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SPOT on life skills: a model life skills curriculum for middle school students with disabilities

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SARGENT COLLEGE OF HEALTH AND REHABILITATION SCIENCES

Doctoral Project

**SPOT ON LIFE SKILLS:
A MODEL LIFE SKILLS CURRICULUM FOR
MIDDLE SCHOOL STUDENTS WITH DISABILITIES**

by

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*“Tell me and I forget.
Teach me and I remember.
Involve me and I learn.”*
-Chinese Proverb

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ABSTRACT

School-based occupational therapy practitioners (OTPs) have distinct expertise in providing occupation-based interventions. OTPs are called to employ these skills to improve postsecondary outcomes (employment, independent living, postsecondary education) of students with disabilities, as a result of the rising rate of students with disabilities served under the Individuals with Disabilities Education Act (IDEA 2004) surmounting 14% of all public school students in the United States in 2017-2018, and only marginal increases in otherwise poor postschool outcomes of students with disabilities, (U.S. Department of Education, 2019; Test, et al., 2009). The domains of practice in which OTs support clients include activities of daily living, instrumental activities of daily living, rest/sleep, education, work, play, leisure, and social participation (American Occupational Therapy Association, 2014). These are all domains that are relevant to transition planning for adolescents with disabilities, however, current evidence suggests that OTs do not play a significant role in providing transition-based services to school aged youth across the United States (Mankey, 2011).

Utilizing Kolb's experiential learning theory and current research evidence, it is

evident that the lack of a widely recognized life skills curriculum, lack of training on the use of occupation-based interventions, and limited use of occupation-based interventions by OTs in middle schools, are negatively impacting the life skills development of students with disabilities. In response, the author created *SPOT on Life Skills*, an evidence-based theory-driven model for a middle school life skills curriculum. The curriculum will be delivered by an interdisciplinary team including an occupational therapist, a special education teacher, and a speech and language pathologist, who will collaborate together and with the students and their families. The curriculum model will consist of a multifaceted intervention approach including self-care and independent living skills training, social skills training, work readiness, and a work-based experience to increase student independence and improve long-term transition outcomes (Test et al., 2009). The intention of the program, beyond exposing students to a variety of life skills, is to increase OT's involvement in transition planning and use of occupation-based interventions in the middle school setting. It is anticipated that *SPOT on Life Skills*, will influence stakeholders to advocate for life skills/transition programming utilizing collaborative occupation-based practices.

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LIST OF ABBREVIATIONS

AOTA	American Occupational Therapy Association
ASD	Autism Spectrum Disorder
ASHA	American Speech-Language and Hearing Association
BU	Boston University
ELT	Experiential Learning Theory
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Program
OT	Occupational Therapy/Therapist
OTPF	Occupational Therapy Practice Framework
SLP	Speech and Language Pathology/Pathologist
SpEd	Special Education
WFOT	World Federation of Occupational Therapists

CHAPTER ONE - Introduction

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) is a United States federal law intended “to ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living” (U.S. Department of Education, 2019, p.1). In 2018, it was estimated that 14% of all public-school students in the U.S. between the ages of 3-21 qualified for an individualized education program (IEP) under IDEA 2004 (U.S. Department of Education, 2019). As part of federal law, students with IEPs must receive transition plans, by the age of 16, with measurable postsecondary goals derived from a transition assessment, and a statement of the requisite special education and/or related services needed to facilitate goal attainment. Even with the assurance for transition services by federal law, students with disabilities’ transition outcomes in relation to postsecondary education, employment, and independent living, remain significantly inferior than the postschool outcomes of their same aged general education peers (Johnson, 2002; Kraus, Lauer, Coleman, & Houtenville, 2018; Newman et al., 2011). According to the United States Department of Labor (2018), only 20.1% of individuals with disabilities are employed compared to a 68.6% rate of employment for individuals without disabilities. Consequently, it is not surprising that in 2016, the rate of poverty for individuals with disabilities was 20.9% compared to a poverty rate of only 13.1% for individuals without disabilities (Kraus et al., 2018).

Public K–12 schooling is intended to prepare students to be as independent as

possible in their adult life so that they may be contributing members of society. Evidence indicates that students with disabilities' early development of life skills predicts independent living and employment upon advancement from high school (Dresser, Clark, & Deschênes, 2015; Blackorby, Hancock, & Siegel, 1994; Halpern, Yovanoff, Doren, & Benz, 1995; White & Weiner, 2004). Arguably, life skills programming for students with disabilities is one of the most critical components within the public-school setting as it can have direct implications on student's postschool outcomes. Yet, there are no widely accepted life skills programs/curriculums for transition aged youth. IDEA 2004's transition requirements are vague and there is no mandate that evidence-based practices be integrated into transition programming. Moreover, research indicates that beginning transition services at 16 years of age, as consistent with federal law, is too late and does not lead to successful rates of gainful employment, independent living, or enrollment in postsecondary education for individuals with disabilities (Cimera, Burgess & Wiley, 2013; Cummings, Maddox, & Casey, 2000; Hitchings, Retish, & Horvath, 2005; Madaus & Shaw, 2006; Schwind, 2017).

Onwumere, Seidman, Harris, and Koenig (2016) suggested that school-based occupational therapy practitioners (OTPs) can make an impact on student's future success by providing interventions that are focused on functional independence starting in middle school. OTPs have a distinct skill set which can be applied to establishing and strengthening work readiness and self-determination skills for middle school aged youth with disabilities (Hollenbeck, Orentlicher, & Handley-More, 2015). Yet, surveys of middle school-based practitioners indicate that few OTs are addressing functional life

skills within their interventions. The areas of intervention most frequently identified by middle school-based practitioners included handwriting, visual perceptual skills, and sensory processing skills (Powell, 1994; Schneck & Amundson, 2010; Spencer, Turkett, Vaughan, & Koenig, 2006). Seruya and Ellen (2015) discovered through survey data that OT's focus for intervention when working with adolescent clients continues to be based on development of foundational skills rather than occupation-based skills. Accordingly, in line with evidence and the Occupational Therapy Practice Framework (OTPF), school-based OTPs should align their focus and treatment approach to support students with disabilities' engagement in meaningful occupations in order to promote positive postschool outcomes.

In direct response to the problem: the lack of evidence-based, occupation-focused interventions/curriculums for middle school students with disabilities, the author devised *SPOT on Life Skills* as a model life skills curriculum. The target audience for the program is middle school students, aged 11–14, with mild-moderate cognitive disabilities. The program is to be facilitated and adapted collaboratively by an OT, a speech and language pathologist (SLP), and a special education (SpEd) teacher. OTPs are distinctly skilled at providing person-centered occupation-based interventions while working collaboratively with other professionals to provide a truly holistic approach to intervention. Interdisciplinary collaboration can help direct intervention to best meet student needs and can support professionals in understanding each other's roles in order to utilize each other as a resource (Villeneuve, 2009).

SPOT on Life Skills is a two-part program consisting of a weekly life skills class

and a weekly simulated work-based experience. The life skills class emphasizes exposure and development of self-care, independent living, social, and work readiness skills. The simulated work-based experience allows students the opportunity to be ‘employees’ in order to develop increased awareness of the skills needed for employment while building upon those skills in real time. In the chapters that follow, the theory and evidence base of the program is described along with an in-depth description of the proposed program. The plan for evaluating the success of the program includes three distinct evaluation methods. The associated expenses, projected expenses across the first and second year of program implementation, and potential funding sources are included in the funding plan chapter. The dissemination to primary and secondary audiences along with planned dissemination activities and associated costs is also discussed. In the appendices you will find the logic model, an executive summary, a fact sheet, and example lesson plans.

CHAPTER TWO – Project Theoretical and Evidence Base

Introduction

SPOT on Life Skills is an evidence-based and theory driven program. This chapter provides an overview of the problem that the program seeks to address. An explanatory model of the program is outlined as derived from evidence and theory. Analysis of current methods to address the problem are broken down by intervention type and by approaches to intervention. This chapter also includes a critique of the quantity and quality of literature unveiled through an extensive search and discusses the implications of the evidence findings as a guide for development of the program, which is elaborated upon in chapter 3 (description of the program).

Overview of the Problem

According to the National Center for Education Statistics (2018), as of 2016, 13% of all public-school students in the United States between the ages of 3-21 received special education services, with that number increasing to 14% by 2018 (U.S. Department of Education, 2019). Of the students who received special education services and exited the public-school system in 2015, only 69% graduated with a regular high school degree (National Center for Education Statistics, 2018). Therefore, approximately 1/3rd of all students with disabilities are on the non-diploma bound track. Upon graduation from secondary education, students on non-diploma bound tracks will be transitioning directly into adulthood which may include seeking employment and living independently. Accordingly, many advocates and researchers in the field of disability recommend that the provision of transition/life skills services be provided to individuals

with disabilities as early as possible (Bal, Kim, Cheong, & Lord, 2015; Clark, Field, Patton, Brolin, & Sitlington, 1994; Cummings et al., 2000; Schwind, 2017; Wehmeyer, 2015; Westbrook et al., 2015). However, even with this knowledge, the current federal requirement under the Individuals with Disabilities Education Improvement Act of 2004 [IDEA 2004] (2004), indicates that implementation of transition-based services is not legally mandated until the year a student with an individualized education program (IEP) turns 16 years of age. Within IDEA 2004 there is no mandate for transition-based services to include simulated experiential learning, community-based learning opportunities, or that services be planned and delivered by the student's entire IEP team (special education teacher, occupational therapist, speech and language pathologist, etc.).

