study examined relationships among many variables such as pre-service teachers' age, gender, current credits and degree, licensure, and professional experience. The last variable examined pre-service teachers' pre- and posttest scores both within and between experimental and control groups. The research question that guided the current study was: Can pre-service teachers become more aware of when a person behaves in a self-determined manner? To assess the effects of the intervention, a quasi-experimental design of pretest—posttest of the experimental group, and posttest only for the control group was used.

Overall the results found that the experimental group demonstrated a significant increase across pre- and posttest scores in awareness by correctly identifying when components of self-determination were depicted in the videos. Furthermore, teachers showed growth in their ability to recognize specific steps to each skill demonstrated in the clips. Finally, teachers did not show significant improvement in misspecifications of self-determination when they mistakenly recorded a self-determined behavior when it was not evident in the video.

Finally, in looking more closely at the intervention itself in raising understanding and awareness of steps to each of the nine skills of self-determination, the study found that participants had significant improvement in identifying all but two of the skills. The two skills that pre-service teachers did not significantly increase abilities in awareness and understanding were that of choice-making and self-advocacy.

## **DEDICATION**

I think of the many times that I questioned if the sacrifice was too great, that my family suffered because of my desire to complete this degree. My husband, who was happiest when his best friend could go hunting and fishing with him, had to go on many trips alone. I was not in the audience to hear my granddaughters sing in school concerts, and I missed a few birthday parties. Yet, it was their encouragement and belief in me that would not allow me to quit. And so it is for them that I dedicate this writing.

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# **CHAPTER I**

## **LITERATURE REVIEW**

### **Introduction**

Research findings show that students with intellectual disabilities who have more developed self-determined skills are able to make a more successful transition from high school to adult life (Chambers et al., 2007; Kochhar-Bryant, Bassett, & Webb, 2009). Also, students who leave high school without developed self-determination skills are ill prepared, and less successful in their way to adult lives (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Wehmeyer & Palmer, 2003). Although the literature supports the importance of self-determination, research studies across special education disability categories finds that students with disabilities demonstrate less self-determination than their nondisabled peers (Wehmeyer, Palmer, Shogren, Williams-Diehm, & Soukup, 2010).

So where and how does a student learn to become a more self-determined person? In a social ecological approach, the teacher is key to developing these skills (Heller et al., 2011). Educators believe that teaching students to become more self-determined is important, and there is evidence for the effectiveness of instruction to promote component elements of self-determined behavior (Karvonen, Test, Wood, Browder, & Algozzine, 2004). However, educators do not feel they are incorporating the recognition of self-determination into their lessons (Lee, Wehmeyer, Soukup, & Palmer, 2010).

It is unclear why teachers are not providing opportunities for their students to learn self-determination skills within the classroom. Studies indicate that perhaps

teachers did not learn about self-determination in pre-service training courses (Wehmeyer, Agran, & Hughes, 2000). Moreover, Agran, Snow, and Swaner (1999) added that teachers do not feel competent in their abilities to teach or to provide opportunities to use these skills within the school setting. The gap in implementation stems in part from a limited understanding of methods for preparing special educators to develop self-determination skills in students with disabilities (Thoma, Pannozzo, Fritton, & Bartholomew, 2008). So how can teachers become better equipped to help their students gain these skills?

This researcher proposes that before teachers can be expected to teach self-determination skills they must first gain an understanding of what comprise these skills, and to then be able to identify what self-determined behaviors look like. Once this understanding has occurred, teachers must then increase awareness of when self-determined behaviors occur within the learning environment. Therefore, this study designs a conceptual framework for a practical approach to increase awareness in pre-service educators in order for them to recognize when self-determined behaviors have been used. The research question driving this study is: Can pre-service teachers become more aware of when persons behave in a self-determined manner?

In order to more fully understand the purpose and focus of this study, there first must be an understanding of all that comprises this vast and difficult concept. First, an understanding of the theory of self-determination and of the role that a teacher has in promoting it within students is discussed. Other topics to be reviewed are: (a) the definitions of the nine components that comprise self-determination, (b) the importance

of self-determination, (c) promoting and enhancing this concept, (d) the evidence-base of self-determination, (e) a practical approach to self-determination, (f) reality of teacher instruction, and (g) teacher efficacy.

### **Self-Determination and the Role of Teacher**

The idea of self-determination originated in the philosophy field, but gained standing in the special education field when writers like Nirje (1972) wrote of the rights of individuals to direct decisions regarding their personal lives and access to information to make those decisions. Subsequently there evolved a conceptual framework to define and to guide practices that promote self-determination of individuals with disabilities (Deci & Ryan, 2000).

In 1994, Field and Hoffman described self-determination as knowing one's strengths, limitations, needs, and preferences well enough to analyze options and goals, and to determine a clear vision for one's future. Self-determined individuals choose their goals by assessing their needs, and by acting in ways to meet those goals. They are intrinsically motivated in pursuing goals which involves making a presence known, stating needs, evaluating progress toward meeting goals, adjusting one's performance, and being creative in problem-solving (J. Martin & Marshall, 1995). The construct of self-determination was further defined by Wehmeyer, Kelchner, and Richards (1996) who identified four underlying characteristics of self-determination:

1. Autonomous function/behavioral autonomy—when a person acts according to his or her own preferences, interests and/or abilities and independently, free from undue external influence or interference.



2. Self-regulation—when people make decisions about what skills to use in a situation, examine the task at hand and their available repertoire, and formulate, enact and evaluate a plan of action, with revisions when necessary.
3. Psychological empowerment—when people act based on the beliefs that they have the capacity to perform behaviors needed to influence outcomes in their environment and, if they perform such behaviors, anticipated outcomes will result.
4. Self-realization—when people use a comprehensive, and reasonably accurate, knowledge of themselves and their strengths and limitations to act in such a manner as to capitalize on this knowledge in a beneficial way.

In addition to the four underlying characteristics, Wehmeyer (1996) identified 11 component elements that appear particularly important to self-determined behavior. They are: (a) choice-making skills, (b) decision-making skills, (c) problem-solving skills, (d) goal-setting and goal attainment skills, (e) self-management skills, (f) self-advocacy skills, (g) leadership skills, (h) internal locus of control, (i) positive attributions of efficacy and outcome expectancy, (j) self-awareness, and (k) self-knowledge. Each of these elements has a characteristic developmental course, which is acquired through specific learning experiences. It is believed at this level of the framework, intervention to promote self-determination as an educational outcome can occur (Doll, Sands, Wehmeyer, & Palmer, 1996).

The teacher in any classroom can provide rich learning experiences for students that give them first-hand environmental exposure and reliable, trustworthy knowledge or

insight (Kolb, 1984). These opportunities may be naturally occurring or contrived. The learning process involves a person carrying out a particular action within a specific situation, and then to recognize the effect of that action (Kolb & Fry, 1975). The teacher as a facilitator guides the learner to play an active role to get to his or her own understanding of the content (Bauersfield, 1995; Gamoran, Secada, & Marrett, 1998). This researcher proposes that the idea of teacher as guide can be applied to develop and increase self-determination skills in persons with disabilities. However before the teacher can act as a guide, there must be a thorough understanding of what those skills are. Also the teacher must be aware when students either used a component of self-determination, or when the student missed an opportunity to use them in order to facilitate that recognition to the learner.

Moreover, when teachers better understand self-determination, the learning environment can then be manipulated to provide opportunities that support or challenge the learner's thinking. Holt and Willard-Holt (2000) stated that the instructor and the learners are equally involved in learning from each other as well since learning is a two-way process involving interaction between both instructor and learner. The researchers add that interaction from the teacher includes formal and/or informal observations of the student to identify current level of performance or reflection on any task. The instructor then shares with the student possible ways in which that performance might be improved on a subsequent occasion (Holt & Willard-Holt, 2000). This method of teacher-student interaction can be applied to increase student recognition of when he or she is using self-determination; which strengthens the argument for the need for

teachers to first understand, and to then increase awareness of self-determined behaviors in order to design a learning environment rich with opportunities for their students.

Thus far, the need for teachers to increase knowledge and awareness of self-determined behaviors was identified. What follows is an examination into the definition of self-determination, and how it includes both behaviors and attitudes (Doll et al., 1996). Components of self-determination that are identified as behaviors include: problem-solving, choice-making, decision-making, goal setting, self-regulation/self-monitoring, goal attainment, and self-advocacy. The second group of components focuses on the attitudes of: self-awareness and self-efficacy.

### **Self-Determination Defined**

#### **Behaviors**

**Problem-solving.** Considered to be the most important cognitive activity in everyday life (Jonassen, 2000), problem-solving is a multi-stepped mental process that involves discovering, analyzing, and solving problems (Reed, 2000). Orton and Wain (1994) defined problem-solving as a situation that requires an answer, but the individual does not immediately recognize what that solution is. The ultimate goal of problem-solving is to identify and define the problem so that one may move forward in finding a solution that best resolves the issue (Mayer, 1985). During this process as much information as possible is gathered by examining the givens of the situation such as time factors, data, and history as well as to examine any feelings, attitudes, and behaviors (Sternberg & Williams, 2002). The problem-solver may begin by communicating feelings of discontent by using language containing negative emotion such as sadness,

frustration, confusion, depression, anxiety, or dissatisfaction (Reed, 2000). As the problem becomes more defined, action statements begin to form. These statements include language, both verbal and nonverbal, that indicates that an action or modification of an action is ready to occur, accompanied by an attitude signifying readiness to act (Sternberg, 2003).

**Choice-making.** Regarded as the key element of self-determination (Wehmeyer et al., 2007), choice-making is the most frequently taught self-determination strategy (Agran, Storey, & Krupp, 2010). In this stage, questions should be asked and information gathered in order to identify possible solutions to the problem. One fully investigates the problem that has been defined and tries to view the problem from a variety of viewpoints, not just how it may personally affect the individual (Guess, Benson, & Siegel-Causey, 1985), but how the issue affects others as well. Questions to ask when analyzing the problem are: (a) how long has this problem existed; (b) how serious is it; (c) what causes the problem; (d) what are the effects of the problem; (e) what are the symptoms of the problem; (f) what methods does the person already have for dealing with the problem; (g) what are the limitations or obstacles; (h) how much freedom does the person have in solving his or her problem; and (i) can the problem be divided into smaller steps? (Sigafoos, 1998).

Making our own choices is a key part of personal development, self-determination, self-esteem, and judgment (Mithaug & Mithaug, 2003). Choice making from an early age creates a foundation for critical thinking, increased problem-solving abilities, and increased independence (Jolivette, Strichter, & McCormick, 2002). Agran and Martin

(2008) explained that choice making is not a choice of one and it does not develop automatically. Choice-making must be systematically taught in order for individuals who have not had as many opportunities to make consistent choices based on their preferences (T. Martin, Martin, Spevack, Vereke, & Yu, 2002).

**Decision making.** Decision-making is the process of choosing what to do by taking into consideration the possible consequences of different options and weighing the pros and cons (Beyth-Marom, Fischhoff, Jacobs-Quadrel, & Furby, 1991). Reasoning skills are utilized in the decision-making process and refer to specific cognitive abilities, some of which include assessing likelihood of success and thinking methodically or abstractly (Fischhoff, Crowell, & Kipke, 1999). The basic process that decision-makers use when confronted with a decision involves closely examining the options gathered during the choice-making step in order to: (a) identify the consequences of each choice; (b) assess the likelihood of each consequence actually happening; (c) determine the significance of these consequences; and finally (d) combine all this information to decide which solution is the most desirable (Beyth-Marom et al., 1991). The final step in this process after analyzing and weighing the pros and cons and taking into account possible consequences is to pick one. At this time the behavior is defined as a statement that decisively indicates a decision has been made to implement one of the solutions (Miller & Byrnes, 2001).

**Goal setting.** Once the problem has been defined, possible solutions identified, and the decision-making process has determined which solution seems to be the best option, the individual now needs an action plan. This is called setting a goal (Klahr,

2008). Goal setting in the broadest terms is the process of having identified something you want, detailing steps of how to get it, and then working towards the objective (Martin, Marshall, & Maxson, 1993). It is not wishing or dreaming. It is something that is progressively worked towards.

**Self-regulation/self-monitoring.** Even the best of plans sometimes do not operationalize or occur and must be changed midstream due to something unforeseen. Therefore, self-regulation is a process that effective problem-solvers or goal setters use over time and across changing circumstances which aides a person's ability to adapt and to be flexible (Baumeister & Vohs, 2007). Snyder (1979) wrote that the effective goal setter is able to monitor progress by paying attention to intrinsic (within) and extrinsic (from others) cues through greater self-awareness, which leads to quicker and better management of goal attainment.

Multiple factors can influence the effectiveness and efficiency of individual performance in self-monitoring. Self-monitoring can be influenced by a person's particular temperament or personality type that allows pursuit and maintenance of conscious self-monitoring (Caligiuri & Day, 2000). Gender appears to play a role in self-regulation in different socio-cultural situations (Rekers & Varni, 1977). Another factor influencing self-monitoring research is reliability and precision of self-reports (Nasby, 1989). Additionally, in an attempt to protect the ego from criticism, some individuals may disregard vital information from observation in a self-serving bias, and thus limit effectiveness of self-monitoring (Baumeister, Heatherton, & Tice, 1993). Finally, the ability of the individual to observe and imitate when learning or fine tuning particular

skills influences the self-monitoring process (Ferraro, 1996). Furthermore, Muraven, Tice, and Baumeister (1998) believe that those lacking observation and imitation skills will find it difficult to sustain constant and consistent efforts of self-monitoring. Therefore, there appears to be many underlying factors, causes, and situational dependencies that manipulate the ability of an individual to self-monitor.

**Goal attainment.** Once a goal has been determined and broken into identified steps, the individual self-regulates behaviors and attitudes in order to master the goal. The goal can be considered met or mastered when all steps to the established goal have been met to the satisfaction of the individual (Field & Hoffman, 1994). Harackiewicz, Barron, Carter, and Lehto (1997) defined mastery as an individual's acknowledgment that he or she has become skillful in a topic to the best of their ability. External performance indicators such as grades do not influence the person's sense of satisfaction with the work, rather a self-awareness of abilities acquired. A mastery goal is described as either the desire to develop competence in self (e.g., I want to learn as much as I can about golfing this summer); or demonstrating competence relative to others (e.g., I want to be the best golfer on the team; Harackiewicz et al., 1997). Researchers have related the steps of goal setting and regulation to actual achievement of a goal to that of knowledge versus performance (Elliot & Dweck, 1988). During the process of goal attainment, the individual is building knowledge of the topic until all things are in place when the goal can be performed with satisfaction to the fullest extent possible according to ability of the individual.

**Self-advocacy.** Self-advocacy is the ability to understand oneself and develop the skills to speak up for the things you want (Shogren, 2013). Self-advocacy signifies that one knows his rights and responsibilities and will speak up for choices and decisions made that affect his life (Williams & Shoultz, 1982). It does not mean one cannot get help if one needs or wants it; it just means that one is making the decisions and being responsible for the choices made. Developing good self-advocacy skills is important because it helps one have more power to determine what is wanted and it is the tool that can turn ideals into achievable goals.

Self-advocacy includes a range of skills and abilities and is crucial to the development and expression of self-determination (Shogren, 2013). Weston and Went (1999) identified several key areas important when self-advocating. First, one must be self-aware and know what is wanted. Once this knowledge is evident then a plan is formed on how to speak up, followed with vocalization of specific wants or desires. Finally, the individual must assume accountability for self and of the responsibilities that go along with knowing one's rights (VanReusen, Bos, Schumaker, & Deshler, 1994).

### **Attitudes**

**Self-awareness.** Self-awareness is the ability to notice ourselves in the present moment; or more simply it is becoming aware of what you do, and why you do it (Duval & Wicklund, 1972). Self-awareness is often a good gauge of 'presence'. In other words, being in tune with our body and mind can bring us awareness of many things (Fenigstein, 1987). A feeling of calmness informs that things are right in our surroundings and we can enjoy the moment. A stomach ache may be a sign of nervousness or anxiety about



something that is not quite right. A quickened heartbeat may let us know that we need to proceed with caution. Noticing this internal activity as it happens is the expression of self-awareness (Kircher & David, 2003). Awareness helps us keep up with life as it happens. It helps connect us with the present moment and the constant changes that the present moment brings (Natsoulas, 1996).

Self-awareness is the ultimate enabler (Reiss, 2002), and without it there would be no hope for mindful, positive change. Thanks to awareness we can take a good look at ourselves and our lives and see what is working for us and what isn't. This awareness plants the seeds of change that begin to nag our subconscious mind. It plants in us the drive and motivation to choose to do things differently.

Reiss (2002) explained that motivation for breaking bad habits, for example, comes from an awareness of the unfavorable or harmful effects the bad habit is having in our lives. The self-motivation to change also comes from a vivid awareness of what we want for ourselves and our future, and a lucid recognition that we simply will not be able to have it if we do not leave our bad habits behind. With self-awareness we can monitor the negativity inside us and prevent it from getting the best of us. In breaking bad habits, self-awareness can help ensure that we are being hard on our habits instead of being hard on ourselves (Reiss, 2002). Wrosch, Scheier, Miller, Schulz, and Carver (2003) stated that self-awareness can also help us work with the body-mind connection to reduce damaging stress and rejuvenate; and the more self-aware we become, the more power we have to create positive change in our lives.

**Self-efficacy.** Self-efficacy is the measure of one's own ability to complete tasks and reach goals, and affects every area of human endeavor (Ormrod, 2006). Wood and Bandura (1989) defined self-efficacy as belief in one's ability to succeed in particular situations, and one's sense of self-efficacy can play a major role in how challenges and goals are approached. A person's level of self-efficacy will strongly influence both existing power to face challenges competently, and the choices a person is most likely to make (Luszczynska & Schwarzer, 2005).

The theory of self-efficacy lies at the center of Bandura's (1986) social cognitive theory with the main concept being that in almost every situation, an individual's actions and reactions are influenced by witnessing others successfully complete tasks. Further development of self-efficacy is acquired through opportunities that allow one to practice and master the experiences (Early & Lituchy, 1991). Bandura and Cervone (1983) explained that people with high self-efficacy, those who believe they can perform well, are more likely to view difficult tasks as something to be mastered rather than something to be avoided as those with low self-efficacy may do.

All people can identify goals they want to accomplish, things they would like to change, and things they would like to achieve. However, most people also realize that putting these plans into action is not quite so simple. Research by Csikszentmihalyi (1988) identified that self-efficacy significantly beyond actual ability leads to overestimation of the ability to complete tasks. Likewise, self-efficacy significantly below actual ability discourages growth and skill development. Optimum level of

self-efficacy is identified as being slightly above ability (Csikszentmihalyi, 1988) where people are most encouraged to tackle challenging tasks and gain experience.

Self-efficacy has several effects on the way individuals think and respond (Mitchell, Hopper, Daniels, George-Falvey, & James, 1994). Individuals with low efficacy may believe tasks to be harder than they actually are which often results in poor task planning and increased stress (Bandura, 1986). Individuals become undependable, reckless, and inconsistent when engaging in a task. Mitchell et al. (1994) explained that people with high efficacy tend to take a broader view of a task in order to determine the best option; and obstacles stimulate greater efforts rather than produce discouragement and to cause a person to give up. Mischel and Shoda (1995) showed that difference in self-efficacy correlates to fundamentally different world views. For instance, people with high self-efficacy believe that they have power over their own lives (internal locus of control), that their own actions and decisions form their lives. Subsequently, those with low self-efficacy see their lives as outside of their control (external locus of control), and have little say over events in their lives (Mischel & Shoda, 1995).

In addition to affecting an individual's response and thinking, high self-efficacy can also affect motivation in both positive and negative ways. In general, people with high efficacy are more likely to make efforts to complete a task, and to persist longer in those efforts, than those with low efficacy (Oettingen et al., 2000). Bandura (1998) stated that the more robust the self-efficacy or mastery expectations, the more vigorous the efforts. Bandura also felt that those with low self-efficacy perhaps being more cautious,

sometimes want to learn more about a new subject before making an attempt; where someone with a high self-efficacy may not plan as well for a task.

This concludes review of the individual components of self-determination. The seven behavioral skills of problem-solving, choice-making, decision-making, goal setting, self-monitoring, goal attainment, and self-advocacy combined with attitudinal skills of self-efficacy and self-awareness comprise the global concept of self-determination. So far self-determination has been defined and the role of the teacher in promoting development of determined behaviors in students with disabilities has been discussed. But why is it important for students with disabilities to be self-determined individuals?

### **Importance of Self-Determination**

Concepts and components of self-determination evolved while correlational studies appear to validate self-determination as a construct. The skills leading to improved self-determination, like self-awareness, goal setting, and problem-solving, make it possible for students to acquire greater responsibility and control. Positive future outcomes result for persons with disabilities when they have the ability and opportunity to shape their own lives (Hadre & Reeve, 2003), and experience an overall higher degree of quality of life (Lachappelle et al., 2005). Wehmeyer and Palmer (2003) examined post-graduation outcomes at one and three year increments and found a strong connection between high self-determination characteristics in students with disabilities and post-graduation outcomes, such as employment, access to health and other benefits, financial independence, and independent living.

Moreover, one study by Wehmeyer and Schwartz (1998) showed that students with disabilities who left school more self-determined are more than twice as likely as their peers who are not as self-determined, to be employed one year after graduation and earned notably more. Three years after graduation, they were more likely to have employment that provided benefits like health coverage and vacation, and are more likely to be living independently in their community. However, this does not come easy because of barriers that can negatively affect the development of these crucial skills.

Ward (1988) identified these barriers stating that

While it is important for all people to acquire these traits [self-determination], it is a critical and often more difficult goal for people with disabilities who must first shatter the pervasive stereotypes which imply that they cannot, or perhaps should not, practice self-determination. (pp. 2-3)

To counter this stigma, Wehmeyer (2002) believed that others should change their perceptions when persons with disabilities show they can make things happen and take responsibility for planning and managing their lives.

### **Promoting and Enhancing Self-Determination**

Promoting and enhancing the self-determination of people with intellectual or developmental disabilities has become an important focus of disability services, and supports across the life span (Wehmeyer & Bolding, 2001). An increasing international literature base documents that people with intellectual disability are not very self-determined (Stancliffe, 2001). What is less clear is why. When examining the degree to which someone is self-determined within a social-ecological approach, the environments

in which people live, learn, work, and play must provide opportunities for them to exercise control in their lives, make choices, and so forth (Walker et al., 2011; Wehmeyer & Garner, 2003). People within that environment—such as a teacher—can best enable and support persons with disabilities as they become more self-determined.

Interventions that promote students with disabilities being causal agents should focus on at least one of two activities. One that is most often addressed is building a person's capacity to perform actions (problem solving, decision making, goal setting, self-advocacy, etc.) that lead to greater self-determination (Wehmeyer, 1996). The other is to focus on modifying the environment in some way to better enable someone to make things happen in their own lives, or to provide supports that enhance self-determination (Walker et al., 2011). Perhaps a look at the Developmental Disabilities Act of 2000 (P.L. 106-402) will help to better understand what the outcomes of these activities should be. This act describes “self-determination activities” as:

Activities that result in individuals with developmental disabilities, with appropriate assistance, having: (a) the ability and opportunity to communicate and make personal decisions; (b) the ability and opportunity to communicate choices and exercise control over the type and intensity of services, supports, and other assistance the individual receives; (c) the authority to control resources to obtain needed services, supports and other assistance; (d) opportunities to participate in, and contribute to, their communities; and (e) support, including financial support, to advocate for themselves and others, to develop leadership skills, through training in self-advocacy, to participate in coalitions, to educate policymakers,

and to play a role in the development of public policies that affect individuals with developmental disabilities.

