Impact of Person-Environment-Occupation Model Training on Teacher Transition Problem-Solving

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IMPACT OF PERSON-ENVIRONMENT-OCCUPATION MODEL TRAINING ON
TEACHER TRANSITION PROBLEM-SOLVING

A Dissertation
Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By
Taylor A. Dreste, M.S.Ed.

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DUQUESNE UNIVERSITY
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IMPACT OF PERSON-ENVIRONMENT-OCCUPATION MODEL TRAINING ON TEACHER TRANSITION PROBLEM-SOLVING

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ABSTRACT
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IMPACT OF PERSON-ENVIRONMENT-OCCUPATION MODEL TRAINING ON TEACHER TRANSITION PROBLEM-SOLVING

By

Taylor A. Dreste

August 2020

Dissertation supervised by Ara J. Schmitt, Ph.D.

In the United States, there is currently no universal framework or model that is applied to the transition planning process for students with disabilities, other than the transition mandates set forth by the Individuals with Disabilities Education Act (IDEA, 2004). This often results in educators picking transition plan goals and interventions from a “bank”, without taking into account the “whole child.” The following study examines the effect of the Person-Environment-Occupation (PEO) model, pioneered by Law et al. (1996), on a teacher’s ability to consider personal, environmental, and occupational variables when planning for post-secondary employment for students with disabilities. Furthermore, this study found that after being presented with a brief PEO video training, educators were able to consider more environmental variables that may have been contributing to a student’s employment failure than had been initially considered. This study also examined the impact that disability type had on teacher’s
perceptions of P, E, and O variables. This study adds to the transition planning and problem-solving literature base and has unique implications for the fields of psychology and education.
DEDICATION

This dissertation is dedicated to the many individuals who have supported me throughout the dissertation process and throughout graduate school as a whole. First to my parents, who always support me in my endeavors, who have worked so hard to afford me the opportunities to pursue my goals and dreams, and who have instilled in me the values that have made me choose the profession that I have. Second, to my husband, Zach, who has relocated his life and career to follow me as I pursue my dreams, and who is cheering me on every step of the way. To all of the children, families, teachers, and helping professionals that have helped me grow and shape me into the future psychologist that I am today. Finally, I would like to dedicate this dissertation to the students and staff at Mary Cariola Children’s Center. I only worked at Mary Cariola for a brief time before coming to graduate school, however, the sense of commitment to the students that I saw at this agency was inspiring. As one of my first encounters working with children with developmental disabilities, this job helped shape my research and professional goals as a psychologist. I hope to be able to give back to the agency in some way in my future.
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I would also like to thank the various practicum and internship supervisors that I have had throughout the years that have helped me develop into a passionate and culturally sensitive psychologist. I have learned unique skills from each one of you that I will take with me forever in my career.

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Chapter I: Introduction

Introduction

Due to challenges in many developmental areas, the transition to adult life for students with disabilities can be demanding. Individuals who have received special education services consistently demonstrate lower rates of employment than the general population (Bureau of Labor Statistics, 2017). For example, findings from the National Longitudinal Transition Study-2 (NLTS-2) reveal that only 57% of youth with disabilities are employed four years after high school, compared to 66% of general-education students (Sanford et al., 2009).

The Individuals with Disabilities Education Act (IDEA) of 2004 refers to transition services in school as a coordinated set of activities and services to help move a student with a disability from school to post-school activities. Furthermore, IDEA requires that beginning at age 16, all students receiving special education services have a statement regarding transition services in their Individualized Education Plan (IEP). The law mandates that transition planning be based on student needs and consider his or her strengths, interests, and preferences (U.S. Department of Education, n.d.). Educators have the ability to help facilitate the successful transition from school to adulthood for students with disabilities by creating transition plans that focus on students’ individual strengths, and are tailored to fit their needs. Currently, however, transition plans are often not specific to each students’ needs, resulting in educators placing students in “boxes” of best fit.

Other than the mandates set forth by IDEA, there is no universally accepted model of transition planning (Kohler, 1996). Furthermore, transition-planning teams may not look at the transition planning process through a problem-solving approach (Schmitt, Yarbrough, &
Hennessey, in press). In using the Person-Environment-Occupation model (PEO), theorists assert that in order to obtain a maximum level of occupational or employment performance, one must critically analyze the three-way relationship between the person (P), his or her environment (E), and the nature of the occupation (O). The better the “match” is between these aspects, the better the occupational performance that results (Law et al., 1996). This model can be applied to the transition planning process by critically analyzing the unique personal, environmental, and occupational variables that are both unique to the student and inherent within different IDEA eligibility categories. Providing educators with knowledge of the PEO model may help to create transition plans that provide consideration of personal characteristics, such as cognitive ability, as being predictors of post-school employment, and also help educators recognize how environmental or task-related occupational considerations can affect students’ future employment success. Furthermore, it may be useful to see how educators conceptualize the differences in the P, E, and O characteristics that affect post-school employment depending a students’ diagnosis.

**Significance of the Problem**

Current transition practices are simply not effective at guiding all from special education to adult work life. Many researchers have analyzed why transition plans can be ineffective. For example, Davis (2003) noted that current transition practices are largely guided by bureaucratic constraints and fail to address the individuals’ *unique developmental needs*. Furthermore, current transition plans often focus movement from one physical location to another (i.e., school setting to work setting), rather than taking a developmental approach where student needs may change across the lifespan and teaching students to cope with these changes.
Reasons why transition plans may fail aside, there are many established indicators of quality transition plans. Quality transition plans are those that are focused upon the student’s strengths, include interagency collaboration, and have student and parent involvement and support (Phelps & Maxwell, 1997). Additionally, transition teams assess and plan for various interventions that increase students’ self-determination and self-advocacy skills. While the research regarding successful, evidence-based transition planning practices is robust, little research exists that attempts to inform educators regarding the way in which to customize transition plans to a child’s unique needs within a problem-solving process. By informing educators regarding ways to individualize employment-related transition services within a problem-solving approach, it is likely that more students with disabilities will be able to experience success in careers that “fit” their strengths and needs.

**Theory Basis**

No universal theory has been applied to requisite components of the transition planning process. Several theories have attempted to link theory to transition practices, but as theories often do, they lack a step-by-step guide that is easy for educators to use. Some of these theories and frameworks include the taxonomy for transition, and a multi-faceted role engagement structure (Kohler, 1996; King et al., 2005). The taxonomy approach identifies transition services as an interconnected web of student focused planning, interagency collaboration, student development, program structures and attributes, and family involvement, and provides considerations for each. The multifaceted role engagement framework identifies three levels of transition planning (person, environment, and person-environment fit) that are consistent with Bronfenbrenner’s (1979) ecological systems theory. The structure outlines various goals, instructional strategies, and philosophical approaches at each level. This structure most closely
relates to the longstanding line of Person-Environment fit (PE fit) research. PE fit theorists and studies assert that: “people seek out and create environments that allow them to behaviorally manifest their traits (e.g., dominant individuals seek leadership positions); the extent to which people fit their work environments has significant consequences (e.g., satisfaction, performance, stress, productivity, turnover), with better fit associated with better outcomes; and PE fit is a reciprocal and ongoing process whereby people shape their environments and environments shape people” (Su, Murdock, & Rounds, 2015, p. 83)

Holland (1997) was an early proponent of person-environment congruence research and acknowledges that those with certain personality traits will likely perform better and be more satisfied in certain types of work environments. Additionally, PE fit research acknowledges the two-way relationship between a person and his or her work environment. For example, it acknowledges both demands-ability and needs-supplies fit. Demand ability fit refers to the degree of compatibility between personal characteristics and the demands of the environment or job. Needs supplies fit on the other hand refers to the ability of the environment or job to meet the intrinsic needs of the person, such as his or her need for autonomy and support (Caplan, 1987). There are several other PE fit theories that have emanated in the literature including the theory of work and adjustment (Dawis, 2005) and the attraction-selection-attrition (Schneider, 1987) framework that will be explained in chapter II of this dissertation.

The theory of focus for this dissertation is the Person Environment Occupation model (PEO) model proposed Law, Cooper, Strong, Stewart, Rigby and Letz (1996). This model is closely related to PE fit research, and also addresses the three-way relationship between the person, his or her environment(s), and the occupational task demands. Furthermore, the PEO model is represented by a three-way Venn diagram. One circle represents personal attributes,
another represents environmental characteristics, and the third represents occupation-related characteristics. The degree in overlap among these three circles represents “occupational performance.” The goal is to maximize the degree of overlap or compatibility between the three aspects, through continuous assessment and intervention at each level, in order to increase levels of occupational performance.

The PEO recognizes personal variables as life experiences, personal self-concept, self-determination and self-advocacy, personality, cultural backgrounds, competencies, sensory-motor capabilities, interests and values, and unique skill sets. The model notes environmental characteristics to be those such as spatial arrangements and considerations, family dynamics, and organizational culture. Lastly, the occupation is segmented to be analyzed in its smaller parts: the basic activity, sets of activities known as “tasks,” and the occupation as a whole, characterized as a culmination of task demands. Occupational demands may include time commitments, and the pace or rate of the task (Law et al., 1996).

Finally, the PEO model defines occupational performance as the dynamic experience of a person engaged in purposeful activities and tasks within an environment (Law et al., 1996). It requires the ability to balance occupation and views of self and environment that may conflict, and to adapt to changing priorities. Over their lifetimes, individuals are consistently in a state of “renegotiating their view of self and their roles as they ascribe meaning to occupation and the environment around them” (Law et al., 1996, p. 17). According to the model, it is imperative to assess and intervene regarding characteristics of all three levels of the model: the person, their environment, and their present or future functional occupational demands. Based on data gathered through assessment, we can provide more supports in certain areas that maximize fit, therefore positively impacting the likelihood of employment success (Law et al., 1996).
To date, no published research has analyzed how the PEO model can be applied to the transition planning process for students with disabilities. Schmitt, Yarbrough and Hennessey (in press) are among the first to introduce how the PEO model can be applied to the transition process within a problem-solving approach.

When planning for the transition needs of students, a best practice blueprint is to begin with assessment, followed by goal formulation, intervention or service implementation, and continuous progress monitoring. The PEO model can be seen as a guiding principle at each step of this process. For example, in regards to assessment, transition teams should focus on assessing personal variables such as self-determination, relative strengths and weaknesses, self-awareness, self-management, communication skills, functional academic skills, and adaptive skills. At the environmental and occupational levels, teams can conduct task analyses that identify any physical, cultural, or task-demand barriers that may arise in the intended employment setting (Schmitt, Yarbrough & Hennessey, in press). They can also assist, advocate, and make families aware of helpful community or governmental agencies. Transition teams can then use this data to establish appropriate and attainable post-secondary employment goals. Transition teams can then implement planned experiences to facilitate the achievement of these goals. These planned experiences should include functional interventions, differentiated supports, community collaborations, and systematic evaluations that occur at the personal, environmental, and occupational levels.

As one may imagine, all facets of the transition planning process do not look the same for every student (Cameto et al., 2004). The disabilities in children recognized by IDEA are inherently different from one another. Each disability category presents a unique set of behavioral, cognitive, social/emotional, and learning needs that would affect P, E, and O
considerations. Moreover, students with Intellectual Disabilities (ID) demonstrate significant cognitive deficits as well as low adaptive functioning, making it significantly more challenging to obtain competitive employment (Schalock, Luckasson, & Shogren, 2007). Many students with ID are likely to receive vocational training that prepares them to work in settings with few task demands and a high level of support. At the environmental level, research suggests that inclusion in the general education is highly predictive of employment success for students with ID (Baer, Daviso, Flexer, McMahan & Meindl, 2011).

On the other hand, unique aspects to consider for students with an Emotional Disturbance includes higher rates of school drop-out, absenteeism, and lower GPAs when compared to peers. They are also more prone to be arrested and less likely to maintain steady employment (Wood & Cronin, 1999). In regard to post-secondary employment, 57.8% of students with ED had goals related to obtaining competitive employment, whereas only 2.6% had goals related to sheltered employment (Cameto et al., 2004). Unique factors to address in the transition planning of children with ED include social skills training, anger management training, and continued behavioral and counseling supports. Additionally, intervention should focus on promoting school engagement, fostering pro-social relationships, and engaging in high quality work-related experiences (Wagner & Davis, 2006).

Finally, some of the characteristics that may need to be addressed in the transition plans of students with a Specific Learning Disability (SLD) include; organizational needs, career development facilitation, processing of oral and written language, and focusing attention. Furthermore, self-awareness, self-confidence and communication skills should be bolstered in school to promote future career success for students with SLD (Cummings, Maddox & Casey, 2000; Levinson & Ohler, 1998; Michaels, 1997; Shapiro & Lentz, 1991).
Clearly, the PEO model can be used via a problem-solving approach to transition planning; however, it does not appear that IEP teams are taking such an individualized approach. In order to facilitate maximum employment success, teams should analyze unique PEO variables both inherent to a disability and unique to that person, and utilize this information to formulate transition assessment, goals, and interventions. Applying the knowledge and considerations of the PEO model allows transition teams to choose comprehensive assessment batteries and identify evidence-based supports to promote successful work outcomes.

Little research has analyzed how the use of a structured model impacts the decision-making abilities of IEP teams. Of the scant research identified, one study found that a decision-making model aiding in the selection of appropriate accommodations for students with disabilities was helpful and noted that the whole IEP team completed a training on the model prior to the meeting (Edgemon, Jablonski, & Lloyd, 2006). Another study suggested that providing IEP teams with the SETT framework (student, environment, tasks, tools needed) to assist in making assistive technology decisions facilitated collaborative problem solving and team decision-making (Edyburn, 2001).

Research identifies that when IEP teams consist of many individuals with differing knowledge and expertise, variable viewpoints may lead to competing views of “what’s best,” resulting in ineffective team meetings. Ysseldyke, Algozzine, and Mitchell (1982) found that the purpose of the IEP meeting was clarified in only 35% of meetings. Furthermore, these researchers found that the roles of individuals on the team were not clearly defined, the majority of the language was at a level the parents could not understand, and the nature of decisions made in the meetings were unclear. This highlights the need for effective models or frameworks that guide the team decision-making process. Researchers have also found that problem solving
through ambiguity is highly correlated with innovativeness in the classroom. Furthermore, teachers who are presented with ambiguous situations in the classroom and apply problem solving strategies to come to a solution for this problem, are often more innovative and flexible within the classroom setting (Nicotera, Smilwitz & Pearson, 1990).