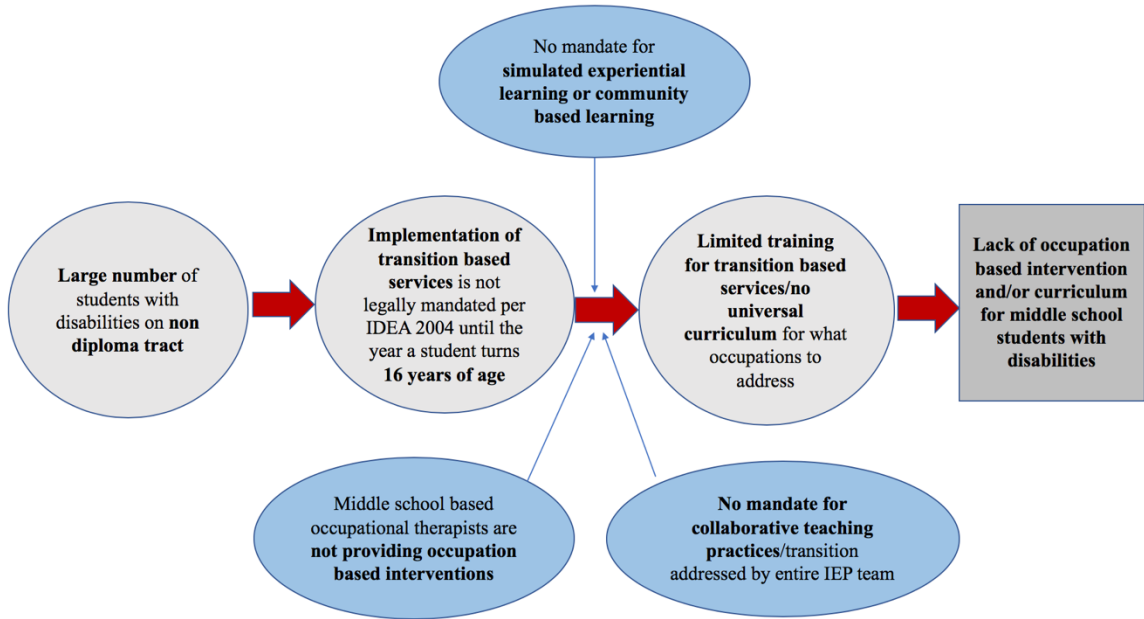
According to the World Federation of Occupational Therapists [WFOT] (2012), occupational therapists (OTs) are experts in relation to activities of daily living (ADLs), as ADLs are a subset of human occupation. ADLs include self-care skills, and instrumental activities of daily living (IADLs) include activities in which individuals interact with the physical and/or social environment, which may include work and living independently. Hence ADLs and IADLs are directly tied to post-school outcomes including independent living and paid employment (Test et al., 2009). Despite this correlation, surveys of middle school-based practitioners indicate that few OTs are addressing functional life skills within their interventions (Powell, 1994; Schneck & Amundson, 2010; Seruya & Ellen, 2015; Spencer et al., 2006). School-based OTs are not fully capitalizing on their expertise to provide occupation-based interventions and are not utilizing their distinct knowledge base and skill set in supporting student's functional skill

development. This is compounded by the lack of a mandate for collaboration among professionals, unless specified on a student's IEP, and a lack of explicit training or a curriculum to guide professionals in the provision of transition services. Without collaboration amongst school team members and the lack of a widely accepted curriculum for what occupations to address through transition-based services, there is a resulting lack of occupation-based intervention and/or curriculum in middle school for students with disabilities.

Model of the Problem

The explanatory model (Figure 1) illustrates the mediators and moderators introduced in the overview of the problem that result in the overarching problem that is the lack of occupation-based interventions and/or curriculum for middle school students with disabilities. Each element in the explanatory model leading up to the overarching problem was derived from the constructs of the experiential learning theory and maintained by empirical evidence.

Figure 1. Explanatory Model of the Problem



Theory Base to Understand the Problem

Experiential Learning Theory

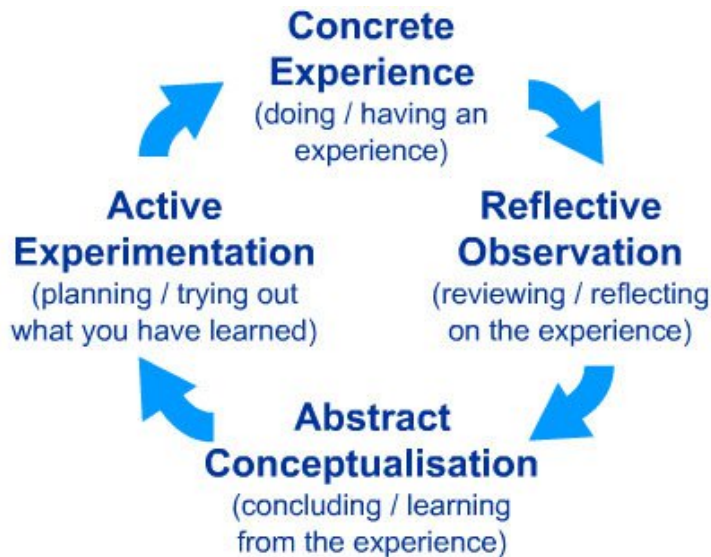
David Kolb was a social psychologist who published the experiential learning theory (ELT) in 1984 (Cherry, 2018). Kolb was inspired to create this innovative learning model by studying the works of Dewey, Lewin, and Piaget who all defined and studied different ways that humans learned (Kolb, Boyatzis, & Mainemelis, 1999). Kolb’s theory is unique in that it centers itself on the premise that experience is essential for learning. Kolb described the way in which humans learn holistically; indicating that one’s ability to observe, do, think, and adapt in order to learn is directly associated with an individual’s cognitive abilities, emotional state, motor abilities, as well as the physical and social environment (Cherry, 2018). Kolb’s holistic approach aligns with OT’s holistic approach to consider a client’s physical, cognitive, social, and emotional capacity

to participate in an occupation in a given environment and context (World Federation of Occupational Therapists, 2016).

Principles of Experiential Learning Theory

The ELT has four major principles or phases of experience that support one another in a cyclical sequence resulting in learning. There is no clear starting point in the cycle, but integrated learning requires an individual to go through all four phases of the cycle. The four principles include: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb et al., 1999). Concrete experience includes learning through sensations or doing in a simulated context. Reflective observation includes watching others or oneself perform the task, and/or reflecting on the experience. Abstract conceptualization includes thinking about the experience and symbolically identifying what was learned or learning through thinking/symbols. Active experimentation is the act of physically doing or performing the task in a real context. Cherry (2018) identified the phases of concrete experience and abstract conceptualization as grasping the experience, and the phases of reflective observation and active experimentation as transforming the experience. Kolb (1984, p. 41) defined the ELT as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience." These principles highlight the need for school-based professionals to implement a life skills curriculum that is guided by the ELT so that students with disabilities can aptly learn, transform, and apply the skills.

Figure 2. Model of the Cyclical Phases of Learning in ELT



(McLeod, 2017)

Propositions of Experiential Learning Theory to Guide Explanatory Model

The ELT is based off of the propositions that learning is an ongoing process; learning is a holistic process that integrates a person's thoughts, feelings, and behaviors; and that learning occurs when individuals interact with the environment around them (Cruz Sudo, 2014). Each of these propositions are discussed as they relate to the explanation of the problem.

Proposition 1: Learning is an Ongoing Process

The proposition that learning is an ongoing process ties into the problem that transition-based services are not federally mandated to be implemented until the year a student with an IEP turns 16 years of age (IDEA, 2004). Under this proposition it would be assumed that in order to fully learn and become proficient at a task, an individual would need to be exposed to it over a long period of time indicating that the earlier the implementation of transition services the better.

Individual states have the autonomy to mandate an earlier age than the federal requirement to begin transition services, so some states mandate transition services to be implemented as early as the year a student with an IEP turns 14 (Rosen, 2015). A four-year longitudinal study comparing the post-school outcomes of students with disabilities from states requiring transition services by age 14 to those from states requiring transition service by age 16 indicated that students from early transition states had better employment outcomes (Cimera, Burgess, & Bedesem, 2014; Cimera et al., 2013). Not only did the students from the early transition states have a higher rate of employment (58.8%) compared with students from later transition states (45.6%), they also earned higher wages (Cimera et al., 2014; Cimera et al., 2013). Therefore, it is recommended that transition services be implemented before the age of 16, as early as elementary or middle school. Review of qualitative research literature signified that early exposure and teaching of life skills will help students with disabilities be more directed, further develop life skills, and be more likely to be able to apply these skills to life post-graduation (Hollenbeck et al., 2015; Luecking, 2009; Wehmeyer, 2015; Schwind, 2017; Chiang, Ni, & Lee, 2017; Bal et al., 2015; Orentlicher, Handley-More, Ehrenberg, Frenkel & Markowitz, 2014). However, the evidence base is limited and additional evidence is needed to further validate the benefits of beginning transition services before the age of 16.

Proposition 2: Learning is a Holistic Process

According to the experiential learning theory and the occupational therapy practice framework (OTPF), a holistic approach to learning and intervention integrates an

individual's thoughts/beliefs/values, feelings/mental health, and behavior/body function and performance skills (Cruz Sudo, 2014; AOTA, 2014). The OTPF also indicates the impact of social interaction within a given context of learning. OTs are skilled at providing client-centered care to promote participation in meaningful activities considering physical, cognitive, and psychosocial person factors and the impact of the physical, social, and cultural environment. As described by the OTPF, OTs support clients in the following domains: activities of daily living (ADLs), instrumental activities of daily living (IADLs), rest/sleep, education, work, play, leisure, and social participation (AOTA, 2014). These domains are all relevant to adolescents with disabilities' postschool outcomes and should be considered when developing transition plans. Furthermore, OTs can help students identify and develop postsecondary goals via an occupational profile utilizing formal and informal measures to identify the student's strengths, preferences, and interests which aligns with IDEA 2004 that indicates the need for transition services to be directed by student's needs (IDEA, 2004; Majeski, et al., 2018). OTs can also utilize standardized assessments and/or clinical observations to observe the student's performance of functional skills in real contexts to establish realistic, attainable goals, and identify the need for environmental modifications or task accommodations when planning for post-school activities.

Despite OT's distinct skill set, current evidence suggests that OTs do not play a big role in providing transition-based services to school aged youth across the United States. Although survey data of practicing school-based OTs indicates that OTs believe they have the skills to positively impact secondary transition planning, very few OTs

imply any degree of involvement (Mankey, 2011; Kardos & White, 2005; Spencer, Emery, & Schneck, 2003). Furthermore, special education administrators were shown to not acknowledge the potential benefits of involving OTs in secondary transition planning (Spencer et al., 2003). There are many existing barriers impacting OTs ability to be involved in secondary transition planning including but not limited to, lack of funding, discharging students at an earlier age, and pre-existing school systems and structures for implementation of transition services. Evidence suggests that OTs may benefit from more direct training and education regarding the role they can play in secondary transition planning (Abbott & Provident, 2016). OTs can advance their own practice by collaborating with other professionals including speech and language pathologists (SLPs) and SpEd teachers in order to best address the many factors involved in transition planning. Bose & Hinojosa (2008) identified the need for OTs to move away from individual problem solving to team problem solving. When school-based OTs utilize collaborative team practices, they are more aligned with the goals for their students, have more purposeful interventions to help students meet the expectations within the classroom, and are better able to model appropriate modifications or accommodations to activities to match student skill levels (Seruya & Garfinkel, 2018; Orentlicher et al., 2014; Morris, 2013; Huang, Peyton, Hoffman, & Pascua, 2011; Juan & Swinth, 2010; Villeneuve, 2009). Unless OTs recommend consultation services on students IEPs, collaborative practices are not required or enforced.