Recognizing the need for improving curriculum and practices, the federal mandates of *No Child Left Behind* (2001) (P.L. 107-110) require schools to ensure that students have access to effective scientifically-based instructional strategies. The law defines scientifically based research as “research that . . . involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and program” [20 U.S.C. § 7901(37)]. This meant that a procedure must be put in place in order to assess and to identify the level of evidence and effectiveness of current and future practices.

### **The Evidence-Base of Self-Determination**

Over the past decade, interest has increased in promoting self-determination in educational programs for students with disabilities. In 2004, recognizing that a system was needed to review effectiveness and reliability of the most successful interventions, the Office of Special Education Programs (OSEP) funded the *What Works Transition Research Synthesis Project*. A meta-analysis completed by Algozzine et al. (2001) was included in this project, which documented the efficacy of several intervention strategies to improve student performance of the component elements of self-determined behavior (e.g., goal setting or problem solving). In these studies, researchers recognized the positive impact of certain components leading to self-determination but not on what experts know about self-determination as a global construct (Algozzine et al., 2001). However, Chambers et al. (2007) in an attempt to review literature on a comprehensive

construct determined that interventions do indeed impact global self-determination, but missing were studies that attempted to measure the global construct. Although a number of approaches exist that promote student involvement in educational and transition planning, little controlled research has been conducted to evaluate their efficacy with all components of self-determination included. Furthermore in a meta-synthesis by Cobb, Lehmann, Newman-Gonchar, and Alwell (2009), findings on self-determination for individuals with disabilities showed that multi-component self-determination interventions demonstrate greater positive effects than single-component interventions. With data gathered from these literature reviews, the *What Works Transition Research Synthesis Project* developed a hierarchy of standards that are used to determine the strength and effectiveness of a recommended practice (Loman, Vatland, Strickland-Cohen, Horner, & Walker, 2010), as shown in Appendix A. Building on this framework, a second project was initiated to develop a guide that provides specific evidence-based recommendations for educators to consider when promoting self-determination skills in their students.

The practical guide developed by the project, *A National Gateway to Self-Determination* (Loman et al., 2010), was limited to peer-reviewed studies published between 1990 and 2009. In addition to being peer-reviewed, the articles also had to meet the following criteria: (a) were reported results of interventions (quantitative and/or qualitative designs); (b) included at least one participant with a disability; (c) included participants of ages 5 through adulthood; and (d) measured one or more of the conditions or skills based on self-determination as a dependent variable in empirical research or as a



research question in qualitative studies (Loman et al., 2010). A total of 25 peer-reviewed research articles met the inclusion criteria for further review. Using the semi-structured hierarchy determined by the *What Works Transition Research Synthesis Project*, these articles resulted in five recommendations to enhance the promotion of self-determination. Those recommendations are listed in Table 1.

The researcher agrees that the development of self-determination can best occur when multiple strategies are fused together. The following approach demonstrates how all five recommendations can be effectively used to promote self-determined behaviors. However, the key for the successful promotion of self-determined behaviors hinge on the provision of a person—a teacher—who is knowledgeable in self-determination, within the environment to provide enriched opportunities, supports, models, and resources.

Table 1

*Recommendations and Corresponding Levels of Evidence*

Recommendations	Level of Evidence	Level of Social Validity
1. Use Person-Centered Planning Methods	Moderate	Moderate
2. Use Teacher-directed Instructions Strategies	Strong	Moderate
3. Teach students skills needed to self-direct learning	Strong	Moderate
4. Create and maintain a system that involves family supports and family participation	Moderate	Moderate
5. Organize environments to provide opportunities, supports, models, and resources	Emerging	Emerging

*Source:* Loman et al., 2010

## **A Practical Approach to Self-Determination**

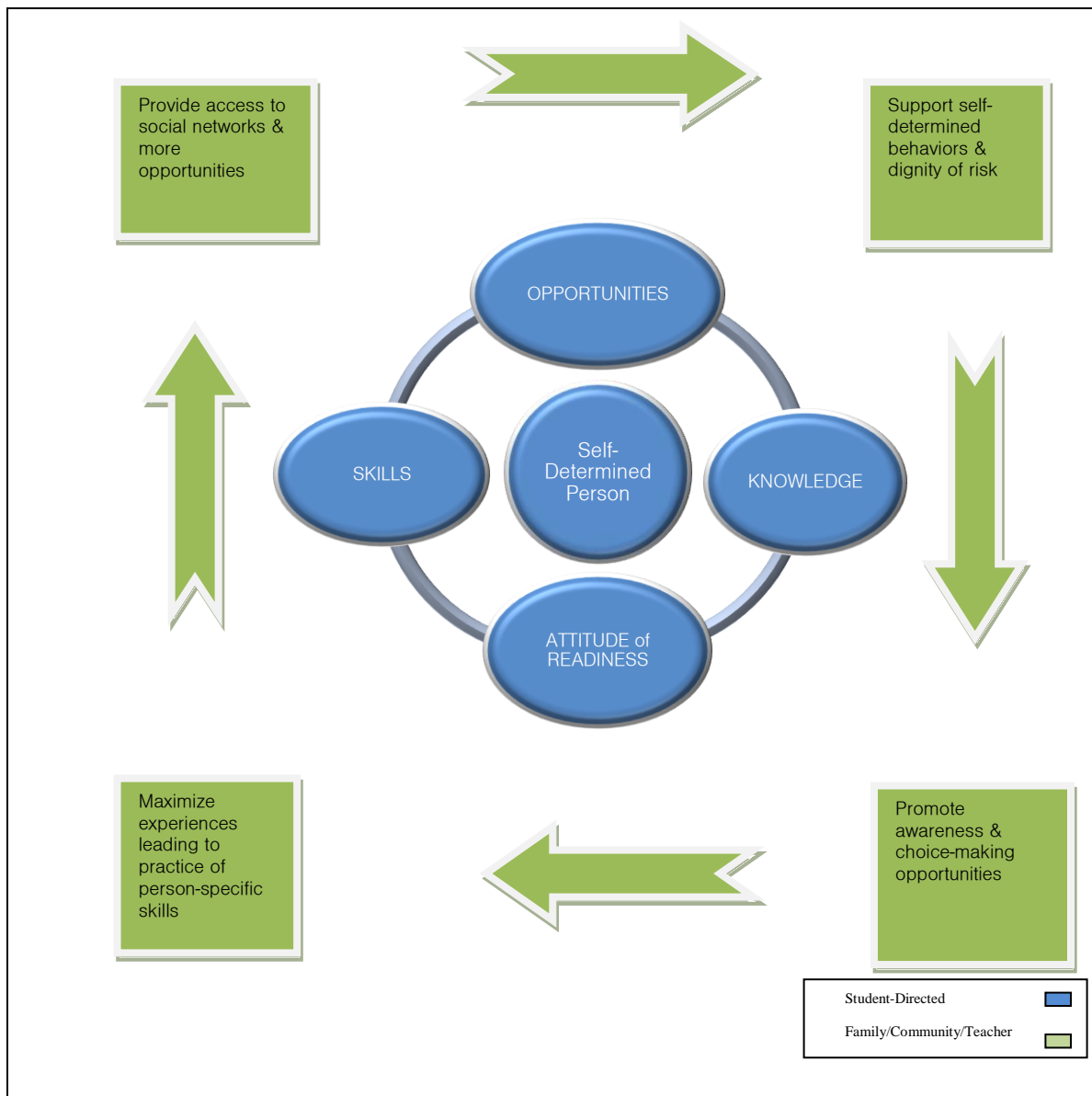
**Social-ecological approach.** Within the framework of a social-ecological approach, self-determination is the product of both the person and the environment—of the person using the knowledge, skills, and attitudes at his or her disposal to act on the environment with the goal of obtaining valued and desired outcomes (Bronfenbrenner, 1989). Calkins, Wehmeyer, Bacon, Heller, and Walker (2011) further explained that the effectiveness of the interaction between the person and the environment is two-fold. First, the conditions of the intervention are dispersed between enhancing the capacity of the person and of changing the expectations of the environment. Secondly these models are strength-based with initial acknowledgment of one's strengths, and then proceeding to increase those strengths and abilities by modifying the environment in some way (Calkins et al., 2011).

Moreover, Walker et al. (2011) wrote of how interventions are structured within three core domains of: (a) environmental opportunities to act; (b) interdependence; and (c) causal agency/independence. One domain is no more important than the other, but each reflect the personal, social, and environmental ways in which individuals interact with the world around them. However, each domain requires specific skills or opportunities to enhance the self-determination of the personal interaction with the environment. For example, to be a causal agent one must believe in one's abilities to problem-solve, make decisions, and set and attain goals. Demonstrating self-advocacy and leaderships skills will increase the social capital necessary for greater opportunities and interactions within the environment. Finally, in order to interact within the

environment one must be afforded an enriched surrounding involving social inclusion and dignity of risk—or the opportunity and freedom to take a chance.

So what type of environments can best promote the development of self-determination in persons with disabilities, and in what ways must that person be interactive within that environment? Loman et al. (2010) recommended that learning experiences occur in natural, integrated settings with systems designed to promote the development of self-determination. They also recommended that learning experiences take place in situations where rich community factors can shape the opportunities for individuals to practice the skills that enhance self-determination. However, Wehmeyer (2003) suggested that a person must exhibit specific attitudes and abilities in order to become a self-determined individual. Likewise, Deci and Ryan (2000) believed that self-determination is a motivational construct that is regarded as an intrinsic need. This means that acquiring self-determination skills is influenced by internal motivations, but requires interactively negotiating the environment to create learning opportunities (Mithaug, Mithaug, Agran, Martin, & Wehmeyer, 2003). Abery and Stancliffe (1996) proposed that self-determination is a result of ongoing interaction, across the life span, between individuals and their multiple environments. Therefore, this author proposes that environments are not only places to practice self-determination skills, but rather these opportunities allow persons with disabilities to recognize how to use naturally occurring self-determined skills and behavior. In other words, environments rich in opportunities create an attitude of readiness and openness to the importance of learning self-determination skills as depicted in Figure 1.

**A hypothetical case study.** As Figure 1 identifies, experiencing more opportunities in natural environments leads to increased knowledge of a broader range of ideas and activities. Once a person has an initial degree of knowledge, he or she must then decide what to do with that knowledge. If, for example, a person was exposed to fishing, and hated it, that person can now make an informed decision not to go fishing ever again. However if she liked it, she may be willing to try it again. This person has now moved to an attitude of readiness with an increased willingness to learn more. More fishing leads to fishing skills, which in turn leads to more opportunities to go fishing where she may begin to form or broaden social networks of like-minded people. This network may expose her to different opportunities, which in turn provide more knowledge, and so the cycle continues.



*Figure 1.* Person-environment interaction to promote self-determination. Source: Y.

Michali (personal design, March 2013)

Now let's identify what is naturally occurring within the cycle, and relate it to what has been defined and recommended from the literature. This dissection can best be explained in story format using the example of fishing above. First a person, let's call her Mary who is seven years old, has been provided with an opportunity to go fishing. This was new to her so it took some coaching and encouragement from her parents to encourage her participation. Important factors for developing self-determination identified in this hypothetical case would be that of family involvement, dignity of risk, and support from the environment. Also, Loman et al. (2010) would categorize this under Recommendations #5, which is to organize environments to provide enriched opportunities, supports, models, and resources. Continuing with the story, Mary thinks about going fishing (choice-making) and tells her father that she will go fishing with him (goal setting). Mary goes fishing (goal attainment) with a family member (Recommendation #4—create and maintain a system that involves family support and involvement). After her first experience of fishing, she recognizes that she does not like it because it involves putting worms on a hook, and therefore states that she does not want to go again (informed decision making, self-awareness, and self-advocacy). Her parents acknowledge Mary's decision, and begin to look for other opportunities to provide for her. This continues the cycle of providing opportunities that will lead to informed decision making, and attitude of readiness to achieve skills. This in turn helps Mary to improve her quality of life.

Now let's see what happens if Mary likes fishing. Mary goes fishing with her father and discovers she enjoys it stating that she wants to learn how to catch more fish

(self-awareness and self-advocacy). She tells her father that she is ready to learn more about fishing and that she will go fishing with him again (goal setting). This new angler is now displaying the attitude of readiness that is vital to skill acquisition.

Wading forward, Mary continues her pursuit of catching fish (interest, goal setting and attainment), going as often as she can find someone to take her (self-advocacy and Recommendation #1—person-centered planning methods). Some days she becomes quite frustrated with her immature skills and lack of cooperation from the fish; but she always looks for ways to improve and continues to go fishing (problem-solving, choice-making, decision-making, goal-setting, self-regulation, persistence and resilience). She asks questions about the sport (choice-making and Recommendation #3—teaching students skills needed to self-direct learning). Mary is gaining confidence in her angling skills and takes pride in her abilities (self-efficacy). She continues to improve her casting skills (self-regulation). Her parents provide materials and instruction to Mary so that she can learn more about fish habitat and what they like to eat (choice-making, and Recommendation #2—teacher-directed instructions strategies). She loves going to the tackle shop to look at all of the fishing equipment, and asks questions about the various lures and baits (choice-making). She gets excited when she is permitted to pick a lure. Mary carefully considers each lure, the colors, styles, and patterns, so that she may pick the one best suited for her needs (decision-making).

Mary begins to catch more fish and believes she has advanced her skills (goal attainment, internal locus of control, self-confidence, and self-efficacy). Mary loves to meet other anglers to talk about fishing techniques (social networking and self-esteem).

Although Mary's favorite place to fish is in the small lake close to where she lives, she also goes fishing with some success in bigger lakes, creeks, and rivers (generalization).

However what may not be realized is that Mary has an intellectual disability and visual difficulties. It is not easy for her to tie a hook on the line, but she has a special magnifying glass that attaches onto her ball cap that helps her to see (accommodation). She uses a special type of rod and reel that decreases instances of the fishing line becoming entangled (modification). She knows that she cannot drive a car because of her eyesight and age (self-awareness and self-knowledge), and so relies on others to transport her where ever she goes (knows her limitations, natural supports). This does not stop Mary when she wants to go fishing. An outgoing and friendly person (strengths), Mary has compiled a list of friends (social networks and changing the way others view a person with a disability) whom she calls to ask if they can take her fishing. From literature, Mary is a self-determined person who is a causal agent for herself who has the ability and opportunity to shape her own path (Hadre & Reeve, 2003), and experiences an overall higher degree of quality of life (Lachappelle et al., 2005). She has developed interests and skills, social networks, and continued opportunities that follow her across the life span.

Now this example follows a functional academic model that lays out a perfect linear description of one type of opportunity provided to a person who had no previous experience in fishing. It could have been anyone, with or without a disability. Most opportunities do not flow this smoothly, and it is important to remember that developing self-determination skills is a process. A person most likely will not learn all of the



components of self-determination through one offering of an opportunity. As the case study indicates, it will take a variety of opportunities over time to develop global self-determined behavior. Dependent upon a person's ability, he or she may be accomplished in one area of self-determined behavior and continue to have difficulties in others; but all persons can act in a capacity that advances those skills.

Mary's success and deeper understanding of how she is developing into a self-determined person is dependent upon someone teaching her to recognize the importance of and to practice self-determination skills (Recommendation #2—teacher-directed instructions strategies). It must be noted that it should not be left up to chance that Mary will grasp an understanding of the importance of all the opportunity has provided her. In fact, opportunities should never be left up to chance. For persons with disabilities, who have fewer chances than peers without disabilities, an environment rich in opportunities that involve taking risks, making mistakes, and reflecting on outcomes help a young person test his or her strengths and limitations.

Though self-determination itself is a complex construct based in psychological traits and behavioral skill sets (Cobb et al., 2009), this practical approach to self-determination is not. The example above demonstrates what can be accomplished in a natural setting. Conversely, a creative teacher can provide opportunities and feedback that increase self-determination skills within the four walls of a classroom. It requires that the facilitator recognize when a student is demonstrating a component of self-determination and to bring it to the student's attention. But what does the literature

say about teachers providing opportunities and feedback to their students in order for the student to develop self-determination skills?

### **Reality of Teacher Instruction**

Grigal, Neubert, Moon, and Graham (2003) agreed that self-determination should be taught to all students; but again it is of utmost importance for students with disabilities, as they are not given as many opportunities to practice these skills. Wehmeyer (1998) wrote that self-determination “depends on equal parts of skills and opportunity mixed liberally with experience and adequate supports.” German, Martin, Huber-Marshall, and Sale (2000) pointed out that one way teachers can support self-regulated learning is by helping students develop their abilities to self-regulate, to self-assess, and to believe in abilities to accomplish their work. Moreover, teachers have a vital role not only in promoting self-determination skills, but in providing opportunities, supports, and appropriate feedback for students with disabilities to recognize and practice these skills (Grigal et al., 2003.).

Though educators believe that students need instruction to develop self-determination skills since they are not given many opportunities to practice these skills in the school setting, they are in agreement that they do not feel they are infusing acknowledgment of self-determination into their lessons (Agran, Wehmeyer, Calvin, & Palmer, 2008). One reason that educators may be ineffectively promoting self-determination could be that pre-service training courses inadequately cover this topic. Teachers may have not learned about self-determination, and do not feel competent in their abilities to teach these skills (Wehmeyer et al., 2000). Educators

lacking in understanding of self-determination most likely do not provide opportunities for their students to use them within the school setting (Agran et al., 1999). Attitudes and beliefs of teachers also play a role in how teachers interact and provide opportunities for their students with disabilities (Pajares & Graham, 1998); with teachers often associating student learning according to disability labels rather than with teaching (Elmore, 2005).

In addition, studies conducted by Zhang, Katsiyannis, and Zhang (2002) found that teachers need more education on how to implement instruction in self-determination; as well as to use more student-directed learning methods rather than teacher-directed in order to promote self-determined skills in their students. Lacking is research examining preparation practices to ensure that special educators can implement strategies supportive of self-determination in their interactions with students in the learning environment.

Thoma et al. (2008) wrote of the gap in teachers' practice and of the limited understanding of methods for preparing special educators to develop self-determination skills in students with disabilities. There are varied opinions on the gap in research to practice. Fielder and Donneker (2007) believed that special educators require a theoretical understanding of the concept, as well as a clear understanding of instructional strategies to use for students with disabilities. Others warn that merely knowing what to do is not enough to make changes in classroom practices (Bronfenbrenner, 1989; Darling-Hammond, 1994); rather it requires performing a strategy to increase self-determined behaviors among students within the classroom.

Special educators must not only understand the theoretical concepts of what comprises self-determination, but must accurately recognize when a student is practicing

those skills. The educator must be on guard to dismiss common misconceptions and misinterpretations regarding self-determination for students with disabilities. These misinterpretations are often used by educators as reasons to explain why self-determination is not an appropriate goal for teachers to instruct their students with intellectual disabilities (Wehmeyer, 1998). Wehmeyer identified these misconceptions as: (a) self-determination as independent performance, (b) self-determination is absolute control, (c) self-determined behavior is always successful, (d) self-determination is self-reliance and self-sufficiency, (e) self-determination is just skills or just opportunity, (f) self-determination is something you do, (g) self-determination is a specific outcome, and (h) self-determination is just a choice. When self-determination is defined correctly, the concept pertains to individuals with disabilities despite the fact that many educators believe that self-determination is something for “other students” (Stancliffe & Abery, 1997; Wehmeyer, 1996). Perhaps schools and teachers should not construe that the focus of instruction is to promote self-determination, rather teachers should be trained to understand how to imbed the use of component skills of self-determination within their daily lessons. Schools may be reluctant to incorporate the promotion of self-determination into their general education curriculum because teachers who work with students with disabilities believe that the skills and knowledge related to promoting self-determination are often too complex for their students to learn (Agran et al., 2008), and protect or minimize their student’s failures.

The Council for Exceptional Children (CEC) is the largest professional organization of special educators (CEC, 2004), and has taken seriously its professional

responsibility for defining the criteria for a competent beginning special educator. As part of this responsibility, CEC has developed and continues to update and maintain professional standards for entry-level special education teachers. These standards outline what beginning special education teachers need to know and to be able to do to practice safely and effectively.

The CEC preparation standards are developed around 10 domains that describe the minimum knowledge, skills, and dispositions that provides a picture of the qualified beginning special educator. Although each of the 10 domains is equally important, Standard #5: Learning Environments and Social Interactions, is of particular interest relating to the focus of this study. This standard identifies that special educators need to actively create learning environments for individuals with special learning needs that foster cultural understanding, safety and emotional well-being, positive social interactions, and active engagement of every individual. Moreover, special educators shape environments to encourage the independence, self-motivation, self-direction, personal empowerment, and self-advocacy of individuals with exceptional learning needs (CEC, 2004). In other words, the teacher provides an environment that promotes self-determination in the student. Therefore, it is the special education teachers who integrate individuals with disabilities into regular environments and engage them in meaningful learning activities and interactions within those environments. It is the special education teacher who has the ability to provide rich environments and support for the growth of self-determined behaviors in students. However, research tells us that educators are hesitant to do so. Why is this?

## **Teacher Efficacy**

Over 30 years ago Bandura first introduced the concept of self-efficacy or “beliefs in one’s capacity to organize and execute the courses of action required for producing given attainments” (Bandura, 1977, p. 211). Since then, research has demonstrated the power of efficacy perceptions in human learning, performance, and motivation.

Woolfolk-Hoy and Burke-Spero (2005) explained efficacy as a belief in perceptions of competence or ability, rather than actual level of competence. The self-assurance with which people approach and manage difficult tasks determines whether they make good or poor use of their capabilities. Subtle self-doubts can easily overrule the best skills (Bandura 1977).

Teacher experiences during the first years of instructing when efficacy is most malleable could be critical to the long-term development of teacher belief in their abilities and effectiveness (Woolfolk-Hoy & Burke-Spero, 2005). Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) suggested that teachers make judgments on efficacy by evaluating the resources and possible barriers in specific teaching environments. They explained that resources that could impact teachers’ assessments about their efficacy to accomplish tasks come in the form of colleague support and mentor feedback, as well as teaching resources available, and the quality of the facilities.