**Problem Statement**

The research regarding the poor outcomes related to achievement of employment-related transition goals for students with disabilities, coupled with research regarding the PEO model, as well as potential of a using a model or framework to aid in school-based decision making, combines to form the purpose and need for the present study. Accordingly, the purpose of the present study seeks to examine how PEO model training influences teacher ability to critically analyze the personal (P), environmental (E), and occupational (O) characteristics that influence employment success. Furthermore, this study seeks to examine how teachers problem solve through an ambiguous situation regarding a student with a disability who is not succeeding in an employment setting.

This study also seeks to analyze to whether teachers conceptualize P,E, and O characteristics differently depending on whether a student is diagnosed with an Intellectual Disability, Specific Learning Disability, or Emotional Disturbance.

**Research Questions and Hypotheses**

i. Preliminary Research Question: When presented with an ambiguous situation and asked to indicate reasons as to why an employment-related transition scenario had resulted in failure for a student with a disability, do teachers equally consider Personal (P), Environmental (E), and Occupational (O) variables?
a. Hypothesis: When asked to indicate why an employment-related transition scenario resulted in failure, teachers will identify more personal reasons, or within-student factors (cognitive ability, lack of skills) than employment or occupation-related reasons

ii. Research Question 1: Does a video tutorial on the PEO model impact the number of P, E, and O reasons that teachers identify when presented with an ambiguous situation and asked to indicate reasons why an employment-related transition scenario resulted in failure for a student with a disability?

a. Hypothesis: After a video tutorial on the PEO model, teachers will generate more E and O reasons as to why they believe an employment transition scenario resulted in failure. Furthermore, the number of personal reasons may stay relatively the same, however, after the training, teachers will list more environmental and occupational reasons than they had initially.

iii. Research Question II: As an exploratory measure, does disability type influence the number of P, E, and O responses that teachers generate when presented with an ambiguous situation and asked to consider reasons as to why an employment-related transition scenario resulted in failure?

a. Hypothesis: The number of P, E, and O responses generated by teachers will look different based on whether they are subsequently told that a student is either diagnosed with an Intellectual Disability (ID), Emotional Disturbance (ED), or a Specific Learning Disability (SLD)
CHAPTER II

Literature Review

The June, 2018 Economic News release produced by the Bureau of Labor Statistics revealed that in the year 2017, only 18.7% of all persons with disabilities were employed. In contrast, the employment rate for persons without a disability was approximately 65%. This highlights the fact that individuals with disabilities are more likely to be unemployed than their non-disabled counterparts. On the upside, the unemployment rate for both persons with and without a disability has declined from 9.2 to 4.2% from 2016-2017 (Bureau of Labor Statistics, 2018).

The National Longitudinal Transition Study-2 (NLTS-2), funded by the U.S. Department of Education has been one of the largest studies to track the outcomes of youth exiting special education. Beginning in the year 2000, researchers followed a nationally representative sample of youth ages 13-16 years old who were transitioning from school to adult roles over the course of 9 years, to when they were 21-25 years old. Data was collected in five “waves” throughout the study. The final data collection was in 2009. Many articles have published findings from this study with various focuses. Specifically, in 2011, the National Center for Special Education disseminated data from the NLTS-2 and outlined several key points. At six years after High School, 71% of students with disabilities were reported to have a paid job, which was comparable to the rate of students without disabilities. Although gains are being made for the employment of students with disabilities, they are still employed in lower-paying jobs, are less likely to attend post-secondary education and live independently, and make a considerably lower hourly-wage than students without disabilities (Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011)
Although there have been strides towards effective transition practices and employment outcomes for youth with disabilities since the 1980’s, educators, school personnel, and employers should continue to explore innovative transition initiatives and work-related supports that will further increase employment success for youth transitioning from school to work. The following chapter highlights the legal mandates for transition, current transition practices and outcomes, a best practice approach toward transition planning, and then introduces theory and more specifically the Person, Environment, Occupation (PEO) model and its application in effective transition planning. This chapter then explains transition related differences among youth with an Intellectual Disability (ID), Emotional Disturbance (ED), and a Specific Learning Disability (SLD), and offers special considerations within the PEO model for each disability. Finally, this chapter introduces the premise of being provided with a framework, model, or guide as useful in the education-related decision making process.

Legal Mandates for Transition

Prior to the early 1970’s, school districts could refuse to provide services to a student solely based on disability. The Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania, and Mills v. Board of Education of District of Columbia that occurred in the early 1970’s were the first court cases to challenge the states exclusionary practices and began the road to reform for students with disabilities (Wright, 2010).

In 1975, the Education for All Handicapped Students law was enacted that mandated that states provide a full education for students with disabilities from birth to 21 years of age (Wright, 2010). This law was the first to outline the process for determining special education eligibility, designing Individualized Education Programs (IEP) that targeted education as well as behavior, and ensuring the appropriate implementation of these plans. The act established two major rights
for students with disabilities; first being the access to free appropriate public education (FAPE), and second being the placement in the least restrictive environment (LRE; Wright, 2010).

Although gains were being made for the education of students with disabilities, the post-school outcomes for these students around this time were dismal. An analysis conducted by Hasazi, Gordon, and Roe (1985) reported that only 55% of youth with disabilities who exited high school between 1979 and 1985 were employed. Additionally, only 67% of these were full-time positions, and 72% earned less than $5.00 per hour, which was below the national minimum wage at that time. These results, and those similar, may have been seen as a wake-up call for the nations current education system. Beginning around the 1980’s, after the publication of the text “A Nation at Risk: The Imperative for Educational Reform”, major school reform and reconstruction efforts were being implemented. Murphy (1990) has characterized this longstanding educational reform into three waves, each building upon the successes and failures of the previous efforts. The first wave, from roughly 1982-1985 reportedly focused mostly on fixing teachers, curriculum, and accountability. The second wave, from around 1986-1989 focused on efforts made at the individual school and classroom levels by empowering teachers and establishing a redistribution of power. The third wave, from the late 1980’s to early 1990’s focused on more of a “whole school” approach noting the importance of school-community connections, and systemic set of coordinated services that promote student success beyond school (Murphy, 1990).

Around this exact time, many legislations were made to enhance the post-school success for students with disabilities. In 1990, the Education for All Handicapped students was reauthorized and later in 1997, was renamed the Individuals with Disabilities Education Act (IDEA). In this reauthorization, the definition of disability was broadened to include Autism and
Traumatic Brain Injury (The University of Kansas, n.d.). This reauthorization was also the first mention of in-school transition planning for students with disabilities. Congress mandated that as part of the students IEP, an Individual Transition Plan (ITP) must be developed to help the student transition to post-secondary life. Also in 1990, the Americans with Disabilities Act mandated equal access to employment for individuals with disabilities. It also required that workplace modifications be made for individuals with disabilities as well as prohibited the discrimination of individuals with disabilities during the hiring process (Kreig, Stroebel, & Farrell, 2014).

In 1994, the School to Work Opportunity Act required the establishment of relationships between secondary and post-secondary institutions that provide work experience and planned programs of job training for individuals with disabilities. It also required the utilization of workplace mentoring for these individuals (Kreig et al., 2014).

In 1997, IDEA was re-authorized to address the inclusion of special education students in the general education curriculum, which was determined to be the least restrictive environment. It also required the regular education teacher to be on the IEP team and participate in the development, revision, and review of the IEP (APA, 2018). Schools were also now required to include special education students in district and statewide testing, while offering appropriate modifications and/or accommodations during the administration for the tests (APA, 2018).

In 2004, the Individuals with Disabilities Improvement Act (IDEIA) was established to align the IDEA guidelines with the 2002 No Child Left Behind Act. One of the major changes that contributed to the breakdown of the wall between special and general education was the addition of Response to Intervention (RtI) as an alternative means to identify students with
disabilities. In 2002, the No Child Left Behind Act outlined that school districts be required to document the successful outcomes for students with disabilities (Kreig et al., 2014).

Although transition planning for students with disabilities was required prior to 2004, the 2004 reauthorization of IDEA provided enhanced terminology, guidelines, and specifications regarding the transition planning process. Specifically, it states that schools must provide all students with disabilities with coordinated services regarding their transition from secondary education to life beyond (U.S Department of Education, n.d.). It also states that these services must begin no later than the age of 16. At the age of 16 and annually thereafter, a student with a disability must have an IEP that includes a statement of the child’s needed transition services, the anticipated dates of initiation, and the duration for which the plan will be implemented (U.S. Department of Education, n.d.).

IDEA terminology defines transition services as “a coordinated set of activities for a child with a disability” (U.S. Department of Education, n.d.). Furthermore, the law states that these services are “designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post-school activities, including post-secondary education, vocational education, integrated employment (including supported employment), continuing adult education, adult services, independent living, or community participation” (U.S. Department of Education, n.d.). It also notes that the transition planning process must be based on the individual’s needs and take into account his or her strengths, preferences, and interests. Lastly, it mandates that the transition planning process for students with disabilities “includes instruction, related services, community experiences, the development of employment and other post-school
adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation” (U.S Department of Education, n.d., p. 1).

The Individuals with Disabilities Education Act provides various guidelines regarding the formulation and implementation of the transition plan. The transition plan should be developed by the IEP team in collaboration with the student his or herself, the student’s parent, and if possible, employers, college representatives, and student advocates (Kreig et al., 2014). The transition team’s job is to identify the student’s vision for his or her life beyond high school, discuss what the student is capable of doing in both academic and functional areas, identify age-appropriate and measurable goals, establish services designed to build on strengths while identifying needed accommodations, define each transition activity of the IEP, and establish who is responsible for its implementation. They should also teach the student the purpose of the IEP and transition plan, the importance of his or her participation in the IEP, how to put his or her vision for the future into words, how to participate in goal setting, and teach the student self-advocacy skills to obtain the supports needed to meet goals (Kreig et al., 2014).

The IDEA 2004 law also mandates for the “transfer of rights” when the student reaches the “age of majority”, which differs from state to state. At this time, the school must alert the student of new, upcoming responsibilities as well as provide notice to the student that he or she will assume legal control over educational placement, educational records, eligibility, evaluations, and programming, and any mediation or due process needed to resolve disputes (LDA, n.d.).

Lastly, IDEA 2004 mandates a “Summary of Performance (SOP)”. This summary is a document that the school must provide before the student graduates from high school or turns 22 years of age. It summarizes the academic and functional performance levels and transition needs
at the time of exit. The statement must be specific, meaningful, and written for the student to understand. It must include recommendations for how the student can meet his or her post-secondary goals and is reviewed at the student’s final transition planning meeting (LDA, n.d.).

After the transition mandates of IDEA, the Carl D. Perkins Vocational and Applied Technology Education Act and the Carl D. Perkins Career and Technical Education Act of 2006 mandates that students with disabilities be provided assistance with entry into vocational education programs. It also mandated the assessment of individual needs of students and specifies that supplementary services and modifications be provided for students with disabilities. Lastly, it determined that transition plans must include career counseling for students (Kreig et al., 2014). Although the practice of transition planning has come a long way, there is still a ways to go to ensure the successful post-secondary outcomes for young adults with disabilities.

Current Transition Planning Practices and Outcomes

Although the law provides guidelines and provisions regarding transition planning, there is great variation in the way that transition plans are carried out within the schools. In an analysis of 399 transition plans within student IEP’s, researchers found that many plans did not address the mandates set forth by IDEA, and did not incorporate effective practices such as career planning and self-determination (Powers, Gil-Kashiwabara, Geenen, Powers, Balandran, & Palmer, 2005). Furthermore, researchers attempted to summarize points drawn from transition planning literature. Some of these findings include; that many IEP team members did not understand IDEA mandates, less than half of students attend their IEP team meetings, post-secondary transition planning goals were vague, few plans addressed important skills such as self-advocacy and family planning, and plans rarely referenced community agencies and age-
appropriate and integrated services (Shearin, Roessler, & Schriner, 1999). Additionally, in a statewide investigation of 500 students’ Individual Transition Plans (ITP’s) in the state of Louisiana, researchers found that ITP’s were likely to follow IDEA mandates regarding post-school education, vocational training, and employment setting, yet often failed to address transition suggestions set forth by the state. Some of these suggestions set forth by the state are in place to address the whole child, not just one aspect of their post-school lives. Some of the suggestions that were often overlooked when designing ITP’s include; financial needs, community resources, transportation needs, health services, advocacy skills, and legal needs (Everson, Zhang, & Guillory, 2001).

As previously mentioned, IDEA requires that a statement regarding transition needs and services be mentioned in the students’ IEP by the time the child reaches sixteen years of age. The National Longitudinal Transition Study-2 (NLTS2) found that the average age that transition planning begins is 14.4 years of age (Cameto, Levine, & Wagner, 2004). Specifically, three fourths of 14 year-old students with disabilities have transition planning started, and the process is increasingly likely to occur for older students. By the time students are 17 or 18 years old, 96% have had transition planning services. In regards to specific instruction related to transition, approximately 76% of 17-18 year-olds and 48% of 14 year-olds have received this type of specially designed curriculum (Cameto et al., 2004).

Although districts may generally comply with the transition plan components or target areas set forth by IDEA (i.e., independent living, employment, and leisure needs), they often fail to address other post-secondary needs that aid in successful completion of post-school goals. It is also clear that there is a lack of consistency regarding transition-planning services across both districts and states.
Data extracted from the NLTS-2 revealed that about 60% of youth with disabilities obtained paid-employment outside the home up to 8-years after graduation. Furthermore, the majority of youth with disabilities were employed in food service preparation, sales, administrative support, and construction, as opposed to more technical jobs such as computer and mathematical engineering, science, and architecture. Furthermore, 8-years after high school, youth with disabilities were indicated to make a significantly lower average wage ($10.40 per hour) than their non-disabled peers ($11.40 per hour; Sanford et al., 2011). It is evident transition teams need to develop plans that address the whole child and focus on factors that promote successful post-school outcomes, specifically related to employment status.

A Best Practices Approach to Transition Planning

The transition planning process may be perceived as vague and inconsistent by teachers, parents, and students themselves. In order to combat these feelings, it is necessary to establish a clear-cut, best practices approach towards transition planning for youth with disabilities. IDEA terminology states that Individualized Education Plan’s (IEP’s) must include: a) “appropriate measurable postsecondary goals based upon age-appropriate transition assessments related to training, education, employment, and, where appropriate, independent living skills; and b) the transition services (including courses of study) needed to assist the student with a disability in reaching those goals” (U.S Department of Education, 2017, p. 1).