Proposition 3: Learning Occurs when Individuals Interact with the Environment Around Them

The experiential learning theory indicates that learning occurs when individuals interact with the environment around them (Cruz Sudo, 2014). This relates to the problem that there is no mandate for simulated experiential learning and/or community-based learning in transition services. Contextually based learning can support skill development and retention of skills. Basic life skills are often first taught in controlled environments. This approach can support development of life skills, but in order to become autonomous in the skill, the student would need to continuously practice the skill in varied environments including the public community (Hoover, 2016; Stone-MacDonald, 2012). Hoover (2016) gathered from existing research that when working with students with disabilities, life skills are best taught by first introducing them in the classroom prior to in the community. Schwind (2017) further suggests that going out into the community when students have yet to fully develop the foundational skills may prove to be too unpredictable and not beneficial to overall student learning. Evidence has suggested that when students engage in hands on simulated learning experiences within their school environment they are better able to develop skills that can be translated into the community environment and prepare them for work (Walker, Vasquez, & Wienke, 2016; Landmark, Ju, & Zhang, 2010; Guy, Sitlington, Larsen, & Frank, 2009). Examples of simulated learning experiences include selling of goods within the school, role playing work interactions, mock interviews, and students having school jobs (Schwind, 2017; Walker et al., 2016; Nochajski & Schweitzer, 2013; Landmark et al., 2010; Guy et al.,

2009). Transition programs that have integrated both classroom instruction and community-based experiences have led to individual student progress in skill development (Moon, Simonsent, & Neuber, 2011; Sabbatino & Macrine, 2007). Some skills cannot be adequately learned without full exposure to the environment in which skills are to take place. For example, Walker, Uphold, Richter, & Test, (2010) indicated that banking and grocery shopping are best taught in the community, at an actual bank and in a grocery store. However, there are many barriers that impact the ability of schools to take students out into the community. Urban and rural schools may have vastly different opportunities in relation to ease of access to local community resources, including access to transportation. In addition, schools need to consider the amount of time required within the school day depending on distance from the school and method to get there. Furthermore, for liability reasons there often needs to be increased personnel to provide support with the community outing. Nochajski & Schweitzer (2013) utilized college students as a creative way to increase the number of personnel supporting community-based instruction. From a teacher perspective, the lack of organization of community outings combined with lack of training to facilitate community-based instruction discourages the use of this teaching method at school and prompts teachers to pass this imperative teaching and learning experience onto parents (Dereka, 2004). Therefore, more evidence is needed regarding the benefits of utilizing both simulated learning experiences and community-based interventions in order to advocate for required resources to help initiate and sustain these programs.

Evidence for Identified Problem of Proposed Explanatory Model

The experiential learning theory proposes that a holistic approach to teaching and learning is best. Considering this proposition, it is problematic that there is no widely recognized curriculum or guidelines to providing occupation-based interventions/transition-based services for children or adolescents with intellectual disabilities. Although, that does not mean that there are no established curriculums and/or programs focused on life skills development. In fact, there are quite a few, but many of the pre-existing curriculums rely heavily on teaching standards for reading/writing tasks and are limited in the amount of kinesthetic learning by doing occupation-based activities (Hamilton-Boone-Madison Special Services Cooperative, 2007). Likewise, while there is merit in creating individualized life skills programs to meet the specific needs of the students who will be participating in the program, more evidence regarding successful elements of life skills curriculum is key for providers to utilize or modify pre-existing, or create new meaningful curriculum that leads to positive outcomes. Bouck & Joshi (2015) analyzed the data from the National Longitudinal Study – 2 (NLTS2), and discovered that students with autism spectrum disorders' (ASD) ability to perform functional skills was a strong predictor of positive post-school outcomes and that there was a lack of evidence directly correlating any one curriculum in which students engaged in to post-school outcomes. Accordingly, it seems evident that programming must focus on development and performance of functional skills.

A few isolated case studies indicated success in establishing a clearly defined curriculum outline to teach life skills to adolescents with disabilities. A major

overlapping feature in these studies or models was the need to teach personal hygiene, communication skills in different contexts, and practice truly performing functional tasks (Kiraly-Alvarez, 2017; Nel, Van Der Westhuyen & Uys, 2007; Westbrook, et al., 2015; Gupta & Raja, 2013; Ayres, Lowrey, Douglas, & Sievers, 2011). Kiraly-Alvarez (2017) developed a program specifically for middle school students with disabilities taught by a SLP, an OT, and a social worker. The major units of this program included hygiene, food & nutrition, planning a party, safety, spring cleaning, leisure, as well as integration of community outings, participating in jobs within the school building, and working alongside general education peers (Kiraly-Alvarez, 2017). Nel et al., (2007) created a model for transition planning that is similar to the approach taken by Kiraly-Alvarez (2017) in that the students first learned pre-vocational skills such as personal and social presentation (hygiene) followed by engagement in simulated work experience prior to being placed in jobs. Westbrook et al. (2015) also outlined different teaching techniques to support skill retention including utilizing an interdisciplinary team approach, use of video self-modeling, on the job audio coaching, and family engagement to carryover to home environment. Some studies also emphasize the impact of the frequency of teaching on the level of skill development and skill retention. For example, Stone-MacDonald (2012) predicted in their model that utilization of functional academics for at least 80% of a student's school day will lead to increased independence in adult life. Many of these studies utilized small sample sizes over a short period of time, so while their findings indicate the need for a clearly defined curriculum, higher level evidence is required to substantiate these preliminary findings.

Summary of Theory Base

Utilizing the experiential learning theory and current research evidence, it is evident that the lack of a widely recognized life skills curriculum, lack of training on use of occupation-based interventions in simulated or natural contexts, and limited use of occupation-based interventions by OTs in middle school settings are negatively impacting students with moderate cognitive disabilities development of life skills. Kolb's experiential learning theory strongly supports the explanation of this problem. However, there are few research articles that utilized large sample sizes or randomized control trials which suggests that this is not a highly recognized problem and that there needs to be significantly more research to truly rationalize the layered elements of this problem.

Current Methods to Address the Problem

A comprehensive literature search of existing life skills and transition-based programs was conducted to determine current methods of addressing the proposed problem of a lack of a widely recognized life skills curriculum. Two primary questions that were identified to guide the search are as follows: 1) What interventions exist for achieving better postsecondary outcomes/development of life skills for students with disabilities and what is the evidence of their effectiveness? 2) Is there evidence about what features of life skills interventions are most associated with positive outcomes? The search was primarily geared toward obtaining information regarding public school-based interventions/programs, but some results of after-school, summer, or private school programs were also reviewed. Evidence was categorized by specific interventions and by approaches to intervention. Evidence was retrieved from the following databases:

PubMed, CINAHL, PsychInfo, Eric, American Journal of Occupational Therapy (AJOT), Google Scholar, Canadian Journal of Occupational Therapy (CJOT), Australian Occupational Therapy Journal, Journal of Vocational Rehabilitation, and Career Development and Transition for Exceptional Individuals (CDTEI).

The comprehensive search conducted with the above questions revealed specific interventions as well as intervention approaches that were correlated with positive outcomes for students with disabilities. Evidence suggested that inclusion of a transition assessment and goal setting is key to providing appropriate life skills intervention (Majeski et al., 2018). Interventions directly targeting self-care, independent living skills, and social skills were proven to enhance student outcomes (Bouck & Joshi, 2015; Hillier, Fish, Cloppert & Beversdorf, 2007). Additionally, paid or unpaid work-experiences supported student's ability to gain employment (Landmark et al., 2010; Test et al., 2009). When approaching life skills intervention, it was indicated that interdisciplinary collaboration to plan and deliver the intervention and integration of technology proved beneficial (Bouck, 2008; Fairman, Bendixen, Younkin, & Krcko, 2016). The selection of the environment should be deliberate and evidence suggested that opportunities for simulated experiential learning, general education inclusion, and community-based experiences promotes learning (Field, Blumenstein-Bott, Sinelle, Solomon, & Sawilowsky, n/d; Hoover, 2016; Moon et al., 2011; Ryndak, Ward, Alper, Montgomery, & Storch, 2010).

It was also found through the literature search, that a multifaceted intervention approach to transition planning, is correlated with improved student skill development

(Algozzine et al., 2001; Browder & Cooper-Duffy, 2003; Cobb & Alwell, 2009; Giust & Valle-Riestra, 2017; King et al., 2006; Kingsnorth, Healy, & Macarthur, 2007; Kohler & Field, 2003; Kraemer, Stice, Kazdin, Offord & Kupfer, 2001; Luecking, Fabian, Contreary, Honeycutt, & Luecking, 2018). Multifaceted intervention approaches inherently yield multiple intervention options allowing for client centered transition planning to best match the interventions to the needs and interests of each individual (Lambert, Hansen & Finch, 2001).

Interventions

As previously noted, a few interventions that have consistently been correlated with more positive than negative postsecondary outcomes of students with disabilities include transition assessment and goal setting, work-based experiences, self-care and independent living skills training, and social skills training (Bouck & Joshi, 2015; Hillier et al., 2007; Landmark et al., 2010; Majeski et al., 2018; Test et al., 2009).

Transition Assessment/ Goal Setting

IDEA 2004 is comprised of Indicator 13, which mandates that students with disabilities receive an age appropriate transition assessment in order to identify specific measurable postsecondary goals and services required to meet these goals as part of the development of individualized transition programs (Gaumer Erickson, Noonan, Brussow, & Gilpin, 2014; Test & Grossi, 2011). The Division on Career Development and Transition recommends that transition assessments be ongoing to assess a student's needs, strengths, preferences, and interests related to postsecondary education, independent living, and/or employment (Neubert & Leconte, 2013). This aligns with

Indicator 13 which promotes person centered transition services by requiring that the student be invited to IEP team meetings (Individuals with Disabilities Education Act [IDEA], 2004). Review of data revealed that when schools complied with these parameters as specified by Indicator 13 there was a statistically significant increase in rates of students enrolling in postsecondary education, but unfortunately continued participation was not sustained and there were no differences in rates of post-school employment (Gaumer Erickson et al., 2014). This generates the question as to what is considered an acceptable transition assessment and what the approach is for goal setting.

Levinson and Palmer (2005), highlighted specific skill areas to be addressed in transition assessments including: academics, daily living skills, personal and social skills, occupational and vocational skills, career maturity, vocational interests, and vocational aptitudes. Combining the use of multiple standardized transition assessments that focus on job skills, home living, community participation skills, interpersonal relationships, work skills, activities of daily living (ADLs), and instrumental activities of daily living (IADLs) can help direct the development of individualized occupation-based transition goals (Kardos & White, 2006). Furthermore, synthesis of the literature finds that provision of transition assessments by an interdisciplinary team utilizing a person-centered approach, with the student and his/her family at the center, helps to best identify what the student needs and wants to work on (Ayres et al., 2011; Hetherington, et al., 2010; Mazzotti et al., 2009; Michaels & Orentlicher, 2004; Roth & Columna, 2011). A single case study of a middle school student with a disabilities' team coming together to review the student's occupational profile and establish transition goals resulted in a more

directed plan for service and increase trust in the school by the parent (Juan & Swinth, 2010).