Moreover, researchers have found links between student achievement and three kinds of efficacy—the self-efficacy of students, the sense of efficacy of teachers, and the collective efficacy of schools (Goddard, Hoy, & Woolfolk-Hoy, 2000; Ross, 1998; Tschannen-Moran et al., 1998). Teachers with a lower sense of efficacy tend to avoid

subjects (Riggs, 1995); whereas those with a healthy sense of efficacy tend to display greater levels of enthusiasm, planning, and organization (Allinder, 1994), and spend more time teaching in subject areas where their sense of efficacy is higher (Riggs & Enochs, 1990). Ross (1998) identified that teachers with higher levels of efficacy can affect student achievement because they are more likely to: (a) use management techniques that enhance student-directed learning and independence and diminish teacher-directed control; (b) learn and use new approaches and strategies for teaching; (c) build students' self-perceptions of their academic skills; (d) set attainable goals; (e) provide special assistance to low achieving students; and (f) persist in the face of student failure. The development of teacher efficacy beliefs is of great interest, because once efficacy beliefs are established they appear to be somewhat resistant to change (Spector, 1990). Furthermore, evidence suggests that input during initial training has a different impact than input received after teachers are in the field (Tschannen-Moran et al., 1998).

Literature identifies different perspectives on professional development of teachers and how teacher learning can be detected (Mena-Marcos & Tillema, 2006; Swafford, 1998). Teacher learning as described by Cochran-Smith and Lytle (1999) involves relations between knowledge and practice with distinction made for difference in knowledge *for* practice, knowledge *in* practice, and knowledge *of* practice.

Professional development surrounding awareness of self-determination through video modeling in this study allowed teachers to gain knowledge *for* practice, and included understanding components of self-determination and of its importance. The second relationship, knowledge *in* practice, helped teachers to recognize when persons used

self-determined behaviors. Finally, the environment in which this study was conducted provided opportunities to take a critical perspective on not only one's own assumptions; but also the assumptions of others, theory, and research. Teachers were provided with opportunities to motivate learning beyond the immediate classroom environment and thus involved knowledge *of* practice.

### **Three Strategies Used in Learning**

This research project used video modeling to explore and identify pre-service teachers' awareness of when someone behaved in a self-determined manner. In combination with video modeling, direct instruction and self-reflection strategies were also used to increase teacher knowledge and understanding of self-determination.

**Video modeling.** Video has assumed an increasingly noticeable role in teacher education, particularly in the form of the viewing of videotaped class lessons by pre-service teachers. However, learning through video modeling is not a new concept. Bandura, Ross, and Ross (1963) have gathered evidence that indicates that film-mediated models are as effective in producing behavior change as live models. Furthermore, Bandura and Walters (1963) pointed out that new social response may be acquired or the characteristics of existing responses may be considerably modified as a function of observing the behavior of others. In 1969, Bandura strengthened the theoretical bases for video modeling. His view of learning emphasized the ability to learn by observing a model or receiving instructions without experiencing the behavior first hand. Building on social modeling theory, Vygotsky (1978) followed to include the socio-cultural view of learning as a transformation that takes place through observations



within the context of the environment, and is facilitated through the guidance of a more skilled person. A final example is research by Dowrick (1999) who defined the concept of self-modeling as learning from images of one's own behavior or success; thus creating changes in future behaviors.

The availability of inexpensive and fast video technology and the widening availability of video-based case studies afford possibilities to do new and diverse activities in pre-service teacher education. Some of the benefits of using videos as a teaching tool as identified by Hagen, Gutkin, Wilson, and Oats (1998) include that they: (a) showcase effective teaching methods, (b) demonstrate situations that cannot be explained adequately, (c) allow the entire class as a whole to witness the same video and to share dialogue on what has occurred, and (d) help apply theory to practice. Furthermore, Jongsma (2000) found that using videos allow the instructor to point out practices that might not be obvious to an untrained observer, and create enthusiasm and confidence in the viewer to try new strategies. Jongsma also wrote how videos used in classrooms allow students to witness a wider range of content and circumstances. This is accomplished when an instructor uses a small clip to highlight a particular moment or can show the video in one uninterrupted sitting so that pre-service teachers can see a chain of events, therefore gaining understanding of the importance of context in developing a behavior (Jongsma, 2000).

In addition to using video modeling, two other well-known teaching strategies were used in this study to increase teacher knowledge and awareness of self-determination. These methods were direct instruction and reflective practice.

**Direct instruction.** Created by Engelmann and his colleagues in the 1960s, and rooted in behavioral theory, direct instruction (DI) is an instructional method that focuses on the interaction between teachers and students (Bereiter & Engelmann, 1966). Few models have been as researched as DI, including the largest educational evaluation ever conducted by Magliaro, Lockee, and Burton (2005) when direct instruction was compared with 12 other models, across nearly 30 years, and involving nearly 75,000 students at 180 sites. Numerous studies reviewed within that that large evaluation found DI to be effective and superior to other models in everything from student achievement to learning engagement to student affect (Madaus, Airasian, & Kellaghan, 1980; Watkins, 1997). A more recent study by Eggen and Kauchak (2001) continued to indicate that DI is a viable instructional strategy that can be used successfully to promote learning; and Gersten, Baker, Pugach, Scanlon, and Chard (2001) recognized that DI is effective with a range of contexts and within contemporary learner-centered pedagogy.

Furthermore, direct instruction is not recognized as a lecture approach; rather it is identified as having key components of modeling, reinforcement, and feedback (Joyce, Weil, & Calhoun, 2000). Joyce and colleagues specified the instructional design principles, which include framing learner performance into goals and tasks, breaking these tasks into smaller component tasks, designing training activities for mastery, and arranging the learning events into sequences that promote transfer and achievement of prerequisite learning before moving to more advance learning.

Since its inception, direct instruction has morphed into a range of instructional models used in face-to-face learning contexts (Corno & Snow, 1986). Although these various methods may not be entitled as DI per se, they share key components of:

1. Materials and curriculum are broken down into small steps and arrayed in what is assumed to be the prerequisite order;
2. Objectives must be stated clearly and in terms of learner outcomes or performances;
3. Learners are provided with opportunities to connect their new knowledge with what they already know;
4. Learners are given practice with each step or combination of steps;
5. Learners experience additional opportunities to practice that promote increasing responsibility and independence (guided and/or independent; in groups and/or alone);
6. Feedback is provided after each practice opportunity or set of practice opportunities (Corno & Snow, 1986).

The primary design principle that connects these components is that learners are actively engaged in the pertinent curriculum, with the clear goal of this model being that learners will develop mastery of the target skill and attitude of self-efficacy.

Finally, in behavioral-based models such as direct instruction, it is assumed that learners must be active in the learning process. Skinner (1968) stated that:

It is important to emphasize that a student does not passively absorb knowledge from the world around him but must play an active role, and also that action is not

simply talking. To know is to act effectively, both verbally and nonverbally. (p. 95)

**Reflective practice and professional development.** The final instructional method used in this study is that of reflective practice. In 1987, Schon introduced the concept of reflective practice as a critical process in refining one's artistry or craft in a specific discipline. Schon recommended reflective practice as a way for beginners in a discipline to recognize harmony between their own individual practices and those of successful practitioners. In 1996, Schon (Argyris & Schon) further explained that effective professional development involves thoughtfully considering one's own experiences in applying knowledge to practice while being coached or instructed by professionals in the discipline. Critical reflection upon experience continues to be an effective technique for professional development.

In a study conducted by Kettle and Sellars (1996), third-year teaching students were interviewed about their reflective practices. They found that the use of peer reflective groups encouraged student teachers to challenge existing theories, as well as their own preconceived ideas of teaching. Additionally, reflective groups modeled a collaborative style of professional development that would be beneficial throughout their teaching careers. In a review of adult learning theory, Licklider (1997) found that self-directness—including self-learning from experience in natural settings—is an important component of adult learning. Effective teacher professional development should include activities such as peer coaching in which teachers continuously examine their assumptions and practices. Furthermore, professional development programs need

not always focus on specific teaching methods and strategies; they can also focus on teacher attitudes that affect practice. Wilhelm, Cowart, Hume, and Rademacher (1996) described the importance of providing opportunities for teachers to step back and critically reflect on what is being taught and on how they teach in a particular way.

The benefits of reflective practice for teachers are a deeper understanding of their own teaching style and ultimately, greater effectiveness as a teacher. Other benefits include validation of a teacher's ideals, beneficial challenges to tradition, the recognition of teaching as artistry, and respect for diversity in applying theory to classroom practice (J. M. Ferraro, 2000). Additionally, Uzat (1998) recognized that self-reflection is a realistic and methodical approach to ongoing teacher development through focused reflection on teaching methods, and in connecting the concepts to increase teacher self-efficacy.

### **Summary**

Wehmeyer and Abery (2013) stated that there is a need to “develop valid and reliable approaches to actually observe the exercise of self-determination and those actions on the part of others that either facilitate or serve as barriers to it.” Research examining preparation practices to ensure that special educators can implement strategies supportive of self-determination skills in the classroom is lacking. Although much is known about the importance of self-determination, special educators typically fail to apply these practices in the classroom, or to provide opportunities for students to use or develop self-determination skills and behaviors (Thoma et al., 2008). Therefore, this study adopted the environmental perspective proposed by Abery and Stancliffe (1996), as

well as the social-ecological model proposed by this author, in the attempt to modify a major environmental factor—that of pre-service educators—by enhancing their attitudes, knowledge, and awareness skills in identifying self-determined behaviors.

The research hypothesis of this study is that when teachers have a solid understanding of self-determination skills, they gain efficacy in awareness of and can correctly identify when persons are using these behaviors and attitudes. The research question motivating this study is: Can pre-service teachers be made more aware of when a person behaves in a self-determined manner?

## **CHAPTER II**

### **METHODOLOGY**

The purpose of this study was to measure differences in pre- and posttest scores in pre-service teachers' awareness of when self-determination skills are being used by others. The chapter includes details about the methodology of the study, including the purpose of the current study, the research question with the null hypotheses, the research design, and identification of the independent and dependent variables. This chapter also describes the identification of participants and setting, the intervention, materials, and recording instruments. Additionally, this chapter provides details of inter-observer reliability measures, validity and reliability of the study, and procedures for data analysis. Explanation of the independent and dependent variables is provided and a description of how results of the intervention will be measured across and between the experimental and control groups. The research question that guided the current study was: Can pre-service teachers become more aware of when persons behave in a self-determined manner?

#### **Research Hypothesis**

The null hypothesis tested in the current study was: There are no differences in teachers' awareness levels of problem-solving, choice-making, decision-making, goal setting, self-monitoring, goal attainment, self-advocacy, self-awareness, and self-efficacy skills all of which comprise the construct of self-determination.

#### **Research Design**

The main purpose of study was to measure differences in pre-service teachers' awareness levels of when self-determination behaviors are demonstrated by others. To

assess the effects of the intervention, a quasi-experimental design of pretest–posttest of the experimental group, and posttest only for the control group was used. The selection of study participants was non-random, and the experimental participants were assigned to a single treatment with observations made before and after the treatment. The control group completed a posttest only.

### **Setting and Participants**

The study was conducted in a four-week summer training program offered as a requirement of the Transition to Work Endorsement. Although this training was provided to all participants in the experimental group, the only data used were of those who signed consent forms to participate in this study. In order to prevent bias on behalf of the researcher, a separate party collected the consent forms and kept them in a locked area. Once the intervention was completed, this individual then informed the researcher what data could be used. The posttest for the control group was conducted shortly after the completion of the intervention and posttest for the experimental group.

Two groups of participants are included in this study. The first group, identified as the experimental group of participants, included pre-service teachers each with a special education teaching certificate, and who are enrolled in a master's degree program in special education at a large northeastern Ohio university. The participants were also enrolled in a grant supported training to obtain a transition credential provided by a center which conducts research and training at the university. The Center is an interdisciplinary program that includes faculty from special education, general education, rehabilitation, and career and technical education programs. The training program develops trainee



competencies in evidence-based practices through interdepartmental coursework and field experiences. The transition courses and related field work have been designed to cover the research-based Council for Exceptional Children competencies for transition professionals (CEC, 2001). Coursework includes instruction in the Kohler Taxonomy (Kohler, 1996) areas of student-focused planning, family involvement, student development, interagency collaboration, program structures, and attributes.

The second group of participants, the control group, consisted of pre-service teachers from one methods class in a special education training program at the same University in northeastern Ohio. However, these students were not involved in the Transition to Work Endorsement training program.

### **Variables**

The dependent variable was participant levels of awareness of self-determination when demonstrated by others. Parametric analyses were conducted to compare independent variables between and within both groups in three ways. The first independent variable was the changes in pre-and posttest scores where participants correctly identified the components of self-determination that were demonstrated in videos used during the intervention. Pre-and posttest scores for this independent variable were analyzed to determine if participants showed an increase in ability to identify the correct skill of self-determination.

The second independent variable involved changes in the number of components of self-determination that were mistakenly identified by participants. Mistaken component scores were when participants marked that a particular skill of

self-determination was viewed in the video, when in fact it was not. Pre- and posttest scores for mistaken identification were analyzed to determine if there was a decrease of incidences of misidentified components.

The final independent variables that were of primary interest in this study were changes in the identification of individual steps of each component of self-determination. Within each of the nine components of self-determination there are a specified number of steps that must be accomplished in order for that skill to be considered mastered. Pre- and posttest scores for identification of individual steps for each component of self-determination were analyzed to determine if there was an increase in ability to correctly recognize not only the component of self-determination, but also that there was recognition of the steps within that skill. The reason that this particular independent variable was of most interest is because when teachers can identify the varying levels of self-determined behavior in their students they can better provide opportunities and support to facilitate further growth and mastery of these skills. A full description of these steps is discussed in the materials section below.

## **Materials**

Video modeling provides a simulated teaching situation so that participants are provided multiple examples of self-determined behaviors demonstrated by numerous individuals in various environments and situations. This study used video clips from a variety of sources as examples of self-determined behaviors. The pretest and posttest video clips were taken from portions of the television series, *Parenthood*. This series was chosen due to the life-like portrayal and rich contexts of three generations of a family

living and learning to accept each other as independent individuals as they grow up together. *Parenthood* is an American comedy-drama television series developed by Jason Katims and produced by Imagine Television and Universal Television with the first season premiering on March 2, 2010, on NBC. Loosely based on the 1989 film of the same title, *Parenthood* is the second adaptation of the film to air on television preceded by the 1990–91 television series (NBC, 2010).

Six video vignettes taken from the *Parenthood* series were used for the pre- and posttest. Vignettes may have comprised of one to four clips, approximately one to two minutes long. Clips within the vignettes varied due to the necessity of watching the story line in order for participants to understand the context in which self-determined behaviors were observed. The videos combined provided varying opportunities for participants to: (a) identify that a particular skill was observed; (b) mistakenly identify a component of self-determination that was not portrayed in the video; and (c) identify the correct steps of a particular self-determined skill(s). Appendix B provides a breakdown of information for each vignette.

Clips from *Parenthood* were only used during the pretest and posttest assessments. During the treatment phase, when participants practiced observational skills to increase awareness of self-determination, various video clips were chosen from Internet resources such as [www.youtube.com](http://www.youtube.com). There were nine video clips taken from these resources, one for each of the nine components of self-determination, and were approximately one to three minutes in length.

Additional materials needed for this study were operational definitions for each of the nine components of self-determination which are: (a) problem-solving; (b) choice-making; (c) decision-making; (d) goal setting; (e) self-regulation; (f) goal attainment; (g) self-advocacy; (h) self-awareness; and (i) self-efficacy. Using definitions of each component taken from literature, the researcher operationally defined steps within each component that lead to mastery of specific self-determined behaviors.

### **Operational Definitions of Self-Determination**

When operationally defining self-determination, multiple steps within each component give clues to the teacher that the student is demonstrating a skill(s) of self-determination. These steps are taken from existing definitions of each of the nine components that were detailed in the first chapter, and then set into operationalized definitions as described below. Table 2 provides an overview of the number of steps for each component of self-determination and of the opportunities participants were provided to identify those steps in the videos. Operational definitions follow the table.

It is vital that teachers are aware of and give recognition to these clues so that they can ultimately provide feedback to their students in order to increase student self-awareness of behaviors. One common step shared among many of the components is that of non-verbal communication that indicates a student may be attempting to be self-determined. For this reason, a diversion into what has been identified as nonverbal language is needed at this time.

Table 2

*Steps for Each Component of Self-Determination in Videos*

Component	Total steps	Opportunity to identify	Component	Total steps	Opportunity to identify
Problem-Solving	5	9	Goal Attainment	2	3
Choice-Making	3	3	Self-Advocacy	4	11
Decision-Making	3	2	Self-Awareness	3	5
Goal Setting	4	8	Self-Efficacy	5	4
Self-Monitoring	7	3			
Total				36	48

**Nonverbal Language**

Although these signals are usually so subtle that we are not consciously aware of them, research has identified several different types of nonverbal communication (Cherry, 2011) such as facial expressions, gestures, paralinguistics, body language, personal space, eye contact, physical contact, and personal appearance. These nonverbal messages can give clues and meaning beyond the spoken word (Hogan & Stubbs, 2003). For instance, we might combine a frown with crossed arms and unblinking eye gaze to indicate disapproval. Likewise a smile, a warm touch and a wink may give the message of acceptance or inclusion.

Argyle, Salter, Nicholson, Williams, and Burgess (1970) explained that nonverbal messages allow individuals to support or modify what is said when using words. For example, people may nod their head vigorously when saying “yes” to emphasize that they

agree with the other person, but a shrug of the shoulders and a sad expression when saying “I’m fine thanks,” may imply that things are not really fine at all. Furthermore, these messages convey information about the individual’s emotional state; define or reinforce the relationship between people; or provide feedback to the other person (Rosenthal & DePaulo, 1979). Finally, nonverbal communication can control the flow of communication, for example by signaling to others that they wish to say something or perhaps they have finished speaking (Argyle, 1988).

Nonverbal communication has been presented by many authors that it is a language that can be learned, the inference being that if the meaning of every nod, eye movement, and gesture were known, the real feelings and intentions of a person would be understood (Navarro, 2008). Unfortunately interpreting nonverbal communication is not that simple. Communication is influenced by the context in which it occurs. For example, a nod of the head between colleagues in a committee meeting may mean something very different to when the same action is used to acknowledge someone across a crowded room.

Nonverbal communication is further complicated in that it is usually not possible to interpret a gesture or expression on its own. This type of communication consists of a complete package of expressions, hand and eye movements, postures, and gestures which should be interpreted along with what is being verbally stated (Encyclopedia of Communication Theory, 2009). Nonverbal language has been categorized into eight ways of communicating (Highlen & Hill, 1984). The first is that of facial expression which is responsible for the largest portion. Information is conveyed with a smile or a

frown, and although behavior can vary dramatically between cultures, the facial expressions for happiness, sadness, anger and fear are similar throughout the world (Morain, 1978).

The second type of non-verbal communication is that of gestures. Deliberate movements and signals are an important way to communicate meaning without words. Common gestures include waving, pointing, and using fingers to indicate numeric amounts (Knapp & Hall, 2007). Other gestures are subjective and specific to culture. Another way to communicate nonverbally is by using paralinguistics, which refers to vocal communication separate from actual language (Abercrombie, 1968). This includes factors such as tone of voice, loudness, inflection and pitch (Highlen & Hill, 1984). Consider the powerful effect that tone of voice can have on the meaning of a sentence. When said in a strong voice, listeners may interpret approval and enthusiasm. The same words said in a hesitant voice might convey disapproval and a lack of interest (Eckman, 2003).

Additionally, posture and movement can also convey a great deal of information. Research on body language has grown significantly since the 1970s, but research by Knapp and Hall (2007) has focused on the over interpretation of defensive postures, arm-crossing, and leg-crossing. While these nonverbal behaviors can indicate feelings and attitudes, research suggests that body language is far more subtle and less definitive than previously believed (Knapp & Hall, 2007).

The fifth type of nonverbal communication refers to personal space. The amount of distance we need and the amount of space we perceive as belonging to us, as explained

by Hargie and Dickson (2004), is influenced by a number of factors including social norms, situational factors, personality characteristics and level of familiarity. For example, the amount of personal space needed when having a casual conversation with another person usually varies between 18 inches to four feet. On the other hand, the personal distance needed when speaking to a crowd of people is around 10 to 12 feet (Hargie & Dickson, 2004).

Looking, staring, and blinking can also be important nonverbal behaviors. When people encounter another person or thing that they like, blinking rate increases and dilation of pupils occur (Knapp & Hall, 2007). Staring at another person can indicate a range of emotions from interest or attraction, to that of hostility (Guerrero, DeVito, & Hecht, 1999). Moreover, communicating through contact is another behavior, which can be used to show affection, familiarity, sympathy, and other emotions (Argyle, 1988).

Finally, our choice of clothing, color, hairstyles, and other considerations affecting appearance are also considered a way of communicating nonverbally (Yammiyavar, Clemmensen, & Kumar, 2008). Research conducted by Grammer, Renninger, and Fischer (2004) found that the way we think about colors can evoke different moods, and can change physiological reactions, judgments, and interpretations that we may have of others. These concepts have established why first impressions are important, which is why experts suggest that job seekers dress appropriately for interviews with potential employers (Smith, 2007). Table 3 provides an easy reference for non-verbal skills as discussed above.



Table 3

*Non-Verbal Skills*

Skill	Definition
Facial expressions	Existing or a change in facial expression such as a smile or a frown indicating happiness, sadness, anger or fear.
Gestures	Existing or a change in gestures that are deliberate movements and signals such as waving, pointing, and using fingers to indicate numeric amounts.
Paralinguistics	Existing or a change in vocal communication separate from actual language such as tone of voice, loudness, inflection and pitch.
Body language	Existing or a change in body language and defensive posturing such as leaning way, arm crossing or leg-crossing.
Personal space	Existing or a change in personal space which is the amount of distance perceived to belong to an individual. Casual space is perceived to be 18 inches to 14 feet; and 10'-12' when speaking to a crowd.
Eye contact	Existing or a change in eye gazing or looking, staring, or blinking that can indicate a range of emotions including hostility, interest and attraction.
Personal contact	Existing or a change in communicating through touch which can communicate affection, familiarity, or sympathy.
Appearance	Existing or change in appearance such as choice of color, clothing styles, hairstyles all of which can indicate or evoke different moods.

*Source:* Galloway (1968)

This concludes the review of nonverbal communication. It is worth repeating that nonverbal communication is extremely difficult to interpret and carries different meanings for each person and is affected by things such as culture, ability, and age (Guess, Benson, & Siegel-Causey, 2008). However as it is used in this research, it was to be recognized only as a cue for the teacher to use as a way to open communication with the student in order to bring about awareness of self-determination. Educators were

cautioned not to place their own interpretation or meaning on a message that was received nonverbally as they cannot completely comprehend the thought process of another. Again, nonverbal communication is one tool that the participants in this study were to use to increase awareness of when a person was using self-determined behaviors.

The importance and use of nonverbal communication in this study has been established, therefore focus turned towards operationally defining the nine components of self-determination. Each skill has multiple steps that identify the degree to which a person is utilizing that skill. These steps were created from the literature that defines each component of self-determination which includes: problem-solving, choice-making, decision-making, goal setting, self-regulation, goal attainment, self-advocacy, self-awareness, and self-efficacy. In order for ease of understanding, the example of a student getting a bad grade is used to demonstrate what a person may be saying or doing when navigating each behavior or attitude of self-determination.