The ultimate goal of transition plans is to produce short-term success in various areas that will strongly predict success in adult roles (King, Baldwin, Curry, & Evans, 2005). These areas should be the goals of the transition plan. Some areas or goals commonly addressed in transition plans include gaining knowledge of the self and a future vision of the self, job-specific skills, perception of support from others, knowledge of the community, and establishing supportive
environments (King et al., 2005). In order to calculate appropriate goals, the transition process should begin with age-appropriate assessment. Based on the results of these assessments, the IEP team can develop achievable, measurable goals, and then design specific transition services and instruction that assists the student in reaching these goals. In theory, the transition process should be a three-step process of assessment, goal formulation, and intervention/service implementation. How the IEP team should carry out each step in this process will be discussed later in this chapter.

This three-step process should be continuous. For example, as a student gets older and learns new skills, his or her goals may change and they may require different levels of support (U.S. Department of Education, 2017). Furthermore, there are several elements within the transition planning process that are considered to be “best practices”. Some of these elements include taking into consideration the students interests, strengths, and preferences; including the family in the transition process; promoting self-determination and self-awareness; knowledge of community resources; and providing the student with real-life vocational experiences. These practices will be discussed further in this chapter within the application of specific theory.

The entire transition process varies greatly depending on the student. Each part of the three-step process will look different depending on the student’s strengths and needs. Furthermore, there are various strengths and limitations inherent with a given IDEA disability type. This is not to say that each student fits the mold of his or her disability, however, having a theory or approach towards transition planning that allows teachers to tailor transition services towards student needs, and having awareness of how the application of this model may look different for students of three different IDEA categories (ID, ED, SLD) may prove helpful.
The list of interventions, practices, supports, and assessments for the transition planning of students with disabilities is exhaustive, however, there lacks a unifying theory or conceptual framework that can be used as an all encompassing guide to the development and implementation of all transition plans. Kohler (1996) highlights the advances in transition practices, yet states “however, to date, no working model links theory with transition practices” (Kohler, 1996, p. iii). As a result, Kohler (1996) attempted to link research to practice by creating the “Taxonomy for Transition”, or a classification system for transition-related practices. This taxonomy presents an inter-connected web of five concepts; student focused planning, interagency collaboration, student development, program structures and attributes, and family involvement. Each area has bulleted points of considerations that should be made at that level. For example, fostering student development includes life skills instruction, accommodations, employment skills, structured work experiences, etc., whereas, program structure involves program policy, resource allocation, and strategic planning efforts. One identified flaw of the taxonomy, is that it does not provide educators with detailed steps for implementation (Kohler, 1996).

King et. al., (2005) identify four philosophical approaches towards transition planning that have emanated from the literature, and integrated them to establish a “multifaceted role engagement” structure. This multifaceted role engagement structure is a direct reflection of Brofenbrenner’s ecological systems theory (Bronfenbrenner, 1979). Brofenbrenner stressed the interdependency of the home, family, and wider community, as essential to healthy development, and denotes that intervention should occur at the person, environment, and person-environment fit levels (Bronfenbrenner, 1977). Multifaceted role engagement outlines the desired short-term
outcomes, strategies, philosophical approaches, and principles at each of these levels of intervention.

At the personal level, short-term transition related outcomes should focus on enhancing knowledge of the self and future, and enhancing skills. Some strategies at this level should include skill instruction and self-awareness. The philosophical approaches at this level include both the skills training (Brolin, 1993), and prevocational/vocational guidance approach’s (Gaylord-Ross, 1989). These approaches address the importance of directly providing students with job-related/vocational skills and experiences and teaching skills necessary for independence in the workplace (i.e., social skills, emotional regulation, communication skills).

At the environmental level, short-term outcomes should focus on developing more supportive environments. Some strategies at this level include implementing community interventions that facilitate system level changes. A philosophical approach towards transition planning that falls in this realm is the “Ecological/Experimental Approach”, which asserts the importance of modifying employment settings to fit youths needs (Lehman, Clark, Bullis, Rinkin, & Castellanos, 2002). Finally, within the person-environment fit realm, short-term goals should focus on enhancing perceptions of support and knowledge of community (King et al., 2005). Strategies at this level should include emotional support, community knowledge, and direct experience. Finally, the philosophical approach at this level includes the client centered approach (Brollier, Shephard, Markley, 1994). This approach asserts “taking a holistic lifespan view of social, productivity/occupational, and leisure/recreational needs that considers contextual factors, such as the family and community” (King et al., p. 207).

The multifaceted role engagement model highlights the importance of community knowledge, direct experiences and skill acquisition, and community/systems level interventions
as essential to successful transition outcomes. This model most closely relates to the person-environment fit research, which is a broad area of research within the occupational therapy and organizational psychology fields.

**Person-Environment Fit**

The idea that attitudes, behavior, and other individual outcomes are the result of not solely the person or the environment, but the relationship between the two have been classified as “PE fit” models and studies. PE fit theories acknowledge the following assumptions: “people seek out and create environments that allow them to behaviorally manifest their traits (e.g., dominant individuals seek leadership positions); the extent to which people fit their work environments has significant consequences (e.g., satisfaction, performance, stress, productivity, turnover), with better fit associated with better outcomes; and PE fit is a reciprocal and ongoing process whereby people shape their environments and environments shape people” (Su, Murdock, & Rounds, 2015, p. 83).

Caplan (1987) credits French, Rojers, and Cobb (1974) with pioneering the PE fit theory. Although the term PE fit was not introduced until the mid 1970’s, the theory stems from an interactionist theory of behavior that can be dated back to the early 1960’s. Researchers such as Pervin (1967) assumed early on that environments correspond to characteristics of an individual’s personality, and that this correspondence results in higher performance, higher satisfaction, and less stress, directly relating to PE fit theory. Perhaps one of the post prominent researcher’s regarding person-environment congruence and it’s impact on career and vocational choice is Holland. A review of Holland’s theories are presented below.

**Holland’s Theory.** Studies of person-environment congruence focus on the correspondence between individual needs, wishes, and preferences, and the gratification they
receive from a particular vocational environment. Holland (1997) defines congruence as the compatibility between an individual’s characteristics and the type or field of work they engage in.

Congruence studies often match individual personality types and preferences with long-term career predictions. Holland’s (1959) original theory of vocational choice helped shape current career counseling and career choice practices. His theory asserts that individuals are the product of their physical environment, culture, social class, and interactions among peers, parents, and other significant individuals in the person’s life. Furthermore, he classified occupational environments into six different categories: Motoric (laborers or farmers), Intellectual (biologists and chemists), Supportive (social workers and therapists), Conforming (bank tellers and secretaries), Persuasive (salesmen and politicians), and Esthetic (musicians and artists; Holland, 1959).

He further studied the personalities of individuals in each of these occupational environments. He found that those in the motoric environment preferred activities requiring physical strength, concrete problems, and little interpersonal interaction. Those in an intellectual setting were task oriented, and analytical. Those with a supportive orientation may desire attention and socialization, are responsible, and rely on feeling and interpersonal interactions. Those with the conforming orientation prefer verbal, numerical activities, and acceptance of cultural norms and conformity. Those with a persuasive occupation generally have exceptional verbal skills, and a sense of dominancy and strong leadership. Finally, those with the esthetic occupation enjoy self-expression through artistic means and possess a lack of sociability (Holland, 1959).
Holland’s most recent (1997) theory of vocational personalities and environments asserts that the greater the congruence between an individual’s personality and his or her work environment, the greater degree of satisfaction. Furthermore, he relates satisfaction to both job and academic satisfaction, positive supervisory evaluations, productivity, and overall well-being (as cited in Ding, Salyers, Kozelka, & Laux, 2015). Spokane and Holland (1995) assert six major personality types; Realistic, Investigative, Artistic, Social, Enterprising, and Conventional, known as RIASEC, that strongly predict vocational-personality congruence. Holland developed the Self-Directed Search- Revised (SDS-R), to help individuals match his or her personality, tools, and talents, with a career that will lead to satisfaction (Spokane & Holland, 1995).

It is easy to see how Holland’s theory and tools can be used within the school system to help students explore career options that students may be a “match” with. Students with disabilities present with a unique set of personality traits, and physical, intellectual, and behavioral strengths and limitations that make obtaining satisfying post-secondary employment quite challenging. It is important to recognize Holland’s theory as well as later person-environment fit theories and their potential importance when planning for the post-secondary employment of students with disabilities.

**PE Fit Theories.** Holland’s early work helped set the stage for an extensive amount of PE fit research. Pioneers of the term, “PE Fit” note several essential properties. The first property is the need to assess a person and his or her environment along commensurate dimensions to allow one to determine “goodness of fit” as a discrepancy between the two. A second property of PE fit theory is the importance of distinguishing between objective and subjective measures of “fit”. Subjective measures of fit are those perceived by the individual. For example, somebody who feels supported and thinks they are doing well in their position may feel a high degree of fit.
between their personality and work environment. Objective fit, on the other hand, is free of human bias and includes facts about the person and the environment that may be predictive of fit, regardless of “feeling” like it’s a good fit. Measuring the discrepancy between objective and subjective ratings of fit allows one to determine the accuracy of their perceptions of fit (French, Rojers & Cobb, 1974). A third property of PE fit is “the distinction between fit defined in terms of abilities-environmental demands and needs- environmental supplies” (Caplan, 1987, p. 249), which is described below.

The terms Needs-Supplies (NS), and Demands-Abilities Fit (DA) are prominent within the PE fit literature. Furthermore, NS refers to the degree of fit between an individuals’ need for autonomy, control, nurturance, and social support, and the environments ability to meet these needs (Caplan, 1987). Muchinsky and Monahan (1987) describe this notion as “supplementary” fit, which refers to the degree of similarity between an individual and their organizational environment.

On the other hand, DA refers to the match between a persons abilities, whether it be motoric, verbal, analytical, social skills, etc. and the demands of the organizational environment (Caplan, 1987). Muchinsky and Monahan (1987) describe this notion as “complimentary” fit, referring to the degree to which an individual’s personality compliments or “makes whole” the organizational environment. For example, the individual carries a set of attributes that help ameliorate the flaws or needs of the environment. Chuang, Shen, and Judge (1989), refer to this notion as “person-job fit”, asserting that an individuals KSAO’s (Knowledge, Skill, Ability, and Other characteristics) will strongly predict their success in a given job.

There are many models, frameworks, and components of PE fit that are explained in the literature proposed by various theorists and researchers. This paper will highlight some of the
more noted PE fit principles. The first is the Theory of Work and Adjustment (TWA; Dawis, 2005). The TWA focuses on the individual’s adjustment to the expectations and rewards of their occupation. In this sense, the occupational environment and the individual have joint expectations from each other that affect the length of employment and job satisfaction. For example, the employer expects that the employee has certain abilities, and the employee expects the occupation to supply a set of rewards that reflects their work values. High correspondence and positive work experiences arise when the employee is highly qualified and the job meets or exceeds the needs of the employee. Additionally, TWA asserts that individuals have four “adjustment” styles: flexibility, activeness, reactiveness, and perseverance. The degree to which the adjustment style matches the occupational environment moderates the level of job satisfaction (Dawis, 2005; Su et al., 2015).

Another PE fit framework is the attraction-selection-attrition framework (Schneider, 1987). According to this framework, forces within an organization operate to attract, select, and retain an increasingly homogenous group of employees who share common backgrounds, characteristics, and orientations (Bretz, Ash, & Dreher, 1989). Similar to other P-E fit theories, Schneider (1987) argues that people are attracted to organizations that help them fulfill their aspirations. For instance, similar people are attracted to similar professions, and among them, those who demonstrate the highest competency will be selected by organizations (Bretz, Ash, & Dreher, 1989).

Another model is that of person-organization fit (Chatman, 1989). This model asserts that an individual’s values are the most important factor in determining P-E fit. Under this model, P-E fit is described as the “congruence between personal values of an organizations member and the norms and values of that organization” (Murdock & Rounds, 2015, p. 84). The values of the
organization refer to the shared values of those in the occupational environment. Chatman (1989) argued that the organization can influence or change an individual’s personal values to better align with those of the organization as a means to increase person-organization (P-O) fit (Chatman, 1989). The perception of a higher degree of fit can link to positive career outcomes, including increased tenure, satisfaction, commitment, extra-role behaviors, and feelings of comfort and competence. Although P-E fit is important, “extremely high levels of fit could lead to ineffective individual and organizational behaviors such as conformity, inertia, and reduced innovation and adaptability” (Su et al., 2015, pp. 84-85).

The research regarding PE fit and person-environment congruence has been longstanding, yet there is ways to go, as not everybody who “matches” with a specific job is satisfied in said position or has the capabilities to perform that occupation. Furthermore, PE fit addresses compatibility between personality and occupational environment, but does not entirely address how the demands of the occupation, the physical and cultural aspects of the work environment, and individual characteristics can affect each other. Furthermore, it does not address how changes or interventions can be made at each level to maximize “fit”. The Person-Environment-Occupation model, noted by Law, Cooper, Strong, Stewart, Rigby and Letz (1996) takes PE fit a step further and addresses how the person, environment, and occupation are dynamic factors and work interchangeably to impact job performance.

**The Person Environment Occupation Model**

The Person-Environment-Occupational (PEO) model, asserts that occupational performance is characterized by the “dynamic, interwoven relationship that exists among people, their occupations and roles, and the environments in which they live, work, and play” (Law et al., 1996, p. 10). This body of research expands PE fit, and suggests an approach in which
behavior cannot be separated from its contextual influences. In this sense, disability, and its severity is the result of an environmental mismatch. Additionally, PEO focuses on the clinical application of person-environment congruence, and asserts that the individual and the occupational environment are ever changing and impacting each other.

The occupational therapy field focuses on how the environment can impact behavior and therefore be used as a treatment modality. Specifically, the occupational environment in which a person operates can influence performance in self-care, productivity, and leisure tasks. Law et al., (1996) offers an extension of the P-E fit model by applying the model to individuals with special, unique, or individualized needs, and noting occupational performance in a variety of settings (work, school, independent living, utilizing transportation, etc.) as a measure of success.

The PEO model asserts that the degree to which “person characteristics” of an individual fit with environmental characteristics and the functional demands of the occupation, affect the degree of occupational performance (Law et al., 1996). The model is best explained through a three-circle Venn diagram including the person, environment, and occupation. The point of overlap among the three circles is considered “occupational performance.” The greater the overlap among the three circles, the greater the occupational performance. In this sense, assessment and intervention should be provided at all three levels in order to maximize occupational performance (Law et al., 1996).