Person centered approaches promote self-determination by allowing individuals to make informed decisions about their futures based on their strengths, limitations, and interests (Field, Martin, Miller, Ward, & Wehmeyer, 1998; National Gateway to Self-Determination, 2013). Alongside this, in order for students to set realistic and attainable goals for themselves they must understand their own disability (Flowers et al., 2017; Gragoudas, 2014). Test & Grossi (2011) and Coughlin, McCoy, Kenzer, Mathur, & Zucker, (2012) indicated that beyond identifying and setting goals, self-determination can be further promoted by having students monitor and evaluate their own progress toward the goals and adapt the goals as their skills and interests evolve over time.

Self-Care and Independent Living Skills

Self-care and independent living skills were two of the top four evidence-based predictors of improved outcomes in postsecondary education, employment, and independent living for individuals with disabilities based on a systematic review of 22 articles (Test et al., 2009). Self-care skills encompass basic ADLs including but not limited to toileting, hygiene, and getting dressed. Independent living skills are IADLs which may include meal preparation, household cleaning, and paying bills. A secondary analysis of the NLTS2 revealed that the greater a student's level of independence in functional skills including self-care, financial skills, and independent living skills the better the post-school outcomes (Bouck & Joshi, 2015). This implies that students who have the capacity to learn and maintain a high level of independence in completing their

own self-care routine and engage in IADLs fair better upon the transition to adulthood; whereas students with significant cognitive and/or physical disabilities who are and may continue to be dependent for ADLs will have greater difficulty in obtaining paid employment, engaging in postsecondary education, and living fully independently. This may be why multiple students with disabilities and their parents/families highly value independence in ADLs as indicated by responding that the most important skill they wanted to be taught via life skills instruction was self-management/daily living skills (Moon et al., 2011; Stone-MacDonald, 2012). Targeting skills that are important, functional, and meaningful to the students increases motivation to engage in the activity and learn the skill (Ayres et al., 2011). Therefore, *SPOT on Life Skills* would benefit from the inclusion of opportunities to practice and promote independence in a range of BADLs and IADLS.

Social skills

Social skills, which includes nonverbal behavior, is a strong predictor of one's ability to obtain a job via an interview and maintain a job through appropriate communication with coworkers (Barrick et al., 2012; Barrick, Shaffer, & DeGrassi, 2009; Chadsey-Rusch, 1992; Greshman, Sugai, & Horner, 2001; Hillier et al., 2007; Strickland, Coles, & Southern, 2013). Therefore, it is important to support individuals with disabilities' development of appropriate social skills to better prepare them to enter the workforce. Speech and language pathologists (SLPs) are skilled at supporting individuals of all ages in developing social communication skills (American Speech-Language-Hearing Association, 2019). Occupational therapists (OTs) also support individuals with

social participation skills especially in relation to engagement in daily occupations including play and work (Griswold, 2016). Some effective methodologies for teaching social skills include the use of group-based interventions to teach skills in the natural context of a social situation (Hillier et al., 2007; Meyer, 2001; Robinson & Zajicek, 2005), role-playing (Leaf, Oppenheim-Leaf, Call, Sheldon, & Sherman, 2012; Strickland et al., 2013); direct training/instruction (Alwell & Cobb, 2009; Reichow & Volkmar, 2010); video modeling (Bellini & Akullian, 2007; Gelbar, Anderson, McCarthy, & Buggey, 2012; Strickland et al., 2013) and repeated practice in a variety of structured and unstructured environments to support with generalization (Hillier et al., 2007; Reichow & Volkmar, 2010; Strickland et al., 2013).

Paid or Unpaid Work Experience

According to two separate systematic reviews of transition services, the practice of having students with disabilities participate in paid or unpaid work experiences has been most substantiated and one of the highest predictors of improved postschool outcomes (Landmark et al., 2010; Test, et al., 2009). However, there tends to be limited focus on employment preparation in public school curriculums, with even fewer offerings for hands on or simulated learning, such as school-based enterprises or businesses by which students would produce goods as part of their programming (Guy et al., 2009). Middle school students with disabilities' engagement in school jobs has led to increased levels of independence and confidence (Kiraly-Alvarez, 2017). Researchers in the field of work-based learning have recommended that instruction related to work be provided through a combination of classroom-based instruction, to allow for reflection and

discussion on job interests, the roles and responsibilities of an employee, and the process of obtaining a job, with simulated or real work-based opportunities (Gray, 2001; Guy et al., 2009; Sitlington & Clark, 2006). For that reason, *SPOT on Life Skills* will include a unit on work skills as part of the weekly life skills course to be described in more detail in chapter 3, as well as a weekly work-based experience separate from the weekly course. Due to the students age, the work opportunities could be provided through school jobs or a simulated work environment within the school environment.

Intervention Approaches

In providing intervention, evidence promotes utilization of interdisciplinary collaboration practices (Bouck, 2008), integration of technology (Fairman et al., 2016), and careful consideration of the environment (Field et al., n/d; Hoover, 2016; Moon et al., 2011; Ryndak et al., 2010).

Collaboration

Qualitative data has found that teachers, OTs, and community members who worked collaboratively to plan transition services felt that they had a greater sense of knowledge about the transition process and were better able to provide supports to students (Abbott & Provident, 2016; Wynn, Steward, Law, Burke-Gaffney, & Moning, 2006). A case study of two high schools' functional curriculums revealed through observations and interviews that the functional curriculums were sustainable and impactful as a result of the personnel including teachers, paraprofessionals, and school administrators collaborating together to establish a curriculum that was supported by the school and public policy, and was meaningful to students (Bouck, 2008). Westbrook et

al. (2015) further indicated from a review of literature that transition programs benefit from an interdisciplinary team planning approach. In a single case study, the transition plan including the plan for services was more directed as a result of the interdisciplinary team working together to establish transition goals based upon the student's occupational profile (Juan & Swinth, 2010). In this study, the parent also indicated that the OT's perspective on transition planning was particularly helpful (Juan & Swinth, 2010). Accordingly, the innovative program will integrate an interdisciplinary team approach to intervention.

Technology

Evidence has suggested that the use of assistive technology (AT) as a teaching method has led to increased retention of taught skills and/or can be used as an accommodation to support a student to engage in an activity (Fairman et al., 2016). Research has indicated that the use of video modeling has been proven effective to teach adolescents with disabilities to perform work-based tasks and IADLs, such as preparing a simple meal (Allen, Wallace, Renes, Bowen, & Burke, 2010; Bellini & Akullian, 2007; Cihak & Schrader, 2008; Walser, Ayres, & Foote, 2012). Bennett, Brady, Scott, Dukes, & Frain, (2010) described utilizing technology in the form of an earpiece as a means to provide live audio coaching on the job; and although the study only included one participant there was a significant improvement in work task accuracy from 20% to 90%. The use of an iPhone has also been proven effective and motivating as a teaching device and also as an accommodation for the development of life skills (Bouck, Maeda & Flanagan, 2012; Fernandez-Lopez, Rodriguez-Fortiz, Rodriguez-Almendros & Martinez-

Segura, 2013; Fairman et al., 2016; Walser et al., 2012). Having access to AT as a support or accommodation as needed has led to increased graduation rates and rates of individuals with disabilities transitioning directly to post-secondary education or employment (Bouck & Flanagan, 2016; Fairman et al., 2016; Garrison-Wade & Lehmann, 2009; Stodden, Whelley, Chang & Harding, 2001). Within school systems, OTs play a bigger role than other professionals in determining the most appropriate AT for students (Fairman et al., 2016; Spencer et al., 2003). Through the development of a program that will be led by an OT in collaboration with other professionals, it will be imperative that the OT assess student's need for AT as an accommodation and embed AT as a teaching method (i.e. video modeling) and as a way to teach everyday life strategies (i.e. setting an alarm on an iPhone).

Environmental Features

The environment in which a student participates plays a large role in promoting or minimizing self-determination. Environments should enable students to have opportunities for choice and to make decisions, engage socially to problem solve with others, and communicate needs/self-advocate in real contexts such as in a work or community setting (Field, Sarver, & Shaw, 2003; Gragoudas, 2014; Kohler & Field, 2003; Test & Grossi, 2011; Wehymeyer & Bolding, 2001). Evidence indicates three primary settings correlated with positive life skill development for students with disabilities as the: 1) general education environment, 2) special education classroom utilizing simulated experiences, and 3) the local community. The benefits of each setting

along with the realities of providing instruction in each setting are described in detail below.

General Education Inclusion

According to IDEA 2004, all students with disabilities should be taught in the least restrictive environment, indicating that they should participate in learning with students without disabilities to the greatest extent possible (IDEA 2004). Ryndak et al. (2010) reported that students who received special education services within an inclusion setting, that is within the general education environment with general education peers, were more prepared to integrate into the community, interact with others, and gain employment. Specifically, a group of adults with mild intellectual disability (ID) who graduated from a full inclusion high school with an emphasis on vocational education and development of life skills had reportedly higher rates of employment as compared with the national statistics for individuals with mild ID (Luftig & Muthert, 2005). Furthermore, when students with disabilities are supported in relationships with typically developing peers it is likely they will have increased levels of confidence in their abilities and motivation to perform life skills (Kiryaly-Alvarez, 2017). Field et al. (2003) also indicated the benefits of self-determined role models in inclusive environments. Inclusion in general education is one of the top 4 predictors of post-secondary education, employment, and independent living based upon a systematic review of 22 articles (Test et al., 2009). Although proven effective, *SPOT on Life Skills* will not take place in the general education setting due to the instruction being tailored to middle school students with disabilities and not relevant to the general education students. The program will,

however, invite general education students to participate as role models throughout the program.

Classroom-Based/Simulated/Community-Based

Transition programs that have integrated both classroom instruction and community-based experiences have led to individual student progress in skill development (Moon et al., 2011; Sabbatino & Macrine, 2007). Community-based learning opportunities require significantly more resources including time, staff, and funding, so for practicality sake it is not a widely utilized intervention especially for younger students. Guy et al. (2009) discovered that the primary method for preparing high school students with disabilities for employment is through classroom instruction utilizing a combination of lecture and experiential activities. However, Moon et al. (2011) emphasized that inclusion of community-based experiences within a student's last few years of secondary education will lead to better transition outcomes. Kiraly-Alvarez (2017) bridged this gap for middle school students by incorporating a few community outings over the course of the year in order to reinforce specific unit-based topics including nutrition which involved a trip to the grocery store. However, prior to considering entering the community, students with disabilities need to first be taught the skills in controlled environments, such as the classroom (Hoover, 2016). Reinforcing functional life skills through repetitive practice in the classroom with positive reinforcement will help students effectively learn and become more autonomous with the skills taught (Hoot, McLaughlin, Derby, Dolliver, & Johnson, 2014; Hoover et al., 2016; Nel et al., 2007). Additionally, opportunities in the school environment to engage in

experiential learning through simulated experiences, or the act of physically doing the skill in built and varied environments, leads to increased student motivation to perform the task and generalization of the skills (Field et al., n/d).