### **Problem-Solving**

A five step operational definition of problem-solving for a student who is not getting a good grade:

1. Identify there is a problem.
  - *I am getting a bad grade.*
2. Communicating feelings of discontent by using language containing negative emotion such as sadness, frustration, confusion, depression, anxiety, or dissatisfaction.
  - *I am afraid that I will not pass my class because I am getting a bad grade.*

- *It makes me sad when I get a bad grade.*
- 3. Nonverbal communication indicating a problem associated with topic.
  - *Student has tears in his eyes.*
- 4. Acton Statement—Language indicating that they want to begin an action or modify an action.
  - *I want to get a good grade.*
  - *I want to get a better grade.*
- 5. Attitude—Language indicating readiness to act.
  - *I am ready to start trying harder.*

### **Choice-Making**

A three step operational definition of choice-making for a student who is not getting a good grade:

1. Gather and integrate information related to problem
2. Ask question or make statements—language indicating student is inquiring about the nature of the problem by targeting:
  - Duration: *How long has my grade been an F?*
  - Seriousness: *Is an F a big or a little problem?*
  - Cause: *What is the reason I am getting an F?*
  - Effect: *Will I have to repeat a grade?*
3. Acknowledgment of multiple options or solutions to problem using language indicating two or more plans to correct the problem.
  - *I could turn all my homework in, OR,*

- *I could ask the teacher if I can do extra credit.*

### **Decision-Making**

A three step operational definition of decision-making for a student who is not getting a good grade:

1. Analyze problem in order to acknowledged options or solutions to problem by using language recognizing the pros and cons of all acknowledged options or solutions. Examples of pros and cons may be:
  - *Pro: If I turn all of my homework in I will get a better grade.*
  - *Con: If I turn in all of my homework I will have less time to hang out with friends.*
  - *Pro: If I ask the teacher to do extra credit work, I could earn some of my points back.*
  - *Con: If I do extra credit I will have less time to hang out with friends.*
2. Recognition of likelihood of occurrence for each solution which may include intrinsic (within a person's control) and/or extrinsic factors (outside of a person's control).
  - Statement of preference or probability concerning intrinsic factors: *I don't think I want to give up free time with friends so I probably won't do extra credit.*
  - Statement of probability concerning extrinsic factors. *I don't think my teacher would give me extra credit.*

3. Decision defined as a statement decisively indicating a choice has been made to follow one of the solutions.
  - *I choose to turn in my assignments on time.*

### **Goal-Setting**

A four step operational definition of goal setting for a student who is not getting a good grade:

1. Formulate a goal by making an action statement of intent specifying what the individual responsibility.
  - *I will turn my homework in on time to improve my grade.*
2. Create steps to goal by first breaking down main goal into smaller achievable steps.
  - *I will do my homework every day.*
  - *I will take my homework to class every day.*
  - *I will turn my homework in.*
3. Create a list of defined actions in sequential order to be followed within a specified time frame.
  - *I will do my homework every day immediately after I get home.*
  - *I will put it in my book bag immediately after it is finished.*
  - *I will hand it in as soon as I get to class every day for the rest of the semester.*
4. Implementing steps to goal which is any action that meets the created definition for each listed step in the identified order and time frame.

- *Student is working on homework after school.*
- *Student puts homework in book bag.*
- *Student hands homework in to teacher.*

### **Self-Monitoring**

A seven step operational definition of self-regulation/monitoring for a student who is not getting a good grade:

1. Monitor Progress—The degree of action of implementing and modifying the steps that are conducive to achieving the goal.
  - *I am focused on working towards getting a better grade by following the plan to the best of my ability in order to get a better grade.*
  - *I am not consistent in following through. Some days I do what is necessary, and other days I don't feel like it.*
  - *Even though I want to get a better grade, I do not feel like completing the steps necessary to get a better grade.*
2. Recognition of completion or non-completion of steps toward the goal.
  - *I forgot to put my homework in my book bag immediately after it was finished so I couldn't turn it in.*
3. Contingencies related to performance or the recognition of internal/external reinforcement or punishment for completing or not completing steps created for the goal.
  - *My teacher scolded me for not turning in my assignment.*
4. Evaluation—Recognition that steps are successful or unsuccessful.

- *The step of putting homework in book bag immediately after finishing is not working.*
5. Modification of unsuccessful steps—statement of change for any step.
    - *I will keep my book bag more accessible while doing homework.*
  6. Awareness of progress toward goal.
    - *Am I on track to completing this goal?*
  7. Nonverbal communication indicating self-regulation in student.
    - *A change in facial expressions*
    - *A change in body position*

### **Goal Attainment**

A two step operational definition of goal attainment for a student who is not getting a good grade:

1. Statement that goal has been reached.
  - *I turned my homework in on time and I improved my grade.*
2. Statement identifying the relationship between the goal and problem, and the degree of satisfaction.
  - *I turned in my homework, and I am satisfied with my better grade.*
  - *Although by turning in my homework my grade improved, I want to get an even better grade.*

### **Self-Advocacy**

A four step operational definition of self-advocacy for a student who is not getting a good grade:

1. Statement indicating recognition and understanding of rights and/or responsibilities.
  - *I need someone to read to me in order to get my homework done, so I will work with a tutor to help me.*
  - *It takes me longer to complete a written assignment, so I will ask for extended time.*
2. Statement indicating a **want** or desire.
  - *I want to stay home tonight to do my homework.*
3. The statement indicating a want or desire may also include a protest which states something a person does not want or does not want to do.
  - *No, I do not want to go to the movies with you tonight, because I want to stay home to get my homework done.*
4. Nonverbal communication indicating a want or desire or a protest.
  - *A change in facial expressions*
  - *Gestures*
  - *A change in eye contact*

### **Self-Awareness**

A three step operational definition of self-awareness for a student who is not getting a good grade:

1. Statements indicating physiological effects or body awareness in the moment.
  - *When I turned my homework assignment in, my stomach hurt because I was nervous about my grade.*



- *When I got my homework grade, my heart was racing because I got a good grade.*
2. Verbal recognition of insight into condition, limitations, strengths, weaknesses, or personality characteristics.
- *Condition: I have dyslexia which makes it difficult for me to read the instructions in order to do my homework.*
  - *Weakness: My homework assignment requires me to write a paper, and I can't write very well.*
  - *Personality characteristic: My homework assignment is a group project, and I prefer to work alone.*
  - *Strength: I am really good in math, so I am excited about completing my homework.*
3. Nonverbal communication indicating self-awareness in student.
- *Gestures*
  - *A change in facial expressions*
  - *A change in the tone of voice*
  - *A change in eye contact*

### **Self-Efficacy**

A five step operational definition of self-efficacy for a student who is not getting a good grade:

1. For those with high efficacy, there is a positive verbal expression in belief and ability.

- *I **can** achieve a better grade.*
  - *I **can** write this paper in order to get a better grade.*
  - *I **can** do this myself.*
2. For those with low efficacy, it is a negative verbal expression in belief and ability.
- *I **can't** get a better grade unless someone helps me.*
  - *The teacher should never have given me this assignment because I **can't** read a whole chapter tonight.*
  - *I **can't** do this alone because I will fail.*
3. For high efficacy, there is a positive verbal expression of pride or sense of self worth.
- *I am worthy of getting a better grade.*
  - *I feel proud of myself that I am turning my homework in on time.*
  - *I feel good about my accomplishments and I believe this will help me graduate.*
4. For low efficacy, there is a negative verbal expression of sense of worth; or lack of pride.
- *There is no point in my getting a good grade because it won't make any difference in my life.*
  - *I don't care that the homework I turned in was not done neatly or carefully.*

- *I probably will never graduate so getting a good grade on my homework really doesn't matter.*
5. Nonverbal communication indicating efficacy levels in a student.
- *A change in facial expressions*
  - *A change in body language*
  - *A change in body position*

In the operational definitions above, each step of each component has been numbered only for ease of discussion. The steps are not linear, meaning that a person may not demonstrate each step in order. In fact, nonverbal communication may be the first clue that a person is working on a particular skill. This concludes the description of the operational definitions developed by the researcher for the purpose of teaching self-determination in this study.

Final materials developed for the purpose of this study were data recording sheets used by participants in order to record incidences of self-determination demonstrated in the *Parenthood* videos used in the pre- and posttests. The pre- and posttests data recording sheet had three columns including: (a) a column that identified episode, time of video clip within that episode, and the character to be observed; (b) a second column listing the nine components of self-determination where participants could mark identified self-determined behaviors from the clip; and (c) a blank column for participants to briefly record observations that prompted either a positive identification of a self-determined behavior(s); or when there was an opportunity for behaviors to have occurred but did not. A sample data recording sheet is provided in Appendix C. A

second data recording sheet was developed to be used by participants to record incidences of individual skills of self-determination when viewing videos from Internet sources. These data sheets differed from the first ones in that there were only two columns, one with the identified self-determination skill of interest, and a second blank column for participants to record their observations. A sample data recording sheet used during the daily lessons is provided in Appendix D.

### **Inter-Observer Agreement**

Prior to implementation of this study, inter-observer reliability was established for each video clip used during the entire project. Two observers, knowledgeable in self-determination and behavior analyses viewed each video clip to identify, if and when, one or more of the components of self-determination was observed. Using the same data recording sheet described above, observers recorded what was occurring in that portion of video that either prompted a positive identification of a self-determined behavior(s) or identification of when a character noticeably missed an opportunity to have demonstrated a behavior. Due to the difficulty and importance of correctly identifying clips that best demonstrated self-determined behaviors, the inter-observer reliability rating was set for 100% agreement. In the event that a video clip did not meet that requirement, it was removed and another clip was identified, and then went through the reliability process until all clips met unanimous agreement.

Furthermore, nine additional video clips received the same inter-observer rating process, and were used during lessons that concentrated on individual self-determination skills. The pretest/posttest research design described above was used on these daily

instructional videos in order to gather data on changes in awareness levels of each skill during the experimental treatment.

### **Intervention**

The experimental treatment consisted of the subjects attending a 90-minute long instructional session over a four week period for a total of 14 lessons in order to: (a) understand the theory of self-determination; (b) recognize the importance of self-determination particularly for students with intellectual disabilities; (c) learn operational definitions of nine components of self-determination (problem-solving, choice-making, decision-making, goal setting, self-regulation, goal attainment, self-advocacy, self-awareness, and self-efficacy); (d) learn steps to mastery of each component; (e) understand the importance of context or environment in which self-determination behaviors may occur; (f) practice awareness skills by watching vignettes from clips other than from the *Parenthood* television series; (g) realize the importance of the interaction between the environment and the person developing self-determined skills; and (h) practice reflective writing as an exercise to increase critical thinking skills and to provide an opportunity for each participant to refine his or her effectiveness as a teacher. Appendix E provides brief lesson overviews. Since defining and identifying global self-determination is a difficult task, lessons were designed to break components into manageable steps, with a focus on one component in each lesson hopefully culminating in global understanding by the end of the training.

The researcher notes that behavior does not occur in a vacuum. It is determined by context; or the immediate physical and social setting in which people live or in which

something happens or develops. That is, the purpose of the behavior varies according to specific features of the context, or environment, in which the behavior is displayed.

Thus, attention was given to discussion of the importance of context so that awareness of possible motivation behind behaviors could be better understood.

### **Procedure**

During the pretest, participants watched six video vignettes from the television series, *Parenthood*. Prior to the first viewing, participants were given instructions to lay their pencils down and to observe only. Recording could only begin during or after the second time the video was watched. Furthermore, participants were also instructed which character was the focus of each vignette to ensure that all participants were recording actions of the same person.

Upon watching a video clip, and using the appropriate data recording sheet, participants were to record what component was observed and to provide a brief explanation of what they saw that prompted them to identify that particular skill. The recordings were then scored on whether a component was: (a) correctly identified; (b) mistakenly identified; and (c) correctly identified with reference given to individual steps to completion. Both groups completed a posttest using the same videos from *Parenthood* and recording observations on blank copies of the same data recording sheets as used in the pretest. During the intervention, the experimental group also completed pre- and posttests watching video clips from [www.youtube.com](http://www.youtube.com) that depicted a sole component. These pre- and posttests were also scored in the same manner previously described.

Data were collected and then entered in the Statistical Package for the Social Sciences (SPSS) for Windows. SPSS is a comprehensive statistical analysis program that is widely used by behavioral researchers. The program can calculate virtually any univariate or multivariate statistic and can also create charts and tables for presentation of data (Stangor, 2004). Once the data were entered into SPSS, it was analyzed in multiple ways.

First, a frequency distribution was done between and within the experimental and control groups. This was done in order to summarize the data so that it could be more easily understood. Nominal variables such as group size, gender, age, degree, licensure, graduate credits, personal and professional experiences, and previous knowledge of the Parenthood TV series were analyzed to determine mean, mode, median and percentage of individuals who fell into each of the set of categories listed.

The next comparison was an independent sample *t* test to examine the means and significance of dependent variables between: (a) the pretest scores of the experimental group and the posttest scores of the control group; and (b) the posttest scores of both groups. Finally, since the dependent variable was measured twice on the experimental group, a paired samples *t* test was computed to compare the pre- and posttest scores in order to determine whether participants had any significant changes in scores before and after the intervention.

### **Social Validity**

To investigate whether or not the treatment goals and achieved outcomes had a socially significant impact, the reflective writings of each participant were analyzed to

gain a better perspective of participant understanding of self-determination. In addition to the reflective writing, participants completed a pretest–posttest on each component as the topic was addressed each day using the same procedure as describe above for the Parenthood series. For instance, the first component of self-determination that was studied is that of problem-solving. Participants viewed a short clip found on the [www.youtube.com](http://www.youtube.com) website where a character demonstrated problem-solving skills. After the pretest was completed, the participants received training on problem-solving which included learning the operational definitions in order to better observe and identify steps of when a person used this skill. At the end of the lesson, participants watched the same clip on the topic and completed a posttest. The scores from the two tests were compared to determine if there were any changes in ability to recognize self-determined behaviors.



## **CHAPTER III**

### **RESULTS**

#### **Statistical Analyses Related to the Research Questions**

The main purpose of this study was to measure differences in pre-service teachers' awareness levels of when self-determination behaviors are demonstrated by persons with intellectual disabilities. The current study examined relationships among a number of variables. The variables examined include: teachers' age, gender, current credits and degree, licensure, and professional experience. The study examined teachers' pre- and posttest scores both within and between experimental and control groups. The research question that guided the current study was: Can pre-service teachers become more aware of when persons behave in a self-determined manner?

#### **Research Hypotheses**

The research hypotheses tested in the current study was: There are significant differences in teachers' awareness of when a person with intellectual disabilities acts in a self-determined manner after receiving training in each of the nine skills that comprise the construct of self-determination (i.e., problem-solving, choice-making, decision-making, goal setting, self-monitoring, goal attainment, self-advocacy, self-awareness, and self-efficacy).

#### **Demographics**

##### **Participants and Gender**

All participants, 5 male and 25 female, were enrolled in a graduate special education program. See Table 4.

Table 4

*Participants and Gender*

		<u>Condition</u>		Percent
		Experimental	Control	
Gender	Male	3	2	16.67
	Female	8	17	83.33
Total		11	19	100.00

**Participant Age**

Overall age was predominantly younger, with 16 of the participants between the ages of 20–25. Six of the remaining participants were between the ages of 26–30, and the remaining eight fell between the ages of 31–50. See Table 5.

Table 5

*Participant Age*

		<u>Condition</u>		Percent
		Experimental	Control	
Age	20-25	2	14	53.34
	26-30	3	3	20.00
	31-40	3	1	13.33
	41-50	3	1	13.33
Total		11	19	100.00

### Current Degree, Licensure and Credits

Predominantly 17 of the participants were in a Bachelor's degree program, and 13 were enrolled in a Master's program. Within the special education degree participants identified what licensure they were acquiring (i.e., mild-moderate, moderate intense or other) as shown in Table 6. Twenty participants indicated working towards a mild-moderate licensure; seven focused on a moderate-intense licensure; and three participants indicated other.

Table 6

#### *Licensure*

		<u>Condition</u>		Percent
		Experimental	Control	
Licensure	Mild-Moderate	8	12	66.67
	Moderate-Intense	3	4	23.33
	Other	0	3	10.00
Total		11	19	100.00

In order to determine completion of degree requirements, participants were asked to denote how many credits they have completed. Those who specified completing between 0–9 credits were the majority with 17 participants; four participants had finished between 10–18 credits; two had acquired between 29–38 credits; and finally seven participants were close to completion when indicating that they had finished 38 or more credits toward their degree (Table 7).

Table 7

*Grad Credits*

	<u>Condition</u>		Percent
	Experimental	Control	
Credits 0-9	3	14	56.67
10-18	1	3	13.33
29-38	2	0	6.67
38 and above	5	2	23.33
Total	11	19	100.00

**Personal and Professional Experience**

When asked if participants had any personal experience with persons with disabilities, 29 participants stated that they did. Personal experience was defined as any contact with persons with disability who were a parent, sibling, child, self, relative, or other. The amount of time of this experience was variable as shown in Table 8. The majority, 17 participants, indicated working less than a year in a professional capacity; five participants indicated 1–3 years of experience; six had 3–5 years of professional involvement; one had 5–10 years of experience; and one participant reported having worked with persons with disabilities between 10–15 years. Participants cited examples of student teaching, Developmental Disabilities and Medicaid waiver provider, transition coordinator, pre-school and elementary teacher, certified rehabilitation counselor, professional support staff for supported living sites, camp counselors for special needs, daycare assistant, school tutor, the Big Brother/Big Sister Program, and as a teacher's aide as places where they had gained experience.

Table 8

*Years of Professional Experience*

		<u>Condition</u>		
		Experimental	Control	Percent
Prof Exp	Less than a year	5	12	56.67
	1-3	2	3	16.67
	3-5	2	4	20.00
	5-10	1	0	3.33
	10-15	1	0	3.33
Total		11	19	100.00

**Previous Viewing of Parenthood Series**

The final demographic information was to determine how many participants had been previously exposed to the weekly Parenthood TV series, of which vignettes from this show were used in the intervention. The greater part of participants, 21, reported that they had never before watched Parenthood. Of the remaining participants, eight indicated that they had watched fewer than five shows, and only one participant viewed the program regularly and had watched more than six shows in the Parenthood series (Table 9).

**Differences in Groups**

There were unequal distributions on several variables between the control group,  $N = 19$ , and that of the experimental group,  $N = 11$ . In addition, the experimental group was predominantly master's students, whereas the control group, with the exception of two participants, were undergraduate students. The control group was younger in age,

Table 9

*Parenthood Video Series*

		<u>Condition</u>		
		Experimental	Control	Percent
Previous viewings	Never	10	11	70.00
	Less than 5	1	7	26.67
	6-10	0	1	3.33
Total		1	19	100.00

where 14 of the 19 participants were less than 25 years old, and with the majority of the experimental group, 9 of 11 participants, who revealed that they were over 25 years of age.

Due to concerns over differences in groups, a comparison of mean scores between the experimental pretest and the control group posttest was done using an independent-samples *t*-test. The reason these two tests were used is because the control group participated in a posttest only and did not receive the intervention. If the groups are indeed similar, then there should be no significant differences in mean scores of the pretest scores of the experimental group to those of the posttest scores of the control group. An independent-samples *t*-test determined that there were no significant difference in mean test scores between pretest experimental group and posttest control group in the three areas which focused on: (a) the number of components correct; (b) the number of mistaken identifications; and (c) the identification of correct steps of self-determination. Results determined that there were no significant differences between

groups in all three areas. Explicitly, the number of components correct was  $t(28) = .063$ ,  $p = .951$ , where the mean score for the experimental pretest was  $M = 13.82$ ,  $SD = 2.96$ ; and the mean score for the control posttest was  $M = 13.74$ ,  $SD = 3.66$ . The second comparison, that of mistaken identification of components, was  $t(28) = 1.493$ ,  $p = .147$ ; where the mean score for the experimental pretest was  $M = 28.91$ ,  $SD = 10.09$ ; and the mean score for the control posttest was  $M = 23.68$ ,  $SD = 8.72$ . Likewise, the identification of correct steps was  $t(28) = .440$ ,  $p = .663$ . The mean score for the experimental pretest was  $M = 14.36$ ,  $SD = 3.26$ , whereas the mean score for the control posttest was  $M = 13.74$ ,  $SD = 4.01$ . This raised confidence that it could be assumed that the two groups were similar in initial awareness levels and in abilities to recognize when self-determined skills were being demonstrated by others. However in order to further test this assumption, data were evaluated using both parametric and nonparametric analyses in the hopes of further strengthening this argument.

### **Parametric or Non-Parametric Analyses**

It was unknown if the size and shape of the population between the experimental group and control group would skew result outcomes. Because of this difference between groups the data were examined to test for homogeneity of variance. The use of parametric analyses  $t$ -test requires the assumption that there is homogeneity of variance within the populations under study; and interval scale measurement is also required so that means can be computed (Wiersma & Jurs, 2009). If these assumptions are not met, results may suggest significance where there is not a significant difference. In this particular study the assumption that the two groups under study were similar was unclear

due to the variances in age, experience, and graduate credits, and test scores. Therefore, both parametric and non-parametric analyses were performed and then compared in order to determine similarity between groups. When using both parametric and non parametric means, it became apparent that there were no significant differences between groups. Since parametric analyses carry more power this was the method of analyses used in this study.

### **Comparison Between Groups**

The posttest was given to both groups after the experimental group received the treatment using the same six video vignettes as during the pretest phase in order to answer the question of: Did the intervention increase participant understanding and awareness of self-determined behaviors? The same recording sheets that were previously described were used for both groups. Moreover, scoring focused on three areas of: component correct, misidentified, and component correct steps. An independent samples *t*-test was used to determine differences in mean scores between experimental and control posttest scores. Results indicate that there were significant differences between groups on components correct and component correct steps. There was no difference between groups on the number of misidentifications of self-determination.

### **Between Groups Component Correct**

The component correct score was determined when a participant indicated that a component of self-determination was observed in the video. Therefore, the question was: Were there any differences in skills between the experimental and control group in ability to determine if a self-determined behavior was depicted within the video clip? This score



was calculated by totaling the number of skill(s) that was indicated within the vignette (see Table 10).

Table 10

*Between Groups Opportunities to Identify Component Correct*

		Components of	
		Number of Clips	Self-Determination
Video	Video 1	3	6
	Video 2	1	7
	Video 3	1	3
	Video 4	4	9
	Video 5	1	4
	Video 6	1	3
Total		11	32

Results show that there was a considerable difference between groups  $t(28) = 3.620, p = .001$ . The mean score for the posttest experimental group was  $M = 18.82, SD = 4.38$ . Likewise for the control group the mean posttest score was determined to be  $M = 13.37, SD = 3.73$ .

### **Between Groups Mistaken Identification**

The question to be examined in this section was: Were there any differences in scores between the groups in the number of instances when component skills of self-determination were mistakenly identified. This score was figured by totaling the number of opportunities in which a participant incorrectly indicated a self-determination skill that was not evident in the video. There were 67 total possibilities for mistakenly

identifying components of self-determination in all of the videos combined. For example, video one comprised of 3 clips. In clip one of video one, self-advocacy was the only component of self-determination to be identified. This means that there were eight other components that participants could misidentify as having occurred when they did not (Table 11). The results indicate that there was not a significant mean difference for participants misidentifying components  $t(28) = -.014, p = .989$ . The mean score for the posttest for the experimental group was  $M = 23.64, SD = 10.05$ . Mean score for posttest for the control group include  $M = 23.68, SD = 8.72$ .