In the PEO model, the person is defined as “a unique being who assumes a variety of roles simultaneously” (Law et al., 1996, p. 15). The person brings to the table attributes such as life experiences, self-concept, personality, cultural backgrounds, personal competencies, sensory-motor capabilities, interests, values, expectations, problem solving skills, mental status, organizational skills, and cognitive aptitudes (Law et al., 1996; Strong Rigby, Stewart, Law,
Lettis, & Cooper, 1999; Lawton & Nahemow, 1973). Through the PEO model, it is assumed that the person is dynamic, motivated and ever developing. Furthermore, it is assumed that individual qualities influence the way in which the person interacts with the environment and carries out his/her occupational performance (Law et al., 1996). There are many interventions that can be implemented to help bolster personal qualities. This may include increasing levels of self-determination to change or modify various individual characteristics such as personality, cultural values, personal goals, and more (Strong et al., 1999). This may also include increasing individuals skills related to the occupation.

The environment is broadly defined to include cultural, socio-economic, institutional, physical, and social considerations. It is assumed that the environment is ever changing and can have an enabling or constraining effect on the person and his or her occupation (Law et al., 1996). The PEO model assumes that the environment takes place in the context within which the occupational performance of the person takes place, whether at work, at home, or at school. Some environmental considerations include family dynamics, classroom organization, spatial considerations, accessibility, organizational culture, and peer relations (Strong et al., 1999). Intervention may focus on addressing safety issues, levels of family support, relationships with peers, modification of teacher/supervisor expectations, or physical environmental alterations (Strong et al., 1999).

Lastly, the occupation, task, and activity are seen as synonymous variables. The activity is the basic unit of the task, or single pursuit in an occupational experience. The task is defined as a set of purposeful activities within the occupational role, such as a chef cooking a meal (Law et al., 1996). Lastly, the occupation is defined as “groups of self-directed functional tasks and activities in which an individual engages in over a lifespan” (Law et al., 1996, p. 16).
Specifically, a person engages in an occupation to meet his or her intrinsic needs of self-maintenance, expression, and fulfillment (Law et al., 1996). Examples of some occupational demands may include time commitments, pace of task, opportunity, writing requirements, homework demands, or extracurricular activities (Strong et al., 1999). Within the occupational realm, there must be a match between the individual’s abilities and those required by the occupational task. Additionally, the individual should enjoy the task, and their need for autonomy should be taken into consideration (Strong et al., 1999).

Finally, Law et al., defines Occupational performance as the dynamic experience of a person engaged in purposeful activities and tasks within an environment (Law et al., 1996). It requires the ability to balance occupation and views of self and environment that may conflict, and to adapt to changing priorities. Over his or her lifetime, an individual is constantly “renegotiating his or her view of self and roles as they ascribe meaning to occupation and the environment around them” (Law et al., 1996, p. 17).

The PEO model can be readily integrated into practice in a series of a few steps. First, one needs to recognize an occupational performance issue either identified by an employer, employee (client), or even a therapist (Strong et al., 1999). Then, the therapist and individual should collaboratively examine the problem by assessing the environmental conditions, occupational elements (activity, task, time, sequencing), and aspects of the client himself or herself that relate to performance of the occupation in that environment, such as disability characteristics, personality, etc. (Strong et al., 1999). Finally, with the client, a plan is developed that identifies strategies to remove barriers and increase supports that create a stronger person-environment-occupation “fit.” This includes delivering a range of necessary interventions at each level (Strong et al., 1999). Some general interventions include clarifying job expectations,
negotiating a routine, negotiating elements of control and autonomy, educating job supervisors on disabilities, individual counseling, introducing problem-solving skill strategies, educating school staff, and recommending specific environmental modifications such as physical placement of materials (Strong et al., 1999).

There are many different cases in which this model can and has been applied. It is easy to see how this model can be readily implemented in the transition planning efforts for students with disabilities, however, to date, there is no research regarding its application here. The following presents a rationale for the implementation of the PEO model into the post-secondary employment transition planning process for students in special education.

**Connecting Theory and Best Practice**

As previously mentioned, a statement regarding transition must be present within the students IEP by the time they are 16 years old, however it is more likely that this process begins around 14 years of age. Also, as previously mentioned, best practices in transition planning should be a continuous three step process of assessment, goal formulation, and intervention.

Consistent with the PEO model, assessment should focus on assessing the performance components, strengths, and weaknesses of the person. It should also include assessing the nature of occupations and the tasks they include. Finally, it is important to assess both the future employment setting, and the student’s familial/contextual environment. This information should be used to develop goals and an intervention plan for the student, that maximizes PEO overlap, with the outcome variable being the students’ occupational performance (Baptiste, 2017).

Sitlington and Clark (2007) suggest that transition assessments answer three questions: 1) Where is the student presently? 2) Where is he or she going? and 3) How does the student get there? Schmitt, Yarbrough, and Hennessey (in press) introduce the topic of applying the PEO
model to the transition planning process within a problem-solving framework. At the student or personal level, researchers recommend assessing the students’ cognitive abilities, problem-solving skills, language acquisition, sensory, motor, and academic achievement skills. It is also imperative to assess social-emotional, personality, and behavioral functioning characteristics, as these elements can suggest or deter from a certain occupation.

In addition, information regarding the students’ interests, preferences, beliefs, degree of self-determination, motivations, and values should be gathered (Schmitt, Yarbrough, & Hennessey, in press). This information should be gathered through both formal and informal assessments. Some formal assessments used to identify career paths and interests include the Armed Services Vocational Aptitude Battery, the Kuder Career Planning System, the Self-Directed Search, and the Brigance system (Mazzotti et al., 2009). Some formal assessments used to assess self determination levels include the Arcs Self Determination Scale, the AIR Self Determination Scale, and the Self Determination Assessment Battery. Some of the more informal assessments at this stage may include a “student dream sheet”, or a “learning style inventory” (Thorma & Tamara, 2013).

At the environmental level, the transition team should not only take into consideration the type of government assistance programs that the student qualifies for, but should also gather information regarding the students’ socio-economic status, living situation, and peer relationships. Additionally, the potential workplace environment should be considered to identify any physical or cultural barriers that may present (Schmitt, Yarbrough & Hennessey, in press). It may be worthwhile to interview potential supervisors and staff to gauge the workplace culture and attitudes to see if it matches with the student. It is also important to analyze variables such as access to transportation, flexibility of the work environment, and family values and attitudes to
ensure that a potential job will be possible. This information will help the team to decide which type of occupations the student will be able to hold. It is also important to gauge the students’ awareness of their environment and supports that surround them to assess whether or not they need training or intervention surrounding this information.

At the occupational level, it is important to analyze the students’ ability to perform various job-related skills. Furthermore, the tasks, and specific activities of the occupation should be individually analyzed to determine whether or not the student can perform the occupation (Schmitt, Yarbrough, & Hennessey, in press). One way to measure the students’ ability to perform vocational or independent-living skills is through adaptive assessments such as the Vineland or ABAS (Mazzotti et al., 2009). These measures provide insight into the students’ physical and cognitive ability to perform various activities of daily living that may be required on the job site. Additionally, the students potential “match” with a certain occupation can be predicted by utilizing assessments such as Holland’s (1995) afore mentioned Self-Directed Search.

Once the IEP team has successfully assessed and explored the PEO aspects of the student that affect post-school employment, it is imperative to establish realistic, attainable transition-related goals that apply to employment. Mazzotti et al., 2009 recommends considering three goals when writing post-secondary goals: 1) Where is the student going to work or engage in activities after graduation? 2) Where and how is the student going to continue to learn and/or develop skills after graduation? And 3) Where is the student going to live and how is he or she going to access adult services, participate in the community, and have fun after graduation? The focus of this dissertation is on the first question regarding post-school employment. Based on assessment information, the team should review whether the student is a good candidate for a
competitive, sheltered, or supported work environment. A supported environment means that the individual works in the competitive work environment alongside a job coach in a setting consistent with the student’s strengths. A sheltered environment refers to work-center environments that employ individuals with disabilities and are certified under special provisions of federal minimum wage laws by the U.S Department of Labor’s Wage and Hour Division (Mazzotti et al., 2009). An example of a measurable post-secondary goal related to employment would be: “After graduation from the local community college, Jamerreo will obtain a small business license and contract out his services as a welder in his uncle’s shop” (Mazzotti et al., 2009, pp. 49).

Lastly, upon establishing post-secondary goals, these goals should be aligned with the students IEP goals, which should address the skills and knowledge the student must obtain to achieve these post-secondary goals. An example of a transition-related IEP goal is “Jamerreo will demonstrate appropriate safety skills in shop class with 100% accuracy”.

**Intervention and Support.** In order to achieve post-secondary transition goals, interventions and supports should be implemented in school, and continue to post-school settings. These interventions should focus on maximizing PEO fit in order to maximize occupational performance.

At the student level, supports should focus on maximizing vocational skills and increasing self-determination. Interventions used to promote self-determination (NEXT S.T.E.P and Self-Determined Learning Model of Instruction), have been shown to increase self-determination in students with varying disabilities as evidenced by increases on the AIR Self-Determination Scale (Wehmeyer, Palmer, Shogren, Williams-Diehm & Soukup, 2013). Many research articles exist that attempt to disseminate evidence based transition practices or
interventions. For example, Test et al., (2009) found that instruction in life skills education and purchasing skills yielded a strong level of evidence base. Researchers also found that instruction in job application processes, functional academics, safety skills, self-advocacy, self-management, social skills, and employment skills via community-based instruction yielded moderate levels of evidence base. They also found that practices such as educating families about transition, providing community based instruction, and extending services beyond high school yielded moderate levels of evidence.

In a separate analysis, Test et al., (2009) conducted a study that examined the ability of various in-school transition practices to predict successful employment outcomes for students with disabilities. They found that participation in works study programs, vocational education training, academic skills, social skills training, integration in the general education classroom, job experience in high school, and parent participation yielded moderate levels of support in successfully predicting employment related outcomes. Cobb and Alwell (2009) found that intervention components such as instruction in career planning, person-centered practices, self-directed instruction, social interactions, mediation, career exploration, career assessment instruction, and work awareness instruction lead to significant employment-related outcomes and skill acquisition such as social competence and student participation. Additionally, supports such as assistive communication devices and handheld prompting systems have the potential to eliminate some of the environmental barriers that may present in the future work setting (Kagahora et al., 2010; Cihak, Kessler & Alberto, 2008; Browder & Cooper-Duffy, 2003)

Student-focused planning is one approach towards transition planning that has been gaining awareness in research. These types of interventions focus on promoting self-determination, choice, and self-advocacy. Algozzine, Browder, Karvonen, Test, & Wood (2001)
found that interventions supporting skills related to goal setting, self-esteem, choice making, personal future planning, problem-solving, and personal advocacy were related to the degree to which students took control over decisions at home and school.

Another support service that can be utilized to help youth with disabilities successfully integrate into the employment setting is the use of a job coach. A job coach can be hired both in high school while the student is beginning the employment process, and can stay with the student while they eventually begin employment. A job coach is an individual who is employed to help people with disabilities learn, accommodate, and perform their work duties, with the main goal being workplace independence (The Children’s Hospital of Philadelphia, 2016).

As part of the WI Let’s Go to Work project, Molfenter and Huff (2017) offer several tips for job coaches that promote the smooth transition to employment for students with disabilities. Teachers and IEP team members can also utilize these steps when planning for the employment of youth with disabilities. First, they recommend information such as the employee handbook be exchanged with the employer before the first day of work. In return, the employer should be provided with information regarding the students’ communication style, levels of performance, and emergency contact info (Molfenter & Huff, 1997).

Next, the job coach/educator and student with disability should conduct an analysis to lay the groundwork for success. This includes a worksite analysis where potential barriers to success are reviewed (wheelchair accessibility, distracting elements, etc.), and a job/task analysis (adaptations to consider in the work routine, assessing the order of task completion, task analysis checklists, job duty notebook, etc.). This step relates directly to the PEO model as it asserts the importance of analyzing the compatibility between the person and the environmental and task demands. Next, the job coach or educator should implement systematic instruction to teach
multiple job-related tasks prior to employment. Again, these skills enhance the fit between personal qualities and demands of the occupation and environment to attempt to maximize occupational performance. Once the individual is able to perform job-specific duties, job coaches/educators should help the individual to engage in natural workplace communication. Finally, the job coach/educator should take a step back and let the individual integrate into the workplace setting (Molfenter & Huff, 1997).

All of the afore mentioned interventions and supports should be utilized to maximize the PEO fit. Furthermore, it is imperative to assess personal qualities and skills of the individual with a disability, environmental considerations and barriers, both physical and cultural, and specific occupational task demands. This enables the transition team to identify post-secondary goals and jobs that are realistic and match the strengths and needs of the student, and then implement interventions that maximize the fit or overlap between each variable. Transition planning does not look the same for each student. Each student presents with unique strengths and limitations. Furthermore, P, E, and O variables do not look the same for a student with an Emotional Disturbance (ED), Specific Learning Disability (SLD), and Intellectual Disability (ID). Based upon the available data, the following outlines unique P, E, and O considerations that the transition team should take into account for each of these special education eligibility types.

**Special Considerations**

The NLTS2 reports that transition goals, participants needed in the planning process, and transition needs differ markedly across disability categories (Cameto et al., 2004). Many students with disabilities share similar goals for the future; however, there is large gaps exist when taking disability category into account. For example, about half of students with disabilities plan to attend college; however, only 10% of students with an intellectual disability
have this goal, while about 70% of students with a visual impairment plan to attend college (Cameto et al., 2004). Another example is that fewer than 10% of students with disabilities have a transition goal related to obtaining supported or sheltered employment, yet around 40% of students with Autism have this goal. In addition to modifying goals to suit a disability, it is also important to consider different services needed for different disabilities (Cameto et al., 2004).

The following presents a more in-depth review of personal, environmental, and occupational factors to consider when designing and implementing transition plans for students diagnosed with an ED, ID, and SLD.

**Emotional Disturbance.** The Individuals with Disabilities Education Act of 2004 (IDEA) defines an Emotional Disturbance as:

> “A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: A) an inability to learn that cannot be explained by intellectual, sensory, or health factors. B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. C) Inappropriate types of behavior or feelings under normal circumstances. D) A general pervasive mood of unhappiness or depression. E) A tendency to develop physical symptoms or fears associated with personal or school problems” (U.S Department of Education, n.d., p. 1).

Wood and Cronin (1999) analyzed the post-school outcomes for youth classified under IDEA with an Emotional or Behavioral Disorder (EBD). They analyzed a total of 22 studies, including the National Longitudinal Transition Study (NLTS), and NLTS-Related research. An analysis of this literature found that youth with EBD demonstrated the highest drop-out rates, absenteeism, and lower GPA’s in comparison to peers. Additionally, they were found more likely to be
arrested and less likely to obtain and keep a job than the general population. They demonstrated poorer social skills and integration skills, as well as a need for continued transition planning after high school.