Limitations of Current Research Evidence

Numerous studies were published starting in the late 1970s to middle 1980s regarding the poor post-school outcomes for students with disabilities (Johnson, 2002). Yet, in spite of the recognized need from the late 1970s, there has not been an influx in research evidence regarding transition planning. Although there is empirical evidence critically analyzing current transition trends, it is important to acknowledge the limitations of the literature base. The literature search did not produce high quality studies such as randomized control trials, but rather resulted in low level studies including multiple baseline experimental studies, and other non-experimental designs including surveys, interviews, case studies, and systematic reviews or secondary analysis of other studies. As many of the articles were non-experimental, the studies cannot be systematically replicated which negatively impacts the reliability of the results. Many of the sample pools were gathered from one geographic area resulting in decreased generalizability of the results. Additionally, many of the recent articles reviewed are at minimum five years old and reference studies conducted even earlier than that. Therefore, it is difficult to definitively indicate if this evidence base is an accurate representation of the current state of transition services in public schools. Furthermore, the assertion that OTs should be involved in transition planning and supporting the development of life skills for school aged children with disabilities has been emphasized

for the past twenty years, but it is unclear if OTs are moving closer to or further away from this area of practice (Juan & Swinth, 2010; Kardos & White, 2005; Powell, 1994; Schneck & Amundson, 2010; Seruya & Ellen, 2015; Spencer et al., 2006). In order to obtain a clearer depiction of the current state of transition services including what program elements are leading to improved student outcomes, as well as the potential benefits of OTs involvement, there needs to be continuous and current research, programming, and education to all stakeholders.

Implications for Program Design

By federal law, it is the responsibility of public schools to develop transition plans and integrate transition programming into the education of students with disabilities. Research suggests that students of all disability types require increased time to learn, but that they have the ability to learn throughout their lifetime and as such should begin receiving transition programming as early as middle school (Bouck, 2010; Chiang et al., 2017; Cummings et al., 2000; Frank & Sitlington, 2000; Matthews et al., 2015; Mazzotti et al., 2009). One of the primary indicators of positive postsecondary outcomes is the promotion of early self-determination skills, which is most often emphasized with students with mild-moderate ID as compared with other disability groups (Shogren & Plotner, 2012; Wehmeyer & Mithaug, 2006; Wehmeyer & Shogren, 2008). Accordingly, in line with the current evidence, the primary target population for the life skills curriculum will be middle school students with mild-moderate ID who have the capacity to develop self-determination skills including goal-directedness, self-advocacy, and problem-solving skills. This curriculum, however, will not be exclusively restrictive to

this population and regardless of disability type, the curriculum will employ a person-centered approach to identify individual student's strengths, limitations, and interests (Neubert & Leconte, 2013; Rehfeldt, Clark, & Lee, 2012; Roth & Columna, 2011).

The curriculum will consist of a multifaceted intervention approach consisting of a life skills class and a simulated work-based experience. The life skills class will include units on self-care and independent living skills training, social skills training, and work skills training. The specific interventions and activities selected will be in accordance with the needs and interests of the students in the group (Banks, 2014; Bouck & Joshi, 2014; Hillier et al., 2007; Landmark et al., 2010; Mazzotti, et al., 2009; Test, et al., 2009). The curriculum will provide an extensive amount of intervention activities for each unit with suggestions for how to grade the activity up or down. A group approach to intervention will help to enhance social skills. The life skills curriculum will be delivered by an interdisciplinary team including a special education teacher, an OT, and an SLP who will receive training prior to delivery of the curriculum to enhance fidelity and student outcomes (Bouck, 2008; Murray & Doren, 2013). In addition, the simulated work-based experience will allow inclusion opportunities for students with disabilities to participate with and "work" alongside general education students for the job (Hillier et al., 2007; Meyer, 2001; Robinson & Zajicek, 2005; Ryndak et al., 2010).

CHAPTER THREE – Description of the Program

Program Overview

SPOT on Life Skills is a school year-long, middle school-based life skills curriculum delivered via a weekly hour-long life skills class and a weekly forty-five-minute simulated work-based experience. The acronym ‘SPOT’ highlights the collaborative team approach to intervention, representing **S**pecial educators, **S**peech and language **P**athologists, and **O**ccupational **T**herapists working together to design and implement the program. The acronym also recognizes the importance of the interdisciplinary team to collaborate with the **S**tudents and the **P**arents/guardians in order to deliver a person-centered intervention. The target population for the program is middle school students, between the ages of 11–14, with mild to moderate intellectual disabilities. The program content is presented utilizing a multitude of teaching and learning methods so that the program can be adapted to meet the unique learning styles and needs of the targeted population. The program content emphasizes the development of basic self-care skills, independent living skills, social skills, and work skills. The simulated work-based experience provides the opportunity to practice some of these taught skills in the context of a job. Each week a new skill will be presented during the life skills class to build the student’s repertoire of various life skills in order to increase his/her functional independence level (Alwell & Cobb, 2009). The occupational therapist (OT) and speech and language pathologist (SLP) will also consult with the teacher so that these skills can be continuously reinforced within school, outside of the once weekly life skills class and the once weekly work-based experience. Additionally, the program will include

parent/guardian education and weekly written communication so that the development of the skills can be carried over to the home environment.

Prior to implementation of the program with students, the collaborative team will participate in a training to understand the theoretical and evidence base for the program and gain knowledge relative to the best practices for implementation of the program. At the start of program implementation, the team will assess the student's current strengths and weaknesses related to self-care, independent living, social skills, and work-based tasks. Part of this assessment will include an interview with the students and parents/guardians in order to determine their priorities (Stone-MacDonald, 2012). The curriculum for the life skills class will include an array of content that can be selected from to best meet the needs and interests of the students.

Method & Process of Delivery

As indicated above, the life skills curriculum will be delivered via a once weekly hour-long life skills class and a once weekly simulated work-based experience. This section will discuss the program personnel who will deliver the curriculum. It is noted that for the program to be delivered with fidelity and with the best outcomes, all personnel who will be contributing to program implementation will participate in a two-hour long training. This section will then describe the targeted student participants and planned dissemination activities for recruitment of students and program personnel. Key program elements will be described as established from theory and empirical evidence. Additionally, not a mandatory component of the program, but mentioned in this section is the potential to embed community outings.

Program Personnel

The life skills class is to be collaboratively instructed by an occupational therapist (OT), speech and language pathologist (SLP), and a special education teacher (SpEd) for 60 minutes weekly. The OT will share his/her expertise in the use of occupations as a means and as an end while facilitating the development of underlying motor, sensory, and executive functioning skills to enhance participation and independence in occupations. The SLP will share his/her knowledge base to support student's development of social and communication skills. The SpEd teacher can adapt the activities to meet the academic and learning needs of each of the students. The SpEd teacher may also be responsible for educating paraprofessionals or 1:1 aides on ways to best facilitate and enhance student participation in the class.

The weekly work-based experience will be designed and delivered collaboratively by the OT, SLP, and SpEd teacher. Forty-five minutes will be allotted weekly for implementation. The work-based experience will remain consistent over the course of the year resulting in repetition of tasks from week to week. Accordingly, as students gain exposure and increased independence in performing the tasks, it is likely the work-based experience will only take ~30 minutes weekly. The repetitive nature also allows for increased flexibility in staff participation. Ideally, the collaborative efforts of the interdisciplinary team will be employed weekly, but pending other responsibilities (IEP meetings, evaluation deadlines) as a result of high caseloads the school-based OT and SLP may participate for shorter segments or alternate weeks that they are supporting implementation.

Student Participant Recruitment

The targeted participants for the program are middle school students, 11-14 years of age, diagnosed with a mild-moderate cognitive disability that affects their ability to engage in the general education curriculum and accordingly have an individualized education program (IEP) with placement in a substantially separate classroom environment. Although the program is directed toward students with mild-moderate disabilities in substantially separate classrooms, students in inclusion settings and/or students with varying disabilities who have the capacity to develop self-determination skills are also appropriate candidates for participation. Per the Massachusetts special education law regarding placement (603 CMR 28.06), substantially separate classrooms cannot exceed eight students to one certified special education teacher (Massachusetts Department of Elementary and Secondary Education, 2017). Utilizing this as a guideline, *SPOT on Life Skills*, will place a cap on groupings to no more than eight students. Based upon the number of substantially separate classes/students who could benefit from the program it may be a full group with 8 students, or the group may be separated by class/skill level into multiple smaller groups. As public schools may admit new students throughout the school year the program will have a ‘rolling enrollment’.

It is expected that as part of their IEP all students who participate in the program receive special education services and at least two times 30 minutes weekly of direct group-based OT and/or SLP services. While not explicitly denoted in Medicaid law, which is a common reimbursor of public-school related services, and to be consistent with Medicare reimbursement, in a 60-minute co-treat session, it is best practice for the

OT and SLP to each only report 30 minutes of service provision per client (Centers for Medicare & Medicaid Services, 2012). In addition to the direct service, it is also expected that the students receive consultation services from the OT and/or SLP written into their IEP, so that there is a legal mandate for collaboration with the other IEP team members.

It is recommended that the school team add a life skills goal to the students IEP that is owned by the special education teacher with consultation from the OT and/or SLP or co-owned by all related professionals. The addition of this goal on an IEP, which is a legal document, will hold the team responsible for providing this service and tracking progress toward identified goal and objective areas. However, the inclusion of this is not a required component of the program.

Dissemination for Personnel and Student Recruitment

The program is intended to be piloted at one K1-8th grade school in the Boston area. The targeted school is the author's place of employment where she has established working relationships with the special educators, speech and language pathologist, and parents/guardians of the students who receive OT services, which can aid the recruitment of staff and student participation. Beyond the pilot of the program, recruitment of other school-based professionals to implement the program with the students they work with will be done through dissemination activities detailed in chapter 6. Disseminating program information with other professionals as well as with parents/guardians of students with disabilities will expand the impact of the program by increasing awareness of the value of providing transition services as early as middle school. Furthermore, the

dissemination/recruitment activities will promote the value and role of OT and use of collaborative practices in transition planning.

Key Program Elements

The key program elements that make up *SPOT on Life Skills* were derived from the findings from the evidence search and integration of the phases of learning of the experiential learning theory. The program consists of: curricular training for facilitators; assessment of student's strengths, areas for improvement, and desires; a weekly life skills class to incorporate client-centered goal setting; a simulated work-based experience; and the option to include community-based outings.

Training

A training will be delivered to the OT, SLP, and SpEd teacher by the author of the program in one two-hour session to take place at the start of the school year.

Participation in a training prior to program implementation has been shown to enhance staff's knowledge and confidence in their ability to properly deliver the program to improve participant outcomes (Bouck, 2008; Murray & Doren, 2013). The training will provide an overview of the literature and theory base that guided the development of the curriculum. Additionally, the specific program content including activity suggestions and teaching and learning methods will be discussed. Time for questions and answers and assistance to map out the plan for implementation over the course of the year will also be included. In the learning phase of abstract conceptualization, the interdisciplinary team can utilize their existing knowledge of the students and compare it with their gained knowledge of the program, including the theory and evidence base, to share ideas with

one another about how best to adapt the curriculum.