Table 11

*Between Groups Opportunities for Mistaken Identification*

	Number of Clips	Total opportunities to misidentify
Video 1	3	21
Video 2	1	2
Video 3	1	6
Video 4	4	27
Video 5	1	5
Video 6	1	6
Total	11	67

**Between Groups Steps Correct**

The question to be answered for this section was: Were there any differences between the groups in ability to correctly determine steps to each component? The exam score was calculated by adding up the number of correct steps of a particular skill(s) that participants observed in all six vignettes (refer to Table 12).

Table 12

*Between Groups Opportunities to Identify Steps Correct*

	Number of Clips	Total steps correct
Video 1	3	12
Video 2	1	9
Video 3	1	5
Video 4	4	9
Video 5	1	8
Video 6	1	5
Total	11	48

Using an independent *t*-test analyses, the results indicate there was a significant difference in posttest scores between groups  $t(28) = 3.263, p = .003$ . The mean for the experimental group was  $M = 19.18, SD = 5.04$ . The mean for the control group was  $M = 13.74, SD = 4.01$ .

### Individual Video Posttest Analyses

The information given so far in the comparison between groups section has been on overall scores of the posttest between the experimental and control groups. In this section the focus narrows as each video was analyzed to determine variations that may be evident for the three areas of: component correct, mistaken identification, and correct steps.

### Video Between Groups Components Correct

The question in this analysis between groups was: Were there any differences between groups in ability to specify when a particular skill(s) of self-determination was demonstrated in each video? This score was figured by using the sum of the component

correct scores from each of the clips that make up the video (i.e., Video 1 had three clips, so Video 1 represents the sum of clips one through three). An independent-samples  $t$ -test was used to conduct a comparison between posttests of experimental and control groups. Outcomes show that there were significant differences between groups on the number of components correct on Videos 1, 2, and 5. Specifically, Video 1 include  $t(28) = 3.116, p = .004$  with an experimental posttest means ( $M = 4.36, SD = 1.21$ ). Control posttest means score was  $M = 2.68, SD = 1.53$ . In the case of Video 2, results include  $t(28) = 2.846, p = .008$  with the means score for the experimental group of  $M = 3.55, SD = 1.44$ . The control group means score for components correct was  $M = 2.05, SD = 1.35$ . Finally, Video 5 showed a significant difference between groups  $t(28) = 3.176, p = .004$  with experimental group means ( $M = 2.36, SD = .81$ ). Control posttest means score was  $M = 1.42, SD = .75$ . See Table 13.

Table 13

*Video Between Groups Components Correct—Significant*

Variable	$t(28)$	$\alpha$	Experimental M(SD)	Control M(SD)
Video 1	3.116	.004	4.36(1.21)	2.68(1.53)
Video 2	2.846	.008	3.55(1.44)	2.05(1.35)
Video 5	3.176	.004	2.36( .81)	1.42( .75)

There were no significant differences between groups on the number of components correct for Videos 3, 4, and 6 as shown in Table 14.

Table 14

*Video Between Groups Components Correct—Not Significant*

Variable	<i>t</i> (28)	$\alpha$	Experimental M(SD)	Control M(SD)
Video 3	1.839	.077	1.73( .90)	8.89(2.85)
Video 4	.573	.571	4.36(1.36)	4.05(1.47)
Video 6	1.654	.109	2.45( .69)	2.00( .75)

**Video Between Groups Mistaken Identification**

The question in this section was: Were there any differences between groups when considering mistaken identifications where participants wrongly identified components of self-determination that were not actually depicted in the clip? Only Video 2 identified a significant difference between groups on the number of misidentifications  $t(28) = -2.326, p = .03$ . The mean for the experimental group was  $M = .45, SD = .69$ ; whereas the control group means score was  $M = 1.00, SD = .58$ . There were no differences between groups on mistaken identifications for the remaining videos as shown in Table 15.

Table 15

*Video Between Groups Mistaken Identification—Not Significant*

Variable	<i>t</i> (28)	$\alpha$	Experimental M(SD)	Control M(SD)
Video 1	-.500	.621	8.27(3.95)	8.89(2.85)
Video 3	.394	.697	2.18(1.25)	2.00(1.20)
Video 4	.674	.506	7.91(3.59)	6.84(4.48)
Video 5	1.491	.147	2.73(1.27)	2.11( .99)
Video 6	-1.435	.162	2.09(1.64)	2.84(1.21)

**Video Between Groups Correct Steps**

The question scrutinized for this segment was: Were there any distinctions in posttests scores between the experimental and control groups when identifying the steps of self-determination for individual videos? Analyses reveal that there were significant differences between groups in scores of Videos 1, 2, 3, and 5. There was no difference between groups for Videos 4 and 6. Table 16 provides the *t* value, *p* value, mean, and standard deviation for posttests scores for both groups. No significant difference in mean scores across pre- and posttest scores was observed for video 4  $t(28) = .585$ ;  $p = .57$  and Video 6  $t(28) = 1.245$ ,  $p = .22$ .

Table 16

*Video Between Groups Correct Steps*

Variable	<i>t</i> (28)	$\alpha$	Experimental M(SD)	Control M(SD)
Video 1	4.453	.000	5.00 ( .77)	2.89(1.79)
Video 2	3.675	.001	3.82(1.40)	1.89(1.37)
Video 3	2.054	.049	1.82( .98)	1.16( .76)
Video 5	3.176	.004	2.36( .81)	1.42( .77)

This concludes analyses of data between the posttests scores of the experimental and control groups. Results identified that there were significant differences between groups in component correct and in identified steps correct. There was no difference for mistakenly identifying components of self-determination that were not evident in the videos. Next, analyses of the experimental group were conducted.

### **Experimental Group**

#### **Pre- and Posttest Analyses**

To review, six video vignettes were used for the pre- and posttest. Vignettes may have comprised of one to four clips, approximately one to two minutes long. Clips within the vignettes varied due to the necessity of watching the story line in order for participants to understand the context in which self-determined behaviors were observed. The videos combined provided varying opportunities for participants to: (a) identify that a particular skill was observed; (b) misidentify a component of self-determination that was not portrayed in the video; and (c) identify the correct steps of a particular

self-determined skill(s). Participant pre- and posttest scores were compared to determine possible effect of the intervention.

### **Across Group Component Correct**

The question to be answered was: Could participants increase their ability to identify when a person utilizes a particular skill(s) of self-determined behavior? This score was calculated by totaling the number of skills a participant reported. There were 32 total possible number of skills identified in the videos (Table 17).

Table 17

#### *Across Group Opportunities to Identify Component Correct*

		Number of Clips	Components of Self-Determination
Video	Video 1	3	6
	Video 2	1	7
	Video 3	1	3
	Video 4	4	9
	Video 5	1	4
	Video 6	1	3
Total		11	32

Again, a dependent samples *t*-test was conducted to examine difference in mean scores across pre- and posttest experimental group. Findings show that there was a significant mean difference for participants component correct  $t(10) = -3.86, p = .003$ . The mean score for the pretest was  $M = 13.82, SD = 2.96$ . Posttest score means was  $M = 18.91, SD = 4.53$ . A nonparametric analysis was also done using the Wilcoxon Signed Ranks Test in order to determine significant change across pre-and posttest scores. There



was agreement in that there were significant differences in pre- and posttest scores for component correct  $t(10) = -2.934, p = .003$ .

### **Across Group Mistaken Identification**

The question to be examined in this area was: Can participants reduce the rates of mistaken identifications of component skills of self-determination? The misidentified score was figured by totaling the number of opportunities in which a participant incorrectly indicated that a self-determination skill was evident in the video, when in actuality it was not. There were 67 total possibilities for misidentifying components of self-determination in all of the videos. For example, video one comprised of 3 clips. In clip one of video one, self-advocacy was the only component of self-determination to be identified. This means that there were eight other components that participants could misidentify as having occurred when they did not. Table 18 identifies total number of opportunities to misidentify components of self-determination.

Table 18

#### *Across Group Opportunities for Mistaken Identification*

		Number of Clips	Total opportunities to misidentify
Video	Video 1	3	21
	Video 2	1	2
	Video 3	1	6
	Video 4	4	27
	Video 5	1	5
	Video 6	1	6
Total		11	67

To examine changes in mean score across the pre- and post experimental group, a dependent samples *t*-test was utilized. In this there was not a significant mean difference for misidentifying components  $t(10) = 2.072, p = .065$ . The mean score for the pretest was  $M = 28.91, SD = 10.09$ . The mean of the posttest misidentified was  $M = 23.64, SD = 10.35$ . Again, a nonparametric test of the same data was performed using the Wilcoxon Signed Ranks Test. There was agreement in that there was not significant mean difference for misidentified scores  $t(10) = -1.780, p = .075$ .

### **Across Group Correct Steps**

The question to be answered for this section was: Were participants able to correctly determine specific steps to each component? In order to understand how these scores were compared, one must understand how calculations were figured. The exam score was calculated by adding up the number of correct steps of a particular skill(s) that participants observed in all of the six vignettes (Table 19). This overall score was then used in a dependent samples *t*-test to examine difference in mean scores across pre- and posttests of the experimental group.

Findings show that there was a significant increase in mean total test score from pretest to posttest scores  $t(10) = -4.246, p = .002$ . Specifically, the mean score for the pretest was  $M = 14.36, SD = 3.26$  whereas the mean score for the posttest was  $M = 19.18, SD = 5.04$ . This means that there was an increase in participant awareness and ability to correctly identify steps within the components of self-determination. Therefore, the null hypothesis that the intervention would make no difference in awareness levels was void.

Table 19

*Across Group Opportunities to Identify Steps Correct*

	Number of Clips	Total steps correct
Video 1	3	12
Video 2	1	9
Video 3	1	5
Video 4	4	9
Video 5	1	8
Video 6	1	5
Total	11	48

In order to test the accuracy of using parametric statistics, a nonparametric test of the same data was conducted. A comparison of means within the experimental group (pre-post) was done using the Wilcoxon Signed Ranks Test. Again, significance in growth for exam scores was indicated,  $t(10) = -2.956, p = .003$ . This demonstrates that the results of parametric analyses were not skewed.

### **Individual Video Analyses**

The information given so far has been on overall scores of the pre- and posttest for the experimental group. In this section the focus narrows as each video was analyzed to determine variations that may be evident before and after the intervention for the three areas of: video component correct, video misidentifications, and video correct steps.

### **Video Across Group Component Correct**

The question guiding this analysis was: Were there any changes in ability for participants to correctly identify a component of self-determination? This score was calculated by totaling the number of skill(s) that were indicated within each vignette. A

comparison within the experimental group across pre- and posttest scores using a dependent-samples *t*-test identified significant growth in components correct for Videos 3, 4, and 6 (Table 20). For Video 3 the mean score for pretest for the experimental group was  $t(10) = -3.317, p = .008$ . More precisely, the mean score for the pretest was  $M = .73, SD = .91$ . Mean score for Video 3 posttest was  $M = 1.73, SD = .91$ . Significance for Video 4 is identified as  $t(10) = -2.677, p = .023$ , and a pretest mean score of  $M = 3.00, SD = 1.41$ . Posttests mean score for Video 4 is  $M = 4.36, SD = 1.36$ . The third video to show growth was Video 6 which included  $t(10) = -2.764, p = .020$  with a mean pretest score of  $M = 1.64, SD = .81$ , compared to posttests mean score of  $M = 2.45, SD = .69$ . There was no significance in growth in components correct for Videos 1, 2, and 5 as shown in Table 21.

Table 20

*Video Across Group Component Correct—Significant*

Variable	<i>t</i> value (10)	$\alpha$	Pretest M(SD)	Posttest M(SD)
Video 3	-3.317	.008	.73( .91)	1.73( .91)
Video 4	-2.677	.023	3.00(1.41)	4.36(1.36)
Video 6	-2.764	.020	2.45( .69)	2.45( .69)

Table 21

*Video Across Group Component Correct—Not Significant*

Variable	<i>t</i> value (10)	$\alpha$	Pretest M(SD)	Posttest M(SD)
Video 1	-.959	.360	3.91( .94)	4.36(1.21)
Video 2	-1.994	.074	2.45( .93)	3.55(1.44)
Video 5	-.711	.493	2.09( .83)	2.36( .81)

**Video Across Group Mistaken Identification**

The videos were then evaluated to answer the question of: Were there any changes that occurred in the proportion of mistakenly identifying components of self-determination? Misidentifications were calculated by the sum of misidentified scores from each of the clips that make up the video (e.g., video 1 had three clips, so video 1 represents the sum of clips one through three). A dependent-samples *t*-test was conducted to examine difference in mean scores, which indicated significant fewer misspecifications in Video 1 and Video 6. Mean score for Video 1 for experimental group include  $t(10) = 2.438$ ,  $p = .035$  with a pretest mean of  $M = 11.55$ ,  $SD = 4.32$ . The mean score for posttest experimental group was  $M = 8.27$ ,  $SD = 3.95$ . Video 6 mean score was  $t(10) = 2.963$ ,  $p = .014$ . Pretest mean scores for Video 6 was  $M = 3.18$ ,  $SD = 1.54$ , with a mean of posttest misidentification being  $M = 2.09$ ,  $SD = 1.64$ . There were no significant differences across pre- and posttest scores for Videos 2–5 as shown in Table 23.

Table 22

*Video Across Group Mistaken Identification—Significant*

Variable	<i>t</i> value (10)	$\alpha$	Pretest M(SD)	Posttest M(SD)
Video 1	2.438	.035	11.55(4.32)	8.27(3.95)
Video 6	2.963	.014	3.18(1.54)	2.09(1.64)

Table 23

*Video Across Group Mistaken Identification—Not Significant*

Variable	<i>t</i> value (10)	$\alpha$	Pretest M(SD)	Posttest M(SD)
Video 2	1.174	.267	.82( .98)	.45( .69)
Video 3	.247	.810	2.27(1.55)	2.18(1.25)
Video 4	1.365	.202	11.41(6.73)	7.91(3.59)
Video 5	-.410	.690	2.55(1.13)	2.73(1.27)

**Video Across Group Correct Steps**

The question answered for this section was: Were participants able to correctly determine specific steps to each component across pre- and posttests for individual videos? In this analysis, the score was calculated by adding up the number of correct steps of a particular skill(s) that participants observed in each of six vignettes. A dependent samples *t*-test comparing mean scores on individual vignettes was used. A significant difference from pre- to posttest scores was observed for five out of six videos.

Table 24 provides data for each video including the  $t$  value,  $p$  value, mean, and standard deviation for both the pre- and posttest scores of the experimental group. No significant difference in mean scores across pre- and posttest scores was observed for Video 5,  $t(10) = -.454$ ,  $p = .659$  where the mean pretest score was  $M = 2.18$ ,  $SD = .98$  and the mean posttest score was  $M = 2.36$ ,  $SD = .81$ )

Table 24

*Video across Group Correct Steps*

Variable	$t$ value (10)	$\alpha$	Pretest M(SD)	Posttest M(SD)
Video 1	-2.502	.031	3.91(1.04)	5.00( .77)
Video 2	-2.514	.031	2.55(1.04)	3.82(1.40)
Video 3	-3.184	.010	.73( .90)	1.82( .98)
Video 4	-2.677	.023	3.00(1.41)	4.36(1.36)
Video 6	-2.887	.016	1.91(1.14)	2.82(1.08)

**Intervention Daily Test Analyses**

During the intervention, participants received daily lessons that were designed to break components of self-determination into manageable steps, with a focus on one component in each lesson hopefully culminating in global understanding by the end of the training. In order to increase participant awareness and observation skills of when self-determined behaviors were used, they practiced by watching video clips taken from [www.youtube.com](http://www.youtube.com). Viewing of daily videos followed a similar format to that of the

Parenthood video series with pre- and posttests given for each of the nine skills of self-determination (i.e., problem-solving, choice-making, decision-making, goal setting, self-monitoring, goal attainment, self-advocacy, self-awareness, and self-efficacy).

These pre- and posttests were also scored in the same manner previously described, and a comparison across the experimental group using a dependent-samples *t*-test was used for each component. There was a significant amount of growth for all of the components with the exception of choice-making and self-advocacy as detailed below. Since the specific component was designated for the day's lesson, there were no opportunities to determine component correct or misidentifications. Only changes in identification of correct steps of each skill were scored and analyzed.

### **Problem-Solving**

The question examined was: Were there any changes in participant ability to recognize and identify steps of problem-solving? Results show that there was a significant difference from pre- to posttest scores with  $t(10) = -5.369, p = .000$ . The mean score for the pretest was  $M = 1.55, SD = .52$ . Posttests mean score was  $M = 2.82, SD = .98$ .

### **Choice-Making**

The question examined was: Were they any changes in participant ability to recognize and identify steps of choice-making? Results show that there was no significant difference from pre- to posttest scores with  $t(10) = -1.174, p = .267$ . The mean score for the pretest was  $M = 1.727, SD = .783$ . Posttests mean score was  $M = 2.090, SD = .944$ .



### **Decision-Making**

The question examined was: Were there any changes in participant ability to recognize and identify steps of decision-making? There was a significant mean difference for participant pre- and posttest scores for decision-making  $t(10) = -3.83, p = .003$ . The mean score for the pretest was  $M = 1.45, SD = .52$ . Mean score for the posttests was  $M = 2.55, SD = .69$ .

### **Goal-Setting**

Again, the question examined was: Were there any changes in participant ability to recognize and identify steps of goal-setting. Results show a significant amount of growth in goal-setting which include  $t(10) = -3.11, p = .011$  with a mean score for the pretest of  $M = .45, SD = .52$ . Posttests mean score was  $M = 1.27, SD = .65$ .

### **Self-Monitoring**

The question examined was: Were there any changes in participant ability to recognize and identify steps of self-monitoring? There was a significant increase in mean self-monitoring scores with  $t(10) = -2.85, p = .017$ . Pretest mean score was  $M = 2.09, SD = 1.51$ . Posttests mean score was  $M = 3.55, SD = .52$ .

### **Goal Attainment**

The question examined was: Were there any changes in participant ability to recognize and identify steps of goal attainment? Analysis indicates that there was a significant difference across pre- and posttest scores evident for goal attainment  $t(10) = -2.63, p = .025$ . Pretest mean score was  $M = .73, SD = .47$ . Posttest mean score for goal attainment was  $M = 1.27, SD = .65$ .

### **Self-Advocacy**

The question examined was: Were there any changes in participant ability to recognize and identify steps of self-advocacy? Analysis indicates that there was no significant difference across pre- and posttest scores evident for self-advocacy  $t(10) = -2.206, p = .052$ . Pretest mean scores was  $M = 1.182, SD = .751$ . Posttest mean score for self-advocacy was  $M = 1.727, SD = .647$ .

### **Self-Awareness**

The question examined was: Were there any changes in participant ability to recognize and identify steps of self-awareness? Mean scores indicate that there was a significant amount of growth with  $t(10) = -5.59, p = .000$  and a mean score for the pretest of  $M = 1.09, SD = .30$ . Posttest mean score was  $M = 2.00, SD = .45$ .

### **Self-Efficacy**

The question examined was: Were there any changes in participant ability to recognize and identify steps of self-efficacy? Results indicate that there was a significant difference from pre- to posttest scores for self-efficacy that include  $t(10) = -5.164, p = .000$  with a mean score for the pretest of  $M = 1.09, SD = .83$ . Posttest mean score was  $M = 2.18, SD = .75$ . As previously mentioned, there was no growth for component skills of choice-making and self-advocacy.

### **Summary**

This chapter presented the results of analysis of data collected for the study. It has provided details about statistical reliability analysis, demographic information of

respondents, statistical analyses related to the research questions and hypotheses, and, finally, descriptive statistics about each result.

## **CHAPTER IV**

### **DISCUSSION**

The purpose of the study was to measure differences in special education pre-service teachers' awareness levels of when self-determination behaviors are demonstrated in others through video modeling. The study was conducted at a large university in northeastern Ohio. This chapter outlines the summary of the study and findings, discussion of the findings, and limitations of the study. Moreover, the chapter includes the practice implications and recommendations, implications for future research, and general conclusion.

#### **Summary of the Study and Findings**

##### **Summary of the Study**

The main purpose of study was to measure differences in special education pre-service teachers' awareness levels of when self-determination behaviors are demonstrated by others. Variables for the groups were examined to determine any possible threats to interpretation of findings. The study examined teachers' pre- and posttest scores both across and between experimental and control groups, as well as a closer evaluation of the pre- and posttests within the daily lessons that made up the intervention.

The research question that guided the current study was: Can pre-service teachers become more aware of when persons behave in a self-determined manner through a systematic curriculum? The education intervention created a foundation for participant knowledge of what comprises self-determination while increasing awareness through

watching videos that depicted skills that constitute self-determination. Instruction and practice in recognizing problem-solving, choice-making, decision-making, goal setting, self-monitoring, goal attainment, self-advocacy, self-awareness, and self-efficacy was provided to participants through 25 instructional hours over a four week period. The specific research questions provided support of the overall question. The first question was: Were participants able to increase awareness through watching videos in order to positively identify when a component of self-determination was observed. Secondly: Were participants able to reduce the number of mistaken identifications of a component of self-determination that was not portrayed in the video? Finally: Were participants able to increase awareness abilities of self-determination through watching videos in order to positively identify the correct steps to each self-determined skill(s)?

### **Summary of the Study Findings**

When examining demographic differences, it was apparent that there was not equivalence between the experimental and control groups on key important covariates. The control group was comprised of younger participants who were undergraduate students at the beginning of their academic career. The experimental group was predominately master's students with more life experience. However, when statistical comparisons of the pretest scores of the experimental group and the posttest scores of the control group were conducted, it was evident that there was no significant difference between groups when it came to prior understanding and awareness of self-determination. The reason these two tests were compared was because the control group took the posttest only.

According to the findings, the study found that the experimental group demonstrated a significant increase across pre- and posttest scores in awareness by increasing their scores in correctly identifying when components of self-determination were depicted in the videos by 16%. Furthermore, pre-teachers showed a 10% growth in their ability to recognize specific steps to each skill that was demonstrated in the clips. However, participants did not show a significant decrease in the number of times that they mistakenly identified a component of self-determination.

Moreover, the focus narrowed to that of analyzing each video score independently in order to look at significant changes in participant scores across each clip. The study found that there were significant improvements in ability to correctly record components of self-determination in three of the six videos, and participants showed growth in ability to specify steps to each skill in five of the six videos. Additionally, teachers had significantly fewer misidentifications in two of the videos.

Finally, in looking more closely at the intervention itself in raising understanding and awareness of steps to each of the nine skills of self-determination, the study found that participants had significant improvement in identifying all but two of the skills. The two skills that teachers did not notably show increased abilities were those of choice-making and self-advocacy.