Several studies have attempted to link various in-school factors to the successful and/or unsuccessful post-school outcomes for youth with emotional disorders. For example, the need for continued vocational training and work related experiences in school is widely cited for youth with EBD (Frank & Stingllington, 1997; Kohler, 1994). Additionally, the successful completion of school, the need for individualized social skills training as well as the need for interagency collaboration and parent involvement, is crucial when planning for the adjustment to adulthood for youth with EBD (Oswald & Coutinho 1996; Wood & Cronin, 1999).

The NLTS2 reported that of students with an Emotional Disturbance (ED), 44.2% had a transition goal related to post-secondary education, while 44.2% had a goal related to attending a vocational training program (Cameto et al., 2004). Furthermore, 57.8% of students had goals related to obtaining competitive employment, and only 2.6% had goals related to sheltered employment. Additionally, 72.8% of transition-age students with ED have an IEP that specifies a course of study to meet transition goals, and 64.7% have received specific instruction focusing on transition planning. The most common cited “needs after high school” for ED students was post-secondary education accommodations, vocational training, and behavioral interventions. The NLTS2 also identified that students with an ED are very likely to have transition plans that specify behavioral interventions and mental health related services when compared to students with other disabilities (Cameto et al., 2004).

Wagner and Davis (2006) identify five principles of best practices when preparing for the successful transition to adulthood for students with ED. These principles include creating and
maintaining meaningful relationships for students with EBD, promoting school engagement to prevent drop out, creating a relevant and rigorous curriculum, including the student and family in transition planning efforts, and addressing the needs of the whole child. This last principle relates to the PEO model as it addresses the need to identify individual and environmental factors that present barriers to education. Some of the identified environmental barriers include risk factors such as poverty, substance abuse, crime, and pregnancy. In the person realm, it is recommended that youth with EBD receive coping skills, social skills and conflict-resolution education in order to increase pro-social behavior to maximize PEO fit.

**Intellectual Disability.** Individuals with Intellectual Disabilities (ID) are characterized by significant limitations in both cognitive functioning and adaptive behavior. Specifically, an individual with ID must have an IQ below 70 as well as demonstrate limitations in conceptual, practical, and/or social adaptive skills (Schalock, Luckasson, & Shogren, 2007). The cognitive impairments associated with ID make it increasingly difficult for these individuals to obtain competitive employment. Grigal, Hart, and Migliore (2011) completed a secondary analysis of the NLTS2 to compare the transition planning process, post-secondary education, and employment outcomes of youth with ID and other disabilities. They found that the most frequently reported goal for students with ID related to independent living (50%), followed by competitive employment (46%), supported employment (45%), sheltered employment (33%), postsecondary vocational training (25%), and two- or four-year college (11%) (Grigal et al., 2011).

Browder and Cooper-Duffy (2003) offer several evidence-based practices regarding transition planning for students with severe disabilities. Most of these interventions relate to strengthening person characteristics. They note that planning for students with severe disabilities
should include curriculum related to functional skill training in major life domains (e.g., vocation, leisure, home, community) as well as focus on teaching embedded skills such as communication, choice making, functional academics, and motor skills. Functional reading skills should include sight word instruction that is applicable to real life and employment related settings. Functional math skills should focus on practical skills such as budgeting, banking, counting money, and telling time (Browder & Cooper-Duffy, 2003). Some other evidence-based instructional strategies for students with ID include; identifying target responses, promoting skill acquisition through systematic prompting and fading, enhancing generalization, incorporating the use of assistive technology as needed, functional communication training, general case instruction, and real-time job simulation in the classroom (Browder & Cooper-Duffy, 2003; Horner, McDonnell & Bellamy, 1986).

Within the environmental realm, Grigal et al. (2011) found that significantly more contacts had to be made to external vocational rehabilitation agencies for students with intellectual disabilities. Also, some of the identified barriers to post-secondary employment success for students with ID include communication difficulties with supervisors, inability to engage in response-shifting and sustained attention, and interfering behavioral challenges (Hendricks & Wehman, 2009). Additionally, slower rate of learning, impaired memory, impaired motor abilities, and reluctance to change pace and role are all work place challenges experienced by individuals with intellectual disabilities (Lysaght, Ouellette-Kuntz & Lin, 2010). Lysaght et al. (2011), recommend that social attitude changes towards people with intellectual disabilities can prove viable in breaking down some of the employment related barriers that people with ID in the workforce face.
Within the PEO realm, personal characteristics such as low IQ and retention rates, extenuating behavioral difficulties, and low adaptive functioning are all unique variables that should be addressed. Occupational variables such as difficulty of task, and environmental factors such as contacts with special agencies, workplace and supervisor attitudes towards “disability”, and communication with family should all be taken into consideration.

**Specific Learning Disability.** Students with a Specific Learning Disability (SLD) account for approximately 29% of all students receiving special education services, which is more than any other disability category (Janiga & Costenbader, 2002). IDEA (2004) defines an SLD as

“A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematic calculations” (GreatSchools Staff, 2017).

Cameto et al. (2004) report that 57.1% of students with a SLD have a goal related to obtaining competitive employment and only .9% have a goal related to sheltered employment. Furthermore, far more students with a SLD have a goal related to post-secondary education (54.3%) as compared to students with an ID (9.9%).

Marked characteristics of students with learning disabilities include: poor organizational skills, difficulty focusing attention, deficits in processing oral and written language, low self-esteem, and poor social skills (Levinson & Ohler, 1998; Michaels, 1997; Shapiro & Lentz, 1991). Additionally, students with a SLD are more likely than typical peers to drop-out of school. As adults, individuals with SLD are identified as having higher unemployment rates and experience lower wages than adults without disabilities (Collet-Klingenberg, 1998). Research
has noted that many transition plans for students with a SLD are inadequate as they a) “often focus on the employment needs of students with more severe cognitive and physical disabilities” (Cummings, Maddox, & Casey, 2000, p. 60). Another cited issue with transition plans for students with SLD is the over-emphasis on academic needs and failure to address other areas of adult functioning (communication, interpersonal skills, community participation, etc.; Blalock & Patton, 1996). Also, transition plans for students with a SLD tend to include little to no contact with outside supporting agencies (Cummings et al., 2000).

Students with a SLD have been shown to demonstrate slower “career maturity”, meaning that they often fail to advocate for themselves, do not understand how personal characteristics relate to career choice, demonstrate low self-esteem, experience identity problems, and carry a perception of “learned helplessness”- an expectation of failure regardless of effort (Cummings et al., 2000). Within the “person realm”, secondary transition efforts for students with learning disabilities should focus on increasing levels of self-determination. This includes working with a student to explore his or her personal strengths and weaknesses, fostering autonomy, increasing problem solving skills, engaging in goal-directed behavior, and fostering positive communication (Field, Sarver & Shaw, 2003). Additionally, secondary transition efforts for students with learning disabilities should include educating students regarding their rights and the law, specifically of the Americans with Disabilities Act (ADA), as many are unaware. They should also learn important self-advocacy skills, especially regarding disclosure of disability and need for accommodations in the workplace (Field et al., 2003).

Teachers and IEP teams should be aware of the unique P, E, and O variables that affect the transition planning process and outcomes for students of all disabilities. It is unknown the extent to which IEP teams truly tailor and customize transition plans to each students’ unique
needs. Perhaps if teachers were given a diagram of the PEO model, they would be better equipped to make team-decisions regarding the transition goals and services for students.

**Teachers Ability to Influence Successful Transition**

With knowledge of the PEO model and information regarding unique needs inherent with disability categories, it may seem easy to tailor transition plans to individual strengths and needs. This is not often the case as there are several challenges facing secondary transition practices. For example, research states that many states fail to achieve minimal levels of IDEA transition compliance. Additionally, students and their families are failing to be included in the decision making process, students are not receiving vocational options included in the general education curriculum, and schools are not setting students up with the advocacy skills and outside support services necessary to obtain successful employment.

IEP teams, and specifically teachers who are up to date on current transition practices have the ability to de-rail dismal post-school outcomes for students with disabilities. Often, transition teams may choose transition assessments, goals, and interventions from a “bank” rather than individualizing the process. Providing teachers with a best-practice blueprint towards conceptualizing transition planning may prove viable in aiding teachers to tailor transition plans to the child’s strengths and needs, and address the “whole child”, rather than placing students into “boxes of best fit”.

Several models and frameworks exist that attempt to aid educators in the problem-solving process towards developing the best course of action in addressing student needs. For example, Edyburn (2001) compiled a list of various models, frameworks, and theories used to understand special education technology. One of these models is the SETT framework, in which the IEP team asks themselves a set of questions regarding the Student, their Environment, the Tasks they
perform, and the Tools needed. This model has shown efficacy in collaborative problem solving and team decision-making regarding the use of assistive technology. Furthermore, Edgemon, Jablonski, and Lloyd (2006) present a model for teachers to assist in deciding which type of accommodations are necessary for a student. The authors of the model outline several accommodations and a series of questions for planning teams to ask themselves regarding the appropriateness of the accommodation. These researchers recommend that the whole IEP team undergo training on this decision-making model in order to select the most appropriate services for students (Edgemon et al., 2006).

When all members of the IEP team collaborate, there are many opinions which can make it challenging to make decisions that are best for the child. In their research, Ysseldyke, Algozzine, and Mitchell (1982) found that the purpose of the IEP meeting was clarified in only 35% of meetings. Furthermore, they found that the roles of individuals on the team were not clearly defined, the majority of the language was at a level the parents could not understand, and the nature of decisions made in the meetings were unclear. This highlights the need for effective models, frameworks or guides that facilitate team decision-making.

Research is scant regarding how the use of a framework can impact the efficiency of IEP team meetings, specifically within the realm of transition planning. Additionally, it is unclear to the extent to which educations take into consideration all of the different P, E, and O characteristics of each student. Furthermore, it is unclear if they are able to recognize P, E, and O characteristics inherent with different disability types, and make decisions based on these considerations. Additionally, research has shown that teachers who are able to tolerate and problem solve when presented with ambiguity are more innovate and flexible within the classroom setting (Nicotera, Smilowitz & Pearson, 1990). This information leads to the research
questions being addressed in this dissertation. First, this dissertation seeks to examine teachers’ perceptions of person, environmental, and occupational variables after being presented with an ambiguous situation detailing a student with a disability who is failing at a planned employment setting. They were then asked to revisit the situation after being presented with a brief PEO training. It was hypothesized that after given the model, teachers will address more environmental and occupational characteristics than previously. Additionally, a second research question that analyzed disability type was considered. Furthermore, this dissertation sought to examine if teachers perceptions of employment success differs based on whether the student is diagnosed with an Emotional Disturbance (ED), Intellectual Disability (ID), or Specific Learning Disability (SLD).

Summary

Chapter II presents an in-depth literature review regarding the current transition planning practices for students receiving special education services. The chapter begins with an exploration of special education law and mandates surrounding transition planning. Specifically, the mandates set forth by the Individuals with Disabilities Education (IDEA) act of 2004. This chapter then introduces current transition practices and highlights advancements as well as flaws present in current transition planning efforts. The chapter then examines a best practices approach towards transition planning. Furthermore, it is recommended that transition planning be a cyclic process of assessment, goal formulation, and intervention, with the implementation of frequent progress monitoring. The chapter then introduces some theoretical considerations that have been applied to transition planning, however denotes the lack of a comprehensive framework towards the transition planning process. The longstanding theory of Person-Environment fit and Holland’s theory of vocational choice (1959) is then explained. Extending
on PE fit research; the Person-Environment-Occupation (PEO) model is covered, which serves as the guiding theory behind this dissertation. Then, the application of the PEO model towards the best-practices approach towards transition planning is introduced. The chapter then covers special P, E, and O considerations that should be taken into account for three special education eligibility categories (ED, ID, SLD). Finally, this chapter introduces the concept of using a guide or framework to facilitate team problem solving in IEP meetings. Specifically, the potential for the PEO framework to aid teachers in conceptualizing transition-related decisions and outcomes is discussed.
Chapter III: Methods

The current study analyzed the effects of the Person Environment Occupation (PEO) model on teachers’ approaches and perceptions towards transition planning. Furthermore, this study examined the differences in teachers’ reasons as to why they believe a given transition plan had resulted in failure before and after receiving education regarding the PEO framework. All responses were coded as being a personal, occupational, or environmental reason. Differences in responses were also examined based on whether teachers were subsequently told that the student was diagnosed with an Emotional Disturbance (ED), Intellectual Disability (ID), or Specific Learning Disability (SLD).

Participants

Power Analysis

To determine the number of participants necessary to achieve adequate power when conducting the analysis, an a priori power analysis was conducted using G*Power 3.1, a power analysis program (Faul, Erdfelder, Lang, & Buchner, 2007). Power represents the probability that existing effects have a chance of producing statistical significance through data analysis (Tabachnick & Fidell, 2007). According to Stevens (2002), power greater than or equal to .80 is considered to be adequate in order to detect a medium effect size of .50. The current study analyzed the two independent variables, presence of the PEO video and disability type separately, therefore two power analyses were ran to conduct the minimum number of participants needed to achieve adequate power. Results of the power analysis suggest that to achieve sufficient power and medium effect size, a sample size of at least 15 is required. The final sample consisted of 50 participants, however only 35 participants completed the survey in its entirety. The final sample of 35 participants was deemed adequate.
Participant Demographics

The final sample consisted of 50 general education teachers. The sample consisted of 72% females (n=36), and 14% males (n=14). Additionally, 22% of the final sample taught Social Studies, 28% taught Language Arts, 14% taught Mathematics, 4% taught Foreign Language, 2% taught Arts and Humanities, and 24% taught “Other”. Number of years as a teacher ranged from a half of a year to 34 years, with the mean number of years as a teacher being 13.25. Of the final sample, 70% of participants (n=35) completed both the pre- and post- measure, while 30% (n=15) completed only the pre- measure. Of the participants that completed the full survey, 22% (n=11) were assigned to the “PEO Video” condition, and 48% (n=24) were assigned to the control condition. Also, 22% (n=11) were assigned to the Intellectual Disability (ID) condition, 22% (n=11) to the Specific Learning Disability (SLD) condition, and 26% (n=13) to the Emotional Disturbance (ED) condition.

Procedure

Participants were recruited by contacting an administrative representative at 24 school districts across the Mid Atlantic region. In total, 6 districts agreed to participate. Administrative representatives included school psychologists, principals, superintendents, and special educators. Each representative was sent an email by the primary investigator detailing the nature of the study, Institutional Review Board (IRB) approval, and contact information of the investigator. Administrators then responded via email whether or not the district agreed to participate in the study. Once a district agreed to participate, the primary investigator sent an email to administrators with a link to a survey via “Qualtrics” and instructed them to disseminate the link to secondary general education teachers. Once teachers clicked on the link, they were first directed to the informed consent page. The informed consent detailed the purpose of the study,
limits of confidentiality, and voluntary participation and then asked participants if they agreed and wished to participate.