Following the initial training, the interdisciplinary team will designate a time to meet once monthly for 30 minutes to reflect on student participation and modify activities/make accommodations to meet student needs. Evidence has validated that collaboration helps direct intervention to best match student needs (Christner, 2015; Huang, Peyton, Hoffman, & Pascua, 2011; Orentlicher, Handley-More, Enrenberg, Frenkelm & Markowitz, 2014; Seruya & Garfinkel, 2018; Villeneuve, 2009).

Assessment of Student Strengths, Needs, and Interests

Prior to the implementation of the life skills class the interdisciplinary team will interview the students and the student's parents/guardians in order to learn more about what they want to get out of the program. Stone-MacDonald (2012) highlighted the importance of interviewing parents about what is important to them. Yet, it is important to not let parent's interests overshadow or influence the student's own vocational interests (Azubuike, 2011). The students and parents/guardians will have the opportunity to review their own past experiences to identify what areas of daily living/work-based skills they would like themselves or their student to gain more independence in performing (reflective observation).

Successful transition programs include evaluation of student's strengths, interests, and areas of improvements (Savage, 2005). To gain information relative to the student's current abilities to perform daily living skills, the student's teacher and parents/guardians will be prompted to complete the Assessment of Functional Daily Living Skills (AFLS). AFLS is a standardized questionnaire rated on a scale of 0-4, with 0 indicating the student

is unable to perform the life skill and 4 indicating the student can perform independently. Record review will also be completed. The OT and SLP will review the student's most recent school-based OT and SLP evaluation results and treatment notes to understand the student's motor, sensory, executive functioning, social, and communication skills. The interdisciplinary team will also review the students most recent school-based psychological and academic assessments, as a standard measure of the student's cognitive and academic skills. The student's IEP progress report data will also be reviewed. This information will be utilized to guide the structure and content of the class.

Weekly Life Skills Class

The team (OT/SLP/SpEd teacher) will meet at the beginning of the school year to identify a day of week/time of day that works for everyone's schedule and identify a designated space for the life skills class to take place (although this may rotate based on content of each week). The life skills class will consist of four curricular units: 1) self-care skills, 2) independent living skills, 3) social skills, and 4) work skills. Within each unit there are subunits consisting of more intervention activities than possible to implement over the course of the year. This is so that the selected set of intervention activities in each of the four units can be explicitly tailored to meet the needs and interests of the student group. Based on a public-school calendar consisting of 185 school days, there are approximately 35 feasible weeks for the life skills class to be implemented. As such, the life skills class will be 34 weeks long, allowing for slight flexibility to skip a week or extend one of the units by a week. The first two weeks of the program are dedicated to individualized goal setting followed by the four units, each 8-

weeks in length.

As noted, the first two weeks of the life skills class will be dedicated to goal setting. Each student will identify and set a realistic and attainable goal(s) they hope to reach over the course of the school year. Setting long-term goals can help support well-being and progress toward those goals (Messermith & Schulenberg, 2010; Wei, Wagner, & Hudson, 2015). The students will engage in the learning phase of abstract conceptualization to identify a goal based upon past experiences. To encourage ongoing commitment and enthusiasm for goal attainment, each week thereafter, the start of the life skills class will consist of the students going around in a circle and re-stating the goal they set for themselves.

The unit and subunit topics that make up the weekly life skills class are directly correlated to the existing literature search, regarding the skills that lead to positive postsecondary outcomes for students with disabilities. Aside from the goal setting, not all topics listed will be implemented and it will be up to the discretion of the interdisciplinary team to select topics that are most relevant and important to the students in a particular life skills group. The program is designed so that one specific topic will be addressed each week, resulting in students being exposed to ~32 life skills. Depending upon student skill levels, one topic can be spread across multiple weeks, or more than one topic can be addressed within the hour-long class resulting in more or less life skills addressed over the course of the year. Evidence indicates that increasing student's repertoire of functional life skills increases student independence levels (Alwell & Cobb, 2006; Stone-MacDonald, 2013).

The students will have the opportunity to go through all four phases of learning during the life skills class. They will have opportunities to learn/be exposed to new activities/tasks (concrete experience), watch others perform the tasks and engage in discussion/reflection (reflective observation), think about what to do (abstract conceptualization), and physically perform each activity (active experimentation). Opportunities in the school environment to engage in experiential learning through simulated experiences or the act of physically doing the skill in built and varied environments leads to increased student motivation to perform the task and generalization of the skills (Field, Blumenstein-Bott, Sinelli, Solomon, & Sawilowsky, n/d). It is recommended that a variety of teaching/learning methods be employed. One of the methods, the use of video modeling, was indicated as it has led to increased levels of independence in students with disabilities (Allen, Wallace, Renes, Bowen, & Burke, 2010; Bellini & Akullian, 2007; Cihak & Schrader, 2008; Walser, Ayres, & Foote, 2012). Table 1 provides a description of the topics within each unit and the suggested teaching methods.

Table 1. Outline of Weekly Life Skills Class

Weekly Life Skills Class			
Week	Instructional Units	Topics within Unit	Teaching Methods
Weeks 1–2 (2 total)	Introduction to Class & Goal Setting		
*Goals to be reviewed at the beginning of every week	Introduction to Class & Goal Setting	-Overview of 4 units -Reflection on own disability/strengths/areas of improvement related to each of the 4 units -Goal setting	-Discussions -Variety of goal setting templates -Use of visuals
Weeks 3–10 (8 total)	Unit 1: Self-Care		
	Subunit 1: Hygiene	-Hand washing -Brushing Teeth -Applying Deodorant -Washing mouth/face ‘mirror check’	-Physically doing all of these tasks -Video modeling -Peer/staff modeling -Use of visuals
	Subunit 2: Clothing Management	-Securing buttons/fasteners on clothing -Identification of appropriate clothing choices based on the weather -Identification of appropriate clothing choices based on the occasion (i.e. casual vs. fancy)	-Practicing securing buttons/fasteners on clothes in front of them before trialing on their body -Video modeling -Role playing with real clothing -Practice scenarios -*Shopping and noticing how clothes are arranged by season and occasion (community-outing)
	Subunit 3: Manners	-Table manners -Eating: when to use utensils -‘Mirror check’ following eating	-Inviting general education peers to a party and practicing table manners -Video modeling -*Going out to eat (community-outing)

Weeks 11–18 (8 total)	Unit 2: Independent Living		
	Subunit 1: Personal Safety	<ul style="list-style-type: none"> -Identifying personal phone number -Identifying home address -When to call 911 -Use of iPhone to make phone calls -Stranger Danger 	<ul style="list-style-type: none"> -Use of song for phone number -Writing down address, verbally stating address, looking up address on google maps -YouTube videos of example emergencies -Discussion -Guest speakers (adult strangers) -Role playing
	Subunit 2: Meal Preparation	<ul style="list-style-type: none"> -Opening/closing snack containers -Nutrition -Identification of ingredients -Utensil use -Safe appliance use (microwave, toaster oven, plugs) -Following a simple recipe (leveled recipes) 	<ul style="list-style-type: none"> -Practicing opening/closing containers -Sorting print outs of food or real food into categories (fruits/ vegetables/ carbohydrates/ protein/ sugar) -Use of healthy meal plate -Identifying preferred meals -Video modeling -Recipe book with leveled recipes (visuals, visuals & words, just words) -Supervised use of appliances -Virtual grocery shopping -Writing down grocery lists -*Grocery Shopping (community-based outing)
	Subunit 3: Cleaning	<ul style="list-style-type: none"> -Sweeping -Vacuuming -Cleaning a spill/tables -Washing dishes -Taking out the trash -Laundry 	<ul style="list-style-type: none"> -Physically doing all of these tasks -Practice vacuuming a rug -sorting/folding laundry -Video modeling -visual directions
	Subunit 4: Money management	<ul style="list-style-type: none"> -Coin and bill identification -Sorting 	<ul style="list-style-type: none"> -Use of real money -Role playing (cashier)

		<ul style="list-style-type: none"> -Storing money/wallet use -Paying for an item/receiving change -Paying bills 	<ul style="list-style-type: none"> -*Buying something at a local store (Community-based outing) -Buying something online -Reviewing newspapers from local grocery store to compare prices -Looking at a real utility bill
	Subunit 5: Computer/Technology	<ul style="list-style-type: none"> -Sending an email -Finding an item on amazon -Printing a document -Making photocopies 	<ul style="list-style-type: none"> -Video modeling -Staff/peer modeling -Physically doing
Weeks 19–26 (8 total)	Unit 3: Social Skills		
	Subunit 1: Self-advocacy	<ul style="list-style-type: none"> -Asking for assistance -Understanding own needs/disability 	<ul style="list-style-type: none"> -Role playing -Video modeling -Create PowerPoint presentation about yourself and sharing with others -Discussions
	Subunit 2: Nonverbal communication	<ul style="list-style-type: none"> -Eye contact -Personal space/touch -Facial expressions -Body movements/gestures 	<ul style="list-style-type: none"> -Video modeling -Role playing -Discussions -Observing peers/staff
	Subunit 3: Conversation skills	<ul style="list-style-type: none"> -Greeting others -Picking a topic of conversation -Responding to others -Turn taking 	<ul style="list-style-type: none"> -Engaging in conversation with general education peers -Video modeling -Discussions -Role playing
	Subunit 4: Social Media (Important to receive parent/guardian permission for this subunit)	<ul style="list-style-type: none"> -What are the different social media options 	<ul style="list-style-type: none"> -Going on social media -Discussing safety on social media including what is cyber bullying

Weeks 27–34 (8 total)	Unit 4: Work Skills		
	Subunit 1: Career Exploration	-Job Interest Surveys -Career exploration -Paid vs. volunteer work	-Paper/pencil surveys -Online surveys -Group brainstorming/writing on board -Use of computer/looking up jobs on internet -Guest speakers from school employees in different careers (i.e. school nurse, janitor, cafeteria worker, office clerk)
	Subunit 2: Gaining Employment	-Resume writing -Job application -Interview skills	-Find an application online -Filling out an application -Viewing examples of resumes -Discussion of what to include on resume -Mock interviews -Virtual interviews -Role playing -Video modeling
	Subunit 3: Keeping a job	-Time management (getting ready for work, how to get to work on time) -Understanding one's role in a workplace ('employee vs. employer')	-Discussions -Use of iPhone (alarms) -Example YouTube videos of 'good' vs. 'bad' employees
	Subunit 4: Job experience reflection	-Reflect on year-long simulated work-based experience	-Discussions

Simulated Work-Based Experience

Student participants will have the opportunity to generalize the skills acquired in the life skills class by participating in a simulated work-based experience in the school environment. Engagement in work-based tasks in real or simulated environments is

anticipated to improve postsecondary outcomes of students with disabilities (Walker, Vasquez, & Wienke, 2016; Landmark, Ju, & Zhang, 2010; Guy, Sitlington, Larsen, & Frank, 2009). In fact, students with disabilities' participation in paid or unpaid work experiences has been indicated as one of highest predictors of positive postschool outcomes (Landmark et al., 2010; Test, et al., 2009). As with the life skills class, the simulated work-based experience, promotes hands on, reflective learning through all four phases described in the ELT: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Ideas for work-based experiences include but are not limited to: office work, janitorial work, landscaping, computer based/online work, or selling of goods. Within the pilot curriculum, one specific simulated work-based experience will be described in detail: students selling coffee and snacks to school staff. However, it is not expected that implementation of the program would include the replication of this exact work-based experience. Rather, the work-based experience should be tailored to the interests of the students with consideration of each school's resources to support the program. The interdisciplinary team will select a specific day of the week, ideally on a different day than the life skills class, to embed the work-based experience into the student's schedule.