### **Discussion of Findings**

The overall findings in this study were that special education pre-service teachers demonstrated a greater understanding and awareness of self-determination through the use of a systematic curriculum. The findings of the current study gives empirical support

to related arguments that teachers do not have a thorough understanding of what comprises self-determination (Wehmeyer et al., 2000), therefore do not believe they are effective in teaching these skills to their students (Agran et al., 1999). For instance, a study by Wehmeyer et al. (2000) gave reasons that perhaps teachers either did not learn about self-determination in pre-service training courses, or do not feel competent in their abilities to teach or to provide opportunities to use these skills within the school setting. It is evident that this study did indeed provide special education pre-service teachers with a greater understanding and awareness of the concept of self-determination, and of its importance in the lives of students with disabilities. During the lessons, participants were asked to reflectively write on each day's activities. Here was what one participant shared on her previous understanding of self-determination and what she came to understand of its importance:

Over the course of my time preparing to become a special education teacher, I have heard the term "self-determination" only a few times. When it was spoken there was not much discussion about what it was or of its importance. I quickly brushed the term aside, defining it as an individual who was motivated. On a personal level, I figured I was a rather self-determined individual due to the milestones and accomplishments I have achieved.

After considering self-determination as a concept that encompasses nine different skills, I now define it quite differently. I now understand self-determination to be more than a term but a way to live one's life. By applying self-determination to my life, I will experience a deeper understanding

of myself and achieve greater fulfillment. While I feel as though I have just begun my understanding of this concept, its value in the classroom is unquestionable. The effective teaching of self-determination will assuredly make a considerable difference not only in my own life, but for my students with disabilities as well. (A. Zacharias, personal communication, June 13, 2013)

In another study conducted by Thoma et al. (2008), it was determined there is a gap in teachers' practice and a limited understanding of methods for preparing special educators to develop self-determination skills in students with disabilities. The intervention was to provide teachers with the understanding that they should not construe that the focus of classroom instruction is to promote self-determination through the use of curriculum or by reading about it from a textbook; rather teachers should be trained to understand how to imbed the use of component skills of self-determination within their daily lessons and interactions with their students. In relationship to this topic, one participant wrote:

There was discussion today of the concept of self-determination as a classroom culture or teaching philosophy. I could see the value of providing that kind of learning environment for my students in order for them to more fully develop as self-determined persons. But that thought spurred me to wonder what if an entire school operated from this framework of providing a culture of self-determination. A school district with a strong culture of self-determination would start students out in the earliest grades by providing opportunities for students to develop foundational self-determination skills such as choice-making, which would then



foster a culture of interdependence throughout the remaining school years. It would seem that districts would be at the front lines of graduating **all** students with better developed self-determination skills that would allow for greater success in adult roles. (J. Harper, personal communication, June 13, 2013)

In agreement with the previous reflection, this pre-service teacher wrote:

There was discussion today of the concept of self-determination as a classroom culture and as a teaching philosophy. I love that idea! Offering choices on an ongoing basis is a subtle change, but could offer amazing long-term benefits to both the students and the environment. We talked about how students can be egocentric and not very aware of how their choices impact others. Creating a culture of choice-making in my classroom would provide me with opportunities to ask my students how they felt about other students' choices that may impact them. The classroom is a great, safe environment for students to try out and practice new skills. (H. Kubala, personal communication, June 13, 2013)

One teacher said it perfectly about how self-determination is not a curriculum; rather it is the habit of watching closely in order to “catch” a student in the act of behaving in a self-determined manner.

When I miss the signs that a student is working toward problem-solving, I have failed to capture the moment and I have missed the opportunity to use it to help the student build their toolbox of skills. These moments are critical, but once they are gone, I can't get them back. I need to learn how to slow the moment down so more can be gained. (V. Colella, personal communication, June 17, 2013)

Additionally, a study by Pajares and Graham (1998) found that the attitudes and beliefs of teachers and how they interact and provide opportunities can be greatly biased by the student's disability label. Schools may be reluctant to incorporate the promotion of self-determination into their general education curriculum because teachers who work with students with disabilities believe that the skills and knowledge related to promoting self-determination are often too complex for their students to learn (Agran et al., 2008), and protect or minimize their students' failures. It was hoped that this study would help teachers to perhaps recognize any hidden biases or thoughts of whether their students with disabilities should practice self-determination. Again, turning to the reflective writings of participants, one teacher wrote of the awareness gained of her own hidden bias by sharing:

As with many aspects of special education, self-determination is surrounded by misconceptions. While the misconceptions were not altogether surprising, I did not realize that I am guilty of perpetuating a few. As a teacher you want your student to succeed. What is challenging is allowing the student to fail. Practicing self-determination is not a golden ticket to success but a way of learning to get back up after things go wrong. Self-determination is not something a teacher does *for* a student, and I need to learn to back off and encourage the student to be more autonomous in his/her life. (A. Zacharias, personal communication, June 12, 2013)

Echoing the first reflection, this teacher shared:

The discussion of dignity of risk takes me back to when I first started working with students with disabilities. I offered assistance before students asked for it, and provided far too many hints because I wanted them to succeed. I considered myself to be helping them, but in retrospect, I was taking from them the experience of working out their own problems. As harsh as it sounds, I robbed them of a critical opportunity to build self-esteem and self-determination skills. My students' lives will continue long after I am through teaching them, so I need to be conscious of whether my "help" is preparing them for life without me—or am I actually hindering the process of preparation. (V. Colella, personal communication, June 12, 2013)

Finally, this reflection identified the role that a teacher has in helping her student in his journey to becoming a more self-determined person.

Today, I found the video to be very moving. The young man was an excellent example of what self-determination looks like. He had such a strong desire to finish the race and he was going to do so independently. While he was the key role in the video, I was more interested in the people in the crowd who were watching the runner. Some people had an overwhelming desire to run out and help. Others were able to stand by and to provide encouragement from the side lines. Others in the crowd weren't paying any attention at all. As a teacher, it will be a struggle to take a back seat and watch my students with disabilities in their struggles, but it is truly the biggest gift that I can give. It is their goal and I do not want to lessen the accomplishment by stepping in to take the task from

them when it is something they need to do on their own—of course with encouragement from me on the side lines. (A. Zacharias, personal communication, June 27, 2013)

These qualitative reflections lend strength to the quantitative results from the pre- and posttest analysis. It is understood that overall this intervention was effective and the methods of video modeling, reflective writing, and direct instruction are a practical way to increase understanding of and awareness of self-determination skills. However, it does not stop here. It was important to examine growth of each of the nine components of self-determination.

**Components of self-determination.** When inspecting outcomes of each component, it was apparent that growth was demonstrated in all areas except in choice-making and in self-advocacy. In looking at each of the participant's scores, it was found that scores for choice-making and self-advocacy were high in the pretest which gave little opportunity for improvement in the posttest. It was not surprising that these two components did not show growth as did the other seven components of self-determination. A review by Algozzine et al. (2001) of existing interventions to promote self-determination for individuals with disabilities found that the major intervention themes in literature are on self-advocacy and choice-making (p. 265). It was possible that participants already had an initial understanding and awareness of these two skills, and therefore did not have as much room to improve. Another possibility was that perhaps the videos were too easy which did not provide the participants with the opportunity to stretch or grow in awareness skills of these two components.

**Discussion on videos.** Although the study shows that using video modeling is an effective way to increase awareness of self-determination, consideration is given to the helpfulness of the videos used. In reviewing each of the six videos from the *Parenthood* series, which were used in the pre- and posttests, it is apparent that video five showed no significant changes in most ways analyzed. There are a few reasons this may be. One reason is that perhaps the video was more challenging requiring participants to require more practice in observation skills before they could correctly identify components of self-determination. Another reason is that participants may have needed more contexts in order to understand the behaviors of the actors observed in that clip. Additionally, the actors in this particular video were not children; rather they were adults, which could have skewed how the participants viewed the interactions within the clip. Future studies using video modeling may necessitate more stringent inter-observer procedures and additional videos identified from additional sources.

### **Limitations of the Study**

This study demonstrated positive results of pre-service teachers' ability to increase awareness of when someone is using self-determination skills at a large university in northeastern Ohio. However, the study has some limitations. The study was conducted and applied with pre-service special education teachers in only one program, thus, one cannot generalize the results of this study to all pre-service teachers in the United States. Furthermore, the study was conducted and applied with only pre-service special education teachers, so the results cannot be generalized to veteran special education teachers or to teachers who teach general education. Other limitations

in the study center on the possibility that additional time was needed for teachers to practice and hone observational skills as evidenced in the modest gains. Also, participants may have felt pressured to complete all blank spaces on the data recording sheets; or they may have been influenced by cues from fellow participants to write more than was necessary. This may have accounted for some of the incidences of mistaken identifications of self-determination. Additionally, only one TV series was used in the educational program, and the limited range of examples of self-determination may have reduced the impact of the training.

A final consideration given to limitations was the design of the study. The design implemented was a pretest/posttest experimental group with posttest only for the control group. Comparisons of test scores were conducted in three ways which were: (a) pretest scores of the experimental group to posttest scores of the control group; (b) posttest scores of both groups; and (c) pre- and posttest scores of the experimental group. For a more effective design it may have been beneficial to have conducted a fourth comparison by administering a pretest to the control group as well. This may have helped to determine other causes for differences in the groups.

### **Implications and Recommendations for Practice**

First, teachers' awareness of and identification of when others are using self-determination skills should be more developed. The study suggests that work should be done to increase teachers' learning and recognition of these nine components if the desire is for them to best provide a learning environment where student self-determination can flourish. This study proposes three intervention methods that

could be useful in increasing teacher efficacy: pre-service training on self-determination, educating established teachers, and using video modeling to increase comprehension and awareness of self-determination skills.

### **Pre-Service Teachers Should Receive Self-Determination Training**

In order for teachers to have confidence in abilities to improve self-determined skills in their students, they must first learn what it is and how to recognize when it occurs. This is accomplished during initial training when efficacy is most malleable, and when it is a critical time for the long-term development of teacher belief in their abilities and effectiveness. Tschannen-Moran et al. (1998) suggested that teachers make efficacy judgments by assessing the resources and constraints in specific teaching contexts. Resources in the form of support and feedback from colleagues and mentors, as well as teaching resources available and the quality of the facilities could all impact teachers' assessments about their ability to accomplish the tasks of teaching. Teachers with a lower sense of efficacy tend to avoid subjects (Riggs, 1995); whereas those with a healthy sense of efficacy tend to display greater levels of enthusiasm, planning, and organization (Allinder, 1994), and spend more time teaching in subject areas where their sense of efficacy is higher (Riggs & Enochs, 1990). The development of teacher efficacy beliefs is of great interest, because once efficacy beliefs are established they appear to be somewhat resistant to change (Spector, 1990). Evidence suggests that input during initial training has a different impact than input received after teachers are in the field (Tschannen-Moran et al., 1998). Therefore, increasing teacher comprehension and

awareness of self-determination during pre-service training when efficacy levels are initially developing would be beneficial.

### **Educate Teachers About Self-Determination**

Studies conducted by Zhang et al. (2002) found that teachers need more education on how to implement instruction in self-determination, as well as to use more student-directed learning methods rather than teacher-directed in order to promote self-determined skills in their students. Lacking is research examining preparation practices to ensure that special educators can implement strategies supportive of self-determination in their interactions with students in the learning environment. Thoma et al. (2008) wrote of the gap in teachers' practice and a limited understanding of methods for preparing special educators to develop self-determination skills in students with disabilities. It is unsure why this gap in research to practice is so. Fiedler and Donneker (2007) believed that special educators require a theoretical understanding of the concept, as well as a defined understanding of instructional strategies to use for students with disabilities. Others warn that merely knowing what to do is not enough to make changes in classroom practices (Bronfenbrenner, 1989; Darling-Hammond, 1994), rather it requires performing a strategy to increase self-determined behaviors among students within the classroom. Therefore, providing self-determination training to established teachers would begin to narrow the gap between research and practice.

### **Video Training Model for Self-Determination**

Jongsma (2000) found that using videos allows the instructor to point out practices that might not be obvious to an untrained observer, and creates enthusiasm and



confidence in the viewer to try new strategies. Video has assumed an increasingly noticeable role in teacher education, particularly in the form of the viewing of videotaped class lessons by pre-service teachers (Falconer & Lignugaris-Kraft, 2002). Some of the benefits of using videos as a teaching tool as identified by Hagen et al. (1998) include that they: (a) showcase effective teaching methods, (b) demonstrate situations that cannot be explained adequately, (c) allow the entire class as a whole to witness the same video and to share dialogue on what has occurred, and (d) help apply theory to practice. The availability of cheap and fast video technology and the widening availability of video-based case studies afford possibilities to do new and diverse activities in pre-service and in continued teacher education on topics such as self-determination. This study showed that video modeling was an effective method to use when raising teacher awareness of when others are using self-determined behaviors.

### **Implications for Future Research**

The following section offers suggestions that might be considered for future research based on what was found in the current study. These implications could be used with quantitative, qualitative, and mixed methods of research as follows:

1. The present study was conducted at a large university in northeastern Ohio for pre-service special education teachers. It is recommended that studies related to increasing teachers understanding of and awareness of self-determination be conducted located elsewhere in the United States and other nations.
2. The study findings support teaching awareness of self-determination to not only that of special education, but for all pre-service teachers.

3. The study findings support conducting research on what other educational institutions are teaching about self-determination in pre-service training for teachers who are focusing on all licensure areas.
4. It is advised that a study explore understanding and awareness of self-determination among practicing teachers in elementary, middle, and secondary education.
5. It is suggested that a longitudinal study is necessary in order to explore the impact on self-determination skills among the students of those teachers who put into practice global self-determination strategies in their classrooms.
6. It is advised that a longitudinal study be conducted in order to determine increased teacher abilities to recognize self-determined behaviors within their students.
7. It is recommended that a study look at ways that teachers provide opportunities within their classrooms to promote self-determined skills in their students.
8. The study supports additional research to look at attitudes of teachers who practice teaching strategies to increase self-determination skills in students with disabilities.
9. It is suggested that a study be conducted to look at teacher efficacy on teaching self-determination to their students with and without disabilities.

10. This study supports additional research to look at ways teachers provide feedback to students who are using self-determined behaviors in order to raise awareness within those students.

### **Conclusion**

This chapter presented the analyses and discussion on the results for the study, limitations, and implications for future research. Details were provided on statistical reliability analysis, reasons for comparing parametric and nonparametric analyses, demographic information of respondents, and statistical analyses related to the research questions and hypotheses. The demographic data showed that there was not equivalence between the experimental and control groups. The control group was on average younger, and was composed mostly of undergraduates who had less experience with persons with disabilities; whereas the experimental group was on average older, and were graduate students with more experience. However, when using both parametric and nonparametric analyses in comparing the pretest scores of the experimental group to the posttest scores of the control group it was determined that there was no significant difference in understanding and awareness of self-determination. In other words, even though the two groups did not appear to be similar in age, degreed program, or experience, they both had a similar initial understanding of self-determination.

The research question driving the study was: Can pre-service teachers become more aware of when persons behave in a self-determined manner? The results found that there was a growth in teacher ability to indicate when a component(s) skill of

self-determination was depicted, as well as an increased ability to provide details of individual steps of each component. However, there was no significant change in recordings of mistaken identifications of skills, which occurred when participants indicated that there was a skill evident when it was not.

Teacher learning as described by Cochran-Smith and Lytle (1999) involves relations between knowledge and practice with distinction made for difference in knowledge *for* practice, knowledge *in* practice, and knowledge *of* practice. Professional development through video modeling in this study allowed teachers to gain knowledge *for* practice and included understanding of the components of self-determination and of its importance. The second relationship, knowledge *in* practice, helped teachers to recognize when persons used self-determined behaviors. Finally, the environment in which this study was conducted provided opportunities to take a critical perspective on not only one's own assumptions; but also the assumptions of others, theory, and research. Teachers were provided with opportunities to motivate learning beyond the immediate classroom environment and thus involved knowledge *of* practice.

## **APPENDIXES**

**APPENDIX A**  
**LEVELS OF EVIDENCE**

## Appendix A

### Levels of Evidence

	Empirical Support	Social Validity
<b>Strong</b>	<p>Strong evidence for a recommended practice requires studies with both high internal validity (i.e., studies whose designs can support casual conclusions) and external validity (i.e., studies that in total include enough of the range of participants and settings on which the recommendation is focused to support the conclusion that the results can be generalized to those participants and settings). Strong evidence for this practice guide will be operationalized as:</p> <ul style="list-style-type: none"><li>• A systematic review of research that generally meets the standards of the What Works Clearinghouse (see <a href="http://ies.ed.gov/ncee/wwc/">http://ies.ed.gov/ncee/wwc/</a>) and supports the effectiveness of a program, practice, or approach with no contradictory evidence of similar quality; OR</li><li>• A sufficient number of well-designed, randomized, controlled trials or single-case research studies that meet the standards of the What Works Clearinghouse and support the effectiveness of a program, practice, or approach, with no contradictory evidence of similar quality; OR</li><li>• One large, well-designed, randomized, controlled, multisite trial that meets the standards of the What Works Clearinghouse and supports the effectiveness of a program, practice, or approach, with no contradictory evidence of similar quality; OR</li><li>• For assessments, evidence of reliability and validity that meets the standards for Educational and Psychological Testing.</li></ul>	<p>Characterization of a recommended practice as having strong social validity required that the empirical support for that practice include:</p> <ul style="list-style-type: none"><li>• Several clear demonstrations that the interventions used produced effects that met the defined clinical needs; AND</li><li>• Measures of stakeholder reports of acceptability of procedures, feasibility within available resources, and perceived effectiveness; AND</li><li>• Follow-up measures that demonstrate that typical intervention agents continue to implement procedures with fidelity after formal support is removed.</li></ul>
<b>Moderate</b>	<p>Evidence for a recommended practice as moderate requires studies with high internal validity but moderate external validity, or studies with high external validity but moderate internal validity. In other words, moderate evidence is derived from studies that support strong causal conclusions but where generalization is uncertain, or studies that support the generality of a relationship but where the causality is uncertain. Moderate evidence for this practice guide will be operationalized as:</p> <ul style="list-style-type: none"><li>• Experiments or quasi-experiments generally meeting the standards of the What Works Clearinghouse and supporting the effectiveness of a program, practice, or approach with small sample sizes, a limited number of single-case studies, and/or other conditions of</li></ul>	<p>Characterization of a recommended practice as having moderate social validity require the empirical support for that practice include:</p> <ul style="list-style-type: none"><li>• Several clear demonstrations that the interventions used produced effects that met the defined clinical needs; AND</li><li>• Measures of stakeholder reports of</li></ul>

	<p>implementation or analysis that limit generalizability, and no contrary evidence; OR</p> <ul style="list-style-type: none"> <li>• Comparison group studies that do not demonstrate equivalence of groups at pretest and therefore do not meet the standards of the What Works Clearinghouse but that (a) consistently show enhanced outcomes for participants experiencing a particular program, practice, or approach and (b) have no major flaws related to internal validity other than lack of demonstrated equivalence at pretest (e.g., only one teacher or one class per condition, unequal amounts of instructional time, highly biased outcome measures); OR</li> <li>• Correlational research with strong statistical controls for selection bias and for discerning influence of endogenous factors and no contrary evidence; OR</li> <li>• For assessments, evidence of reliability that meets the Standards for Educational and Psychological Testing 4 but with evidence of validity from samples not adequately representative of the population on which the recommendation is focused.</li> </ul>	<p>acceptability of procedures, feasibility within available resources, and perceived effectiveness; OR</p> <ul style="list-style-type: none"> <li>• Follow-up measures that demonstrate that typical intervention agents continue to implement procedures with fidelity after formal support is removed.</li> </ul>
<p><b>Emerging needs additional research</b></p>	<p>Characterization of the evidence for a recommended practice as emerging means that the recommendation is based on expert opinion derived from strong findings or theories in related areas and/or expert opinion buttressed by direct evidence that does not rise to the moderate or strong levels. Emerging evidence is operationalized as evidence not meeting the standards for the moderate or high levels.</p>	<p>Practices that do not meet the standards for the strong or moderate levels will be characterized as having emerging social validity.</p>

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Source: Loman, Vatland, Strickland-Cohen, Horner, & Walker (2010).



**APPENDIX B**

**VIDEO VIGNETTES AND OPPORTUNITIES**

**TO IDENTIFY SELF-DETERMINATION SKILLS**

## Appendix B

### Video Vignettes and Opportunities to Identify Self-Determination Skills

Video		Component Correct	Mistaken Identification	Steps Correct
Video 1	Self-Monitoring	1		1
3 Clips	Goal Attainment	1		1
	Self-Awareness	1		2
	Self-Advocacy	3		8
<b>Total</b>		<b>6</b>	<b>21</b>	<b>12</b>
Video 2	Problem-solving	1		3
1 Clip	Choice-making	1		1
	Decision-making	1		1
	Goal setting	1		1
	Goal attainment	1		1
	Self-awareness	1		1
	Self-advocacy	1		1
<b>Total</b>		<b>7</b>	<b>2</b>	<b>9</b>
Video 3	Problem-solving	1		3
1 Clip	Choice-making	1		1
	Goal setting	1		1
<b>Total</b>		<b>3</b>	<b>6</b>	<b>5</b>
Video 4	Choice-making	1		1
4 Clips	Decision-making	1		1
	Goal setting	3		3
	Self-monitoring	2		2
	Goal attainment	1		1
	Self-awareness	1		1
<b>Total</b>		<b>9</b>	<b>27</b>	<b>9</b>
Video 5	Problem-solving	1		3
1 Clip	Goal setting	1		1
	Self-advocacy	1		2
	Self-efficacy	1		2
<b>Total</b>		<b>4</b>	<b>5</b>	<b>8</b>
Video 6	Goal setting	1		2
1 Clip	Self-awareness	1		1
	Self-efficacy	1		2
<b>Total</b>		<b>3</b>	<b>6</b>	<b>5</b>
<b>Overall totals</b>		<b>48</b>	<b>67</b>	<b>32</b>

**APPENDIX C**

**SAMPLE OF PRE/POSTTEST DATA RECORDING SHEET**

## Appendix C

### Sample of Pre/Posttest Data Recording Sheet

<p><b>INSTRUCTIONS:</b> The video clip will be viewed twice. The first time, keep your pencils down and observe only. The second time you view the video, please record as follows: Place a check mark by the component(s) that you have identified in the video clip. Mark all that may apply. Then write a brief description of your observations that helped you to identify the component(s).</p>		
<b>PARENTHOOD VIDEO #1</b>	<b>COMPONENT</b>	<b>OBSERVATIONS</b>
<p>Max at Halloween Season 1 Disk 2: #6 Orange Alert</p> <p><b>Clip One</b> .35 seconds—1:40</p> <p><b>Description:</b> This clip depicts an interaction between Max, his father, mother, and sister. Max is an eleven year old boy with hair below his ears.</p> <p><b>Watch and record on Max's behavior.</b></p>	Problem-solving	
	Choice-making	
	Decision-making	
	Goal setting	
	Self-regulation/monitoring	
	Goal attainment	
	Self-awareness	
	Self-advocacy	
	Self-efficacy	

**APPENDIX D**

**SAMPLE PRE/POSTTEST DATA RECORDING**

**SHEET FOR COMPONENT OF SELF-DETERMINATION**

## Appendix D

### Sample Pre/Posttest Data Recording Sheet for Component of Self-Determination

**INSTRUCTIONS:** The video clip will be viewed twice. The first time, keep your pencils down and observe only. The second time you view the video, please record a brief description of your observations that helped you to identify the component.