Once a participant agreed to participate, they were randomly routed through Qualtrics to one of six different survey forms. Regardless of the form they were assigned to, all participants fist completed the “pre-test”. In the pre-test phase, participants were first presented with a vignette that detailed a depiction of an 11th grade special education student who was not succeeding in an employment setting (appendix A). At the end of the vignette, all participants were asked to generate as many reasons as they could think of as to why this student did not succeed in this post-secondary employment setting. The primary investigator then coded these responses as Person (P), Environment (E), or Occupation (O) related reasons. Responses coded as P were those pertaining to individual characteristics such as cognitive ability, communication skills, problem solving skills, lack of motivation, etc. Responses coded as E were those pertaining to aspects of the home and work environment, lack of resources, lack of job training, relationships with coworkers, and transportation issues. Finally, those coded as O pertained to aspects of the occupation or task itself such as the nature of the task, the pace and rate of the task, and the daily routine of the occupation.

After the pre-test phase, the intervention or “post-test” phase was implemented. In the intervention phase, participants in group one were instructed to watch a brief video tutorial of the PEO model (appendix B). They were then instructed to consider the same case vignette as if the student was diagnosed with an Emotional Disturbance (ED). In the second group, they were given the PEO model tutorial, and told to consider the case as if the student was diagnosed with an Intellectual Disability (ID). In the third group, they were given the PEO model tutorial, and told to consider the case as if the student was diagnosed with a Specific Learning Disability
In the remaining three groups, participants were not provided with the video tutorial of the PEO model, but will told to consider the vignette again after being told the student was diagnosed with either an, ED, ID, or SLD. After being prompted by the intervention phase, participants were again be asked to identify reasons as to why they think the same case vignette resulted in failure. Again, responses were coded as either being P, E, or O related. After this phase, participants were directed to a page thanking them for their participation in the study and were provided with the contact information of the investigator.

**Research Design**

The research design employed in this study contained two independent variables. The first independent variable was the presence of the PEO video. Furthermore, this variable had two levels; being provided with the video, or not being provided with the video. The second independent variable in this study is student disability type. This variable was included to determine whether or not the number of P, E, and O responses differed based on disability type. This variable included three levels; Emotional Disturbance (ED), Intellectual Disability (ID), and Specific Learning Disability (SLD). The dependent variable in this study was the number of P, E, and O responses generated by each participant.

**Data Analysis**

Both of the research questions within this study were analyzed using a Repeated Measures (RM) ANOVA. Research question one addressed the ability of the PEO model to aid teachers’ ability to develop more P, E, and O related responses when asked why a transition plan may have resulted in failure. This analysis looked at the differences in results between those who received the PEO video, and those who did not. This analysis did not take into account students’ disability category. To address this question, three RM ANOVA analyses were run. In the first
analysis, the RM ANOVA was ran with the presence of the PEO video being the between-subjects factor. This factor contained two groups, those who received the video and those who did not. The within-subjects factor was the number of Person-related responses. This factor contained two levels, pre-test responses and post-test responses. The same analysis was ran two more times with the within-subjects factor being Environment-related responses, and then Occupation-related responses.

The second research question in this study examined the difference in P, E, and O related responses after participates were subsequently told that the student in the vignette was diagnosed with an Intellectual Disability (ID), Specific Learning Disability (SLD), or Emotional Disturbance (ED). This question did NOT address the impact of the PEO model. A RM ANOVA was again ran three times. For these analyses, Disability Type was the between-subjects factor. This factor contained three groups, ID, SLD, and ED. The within-subjects factors again were the number of Person-, Environment-, and Occupation-related responses. This factor also contained two levels, pre-test and post-test responses.

*Inter-rater Reliability*

Inter-rater reliability was calculated to determine the degree of agreement among raters in regards to P, E, and O responses. Furthermore, a second rater, who was a graduate student in Duquesne Universities School Psychology program, coded 16 out of the 50 total participant responses (32%). This second rater consulted with the primary investigator and watched the PEO tutorial video that was included in the survey so that they knew how to code responses. They were then instructed to code each response as relating to personal, environmental, or occupational variables. They were also instructed to code all of the pre- and post-test responses from each participant. From the 16 participants, there were a total of 133 individual responses
that were coded by both raters. The results from the inter rater reliability analysis including the percentage of agreed upon ratings will be detailed in the Results section of this dissertation.
Chapter IV: Results

This chapter begins with a presentation of demographic data of participants and then the preliminary analyses conducted to first explore the types of responses that secondary general education teachers provide in terms of the number of person (P), environment (E), and occupation (O) related reasons when asked to read a narrative and indicate reasons why a transition plan resulted in failure for a student receiving special education services. This section then presents the analyses conducted to answer the two research questions pertaining to the impact that subsequently being provided with a brief PEO video training, as well as being told that the student is diagnosed with a specific disability (ID, ED, SLD), has on the type and number of P, E, and O reasons that teachers generate when asked to reconsider the narrative. More specifically, descriptive and preliminary analyses are outlined followed by results of statistical analyses for each research question. Participants in the current study consisted of 50 secondary general education teachers.

Demographic Characteristics of the Participants

Table 1 describes the gender makeup of the teachers who completed the survey. The total sample consisted of 36 females (72.0%) and 14 males (28.0%) for a total of 50 participants. Although the number of males and females in this sample is not evenly distributed, these frequencies are comparable to the national average of 77% female, and 23% of males being teachers in the United States (National Center of Education Statistics, 2018)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>36</td>
<td>72.0%</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>28.0%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2 displays the average number of years as a certified teacher. Furthermore, the
number of years teaching ranged from half of a year to 34 years of experience. The mean number of years teaching was 13.25 years (standard deviation of 7.4 years).

**Table 2. Participants Number of Years Teaching**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>13.25 years</td>
<td></td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>7.40 years</td>
<td></td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>34.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 describes the content areas taught by the sample of teachers. 11 teachers (22%) taught Social Studies, 14 (28%) taught Language Arts, 7 (14%) taught Mathematics, 2 (4%) taught Foreign Language, 1 (2%) taught Arts and Humanities, and 12 (24%) taught “Other”, or a content area that was not listed on the survey.

**Table 3. Frequency and Percentage of Content Area’s Taught**

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>11</td>
<td>22%</td>
</tr>
<tr>
<td>Language Arts</td>
<td>14</td>
<td>28%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>24%</td>
</tr>
</tbody>
</table>

**Preliminary Analysis**

In the present study, only 35 of the 50 total participants completed both the pre- and post-test. All participants completed the pre-test, while 15 participants did not complete the post-test. Table 4 presents the mean and standard deviations of the number of P, E, and O responses for all 50 participants on the pre-test. Tables 5 and 6 display the results of two paired samples t-tests showing that on the pre-test, participants generated more P responses than both E t (49)= 4.08, p< .001, and O t (49)= 7.75, p< .001 responses. These results confirm the hypothesis that before being presented with a PEO training, or being told that the student in the narrative was diagnosed with a specific IDEA disability, participants would generate more P reasons when asked to
identify why a special education student was failing in their employment setting than E or O reasons. Furthermore, on the pre-test, all participants generated an average of 3.12 P responses (standard deviation of 2.51). Participants generated an average of 1.24 E responses (standard deviation of 1.36) and an average of .20 O responses (standard deviation of .541).

**Table 4.** Characteristics of P, E, and O responses on Pre-Test

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>0</td>
<td>10</td>
<td>3.12</td>
<td>2.51</td>
</tr>
<tr>
<td>Environment</td>
<td>0</td>
<td>6</td>
<td>1.24</td>
<td>1.36</td>
</tr>
<tr>
<td>Occupation</td>
<td>0</td>
<td>3</td>
<td>0.20</td>
<td>0.541</td>
</tr>
</tbody>
</table>

**Table 5.** Paired Samples Test- Comparison Between Number of P and E Responses

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 PreP-PostE</td>
<td>1.88</td>
<td>3.25</td>
<td>.46</td>
<td>.95</td>
<td>2.80</td>
<td>49</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Table 6.** Paired Samples Test- Comparison Between Number of P and O Responses

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 PreP-PostO</td>
<td>2.92</td>
<td>2.66</td>
<td>.38</td>
<td>2.16</td>
<td>3.68</td>
<td>49</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Research Question 1 and Analyses**

The first research question of the study examined the impact of the PEO video tutorial on teachers’ ability to generate P, E, and O responses when asked to identify reasons that a student with a disability had failed in a post-secondary employment setting. For this research question, three Repeated Measures (RM) ANOVA analyses were run; one examining the change in number of Person (P) responses from pre- to post-test after participants had viewed the PEO
video tutorial, one examining the change in the number of Environmental (E) responses, and one examining the change in the number of Occupation (O) responses. In total, 10 participants were assigned to the Video condition, and 23 participants the No Video condition. The reason for the uneven sample size is due to the fact that many participants who were assigned to the Video condition did not complete the entire survey, making the data invalid. Two of the 35 participants that completed the entire survey had invalid post-test data, as they offered responses that were unable to be categorized under the P, E, and O categories, resulting in a final sample of 33 for the following analyses. Table’s 7, 8, and 9 display the descriptive statistics and results of the RM ANOVA. Sphericity was assumed for each of the analyses. On the first analysis, the test of within subjects-effects showed that there was no main effect for P responses from the pre- to post-test phase $F(1, 31)= 2.04, p= .16$, however there was a moderate effect size of $\eta^2_p= .06$, indicating that the mean of P responses dropped from pre- to post-test. This is presumably attributed towards testing fatigue towards the end of the survey. There was also no interaction between change in P responses and exposure to the PEO video, $F(1, 31)= .52, p=.48$.

**Table 7. Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>PEO Video</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NoVideo</td>
<td>3.26</td>
<td>2.51</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>3.10</td>
<td>2.85</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.21</td>
<td>2.57</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>PostP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NoVideo</td>
<td>2.35</td>
<td>1.64</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>2.80</td>
<td>1.93</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.48</td>
<td>1.72</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>
Table 8. Multivariate Tests

<table>
<thead>
<tr>
<th></th>
<th>Pillai’s Trace Value</th>
<th>$F$</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.responses</td>
<td>.062</td>
<td>2.04</td>
<td>1</td>
<td>31</td>
<td>.163</td>
<td>.062</td>
</tr>
<tr>
<td>P.responses * PEOVideo</td>
<td>.017</td>
<td>.521</td>
<td>1</td>
<td>31</td>
<td>.476</td>
<td>.017</td>
</tr>
</tbody>
</table>

Table 9. Tests of Within Subjects-Effects

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.responses</td>
<td>Sphericity Assumed</td>
<td>5.128</td>
<td>1</td>
<td>5.128</td>
<td>2.04</td>
<td>.163</td>
</tr>
<tr>
<td>P.responses * PEOVideo</td>
<td>Sphericity Assumed</td>
<td>1.31</td>
<td>1</td>
<td>1.31</td>
<td>.521</td>
<td>.476</td>
</tr>
<tr>
<td>Error</td>
<td>Sphericity Assumed</td>
<td>77.96</td>
<td>31</td>
<td>2.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table’s 10, 11, and 12 display the descriptive statistics and results for the second RM ANOVA, where the presence of the PEO video was the independent variable, and the dependent variable was the change in number of E responses. The test of within-subjects effects showed no main effect for the change in E responses from pre- to post-test, $F(1, 31)= 1.19$, $p=.28$. There was however, an interaction between the number of E responses and exposure to the PEO Video, $F(1, 31)= 5.92$, $p=.02$. Furthermore, there was a large effect size of $\eta^2=.16$. Follow up pair wise comparisons outlined in tables 13 and 14 show that for participants who did not receive the PEO video, there was no change in the number of E responses generated from the pre- to post-test, $t(22)= 1.10$, $p=.28$. In comparison, participants who did receive the PEO video tutorial generated more responses in the post-test than they did in the pre-test, $t(9)= -3.21$, $p=.01$. Additionally, a follow up One-Way ANOVA outlined in table 15 reveals that on the pre-test, both groups generated a statistically similar number of E responses, $F(1, 34)= .12$, $p=.73$. In the pre-test phase, participants in the PEO Video condition generated a mean of 1.40 (SD= 1.51) responses,
and participants in the No Video condition generated a mean of 1.04 (SD= 1.52) responses. On the post-test, however, participants in the PEO Video condition generated more E responses than participants in the No Video condition, $F(1,32)= 8.86, p=.01$. In the post-test phase, participants in the PEO Video condition generated a mean of 2.20 (SD= 1.69) E responses, while participants in the No Video condition only generated a mean of .74 (SD= 1.10) responses.

Table 10: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>PEOVideo</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreE</td>
<td>NoVideo</td>
<td>1.04</td>
<td>1.52</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>PEOVideo</td>
<td>1.40</td>
<td>1.51</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.52</td>
<td>1.50</td>
<td>33</td>
</tr>
<tr>
<td>PostE</td>
<td>NoVideo</td>
<td>.739</td>
<td>1.10</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>PEOVideo</td>
<td>2.20</td>
<td>1.69</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.18</td>
<td>1.45</td>
<td>33</td>
</tr>
</tbody>
</table>

Table 11: Multivariate Tests

<table>
<thead>
<tr>
<th></th>
<th>Pillai’s Trace Value</th>
<th>$F$</th>
<th>Hypothesis $df$</th>
<th>Error $df$</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.responses</td>
<td>.037</td>
<td>1.19</td>
<td>1</td>
<td>31</td>
<td>.283</td>
<td>.037</td>
</tr>
<tr>
<td>E.responses *</td>
<td>.160</td>
<td>5.92</td>
<td>1</td>
<td>31</td>
<td>.021</td>
<td>.160</td>
</tr>
<tr>
<td>PEOVideo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12: Tests of Within Subjects-Effects

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.responses</td>
<td>Sphericity Assumed</td>
<td>.856</td>
<td>1</td>
<td>.856</td>
<td>1.19</td>
<td>.283</td>
</tr>
<tr>
<td>E.responses *</td>
<td>Sphericity Assumed</td>
<td>4.25</td>
<td>1</td>
<td>4.25</td>
<td>5.92</td>
<td>.021</td>
</tr>
<tr>
<td>PEOVideo</td>
<td>Sphericity Assumed</td>
<td>22.23</td>
<td>31</td>
<td>.717</td>
<td></td>
<td>.160</td>
</tr>
<tr>
<td>Error</td>
<td>Sphericity Assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 13. Paired Samples Test - No Video Condition

<table>
<thead>
<tr>
<th>Pair</th>
<th>PreE-PostE</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>.304</td>
<td>1.33</td>
<td>.278</td>
<td>-.270 - .879</td>
<td>1.098</td>
<td>22</td>
<td>.284</td>
</tr>
</tbody>
</table>

Table 14. Paired Samples Test - PEO Video Condition

<table>
<thead>
<tr>
<th>Pair</th>
<th>PreE-PostE</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-.800</td>
<td>.789</td>
<td>.249</td>
<td>-.1.36 - -.236</td>
<td>-.321</td>
<td>9</td>
<td>.011</td>
</tr>
</tbody>
</table>

Table 15. ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreE</td>
<td>Between groups</td>
<td>1</td>
<td>.271</td>
<td>.121</td>
<td>.540</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>33</td>
<td>2.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PostE</td>
<td>Between groups</td>
<td>1</td>
<td>14.87</td>
<td>8.86</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>31</td>
<td>1.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table’s 16, 17, and 18 display the descriptive statistics and results for the third RM ANOVA, where the presence of the PEO video was the independent variable, and the dependent variable was the change in number of O-related responses. The analysis showed that there was no significant main effect for the number of O responses that were generated by participants from the pre- to post-test phase, \( F(1, 31)= .997, p= .33 \). Additionally, there was no interaction
between the number of O responses and exposure to the PEO video, $F(1, 31)= .02, p= .90$. In conclusion, participants generated very few O responses in both the pre- and post-test.