The work-based experience will span 32 weeks over the course of the school year lasting ~30-45 minutes weekly. The work-based experience will commence after the first two weeks of goal-setting, aligning with the third week of the life skills class. To simulate a work environment, work terminology will be instructed and utilized including but not limited to: "employee, employer, supervisor, leave of absence, clocking in and

out, payroll”. The interdisciplinary team will provide ‘work orientation’ to the students which will include job shadowing/visual demonstrations, video modeling, and practicing of the skills. Over the course of the work-experience the interdisciplinary team will provide fading support as appropriate. At approximately week 8, it is expected the students will be displaying increased confidence, knowledge, and skills to perform the job. At this time, general education students will be invited to participate as ‘guest employees’. It will be the role of the students with disabilities to provide ‘training/job coaching’ to these students. Each week new general education students, of varying ages (elementary and middle school), will be invited to participate, requiring the students to engage with a wide range of students supporting the development of social skills and confidence in their abilities as a worker. Evidence has suggested that students with disabilities have increased confidence and motivation to participate in life skills when participating with general education peers (Kiraly-Alvarez, 2017; Test et al., 2009).

Table 2 portrays the outline for the first few weeks of the work-based experience for the pilot of the program: students selling coffee and simple snacks to school staff.

Table 2. Example Work-Based Experience Program Outline

Simulated Work-Based Experience: Coffee Cart		
Week	Topic/Skill	Teaching Methods
1	<p>Work Terminology: Employee, Employer, Supervisor, Leave of Absence, Clocking In and Out, Payroll, etc.</p> <p>Terminology for specific job materials: Coffee pot, cups, sleeves, lids, labels, gloves, cutting board, utensils, pitcher, water cooler, etc.</p>	<p>Discussion Role Playing Videos Labeling objects/scavenger hunt</p>
2	<p>Identification of Specific Jobs within coffee cart: Taking orders, making & pouring coffee, preparing cups, preparing simple snacks, delivering coffee and snacks, collecting money & providing change</p> <p>Job Shadowing</p>	<p>Watching staff and other students perform the skills Video Modeling Step by step visual instructions</p>
3	Ongoing Job Shadowing	<p>Trialing each of the different job tasks Close supervision and/or physical, verbal, or gestural support as needed Use of visuals Trial and error</p>
4	<p>Recruitment of customers: Sending out an email, approaching teachers/staff, taking orders, collecting money</p>	<p>Typing email or use of voice to text Role playing conversations with teachers followed by real conversations Practice with money</p>
5	Performing job in real time	Each student assigned a specific job
6	Performing job in real time	Each student assigned a different specific job
7	Performing job in real time	Students self-select job, utilizing problem-solving skills if they all want to perform the same skills
8	Performing job in real time with ‘guest employees’ – general education student participants	Students with disabilities instructing general education students what the different tasks are and directing the student for what tasks need completing

Considerations for Optional Community Outings

The program will include quick tips and considerations for the option to include community based educational trips throughout the program. Due to geographical setting, staffing models, and budgetary considerations the life skills curriculum will not include specific content in this area due to the varying levels of feasibility and need to adapt this based upon each setting's unique set of community resources. This is simply included to stimulate professional's awareness of the benefits of community-based instruction. Evidence has indicated that community outings maximize student transition outcomes especially in the final years of public education (Moon, Simonsen, & Neubert, 2011; Westbrook et al., 2015). This gives a basis for professionals and parents to advocate for high schools to include more community-based instruction within their transition programs. Utilization of the research evidence can strengthen this recommendation.

Desired/Intended Outcome of the Program

The ultimate goal of the life skills program is to expose middle school students with disabilities to an array of functional life skills. It is anticipated that repeated exposure and practice of these skills will lead to increased long-term independence (Bal, Kim, Cheong, & Lord, 2015; Chiang, Ni, & Lee, 2017). Cimera, Burgess, & Wiley (2013) support the premise that early exposure to life skills training/instruction leads to increased rates of employment and independent living as students with disabilities transition from secondary education into adulthood. The program is encouraging students, parents/guardians, and educators to have a prospective outlook to the future related to student engagement in postsecondary education, independent living, and/or employment.

By involving the students in setting individualized and meaningful goals related to functional skill performance, it is assumed the students will be more motivated to develop the skills and have enhanced self-determination (Locke & Latham, 2002). In order for students to set realistic and attainable goals they will need to understand their own strengths and limitations. As such, it is anticipated that student participants will be able to self-identify at least two of their strengths and two areas of need related to performance of life skills.

It is intended as a direct result of exposure to an array of life skills, that students will demonstrate an increased ability to identify responsibilities related to independent living and/or employment by the end of the school year. It is expected that the life skills/transition-based programming in high school will encompass more opportunities for repeated exposure and practice of skills, with a decreased need to overview the topics if formerly presented in middle school. Another objective is to have students develop independence to initiate, sequence, and execute 3 daily living tasks by the end of the school year. This is an expected result from exposure and practice of the skills in the life skills class with reinforcement in the classroom and home environment. Establishing increased rates of independence in daily living skills promotes confidence and facilitates engagement in more complex functional skills.

Potential Barriers/Challenges

The major potential challenge to successful implementation of the life skills curriculum is the time commitment for all involved (Bose & Hinojosa, 2008; Huang et al., 2011; Orentlitcher, 2014; Watt & Gage Richards, 2016; Villeneuve, 2009). The SpEd

teacher will need to adapt the student's curricular schedule to prioritize the inclusion of the life skills instruction. The OT and SLP will need to commit to the hour-long weekly life skills class, provide consultation for the simulated work-based program, and spend time collaborating with the SpEd teacher regarding the delivery of the life skills class. This could be especially challenging if the related service professionals were not directly employed by the school or only at the school part time. Furthermore, if the students do not have explicit life skills goals written into their IEPs, it may be hard for the professionals to collect IEP data. This may result in the need to adapt the lessons to target specific objectives within the student's IEPs. If parents do not consent to the program, further education will need to be provided to educate them on the potential benefits of the program. It is expected that all students within the substantially separate classrooms would directly benefit from this program. However, it may be more challenging to get inclusion students and their special education teacher involved. Additionally, it may be challenging to gain consent and find time within the general education students schedules so that they can participate as student role models. If there is staff turnover, new relationships between staff will need to be obtained. Another potential barrier may be related to resources including space, funding, and school support. Administrator support will need to be obtained in order to sustain the program over time. As technology and society advances and directly impacts types of employment and independent living, the program may need to be adapted to stay current (i.e. use of iPhone, working from home). The last challenge may be for the team to collaboratively decide what topics to specifically address each week based on student and parent/guardian interests, and

student strengths and areas for improvement.

CHAPTER FOUR – Evaluation Plan

The goal of *SPOT on Life Skills* is to increase middle school students with disabilities' knowledge and awareness of skills needed for independent living and employment and self-awareness of their own strengths and limitations related to life skills. As a result of exposure to an array of life skills utilizing multiple teaching/learning methods, a secondary goal is that the student participants will demonstrate the ability to independently initiate, sequence, and execute at least three different daily living tasks that they could not formerly perform independently. In addition to student centered program goals, it is intended that OT, SLP, and SpEd teachers integrate evidence-based practices to implement life skills programming in the middle school setting as a result of *SPOT on Life Skills*.

Introduction to the Evaluation Plan

To evaluate stakeholder satisfaction of *SPOT on Life Skills* a formative program evaluation was designed. To evaluate preliminary outcomes related to individual student's increased knowledge and skill base, a summative program evaluation was included. The combined results of these evaluations are expected to provide information relative to the effectiveness of the program and guide ongoing adaptations to improve the program. The evaluation plan provides the background of the key program elements and the context of the problem, accompanied by a logic model. Evaluation goals are outlined, followed by the evaluation measures and methodology. An overview of how the data is to be analyzed and the limitations of the evaluation are described. The evaluation plan concludes with the implications for future work.

Program Background

SPOT on Life Skills is a model life skills curriculum for middle school students with disabilities derived from theory and empirical evidence. There are two major components to the program: a weekly life skills class, and a weekly work-based experience. The program is facilitated collaboratively by an occupational therapist (OT), speech and language pathologist (SLP), and a special education (SpEd) teacher. The interdisciplinary team establishes a person-centered approach to intervention by asking the students and their parent/guardian's desired outcomes for the program in relation to the student's strengths, needs, and interests. The first two weeks of the life skills class involves students setting an individualized, realistic, and attainable goal(s) for themselves to be obtained through participation in the life skills class and the work-based experience. It is expected that students will be motivated to attain this goal as they will select a goal that is uniquely important to them as an individual. Students will have the opportunity to review their progress toward goal attainment weekly. A holistic approach to intervention is taken by considering the physical, social, and cultural environment in relation to the student's thoughts, feelings, and behaviors.

Together, the interdisciplinary team's goal for the life skills class is to enhance student's level of independence in a variety of life skills through implementation of four curricular units: 1) self-care skills, 2) independent living skills, 3) social skills, and 4) work skills. The specific intervention activities selected within each unit will be adapted with the student's goals and needs in mind. The specific work experience is also tailored to match the general needs and interests of the student group. However, for the purposes

of the pilot of the program, in a middle school in the Boston area, the focus will be on a sales-based work experience consisting of students selling coffee and snacks to school staff.

The OT, SLP, and SpEd teacher will participate in a training course prior to the implementation of the program and will receive a guidebook to enhance the fidelity of implementation. The team will also provide recommendations for carryover of skills into other parts of the school day and in the home environment.

Context of the Problem

Students with disabilities have significantly poorer postschool outcomes (postsecondary education, independent living, employment) as compared to their same aged general education peers (Kraus, Lauer, Coleman, & Houtenville, 2018; Newman et al., 2011). Federal law mandates the provision of transition services for students with disabilities, who have individualized education programs (IEPs), by the year the student turns 16 (Individuals with Disabilities Education Act, 2004). However, the transition requirements are vague, and evidence has indicated that early provision of transition services, by age 14, leads to more positive postsecondary outcomes (Cimera, Burgess, & Bedesem, 2014; Cimera, Burgess, & Wiley, 2013). This is supported by evidence that indicates that repeated exposure and practice of a skill over a greater period of time will lead to increased skill retention (Hillier, Fish, Cloppert, & Beversdorf, 2007; Reichow & Volkmar, 2010; Strickland, Coles, & Southern, 2013).