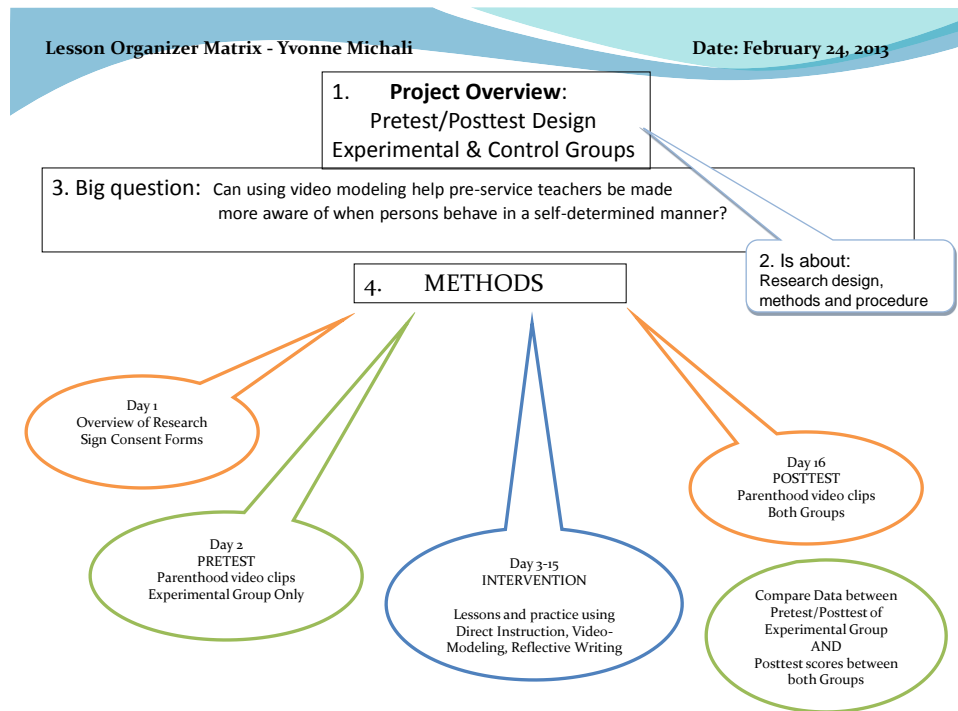
COMPONENT OF SELF-DETERMINATION	OBSERVATIONS
<p data-bbox="435 808 701 835" style="text-align: center;"><b>PROBLEM-SOLVING</b></p>	

**APPENDIX E**

**PROJECT OVERVIEW AND LESSON MATRIX**

# Appendix E

## Project Overview and Lesson Matrix





**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 1**

3. Last Unit:	1. Current Unit: Overview of self-determination training for pre-service teachers	4. Next Unit: What is Self-Determination Theory
5. Big question: What can you expect over the next few weeks?		

**6. The Key Concepts**

Explain pre-service teacher training on self-determination awareness

Sign consent forms

2. Is about: Understanding and agreement to research project.

7. Research questions

1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Explain the need for teachers to understand SD  
2. Review agenda for training sessions  
3. Participants sign consent forms

**Lesson Organizer Matrix Yvonne Michali** **Date: Day 2**

3. Last Unit: Overview	1. Current Unit: Pretest	4. Next Unit: Self-Determination Theory
5. Big question: What is participant prior knowledge of self-determination?		

**6. The Key Concepts**

Watch 3 video clips of the Parenthood TV series

Use data recording sheets to indicate responses

2. Is about: Identifying beginning awareness levels of self-determination in pre-service teachers.

7. Research questions

Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Three video clips from the Parenthood TV series will be used to determine beginning knowledge of self-determination behaviors.  
2. The pretest will be used to determine awareness levels of SD in each participant.  
3. Use data recording sheets without definitions provided

**Lesson Organizer Matrix – Yvonne Michali** **Date: Day 3**

3. Last Unit: Pretest	1. Current Unit: Self-Determination Theory (SDT)	4. Next Unit: Misinterpretations
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5. Big question: What is self-determination and why is it important?

**6. The Key Concepts**

<p><b>7. Research Questions</b></p> <ol style="list-style-type: none"> <li>1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?</li> </ol>	<p><b>8. Unit Schedule</b></p> <ol style="list-style-type: none"> <li>1. Components: Problem-solving, choice-making, decision-making, goal setting, self-regulation, goal attainment, self-advocacy, self-awareness, self-efficacy</li> <li>2. Self-determination for students with ID</li> <li>3. Quality of life</li> </ol>
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**Lesson Organizer Matrix – Yvonne Michali** **Date: Day 4**

3. Last Unit: Self-Determination Theory	1. Current Unit: Misinterpretations of SD	4. Next Unit: Problem-Solving
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5. Big question: Do you have any preconceived ideas of what SD is?

**6. The Key Concepts**

<p><b>7. Research questions</b></p> <p>Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?</p>	<p><b>8. Unit Schedule</b></p> <ol style="list-style-type: none"> <li>1. Discuss each misconception</li> <li>2. What is dignity of risk?</li> <li>3. How does natural consequences promote self-determination?</li> <li>4. What effect does context have on behavior?</li> <li>5. Reflective writing assignment</li> </ol>
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**Lesson Organizer Matrix Yvonne Michali** **Date: Day 5**

3. Last Unit: Misinterpretations	1. Current Unit: Problem-Solving	4. Next Unit: Choice-Making
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5. Big question: How does one solve problems?

**6. The Key Concepts**

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graph TD
    A[6. The Key Concepts] --- B(Identify the problem)
    A --- C(Define the problem)
    
```

2. Is about: Increasing pre-service teacher understanding and awareness of problem-solving

<p>7. Research questions</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>1. Can pre-service teachers be made more aware of when a student uses problem-solving skills?</p> </div>	<p>8. Unit Schedule</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <ol style="list-style-type: none"> <li>1. Review SDT and it's importance</li> <li>2. How does one problem solve?</li> <li>3. Operational definition of problem solving</li> <li>4. Practice awareness skills by watching video clips</li> <li>5. Use data recording sheets with definitions provided</li> <li>6. Reflective writing assignment</li> </ol> </div>
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**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 6**

3. Last Unit: Problem-Solving	1. Current Unit: Choice-Making	4. Next Unit: Decision-Making
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5. Big question: Why is providing/identifying choices important?

**6. The Key Concepts**

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graph TD
    A[6. The Key Concepts] --- B(Choice-making creates a foundation for independent & successful living)
    A --- C(Operational Definition)
    A --- D(Ten types of choices listed in research)
    A --- E(Many Reasons for providing opportunities for choice-making)
    
```

2. Is about: Increasing pre-service teacher understanding and awareness of choice-making

<p>7. Research questions</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?</p> </div>	<p>8. Unit Schedule</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <ol style="list-style-type: none"> <li>1. Review previous component of SD</li> <li>2. Share reflective writings</li> <li>3. Instruction on choice-making</li> <li>4. Practice awareness skills by viewing video clip</li> <li>5. Use data recording sheet with definition provided</li> <li>6. Discuss video clip and responses</li> <li>7. Reflective writing assignment</li> </ol> </div>
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**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 7**

3. Last Unit: Choice-Making	1. Current Unit: Decision-Making	4. Next Unit: Goal Setting
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5. Big question: What happens when a person is making a decision?

**6. The Key Concepts**

7. Research questions

1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Small group discussions
2. Review
3. Explain decision-making process
4. Discussion on factors that impact decision -making
5. Devine decision-making
6. Practice using data recording sheet with definitions
7. Writing assignment

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 8**

3. Last Unit: Decision-Making	1. Current Unit: Goal Setting	4. Next Unit: Self-Regulation
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5. Big question: What does a person do when setting a goal?

**6. The Key Concepts**

7. Research questions

1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Small group discussions
2. Review
3. Explain steps of goal setting
4. Characteristics of successful goal setting
5. Define goal setting
6. Practice awareness
7. Use data recording sheets with definitions
8. Writing assignment

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 9**

3. Last Unit: Goal Setting	1. Current Unit: Self-Regulation/Monitoring	4. Next Unit: Goal Attainment
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5. Big question: Why does a person have to make adjustments in the goal process?

**6. The Key Concepts**

7. Research questions

1. Can using video modeling help pre-service teachers be made more aware of when person behave in a self-determined manner?

8. Unit Schedule

1. Small group discussions
2. Review the four components of self-determination
3. What is self-regulation
4. Internal and external cues
5. Factors that influence success
6. Operationally define self-regulation
7. Practice to increase awareness of SR
8. Discuss video responses
9. Assignment

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 10**

3. Last Unit: Self-Regulation	1. Current Unit: Goal Attainment	4. Next Unit: Self-Advocacy
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5. Big question: How does a person know when he has mastered a goal?

**6. The Key Concepts**

7. Research questions

1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Small group discussion on self-reflections
2. Review previous SD components
3. How is goal mastery related to knowledge and performance?
4. Practice awareness skills
5. Use data recording sheets with definitions
6. Writing assignment

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 11**

3. Last Unit: Goal Attainment	1. Current Unit: Self-Advocacy	4. Next Unit: Self-Awareness
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5. Big question: What does being a self-advocate help you to do?

**6. The Key Concepts**

7. Research questions 8. Unit Schedule

<ol style="list-style-type: none"> <li>1. Can using video modeling help pre-service teachers be made more aware of when person behave in a self-determined manner?</li> </ol>	<ol style="list-style-type: none"> <li>1. Small Group discussions</li> <li>2. Review SD components</li> <li>3. Identify why SA is important</li> <li>4. Environment and opportunity</li> <li>5. Practice awareness of SA</li> <li>6. Reflection assignment</li> </ol>
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**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 12**

3. Last Unit: Self-Advocacy	1. Current Unit: Self-Awareness	4. Next Unit: Self-Efficacy
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5. Big question: Why do we need self-awareness to make changes?

**6. The Key Concepts**

7. Research questions 8. Unit Schedule

<ol style="list-style-type: none"> <li>1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?</li> </ol>	<ol style="list-style-type: none"> <li>1. Small group discussion</li> <li>2. Review of components of SD</li> <li>3. Self-awareness gives hope for change</li> <li>4. Operational Definition</li> <li>5. Practice awareness skills of SA</li> <li>6. Reflective writing assignment</li> </ol>
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**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 13**

3. Last Unit: Self- Awareness	1. Current Unit: Self-Efficacy	4. Next Unit: Global Self-Determination
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5. Big question: How does a person feel empowered?

6. The Key Concepts

An attitude -  
Belief in one's  
self

The Highs  
and Lows

Empowerment

Operational  
Definition

2. Is about: Believing  
in yourself

7. Research questions

1. Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Small group discussion  
 2. Review  
 3. The end is near!  
 4. It is an attitude that empowers  
 5. High vs low self-efficacy  
 6. Operational definition  
 7. Practice awareness skills  
 8. Writing assignment

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 14**

3. Last Unit: Self-Efficacy	1. Current Unit: Global Self-Determination	4. Next Unit: Review
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5. Big question: Does practice make perfect?

6. The Key Concepts

Review

A fishing story!

Practice using  
videos brought in  
by participants

2. Is about: Providing  
more opportunities to  
practice awareness  
skills

7. Research questions

Is there evidence that awareness skills of self-determination are increasing for pre-service teachers?

8. Unit Schedule

1. Review global components of self-determination  
 2. Read about Mary who wants to go fishing  
 3. Identify areas of self-determination in story  
 4. View videos brought in by participants  
 5. Discuss each video to determine consensus on portrayed self-determination behaviors

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 15**

3. Global Self-determination & Practice	1. Current Unit: Person and Environment	4. Next Unit: Posttest
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5. Big question: Understanding the interaction between environment and person

**6. The Key Concepts**

Discussion on the interaction between person and environment

2. Is about: How these two work together to promote self-determination

7. Research questions

Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Entire group discussion on global SD
2. Discuss the role of teacher in the environment
3. Connect the interaction between PWD and the environment
4. Review definitions of global components of self-determination

**Lesson Organizer Matrix - Yvonne Michali** **Date: Day 15**

3. Global Self-determination & Practice	1. Current Unit: Person and Environment	4. Next Unit: Posttest
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5. Big question: Understanding the interaction between environment and person

**6. The Key Concepts**

Discussion on the interaction between person and environment

2. Is about: How these two work together to promote self-determination


7. Research questions

Can using video modeling help pre-service teachers be made more aware of when persons behave in a self-determined manner?

8. Unit Schedule

1. Entire group discussion on global SD
2. Discuss the role of teacher in the environment
3. Connect the interaction between PWD and the environment
4. Review definitions of global components of self-determination



Lesson Organizer Matrix - Yvonne Michali		Date: Day 16
3. Last Unit: Review	1. Current Unit: Posttest	4. Next Unit: N/A
5. Big question: Ready to determine if the intervention has helped increase awareness.		
6. The Key Concepts		2. Is about: Lessons over!
 <p>THANK YOU FOR YOUR PARTICIPATION!</p>		
7. Research questions	8. Unit Schedule	
Did using video modeling help pre-service teachers to be made more aware of when persons behave in a self-determined manner?	<ol style="list-style-type: none"> <li>1. View the same 3 videos as the pretest</li> <li>2. Use data recording sheets w/o definitions</li> <li>3. Compare posttest scores to pretest</li> <li>4. Compare experimental group scores to control group</li> <li>5. Analyze qualitative data from reflective writings</li> </ol>	

## **REFERENCES**

## REFERENCES

- Abercrombie, D. (1968). Paralanguage. *International Journal of Language & Communication Disorders*, 3(1), 55-59. doi: 10.3109/13682826809011441
- Abery, B., & Stancliffe, R. (1996). The ecology of self-determination. In D. J. Sands & M. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 111-145). Baltimore, MD: Brookes.
- Agran, M., & Martin, J. E. (2008). Self-determination: Enhancing competence and independence. In K. Storey & P. Bates (Eds.), *The road ahead: Transition to adult life for persons with disabilities* (pp. 189-214). St. Augustine, FL: Training Resource Network.
- Agran, M., Snow, K., & Swaner, J. (1999). Teacher perceptions of self-determination: Benefits, characteristics, and strategies. *Education and Training in Mental Retardation and Developmental Disabilities*, 34, 293-301. [EJ] 593138
- Agran, M., Storey, K., & Krupp, M. (2010). Choosing and choice making are not the same: Asking “what do you want for lunch?” is not self-determination. *Journal of Vocational Rehabilitation*, 33, 77-88. doi: 10.3223/JVR-2010-0517
- Agran, M., Wehmeyer, M., Calvin, M., & Palmer, S. (2008). Promoting student active classroom participation skills through instruction to promote self-regulated learning and self-determination. *Career Development for Exceptional Individuals*, 31, 106.114. doi: 10.1177/0885728808317656

- Algozzine, B., Browder, D., Karvonen, M., Test, D., & Wood, W. (2001). Effects of interventions to promote self-determination for individuals with disabilities. *Review of Educational Research, 71*, 219-277. doi: 10.3102/00346543071002219
- Allinder, R. M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17*, 86-95. doi: 177/088840649401700203
- Argyle, M. (1988). *Bodily communication* (2<sup>nd</sup> ed., p. 5). Madison, WI: International Universities Press. ISBN 0-416-38140-5
- Argyle, M., Salter, V., Nicholson, H., Williams, M., & Burgess, P. (1970). The communication of inferior and superior attitudes by verbal and non-verbal signals. *British Journal of Social and Clinical Psychology, 9*, 222-231. doi: 10.1111/j.2044-8260.1970.tb00668.x
- Argyris, C., & Schön, D. A. (1996). *Organizational learning. 2. Theory, method, and practice* (pp. 65-89). Boston, MA: Addison-Wesley.
- Bandura, A. (1969). *Principles of behavior modification*. New York, NY: Holt, Rinehart, & Winston.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. doi: 10.1037/0033-295x.84.2.191
- Bandura, A. (1986). *Social foundation of thought and actions: A social-cognitive view*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1998). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman.

- Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *Journal of Personality and Social Psychology, 45*, 1017-1028. doi: 10.1037/0022-3514.45.5.1017
- Bandura, A., & Walters, R. (1963). *Social learning and personality development*. Chicago, IL: Holt, Rinehart, & Winston.
- Bandura, A., Ross, D., & Ross, S. (1963). Imitation of film mediated aggressive models. *Journal of Abnormal and Social Psychology, 6*, 3. doi: 10.1037/h0048687
- Bauersfield, H. (1995). Language games in the mathematic classroom: Their function and their effects. In P. Cobb & H. Bauersfield (Eds.), *The emergence of mathematical meaning: Interaction in classroom cultures* (pp. 271-305). Hillsdale, NJ: Erlbaum. ISBN 0-8058-1729-8
- Baumeister, R. F., & Vohs, K. D. (2007). Self-regulation, ego depletion, and motivation. *Social and Personality Psychology Compass, 1*, 1-14. doi: 10.1111/j.1751-9004.2007.00001.x
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1993). When ego threats lead to self-regulation failure: Negative consequences of high self-esteem. *Journal of Personality and Social Psychology, 64*, 141-156. doi: 10.1037/0022-3514.64.1.141
- Bereiter, C., & Engelmann, S. (1966). *Teaching disadvantaged children in the preschool*. Saddle River, NJ: Prentice Hall.
- Beyth-Marom, R., Fischhoff, B., Jacobs-Quadrel, M., & Furby, L. (1991). Teaching decision making to adolescents: A critical review. In J. Baron & R. V. Brown

- (Eds.), *Teaching decision making to adolescents* (pp. 19-60). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed.), *Six theories of child development: Revised formulations and current issues* (pp. 187-249). London, England: Jessica Kingsley.
- Caligiuri, P. M., & Day, D. V. (2000). Effects of self-monitoring on technical, contextual, and assignment-specific performance. *Group and Organization Management*, 25(2), 154-174. doi: 10.1177/1059601100252004
- Calkins, C., Wehmeyer, M., Bacon, A., Heller, T., & Walker, H. (2011). Introduction to the special issue on scaling up efforts to promote the self-determination of people with developmental disabilities. *Exceptionalities*, 19, 2-5. doi: 10.1080/09362835.2011.537219
- Chambers, C., Wehmeyer, M., Saito, Y., Lida, K., Lee, Y., & Singh, V. (2007). Self-determination: What do we know? Where do we go? *Exceptionality*, 15(1), 3-15. doi: 10.1080/09362830709336922
- Cherry, K. (2011). Types of nonverbal communication: Eight major nonverbal behaviors. Retrieved from <http://psychology.about.com/types-of-nonverbal-communication.htm>
- Cobb, B., Lehmann, J., Newman-Gonchar, R., & Alwell, M. (2009). Self-determination for students with disabilities: A narrative meta-synthesis. *Career Development for Exceptional Individuals*, 32(2), 108-114. doi: 10.1177/0885728809336654

- Cochran-Smith, M., & Lytle, S. L. (1999). Relationships of knowledge and practice: Teacher learning in communities. *Review of Research in Education, 24*, 249-305. Retrieved from <http://www.jstor.org/stable/1167272>
- Corno, L., & Snow, R. E. (1986). Adapting teaching to individual differences among learners. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3<sup>rd</sup> ed., pp. 605-629). New York, NY: Macmillan.
- Council for Exceptional Children. (2001). *Standards for preparation of transition specialists*. Retrieved from [http://www.cec.sped.org/ps/perf\\_based\\_stds/transition\\_specialist\\_03-12-01.html](http://www.cec.sped.org/ps/perf_based_stds/transition_specialist_03-12-01.html)
- Council for Exceptional Children. (2004, April). *What every special educator must know: Ethics, standards, and guidelines for special educators* (5<sup>th</sup> ed., pp. 3-5). Arlington, VA: CEC Board of Directors.
- Csikszentmihalyi, M. (1988). The flow experience and its significance for human psychology. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *Optimal experience* (pp. 15-35). New York, NY: Cambridge University.
- Darling-Hammond, L. (1994). Developing professional development schools: Early lessons, challenge, and promise. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 1-27). New York, NY: Teachers College Press.
- Deci, E., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227-268. doi: 10.1207/S15327965PL11104\_01

- Doll, B., Sands, D., Wehmeyer, M., & Palmer, S. (1996). Promoting the development and acquisition of self-determined behavior. In D. Sands & M. Wehmeyer (Eds.), *Self-determination across the lifespan: Independence and choice for people with disabilities* (pp. 65-90). Baltimore, MD: Brooke.
- Dowrick, P. W. (1999). A review of self-modeling and related interventions. *Applied and Preventive Psychology, 8*(1), 23-39. Retrieved from [http://dx.doi.org/10.1016/S0962-1849\(99\)80009-2](http://dx.doi.org/10.1016/S0962-1849(99)80009-2)
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- Early, P. C., & Lituchy, T. R. (1991). Delineating goal and efficacy effects: A test of three models. *Journal of Applied Psychology, 74*, 81-98. doi: 10.1037/0021-9010.76.1.81
- Eckman, P. (2003). *Emotions revealed: Recognizing faces and feelings to improve communication and emotional life*. New York, NY: Times Books.
- Eggen, P. D., & Kauchak, D. P. (2001). *Strategies for teachers; Teaching content and thinking skills*. Boston, MA: Allyn & Bacon.
- Elliot, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology, 54*, 5-12. doi: 10.1037/0022-3514.54.1.5
- Elmore, R. F. (2005). *School reform from the inside out: Policy, practice, and performance*. Cambridge, MA: Harvard Education Press.