**Table 16. Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>PEOVideo</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreO</td>
<td>NoVideo</td>
<td>.087</td>
<td>.29</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Video</td>
<td>.300</td>
<td>.675</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.152</td>
<td>.442</td>
<td>33</td>
</tr>
<tr>
<td>PostO</td>
<td>NoVideo</td>
<td>.217</td>
<td>.52</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Video</td>
<td>.400</td>
<td>.516</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.273</td>
<td>.517</td>
<td>33</td>
</tr>
</tbody>
</table>

**Table 17. Multivariate Tests**

<table>
<thead>
<tr>
<th></th>
<th>Pillai’s Trace Value</th>
<th>$F$</th>
<th>Hypothesis $df$</th>
<th>Error $df$</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>O.responses</td>
<td>.031</td>
<td>.997</td>
<td>1</td>
<td>31</td>
<td>.326</td>
<td>.031</td>
</tr>
<tr>
<td>O.responses*</td>
<td>.001</td>
<td>.017</td>
<td>1</td>
<td>31</td>
<td>.896</td>
<td>.001</td>
</tr>
<tr>
<td>PEOVideo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 18. Tests of Within Subjects-Effects**

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>$df$</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>O.responses</td>
<td>Sphericity Assumed</td>
<td>.185</td>
<td>1</td>
<td>.185</td>
<td>.997</td>
<td>.326</td>
</tr>
<tr>
<td>O.responses*</td>
<td>Sphericity Assumed</td>
<td>.003</td>
<td>1</td>
<td>.003</td>
<td>.017</td>
<td>.896</td>
</tr>
<tr>
<td>PEOVideo</td>
<td>Sphericity Assumed</td>
<td>5.75</td>
<td>31</td>
<td>.186</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Research Question 2 and Analyses**

The second research question of the study examined the unique impact of the disability type on teachers’ ability to generate P, E, and O responses when asked to identify reasons that a student with a disability had failed in a post-secondary employment setting. For this research question,
three Repeated Measures (RM) ANOVA analyses were run; one examining the change in number of P responses from pre- to post-test after participants were subsequently told which IDEA disability category the student had (ID, ED, or SLD), one examining the change in the number of E responses, and one examining the change in the number of O responses. In order to examine the unique impact of disability type on the change in number of P, E, and O responses, the 10 participants who were assigned to the PEO Video condition were not included in this sample, resulting in a sample size of 23 for the following analyses. In total, 6 participants were subsequently told that the student was diagnosed with an ID, 8 were told that the student was diagnosed with a SLD, and 9 were told that the student was diagnosed with an ED. Table’s 19, 20, and 21 display the descriptive statistics and results of the first RM ANOVA. Sphericity was assumed for each of the analyses. The first analysis showed a main effect for the change in the number of P responses, \( F(1, 20)= 4.69, p=.04, \eta^2=.19 \) meaning that the total collective mean of P responses significantly decreased from an average of 3.16 (SD= 3.19) on the pre-test to an average of 1.33 (SD=1.51) on the post-test. This decrease is again presumably related to testing fatigue towards the end of the survey. There was however no significant interaction between Disability Category and change in P responses, \( F(2, 20)= 1.60, p>.05, \eta^2=.14 \). Furthermore, the change in P responses from pre- to post-test was not impacted by being told that the student was diagnosed with a specific disability.
Table 19. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreP</td>
<td>ID</td>
<td>3.16</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SLD</td>
<td>4.00</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>ED</td>
<td>2.67</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.21</td>
<td>23</td>
</tr>
<tr>
<td>PostP</td>
<td>ID</td>
<td>1.33</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SLD</td>
<td>2.62</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>ED</td>
<td>2.78</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.35</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 20. Multivariate Tests

<table>
<thead>
<tr>
<th></th>
<th>Pillai’s Trace Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.responses</td>
<td>.190</td>
<td>4.69</td>
<td>1</td>
<td>20</td>
<td>.043</td>
<td>.190</td>
</tr>
<tr>
<td>P.responses*</td>
<td>.139</td>
<td>1.60</td>
<td>1</td>
<td>20</td>
<td>.227</td>
<td>.138</td>
</tr>
<tr>
<td>DisabilityCategory</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 21. Tests of Within Subjects-Effects

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.responses</td>
<td>Sphericity Assumed</td>
<td>11.91</td>
<td>1</td>
<td>11.91</td>
<td>4.69</td>
<td>.043</td>
</tr>
<tr>
<td>P.responses*</td>
<td>Sphericity Assumed</td>
<td>8.11</td>
<td>2</td>
<td>4.06</td>
<td>1.60</td>
<td>.227</td>
</tr>
<tr>
<td>DisabilityCategory</td>
<td>Sphericity Assumed</td>
<td>50.80</td>
<td>20</td>
<td>2.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>Sphericity Assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table’s 22, 23, and 24 display the descriptive statistics and results for the second RM ANOVA, where Disability Type was the independent variable, and the dependent variable was the change in number of E responses. The analysis revealed no main effect for the change in number of E responses, \( F(1, 20) = .77, p = .39 \). The analysis also revealed no interaction between the number of E responses and Disability Category, \( F(2, 20) = 2.00, p = .16 \), indicating that the change in
number of E responses from pre- to post-test was not impacted by being told that the student was diagnosed with a specific disability. The large effect size of $\eta^2 = .17$ of the interaction shows that these results may have reached significance if the sample size was more robust. Furthermore, those in the ID condition generated more E responses on the post-test than the pre-test, while the mean E responses for the other disability groups decreased, indicating that the ID group did make more environmental considerations after being informed of the disability, however this change did not reach significance.

<table>
<thead>
<tr>
<th>Table 22. Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEOVideo</td>
</tr>
<tr>
<td>PreE</td>
</tr>
<tr>
<td>ID</td>
</tr>
<tr>
<td>SLD</td>
</tr>
<tr>
<td>ED</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>PostE</td>
</tr>
<tr>
<td>ID</td>
</tr>
<tr>
<td>SLD</td>
</tr>
<tr>
<td>ED</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 23. Multivariate Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillai’s Trace Value</td>
</tr>
<tr>
<td>E.responses</td>
</tr>
<tr>
<td>E.responses*</td>
</tr>
<tr>
<td>DisabilityCategory</td>
</tr>
</tbody>
</table>
Table 24. Tests of Within Subjects-Effects

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<td>E.responses Sphericity Assumed</td>
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<td>1</td>
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<td>.770</td>
<td>.391</td>
<td>.037</td>
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<tr>
<td>E.responses* DisabilityCategory Sphericity Assumed</td>
<td>3.25</td>
<td>2</td>
<td>1.62</td>
<td>2.00</td>
<td>.161</td>
<td>.167</td>
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<tr>
<td>Error</td>
<td>16.19</td>
<td>20</td>
<td>.809</td>
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Table’s 25, 26, and 27 display the descriptive statistics and results for the third RM ANOVA, where Disability Type was the independent variable, and the dependent variable was the change in number of O responses. The analysis displayed no main effect for O responses, \( F(1, 20) = 1.19, p = .06 \). The analysis also revealed no interaction between the number of O responses and Disability Category, \( F(2, 20) = 1.25, p = .31, \eta^2 = .11 \), indicating that the change in number of O responses from pre- to post-test was not impacted by being told that the student was diagnosed with a specific disability.

Table 25. Descriptive Statistics

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<th>PEO</th>
<th>Video</th>
<th>Mean</th>
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<td></td>
<td>SLD</td>
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<td>ED</td>
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<td>Total</td>
<td>.08</td>
<td>.29</td>
<td>23</td>
<td></td>
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<tr>
<td>PostO</td>
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<td></td>
<td>SLD</td>
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<td>8</td>
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<td>.00</td>
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<td>Total</td>
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Table 26. Multivariate Tests

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<th>Error df</th>
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<td>.056</td>
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<tr>
<td>O.responses*</td>
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<td>1.25</td>
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<td>20</td>
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Table 27. Tests of Within Subjects-Effects

<table>
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<th>df</th>
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<th>F</th>
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**Inter-rater Reliability**

To ensure inter-rater reliability (IRR), a second rater coded a total of 16 out of the 50 total responses (32%). In total, 133 individual responses were coded by both of the raters. IRR was calculated by dividing the number of agreements by the total number of responses. Results of the inter rater reliability analysis revealed a 92.5% agreement. Furthermore, both raters agreed on 123 out of 133 responses. According to Belur, Tompson, Thornton, and Simon (2018), a percent agreement of 80% or above is generally deemed adequate. The 92.5% agreement in the current study exceeds this statistic, indicating strong inter-rater reliability. Responses that were not agreed upon were often those that pertained to both occupational and personal variables. For example, “she doesn’t know how to work the phone system”. These responses were ultimately coded as (P) because they insinuate a deficiency in Jane’s abilities. The second rater and primary investigator discussed all points of contention and ultimately came to agreements on how the responses should be coded.
Chapter V: Discussion

The present study examined the effect of the Person-Environment-Occupation (PEO) model on teachers’ ability to think about the whole child when planning for the transition of students with disabilities to postsecondary employment. Furthermore, the current study examined teacher ability to identify personal (P), environmental (E), and (O) occupation related reasons as to why they believed that a student who received special education services was not succeeding in her employment setting. The number of P-, E-, and O-related responses were analyzed before and after participants were provided with a brief video tutorial on the PEO model. This study also sought to examine the effect that specific IDEA disability categories had on teacher’s perceptions of P, E, and O variables. Again, the number of P, E, and O related responses were analyzed before and after the participant was subsequently told that the student was either diagnosed with an Intellectual Disability (ID), Specific Learning Disability (SLD), or an Emotional Disturbance (ED). The current findings have important implications for educators who are planning for post-secondary employment for students with disabilities. This chapter will present further interpretation of the results and their connection to previous literature and theory, application of the findings, limitations of the study, and considerations for future research.

Theoretical Foundations and Existing Research

A great deal of research in the fields of psychology, occupational therapy, and education has focused on the important interface between an individual’s personal characteristics and qualities and the environment that they are in. Furthermore, early researchers such as Bronfenbrenner (1979) have highlighted the importance of understanding a person’s social context when analyzing human development. Furthermore, Brofenbrenner’s ecological systems theory asserts that an individual’s ecological environment consists of several levels, going from
the closest to furthest direct impact on the individual. The first level is the microsystem, which consists of aspects of an individual’s environment that have a direct impact on them such as home, school, family, etc. The mesosystem then highlights the linkages between the microsystem and the exosystem, which includes environmental aspects that indirectly affect development and behavior such as mass media, and community services (Skinner, 2012). Finally, the macrosystem includes the broadest aspects of an individual’s environment such as societal values and religion. Each of these systems interfaces with each other to shape an individual’s development (Skinner, 2012).

Elements of Bronfenbrenner’s framework are seen in many other lines of research that examine the interplay between a person and their environment. Research that has analyzed the relationships between a person and their environment are widely cited within the occupational therapy literature base and are often referred to as Person-Environment fit theories (French, Rojers & Cobb, 1974). Person-Environment fit theories note that people shape their environment and their environment also shapes them. Furthermore, people seek out environments that allow them to express their personal traits. The greater degree of “fit” between a person and the environment where they perform an occupation; the greater degree of satisfaction and performance (Su, Murdock, & Rounds, 2015; Pervin, 1967).

Holland’s theory of vocational personalities and environments has taken this line of research further by identifying six major personality types (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) referred to as RIASEC, that correspond with specific types of occupations. Holland also created the Self-Directed Search-Revised (SDS-R) to be used as a tool to assist individuals in finding career paths that match their personal characteristics and interest. It is clear to see how this line of research fits with post-secondary employment planning.
for individuals with disabilities, however, Person-Environment fit alone may not be the sole predictor of employment success.

The Person-Environment-Occupation (PEO) model (Law et al., 1996) acknowledges the importance of fit between an individual’s characteristic and the environment in which they live and work. The model also highlights the importance of the functional demands of the specific tasks the individual is required to perform within the occupational environment. More specifically, the PEO model refers to personal variables as those such as personal competencies, personality style, cognitive ability, and skill level. The environment component encompasses variables such as socioeconomic background, physical space, community, and social environment in which the individual is immersed. Finally, the occupation component refers to the self-directed professional and individual functional tasks that an individual engages in over their life-time. The PEO model asserts that the greater degree of fit between P, E, and O characteristics, the greater degree of occupational performance. Law also notes that each one of these three variables (i.e., P, E, and O) is ever changing, therefore, monitoring, assessment and intervention should continuously be provided at each level in order to maximize occupational performance.