- Encyclopedia of Communication Theory. (2009). *Nonverbal communication theories*.  
doi: 10.4135/9781412959384.n262
- Falconer, K. B., & Lignugaris-Kraft, B. (2002). A qualitative analysis of the benefits and limitations of using two-way conferencing technology to supervise preservice teachers in remote locations. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 25(4), 368-384.
- Fenigstein, A. (1987). On the nature of public and private self-consciousness. *Journal of Personality*, 55(3), 543-554. doi: 10.1111/j.1467-6494.1987.tb00450.x
- Ferraro, J. M. (2000). Reflective practice and professional development. *ERIC information analysis on teaching and teacher education* [ERIC Clearinghouse]. ED449120
- Ferraro, M. (1996). Observing the observer: Self-regulation in the observational learning of motor skills. *Developmental Review*, 16, 203-240. doi: 10.1111/j.1467-6494.1987.tb00450.x
- Field, S., & Hoffman, A. (1994). Development of a model for self-determination. *Career Development for Exceptional Individuals*, 17, 159-169. EJ497597
- Fielder, C. R., & Donneker, J. E. (2007). Self-advocacy instruction: Bridging the research-to-gap. *Focus on Exceptional Children*, 39(8), 1-20. EJ788789
- Fischhoff, B., Crowell, N.A., & Kipke, M. (1999). Adolescent decision making: Implications for prevention programs. Summary of a Workshop. [ERIC Clearinghouse]. ED441185

- Galloway, C. (1968). Nonverbal communication. *Theory Into Practice*, 7(5), 172-175.
- Gamoran, A., Secada, W. G., & Marrett, C. B. (1998). Professional community by design: Building social capital through teacher professional development. In L. Hedges & B. Schneider (Eds.), *The social organization of schooling* (pp. 112-13). New York, NY: Russell Sage. ISBN 0-87154-340-0
- German, S., Martin, J., Huber Marshall, L., & Sale, R. P. (2000). Promoting self-determination: Using take action to teach goal attainment. *Career Development & Transition for Exceptional Individuals*, 2(1), 27-38. doi: 10.1177/088572880002300103
- Gersten, R., Baker, S., Pugach, M., Scanlon, D., & Chard, D. (2001). Contemporary research on special education teaching. In V. Richardson (Ed.), *Handbook of research on teaching* (4<sup>th</sup> ed., pp. 695-722). Washington, DC: American Educational Research Association.
- Goddard, R. D., Hoy, W. K., & Woolfolk-Hoy, A. (2000). Collective teacher efficacy: Its meaning, measure, and effect on student achievement. *American Education Research Journal*, 37, 479-507. doi: 10.3102/00028312037002479
- Grammer, K., Renninger, L., & Fischer, B. (2004). Disco clothing, female sexual motivation, and relationship status: Is she dressed to impress? *The Journal of Sex Research*, 41(1), 66-74. doi: 10.1080/00224490409552214
- Grigal, M., Neubert, D. A., Moon, M. S., & Graham, S. (2003). Self-determination for students with disabilities: Views of parents and teachers. *Exceptional Children*, 70(1), 97-112. ISSN: 0014-4029

- Guerrero, L., DeVito, J., & Hecht, M. (1999). *The nonverbal communication reader* (2<sup>nd</sup> ed.). Lone Grove, IL: Waveland.
- Guess, D., Benson, H. A., & Siegel-Causey, E. (1985) Concepts and issues related to choice-making and autonomy among persons with severe disabilities. *Journal of the Association for Persons with Severe Handicaps*, 10, 79-86.
- Guess, D., Benson, H. A., & Siegel-Causey, E. (2008). Concepts and issues related to choice making and autonomy among persons with severe disabilities. *Research & Practice for Persons with Severe Disability*, 33(1-2), 75-81. Retrieved from <http://dx.doi/10.25141/rspd.33.1-2.75>
- Hadre, P., & Reeve, J. (2003). A motivational model of rural students' intentions to persist in, versus drop out of, high school. *Journal of Educational Psychology*, 95, 347-356. doi: 10.1037/0022-0663.95.2.347
- Hagen, K. M., Gutkin, T. B., Wilson, C. P., & Oats, R. G. (1998). Using vicarious experience and verbal persuasion to enhance self-efficacy in pre-service teachers: "Priming the pump" for consultation. *School Psychology Quarterly*, 13, 169-178. doi: 10.1037/h0088980
- Harackiewicz, J. M., Barron, K. E., Carter, S. M., & Lehto, A. T. (1997). Predictors and consequences of achievement goals in the college classroom: Maintaining interest and making the grade. *Journal of Personality and Social Psychology*, 73(6), 1284-1295. doi: 10.1037/0002-3514.73.6.1284
- Hargie, O., & Dickson, D. (2004). *Skilled interpersonal communication: Research, theory and practice*. Hove, England: Routledge.

- Heller, T., Schindler, A., Palmer, S., Wehmeyer, M., Parent, W., Jenson, R., . . . O'Hara, D. (2011). Self-determination across the life span: Issues and gaps. *Exceptionality, 19*(1), 31-45. doi: 10.1080/09362835.2011.537228
- Highlen, P. S., & Hill, C. E. (1984). Factors affecting client change in individual counseling: Current status and theoretical speculation. In S. Brown & R. Lent (Eds.), *Handbook of counseling psychology* (pp. 334-396). New York, NY: Wiley.
- Hogan, K., & Stubbs, R. (2003). *Can't get through: Eight barriers to communication*. Gretna, LA: Pelican. ISBN 1-58980-075-3
- Holt, D., & Willard-Holt, C. (2000). Reflectivity and effectiveness of pre-service teachers in a unique field experience. *Action in Teacher Education, 22*(2), 76-89. doi: 10.1080/01626620.2000.10463007
- Jolivet, K., Strichter, J., & McCormick, K. M. (2002). Making choices, improving behavior, engaging in learning. *Teaching Exceptional Children, 34*(3), 24-30. ISSN 0040-0599
- Jonassen, D. (2000). Toward a design theory of problem solving. *Educational Technology Research and Development, 48*(4), 63-85. ISSN 1042-1629
- Jongsma, K. (2000). Viewing for self-study and staff development. *Reading Teacher, 53*, 580-583.
- Joyce, B., Weil, M., & Calhoun, E. (2000). *Models of teaching* (6<sup>th</sup> ed.). Boston, MA: Allyn & Bacon.

- Karvonen, M., Test, D., Wood, W., Browder, D., & Algozzine, B. (2004). Putting self-determination into practice. *Council for Exceptional Children, 71*(1), 23-41. ISSN 0014-4029
- Kettle, B., & Sellars, N. (1996). The development of student teachers practical theory of teaching. *Teaching and Teacher Education, 12*(1), 1-24. EJ 526790
- Kircher, T., & David, A. S. (2003). Self consciousness: An integrative approach from philosophy, psychopathology and the neurosciences. In T. Kircer & A. S. David (Eds.), *The self in neuroscience and psychiatry* (pp. 445-474). Cambridge, MA: Cambridge University Press.
- Klahr, D. (2008). Solving problems with ambiguous subgoal ordering: Preschoolers' performance. *Child Development, 56*(4), 940-952. Retrieved from <http://www.jstor.org/stable/1130106>
- Knapp, M., & Hall, J. (2007). *Skilled interpersonal communication: Research, theory and practice*. Hove, UK: Routledge.
- Kochhar-Bryant, C., Bassett, D., & Webb, K. (2009). *Transition to postsecondary education for students with disabilities*. Thousand Oaks, CA: Corwin.
- Kohler, P. D. (1996). *Taxonomy for transition programming: Linking research and practice*. Champaign, IL: University of Illinois at Urbana-Champaign, Transition Research Institute.
- Kohler, P. (1998). Implementing a transition perspective of education: A comprehensive approach to planning and delivering secondary education and transition services.

- In F. R. Rusch, & L. G. Chadsey (Eds.), *Beyond high school: Transition from school to work* (pp. 179-205). Belmont, CA: Wadsworth.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Kolb, D. A., & Fry, R. E. (1975). Toward an applied theory of experiential learning. In C. Cooper (Ed.), *Theories of group processes* (pp. 56-78). London, England: Wiley.
- Lachappelle, Y., Wehmeyer, M., Haelewyck, M., Courbois, Y., Keith, K., Schalock, R., . . . Walsh, P. (2005). The relationship between quality of life and self-determination: An international study. *Journal of Intellectual Disability Research*, 49, 740-744. doi: 10.1111/j.1365-2788.2005.00743.x
- Lee, S., Wehmeyer, M., Soukup, J., & Palmer, S. (2010). Impact of curriculum modifications on access to the general education curriculum for students with disabilities. *Exceptional Children*, 76, 213-233. ISSN: 0014-4029
- Licklider, B. L. (1997, Jan.). *Breaking ranks: Changing the in-service institution* (pp. 819-22), [NASSP Bulletin]. EJ 539052.
- Loman, S., Vatland, C., Strickland-Cohen, K., Horner, R., & Walker, H. (2010). *Promoting self-determination: A practice guide*. A National Gateway to Self-Determination Consortium. Retrieved from <http://www.aucd.org/ngsd>
- Luszczynska, A., & Schwarzer, R. (2005). Social cognitive theory. In M. Conner & P. Noman (Eds.), *Predicting health behavior* (2<sup>nd</sup> ed., pp. 127-169). Buckingham, England: Open University.

- Madaus, G. F., Airasian, P. W., & Kellaghan, T. (1980). *School effectiveness: A review of the evidence*. New York, NY: McGraw-Hill.
- Magliaro, S., Lockee, B., & Burton, J. (2005). Direct instruction revisited: A key model for instructional technology. *Educational Technology Research & Development*, 53(4), 41-55. doi: 10.1007/BF02504684
- Martin, J., & Marshall, L. (1995). ChoiceMaker: A comprehensive self-determination transition program. *Intervention in School and Clinic*, 30(3), 147-156. EJ497548
- Martin, J., Marshal, L., & Maxson, L. (1993). Transition policy: Infusing self-determination and self-advocacy into transition programs. *Career Development for Exceptional Individuals*, 16(1), 53-61. EJ465409
- Martin, T., Martin, G., Spevack, S., Vereke, A., & Yu, D. (2002). Does choice, independent of preference, improve behavior for persons with disabilities? *Developmental Disabilities Bulletin*, 30, 1-15.
- Mayer, R. E. (1985). Implications of cognitive psychology for instruction in mathematical problem solving. In E. A. Silver (Ed.), *Teaching and learning mathematical problem solving: Multiple research perspectives* (pp. 123-138). London, England: Erlbaum.
- Mena Marcos, J. J., & Tillema, H. (2006). Studying studies on teacher reflection and action: An appraisal of research contributions. *Educational Research Review*, 1, 112-132. Retrieved from <http://dx.doi.org/10.1016/j.edurev.2006.08.003>

- Miller, D. C., & Byrnes, J. P. (2001). Adolescents' decision making in social situations: A self-regulation perspective. *Applied Developmental Psychology, 22*, 237-256.  
Retrieved from [http://dx.doi.org/10.1016/S0193-3973\(01\)00082-X](http://dx.doi.org/10.1016/S0193-3973(01)00082-X)
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review, 102*, 246-268. doi: 10.1037/0033-295x.102.2.249
- Mitchell, T. R., Hopper, H., Daniels, D., George-Falvey, J., & James, L. R. (1994). Predicting self-efficacy and performance during skill acquisition. *Journal of Applied Psychology, 79*, 506-517. doi: 10.1037/0021-9010.79.4.506
- Mithaug, D. E., & Mithaug, D. K. (2003). The effects of choice opportunities and self-regulation training on the self-engagement and learning of young children with disabilities. In D. E. Mithaug, D. K. Mithaug, M. Agran, J. E. Martin, & M. Wehmeyer (Eds.), *Self-determined learning theory: Construction, verification, and evaluation* (pp. 141-157). Mahwah, NJ: Erlbaum.
- Mithaug, D. E., Mithaug, D. K., Agran, M., Martin, J. E., & Wehmeyer, M. L. (2003). *Self-determined learning theory: Construction, verification, and evaluation*. Mahwah, NJ: Erlbaum.
- Morain, G. (1978). Kinesics and cross-cultural understanding. In G. Morain (Ed.), *Language in education: Theory and practice* (pp. 8-13). Arlington, VA: Center for Applied Linguistics. ISBN: 0872810895



- Muraven, M., Tice, D. M., & Baumeister, R. F. (1998). Self-control as limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology*, 74(3), 774-789. doi: 10.1037/0022-3514.74.3.774
- Nasby, W. (1989). Private self-consciousness, self-awareness, and the reliability of self-reports. *Journal of Personality & Social Psychology*, 56(6), 950-957. doi: 10.1037/0022-3514.56.6.950
- Natsoulas, T. (1996). The stream of consciousness: Consciousness and self-awareness. *Imagination, Cognition and Personality*, 16(2), 281-300. doi: 10.2190/E6AF-YB5H-FFM6-7JOF
- Navarro, J. (2008). *What everybody is saying*. New York, NY: Harper Collins.
- NBC. (2010). Parenthood: Experts weigh in on hot topics of the show. Retrieved from [www.nbc.com/parenthood](http://www.nbc.com/parenthood)
- Nirje, B. (1972). The right to self-determination. In W. Wolfensberger (Ed.), *Normalization: The principle of normalization* (pp. 176-200). Toronto, Canada: National Institute on Mental Retardation.
- Oettingen, G., Honig, G., & Gollwitzer, P. (2000). Effective self-regulation of goal attainment. *International Journal of Educational Research*, 33(7-8), 705-732. Retrieved from [http://dx.doi.org/10.1016/S0883-0355\(00\)00046-X](http://dx.doi.org/10.1016/S0883-0355(00)00046-X)
- Ormrod, J. E. (2006). *Educational psychology: Developing learners* (5<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

- Orton, A., & Wain, G. (1994). Problems, investigations and an investigative approach. In A. Orton & G. Wain (Eds.), *Issues in teaching mathematics* (pp. 150-173). London, England: Cassel.
- Pajares, F., & Graham, L. (1998). Formalist thinking and language arts instruction: Students' and teachers' beliefs about truth and caring in the teaching conversation. *Teaching and Teacher Education, 14*(8), 855-870. Retrieved from [http://dx.doi.org/10.1016/S0742-051X\(98\)80001-2](http://dx.doi.org/10.1016/S0742-051X(98)80001-2)
- Public Law 106-402. (2000). Developmental Disabilities Act.
- Public Law 107-110. (2001). No Child Left Behind Act.
- Reed, S. K. (2000). Problem solving. In A. E. Kazdin (Ed.), *Encyclopedia of Psychology*, 8(pp. 71-75). Washington, DC: American Psychological Association and Oxford University.
- Reiss, S. (2002, Mar.). *Who am I? The 16 basic desires that motivate our actions and define our personalities*. Berkley Trade. ISBN: 978-0425183403.
- Rekers, G. A., & Varni, J. W. (1977). Self-regulation of gender-role behaviours: A case study. *Journal of Behavioural Therapy and Experimental Psychiatry, 8*(4), 427-432. Retrieved from [http://dx.doi.org/10.1016/0005-7916\(77\)90015-5](http://dx.doi.org/10.1016/0005-7916(77)90015-5)
- Riggs, I. (1995, April). *The characteristics of high and low efficacy elementary teachers*. Paper presented at the Annual Meeting of the National Association of Research in Science Teaching, San Francisco, CA.

- Riggs, I., & Enochs, L. (1990). Toward the development of an elementary teacher's science teaching efficacy belief instrument. *Science Education*, 74(6), 625-638.  
doi: 10.1002/sce.3730740605
- Rosenthal, R., & DePaulo, B. (1979). Sex differences in accommodation in nonverbal communication. In R. Rosenthal (Ed.), *Skill in nonverbal communication: Individual differences* (pp. 68-102). Cambridge, MA: Oelgeschlager, Gunn, & Hain.
- Ross, J. A. (1998). The antecedents and consequences of teacher efficacy. In J. Brophy (Ed.), *Advances in research on teaching* (7th ed., pp.49-73). Greenwich, CT: JAI Press.
- Schon, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco, CA: Jossey-Bass.
- Shogren, K. (2013). *Self-determination and transition planning* (p. 75). Baltimore, MD: Brooks.
- Sigafoos, J. (1998). Choice-making and personal selection strategies. In J. K. Luiselli & M. J. Cameron (Eds.), *Antecedent control: Innovative approaches to behavioral support* (pp. 19-33). Baltimore, MD: Brooks.
- Skinner, B. F. (1968). *The technology of teaching*. Englewood Cliffs, NJ: Prentice Hall.
- Smith, E. R. (2007). *Social Psychology*. New York, NY: Psychology Press.
- Snyder, M. (1979). Self-monitoring processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 85-125). New York, NY: Academic Press.

- Spector, P. E. (1990). *Efficacy for teaching in preservice teachers*. Paper presented at the annual meeting of the American Educational Research Association. Boston, MA.
- Stancliffe, R. (2001). Living with support in the community: Predictors of choice and self-determination. *Mental Retardation and Developmental Disabilities Research Reviews*, 7(2), 91-98. Retrieved from <http://dx.doi.org/10.1002/mrdd.1013>
- Stancliffe, R. J., & Abery, B. H. (1997). Longitudinal study of deinstitutionalization and the exercise of choice. *Mental Retardation*, 35, 159-169. Retrieved from [http://dx.doi.org/10.1352/0047-6765\(1997\)035L0159.LSODAT.2.0.CO:2](http://dx.doi.org/10.1352/0047-6765(1997)035L0159.LSODAT.2.0.CO:2)
- Stangor, C., (2004). *Using SPSS for windows* (3rd ed.). Boston, MA: Houghton Mifflin Company.
- Sternberg, R. (2003). *Cognitive psychology*. Belmont, CA: Wadsworth.
- Sternberg, R., & Williams, W. M. (1998). *Teaching for creativity: Two dozen tips*. Retrieved from [www.cdl.org/resource-library/articles/teaching\\_creativity.php](http://www.cdl.org/resource-library/articles/teaching_creativity.php)
- Swafford, J. (1998). Teachers supporting teachers through peer coaching. *Support for Learning*, 13, 54-58. doi: 10.1111/1467-9604.00058
- Thoma, C. A., Pannozzo, G. M., Fritton, S. C., & Bartholomew, C. C. (2008). A qualitative study of pre-service teachers' understanding of self-determination for students with significant disabilities. *Journal of Career Development for Exceptional Individuals*, 31(2), 94-105. doi: 10.1177/0885728808317444
- Tschannen-Moran, M., Woolfolk-Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68, 202-248. doi: 10.3102/00346543068002202

- Uzat, S. L. (1998). Cognitive coaching and self-reflection: Looking in the mirror while looking through the window. Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, LA. ED427064
- VanReusen, A. K., Bos, C., Schumaker, J., & Deshler, D. (1994). Effects of a student participation strategy in facilitating the involvement of adolescents with learning disabilities in the individualized education program planning process. *Learning Disabilities, 1*(2), 23-34.
- Vygotsky, L. S. (1978). *Mind and society: The development of higher psychological processes*. Cambridge, MA: Harvard University.
- Walker, H., Calkins, C., Wehmeyer, M., Walker, L., Bacon, A., Palmer, . . . Johnson, D. (2011). A social-ecological approach to promote self-determination. *Exceptionality, 19*, 6-18. doi: 10.1080/09362835.2011.537220
- Ward, M. J. (1988). The many facets of self-determination. *National Center for Children and Youth with Disabilities, 5*, 2-3.
- Watkins, C. (1997). Project follow through: A case study of contingencies influencing instructional practices of the educational establishment. Cambridge Center for Behavioral Studies. Cambridge, MA.
- Wehmeyer, M. (1996). Self-determination as an educational outcome: Why is it important to children, youth, and adults with disabilities? In D. J. Sands & M. L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 17-36). Baltimore, MD: Brookes.

- Wehmeyer, M. (1998). Self-determination and individuals with significant disabilities: Examining meanings and misinterpretations. *Journal of the Association for Persons with Severe Handicaps*, 23(1), 5-16. Retrieved from <http://kuscholarworks.ku.edu/dspace/bitstream/1808/6229/2/SD4A%20Wehmeyer%201998.pdf>
- Wehmeyer, M. (2002, Sept.). *Self-determination and the education of students with disabilities*. Disabilities and Gifted Education. Council for Exceptional Children. Retrieved from <http://www.cec.sped.org>
- Wehmeyer, M. (2003). A functional theory of self-determination: Model overview. In M. L. Wehmeyer, B. Abery, D. E. Mithaug, & R. J. Stancliffe (Eds.), *Theory in self-determination: Foundations for educational practice* (pp. 182-201). Springfield, IL: Thomas.
- Wehmeyer, M., & Abery, B. H. (2013). Self-determination and choice. *Intellectual and Developmental Disabilities*, 51(5), 399-411. doi: 10.1352/1934-9556-51.5.399
- Wehmeyer, M., & Bolding, N. (2001). Enhanced self-determination of adults with intellectual disability as an outcome of moving to community-based work or living environments. *Journal of Intellectual Disability Research*, 45(5), 371-383. doi: 10.1049/j.1365-2788.2001.00342.x
- Wehmeyer, M., & Garner, M. (2003). The impact of personal characteristics of people with intellectual and developmental disability on self-determination and autonomous functioning. *Journal of Applied Research in Intellectual Disabilities*, 16, 255-265. doi: 10.1046/j.1468-3148.2003.00131.x

- Wehmeyer, M., & Palmer, S. (2003). Adult outcomes for students with cognitive disabilities three years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38*, 131-144.
- Wehmeyer, M., & Schwartz, M. (1998). The relationship between self-determination and quality of life for adults with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 33*, 3-12. doi: 10.1080/0156655970440403
- Wehmeyer, M., Agran, M., & Hughes, C. (2000). A national survey of teachers' promotion of self-determination and student-directed learning. *Journal of Special Education, 34*, 58-68. doi: 10.1177/002246690003400201
- Wehmeyer, M., Agran, M., Palmer, S., Mithaug, D., Martin, J., & Hughes, C. (2007). *Promoting self-determination and student-directed learning for students with intellectual and developmental disabilities*. New York, NY: Guilford.
- Wehmeyer, M., Kelchner, K., & Richards, S. (1996). Essential characteristics of self-determined behaviors of adults with mental retardation and developmental disabilities. *American Journal on Mental Retardation, 100*, 632-642.
- Wehmeyer, M., Palmer, S., Shogren, K., Williams-Diehm, K., & Soukup, J. (2010). Establishing a casual relationship between intervention to promote self-determination and enhanced student self-determination. *The Journal of Special Education, 20*. 1-16. doi: 10.1177/0022466910392377
- Wehmeyer, M., Sands, D. J., Doll, B., & Palmer, S. (1997). The development of self-determination and implications for educational interventions with students with

- disabilities. *International Journal of Disability, Development, and Education*, 44(4), 305-328. doi: 10.1080/0156655970440403
- Weston, C., & Went, F. (1999). Speaking up for yourself: Description and evaluation of an assertiveness training group for people with learning disabilities. *British Journal of Learning Disabilities*, 27(3), 110-115. doi: 10.1111/j.1468-3156.1999.tb00099.x
- Wiersma, W., & Jurs, S., (2009). *Research methods in education: An introduction* (9<sup>th</sup> ed.). Boston, MA: Pearson.
- Wilhelm, R. W., Cowart, M. F., Hume, L. M., & Rademacher, J. A. (1996). The effects of a professional development institute on pre-service teachers' perceptions of their intercultural knowledge and diversity. *Teacher Educator*, 32(1), 48-61. doi: 10.1080/08878739609555130
- Williams, P., & Shoultz, B. (1982). *We can speak for ourselves: Self-advocacy by mentally handicapped people*. Bloomington, IN: Indiana University
- Wood, R. E., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56, 407-415. doi: 10.1037/0022-3514.56.3.407
- Woolfolk-Hoy, A., & Burke Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21, 343-356. doi: 10.1016/j.tate.2005.01.007
- Wrosch, C., Scheier, M., Miller, G., Schultz, R., & Carver, C. (2003). Adaptive self-regulation of unattainable goals: Goal disengagement, goal reengagement, and



subjective well-being. *Journal of Personality and Social Psychology*, 29(12).

1494-1508. doi: 10.1177/0146167203256921

Yammiyavar, P., Clemmensen, T., & Kumar, J. (2008). Influence of cultural background on non-verbal communication in a usability testing situation. *International Journal of Design*, 2(2), 31-40.

Zhang, D., Katsiyannis, A., & Zhang, J. (2002). Teacher and parent practice on fostering self-determination of high school students with mild disabilities. *Career*

*Development for Exceptional Individuals*, 25(2), 157-169. doi:

10.1177/088572880202500295