Law’s PEO model intuitively can be applied to post-secondary transition planning for young adults with disabilities, especially when planning for the post-secondary employment of students with disabilities. In fact, this is the first study to apply the PEO model within an empirical study of this population. According to Davis (2003), many transition plans fall to the wayside because they focus largely on legal mandates versus digging deeper into the individuals’ unique developmental needs. Furthermore, transition planning should occur in a continuous three-step process of assessment, goal formulation, and intervention/service delivery (King et al.,
The goal of transition plans is to promote short-term success in specific skill areas that will promote long-term success in a given occupation. Additionally, continuous monitoring of student progress, strengths, and needs should take place to assess whether or not their transition plan should be amended or if the current goals are still adequate. Schmitt, Yarbrough & Hennessey, (in press), are some of the first to describe how the PEO model can be applied to each step of the post-secondary transition planning process. Furthermore, at the assessment phase, educators should assess personal traits such as cognitive ability, personality, communication style etc. At the environmental phase, they should take into consideration variables such as access to transportation, family socioeconomic status, potential physical workspace, or access to government assistance programs. Finally, at the occupational phase, they should take into consideration the individuals ability to perform specific job-related tasks and activities. This information is then used to formulate post-secondary employment goals, and to determine the interventions and supports that may need to be provided in each of these areas (Schmitt, Yarbrough & Hennessey, in press).

In addition, individuals with different IDEA disabilities may have inherent differences in P, E, and O variables. For example, students with an emotional disturbance may have higher rates of absenteeism and chronic behavioral difficulties; therefore transition plans that focus on school engagement may be more beneficial (Wood & Cronin, 1999). Individuals with an intellectual disability demonstrate lower cognitive skills; therefore, transition plans may need to be more simplistic and concrete in nature (Schalock, Luckasson, & Shogren, 2007). Transition plans may also need to focus on explicit skill training, and job-specific social skills. Finally, individuals with specific learning disabilities may evidence poor organizational skills, lower self-esteem, and deficits with oral and written language, however are more likely to have success in a
competitive employment setting than individuals with more severe disabilities (Cameto et al., 2004; Levinson & Ohler, 1998; Michaels, 1997; Shapiro & Lentz, 1991).

Finally, many transition-related decision making is made during students’ IEP meetings. Ysseldyke, Algozzine, and Mitchell (1982) found that the purpose of IEP team meetings was only clarified in 35% of meetings. Furthermore, roles were not clearly defined, and the language used in meetings was difficult to understand. Additionally, the nature of the decisions made in meetings were unclear, highlighting the need for a framework that can guide decision making, specifically in regards to transition. There are currently no studies that examine the impact of an in-service training for teachers that focuses specifically on transition planning, however many studies have shown that in-service trainings in the areas of pedagogy, and content specific knowledge can have positive impacts on students (Harris & Sass, 2008; Jung, 2005).

The current study explored teachers perceptions of P, E, and O variables before and after being briefly trained on the PEO model, and before and after being told that an individual was diagnosed with a specific IDEA diagnosis (ED, ID, or SLD). Quantitative and qualitative data from the current study can be used to inform a best practices, problem-solving approach for educators, psychologists, and all school personnel to use for post-secondary transition planning.

Summary of Results

The following study explored secondary general education teachers’ perceptions of personal (P), environmental (E), and occupational (O) variables when asked to identify reasons why a student in special education was failing in a planned employment setting. Furthermore, the vignette detailed in Appendix A represents an adolescent female who is in 11th grade, receives special education services, and is not excelling within her position at a bank. As an exploratory measure, the primary investigator first sought to examine how secondary general education
teachers conceptualized reasons for the student’s failure in terms of P, E and O reasons. Furthermore, it was hypothesized that without a PEO training, or being influenced by being told that the student was diagnosed with a specific IDEA disability, teachers would identify more P-related reasons for why the student was failing than E- or O-related reasons. For this analysis, the responses of 50 participants were analyzed, as 50 teachers completed the pre-test measure. Two paired samples T-tests confirmed this hypothesis. Furthermore, on the pre-test, teachers generated significantly more P responses than both E and O responses. On average, teachers could generate 3.12 P responses, and only 1.24 E responses and .20 O responses.

The second area or exploration sought to examine the unique impact that disability type had on the number of P, E, and O responses that teachers produced. Furthermore, after completing the pre-test, participants were told to reconsider the prompt as if the student was either diagnosed with an Emotional Disturbance (ED), Intellectual Disability (ID), or Specific Learning Disability (SLD). It was hypothesized that the profile of P, E, and O responses would differ based on which disability the student had. More specifically, it was hypothesized that if the teacher was told that the student was diagnosed with an ID, they would identify significantly more P-related reasons as to why the student was failing, such as an inability to effectively communicate, or significant cognitive limitations, than if they were told that the student was diagnosed with an ED or SLD. Of the 50 participants that completed the pre-test, only 33 also completed the post-test. Of these 33, 23 were included in this analysis, as these participants were only told about disability type and were not provided with the additional PEO video training. Results from three Repeated Measures (RM) ANOVA’s showed that there was no significant changes in the number of P’s, E’s and O’s after being told that the student was diagnosed with a disability. Furthermore, the profile of the number of P’s, E’s, and O’s on the post-test measure
did not significantly differ based on disability type. Although non significant, there was a large effect for the interaction between disability type and E responses. After reviewing the means and standard deviations, it was determined that the mean number of E responses for the ID group rose, while it decreased for the other disability groups. This means that after being told the student was diagnosed with an ID, teachers generated more environmental considerations such as indicating accommodations that the student required an a need for more significant on-site job coaching than initially considered. Perhaps with a larger sample size, this result may have reached significance.

Finally, the third area of exploration sought to examine the impact that a brief PEO video training had on teachers ability to generate P, E, and O responses on the post-test. Of the 33 participants who completed the pre- and post-tests, 10 participants (the ones who were not included in the afore analysis), were told to reconsider the prompt after being provided with a 5-minute video on the PEO model. It was hypothesized that teachers who were provided with the PEO video training would generate significantly more P, E, and O responses on the post-test than on the pre-test. Results from three RM ANOVA’s found that participants in the video condition generated significantly more E responses on the post-test than on the pre-test. These results supported the hypothesis and confirmed that the PEO video training prompted participants to consider more environmental factors that may have lead to the student’s failure than they had initially considered. Follow up paired samples t-tests showed that for participants in the video condition, the overall increase in the number of E responses was significantly greater than participants who were not in the video condition. Additionally, a follow-up one way ANOVA showed that at the post-test measure, participants in the video condition had generated significantly more E-related responses than participants who were not in the video condition.
There were no significant changes in the number of P or O responses from pre to post-test. Furthermore, participants generated very few O responses on both the pre- and post-test. One hypothesis for this is that the general concept of occupational variables was more challenging for participants to grasp, even after a brief training. Furthermore, many responses that initially seemed like an O response, actually had to do with the occupational environment rather than aspects of the specific task or activity required by the occupation. Some participants who were exposed to the PEO video identified O related variables that were presented in the video such as “the pace and rate of the task does not fit with the students ability”, and “the routine of the occupation is rapidly changing.” That said, there was not enough change to reach significance.

**Implications for Practice**

The results of this dissertation have important implications for educators, school psychologists, related-service providers, transition coaches, and others who work in the field of post-secondary transition planning for student with disabilities. This study demonstrated that a video training on the PEO model has the ability to impact teachers’ ability to think about the “whole child” within the context of post-secondary employment. These results also showed that educators are already reasonably identifying personal strengths and weaknesses that may be contributing to employment success or failure for students in special education. Results of this study have the ability to inform a transition planning reform across many districts.

It may be worthwhile for districts to invest time and resources into providing educators within the district with professional development training on the PEO model. From there, districts could adopt a step-by-step approach to transition planning that incorporates the PEO model in it. Furthermore, as advocated by Schmitt, Yarbrough and Hennessey (in press), the
PEO model can be applied at each step of the three-step transition planning process. At the assessment phase, educators should analyze the student’s personal strengths and weaknesses. Educators from the current study identified personal variables such as social skills, communication style, job-specific skills, life skills, and time management skills as being important areas to consider for employment success. By assessing a student’s abilities, strengths, and weaknesses in all of these areas, we can identify jobs that fit with these unique personal qualities, and also target areas for individual improvement. After the PEO video training, educators were able to identify many important environmental variables that influence job success. These included variables such as home-life, supervisor and coworker relationships, adequacy of job training, access to resources and transportation, and physical work-space. Again, districts can implement a model of transition assessment that assesses each of these environmental characteristics. And finally, it is imperative to assess the occupational demands of the employment setting under consideration by assessing the most basic task demands of the occupation.

Once assessment is completed in each of these areas, transition planners can identify post-secondary employment goals that are highly tailored to the individual student. This moves away from placing students into boxes of “best-fit” in terms of post-secondary employment options, and mores towards an ecological approach. Then, educators can identify areas of intervention and service delivery at the P, E, and O levels. For example, after identifying that a student has social deficits, school personnel and IEP teams should come together to brainstorm interventions and services that can be implemented that will enhance social skills and therefore increase that student’s likelihood of experiencing employment success. Similarly, at the environmental level, if a student has a chaotic home environment that prevents them from getting
to work on time, school teams should consider how to break down this barrier. Perhaps the student’s family may qualify for in-home community services that strengthen the family dynamic.

The current study did not find a change in the number of P, E, and O responses after being told that the student is diagnosed with an IDEA disability, however, it is important to consider the fact that participants in this study were general education teachers and were not provided with details of the student’s disability other than the name. If all teachers, including general and special education teachers, know their student’s disability as well as the unique strengths and limitations that come with that diagnosis, they may be better able to tailor transition assessment, intervention, and planning. For example, they may be able to provide more support in some areas, and less in others.

Finally, as highlighted throughout this dissertation, it is important to implement the PEO model within a problem-solving framework. Progress towards transition goals should be continuously assessed and transition plans should often be revisited and modified if need be. Just as in the current study, educators should continue to evaluate P, E, and O barriers that arise throughout the whole process. By providing educators with a training on the PEO model, and creating a step-by-step approach towards transition planning that incorporates the PEO model, we have the ability to promote employment success for all students with disabilities, no matter the diagnosis or severity of impairment.

Limitations and Considerations for Future Research

Although this study yielded significant findings that may have an important impact on the field of transition planning, this study also comes with several limitations. The first limitation in this study is the small and uneven sample sizes. Additionally, a total of 88 participants began the
survey, but many did not complete it. Of the 88 that began, only 50 participants completed the pre-test. Of these 50, only 33 participants completed the whole survey. Of these 33 participants, only 10 were provided with the PEO video intervention and 23 did not receive the video. The reason for the uneven groups was because many of the participants who were randomly routed to the PEO video condition exited the survey before watching the video. The primary researcher reached out to many school districts however unfortunately personnel from the majority of the districts did not respond. This may have been due to it being the end of the year and teachers, principals and school personnel were overwhelmed and busy wrapping up the year, they may not have seen the email, or the district did not allow outside research to be conducted. With a larger sample size, these results would be even more robust. Furthermore, it is expected that with a larger sample size there would be an even greater change in the number of E responses from pre-to post-test for participants in the PEO video condition. The analysis may have also produced a significant change in the number of O responses.

Another limitation of this study is that problem-solving through the vignette occurred very proximal to the PEO training. Furthermore, teachers were asked to reconsider the vignette directly after the training. It is unknown the extent to which they retained this information long-term, such as a week or month after being presented with the video. In a future study, it would be worthwhile to have a delay group that was required to access the information in the PEO model after more time had passed.

There were also geographical limitations in this study as the majority of participants were from two different cities in the Eastern United States. To make this study more methodologically robust, it would have been beneficial to have an equal number of participants from all geographic locations across the United States. Additionally, some participants gave responses or comments
that were unable to be coded under the P, E, and O categories, therefore these responses were unable to be used. For example, some participants formulated their responses into questions, such as “are IEP accommodations being met?”, or “what helps her remain on task?” Other times, participants responded with responses such as “each of the P, E, and O areas should be considered”, which were unfortunately also unable to be coded.

The current study may stimulate a variety future research opportunities. First, it would be interesting to see how the implementation of a transition-planning model of assessment, goal formulation, and intervention/service delivery that encompasses the PEO model could directly impact employment success for students with disabilities. This could be a longitudinal study where a given number of special educators are provided with a PEO training, and then adopt a step-by-step transition planning approach for their students that integrates the PEO model. It would then be interesting to analyze the types of employment that the students obtain as well as their success within their employment setting. Additionally, it would be interesting to see the differences in results if participants attended a live in-service training rather than a video training. Furthermore, attending the live session would require participants to watch the video and respond to the prompts. It would also give them a platform to ask follow up questions if a notion was unclear to them, problem solve through examples, and apply the training video to specific children in their classroom. It would also control for individuals who had maybe skipped through the video, weren’t paying attention to the video, or were rushing to complete the survey.

Another direction for future research could include analyzing the effects of the PEO framework within the context of occupational therapy services that are implemented for students with disabilities in the school setting, as the model originally developed within the field of
occupational therapy. In addition, it would be beneficial and interesting to see how the model could be implemented throughout all of the professions and services that exist within the school, especially in the context of health services. For example, future studies could incorporate the PEO model within the context of nursing. This may be especially beneficial for students with chronic illnesses or other health impairments for whom the intersection of personal medical needs and environmental and occupational variables merit consideration. It may also be beneficial to examine the effect of a PEO model training for parents and for the student themselves. As service providers, our goal is to foster self-determination and independence for students with disabilities, and the PEO model may help them with this. The PEO model may also help aid in post-secondary transition planning in the areas of post-secondary education, independent living, and leisure and recreation. Just as it is important to analyze the environment that the student will work in, it is also important to analyze aspects of the potential environments that they will live, recreate, and/or attend college in order to determine which scenario best fits with their personal qualities.

In conclusion, knowledge of the PEO model has the ability to create substantial changes in the field of transition planning for students with disabilities. This study gives headway for schools to adopt a streamlined step-by-step approach to transition planning that incorporates the PEO model. With proper education and training, transition planning fidelity, and continuous assessment of post-secondary success, integration of the PEO model in the transition planning process could have considerable positive impacts for students with disabilities across the world.
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Appendices

Appendix A

Transition planning vignette presented to all participants:

Please respond to the following prompt:

Jane is a 17-year old, 11th grade student receiving special education services in a public high school. Jane’s IEP team is currently working with Jane to plan for her transition from school to work. Jane has expressed interest in working in an office doing unspecified clerical activities. As part of her vocational training, Jane has been placed at a local bank to work for a few hours, three days a week. In keeping with job requirements, Jane is expected to arrive for work on time, maintain a professional appearance (i.e., proper hygiene and clothing), communicate professionally with staff and customers (i.e., appropriate verbal and nonverbal language), and demonstrate accuracy in her work (i.e., when counting money, filing papers, processing checks, properly directing phone calls, etc.).

At an IEP meeting, Jane’s job coach reports to the team that Jane’s performance has been variable from the start of the job. In fact, a supervisor at the bank just told the job coach that Jane’s performance is so poor that she is at risk of losing her position.

Please brainstorm as many reasons as possible that may explain why Jane is showing difficulty in her current position (e.g., she consistently shows up late to work):