Kolb's experiential learning theory (ELT) indicates that learning is ongoing which supports the premise that earlier intervention is best. The ELT also indicates that learning

is holistic and occurs when individuals interact with the environment around them. The four principles of learning as described in the ELT are concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, Boyatzis, & Mainemelis, 1999). These principles are fully embedded into the delivery of *SPOT on Life Skills*. In the weekly life skills class, the students are exposed to the life skills through a variety of evidence-based teaching/learning methods with opportunities to practice the skill (concrete experience), watch recordings of themselves or others perform the skill (reflective observation), and identify when and why this skill might be needed in other settings (abstract conceptualization). The students then have the opportunity to transfer the skills they have been exposed to by taking on the role of an ‘employee’ in a simulated work-based experience in the school setting (active experimentation). The short-term goal is for the students to gain increased awareness of the skills required to live independently, as well as gain and sustain employment. It is also expected that the students will develop increased levels of independence in performing some of the skills. As students continue to be exposed to life skills throughout middle and high school, they will have an immensely greater skill set by the time they exit public school. The long-term goal is that the enhanced skill set will set the students up for success to obtain employment and live independently, combatting the current poor postsecondary outcomes for individuals with disabilities. A clear representation of the context of the problem and resulting outcomes intended through implementation of *SPOT on Life Skills* is portrayed in Appendix B: Logic Model.

Evaluation Goals

1. Determine if the students developed increased independence in performing daily living tasks addressed in the program.
2. Determine if the middle school students with disabilities developed an increased knowledge base of the required life skills to live independently and gain employment from participating in the program.
3. Determine the stakeholder's (OT, SLP, SpEd teacher, students and parents/guardian) level of satisfaction with the program content, program delivery, and program outcomes.

Evaluation Methodology

SPOT on Life Skills will be evaluated utilizing a mixed methods research design. Combining a formative with a summative evaluation will provide information relative to the practicality and satisfaction of the program as well as quantifiable student outcomes. Quantitative and qualitative data measures will include surveys, a standardized questionnaire, and goal attainment scaling.

The survey will consist of qualitative (open-ended) and quantitative (Likert-based) measures to provide information regarding the level of satisfaction of *SPOT on Life Skills* by the many stakeholders including students, parents/guardians, OT, SLP, and SpEd teacher. All of the surveys will be administered upon program completion, except for the student specific survey that will be administered as a pre-post measure. The student survey will include additional open-ended questions as a qualitative measure of the student's acquisition of knowledge relevant to the life skills required for living

independently and gaining employment; and self-determination skills including self-advocacy and self-awareness. Student skill development will be measured quantitatively. Distribution of a standardized questionnaire, the Assessment of Functional Living Skills (AFLS), to determine if student's developed increased independence in performing life skills, will be provided to the student's parent/guardian(s) and teacher at the beginning and end of the program. Student progress toward their self-selected goal(s) will be measured utilizing goal attainment scaling.

The data will be analyzed to inform useful modifications to *SPOT on Life Skills*, and to direct postsecondary goal development for the targeted students as they progress to the next school year. Table 3 clearly outlines the evaluation goals and corresponding evaluation methods. Each evaluation method is described in more detail in the sections below.

Table 3. Evaluation Goals & Methodology

Evaluation Goals	Evaluation Methods			
	Qualitative	Quantitative		
	Open-Ended Survey Questions	Likert-Based Survey Questions	Assessment of Functional Living Skills (AFLS)	Goal Attainment Scale (GAS)
Determine if the students developed increased independence in performing daily living tasks addressed in the program			X	X
Determine if the middle school students with disabilities developed an increased knowledge base of the required life skills to live independently and gain employment	X			
Determine the stakeholder's (OT, SLP, SpEd teacher, students, and parents/guardians) level of satisfaction with the program content, program delivery, and program outcomes	X	X		

Collecting Evaluation Data from Human Subjects

As the evaluation data will be collected from human subjects (parent/guardian(s), students, OT, SLP, SpEd teacher), the key evaluator, will need to obtain approval from an institutional review board (IRB). Once the IRB is approved, the evaluator will need to receive consent from adults and assent from minors prior to engaging in any evaluation activities. Any identifiable information must be removed from data reports and all data collected must be stored in a secure location.

Surveys

All stakeholders will complete a survey at program completion tailored to their role in the program. As such there will be differentiated surveys for the three stakeholder groups: the students, the parents/guardians, and the program facilitators (OT, SLP, SpEd teacher). Unlike the parents/guardians and program facilitators, the students will take the survey twice, once at the beginning of the program and once at the end. Surveys will include a combination of qualitative open-ended and quantitative Likert-based questions. It is intended that the parents/guardians and program facilitators complete the survey in no more than 15 minutes, and the students complete the survey in no more than 30 minutes. Based upon the student's literacy level the survey may be completed 1:1 with an adult who can read aloud to the student. The adult can help provide clarifying questions but cannot lead the student to the answers. Another option is that the survey could be completed collectively as a class where the teacher reads each question one at a time to ensure the students do not skip any questions and are not limited by their literacy levels. If required, the survey can be translated to the language spoken at home by the students and/or parents/guardians.

The open-ended questions will pertain to participant satisfaction with the program content, delivery, and outcomes. In particular, it will include questions regarding what they liked and disliked about the program and any suggestions they have for future program improvement. The student's survey will include open-ended questions related to the student's knowledge base of the skills needed to live independently and gain and sustain employment. Additional questions will be targeted to gather information about

student's perceptions of their abilities and self-advocacy skills. The pre-program survey will double as part of the assessment of the student's interests, needs, and preferences as well as gathering baseline knowledge of life skills. Table 4 includes sample open-ended survey questions for each of the stakeholder groups.

The Likert-based questions are specifically aimed at gaining information concerning program relevance and satisfaction levels. For example, each topic addressed through the life skills class will be included with an attached 5-point Likert scale (1-not important, 2-little importance, 3-neutral, 4-important, 5-very important). The survey would come in multiple forms in order to match the ability levels of the students (i.e. may include pictures instead of text; 3-pt scale in the form of thumbs up, thumbs in the middle, thumbs down instead of 5-point scale, etc.). A few example Likert-Based questions for the parent/guardian and program facilitators vs. student stakeholder groups are included in Table 5 and Table 6.

Table 4. Sample Open-Ended Survey Questions


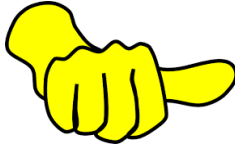




Stakeholder Group	Open-Ended Evaluation Questions			
	Program Content	Program Delivery	Program Outcomes	Knowledge Base & Self Determination (*Pre and Post Questions)
Students	<p>What did you like about the life skills class? What did you not like?</p> <p>What did you like about the work-based experience (coffee cart)? What did you not like?</p>	<p>What did you think about having life skills one time a week and coffee cart one time a week?</p>	<p>How do you feel about your progress toward your goals?</p> <p>How do you think you did participating in the life skills class?</p> <p>How do you think you did participating in coffee cart?</p>	<p>If you wanted to live all by yourself one day, what do you think you would need to be able to do independently?</p> <p>How do you get a job? How do you keep a job?</p> <p>What do you like to do? What do you want to do after high school?</p> <p>Think about getting ready for school in the morning, eating lunch, completing household chores, and getting ready for bed at night. Now what life skills can you do on your own? Which ones are difficult for you?</p> <p>How do you learn best? What do you do when you are confused with your class work?</p>
Parents/ Guardians	<p>How did you feel about the topics presented in</p>	<p>Were you happy with how often your student was</p>	<p>How do you feel about your student's level of skill achievement</p>	<p>N/A</p>

	<p>the life skills class?</p> <p>What did you think about the work-based experience?</p>	<p>receiving life skills instruction?</p> <p>What did you think about the program facilitators contributions to the program? Include any specifics related to each professional: OT, SLP, SpEd teacher</p>	<p>as a result of being involved in this program?</p> <p>What would you have changed about the program to attain a better outcome?</p>	
<p>Program Facilitators (OT, SLP, SpEd teacher)</p>	<p>What did you think about the program units and subunits?</p> <p>What did you think about the work-based experience?</p>	<p>What did you think about the program guidelines/ handbook in supporting your delivery of the program?</p> <p>Was it feasible to implement the program with the two times a week commitment – why or why not? How would you have changed the program delivery?</p> <p>What did you think about the collaborative approach to program implementation?</p>	<p>How do you feel about the student’s level of skill achievement as a result of participating in the program?</p> <p>What would you have changed about the program to attain a better outcome?</p>	N/A

Table 5. Example Likert-Based Questions for Parents/Guardians and Program Facilitators

Each of the following topics were addressed in the life skills class over the course of the year. Please rate each topic based on how important you think it is for functional independence.					
Skill	1 – Not Important	2 – Little Importance	3 – Neutral	4 - Important	5 – Very Important
Teeth Brushing					
Vacuuming					

Table 6. Example Likert-Based Questions for Students

Each of the following topics were addressed in the life skills class over the course of the year. Please rate each topic based on how important you think it is for functional independence.			
Skill	1 – Not Important	2- Neutral	3 - Important
Teeth Brushing			
Vacuuming			

Assessment of Functional Living Skills (AFLS)

AFLS is a criterion-referenced assessment tool consisting of 6 separate but cohesive protocols relevant to the skills for living: 1) basic living skills, 2) home skills, 3) community participation skills, 4) school skills, 5) vocational skills, and 6) independent living skills (Partington & Mueller, 2019). Each specific skill within a protocol is rated on a scale of 0-4 with 0 being unable and 4 being independent. Administering this assessment prior to and after the completion of the program will indicate what skill areas

the student's demonstrated increased independence in and how significant the skill growth was as reported by the student's parent/guardian(s) and teacher.

Goal Attainment Scale

As noted, during the first two weeks of the life skills class, students will self-identify an important, realistic, and attainable life skills goal(s) to work towards over the course of the school year. Although the students will be primarily responsible for selecting the content of the goal, the interdisciplinary team will assess the student's current ability to perform the skill and accordingly aid the student in setting a goal that is truly attainable. In order to measure student progress toward the goal, the goal attainment scale (GAS) will be implemented, which predicts the expected outcome following intervention along with outcomes that fall above and below this expected level (Kiresuk, Smith, & Cardillo, 1994). In addition to the student selected goal(s), one of the program goals is that all student participants will be able to independently initiate, sequence, and execute three different four to six step daily living tasks upon program completion. Attainment of this goal will also be measured utilizing the GAS rating scale indicating there will be at least two GAS measures per student, one goal being measured with each student, and one specific to the student's desired goal. An example GAS rating scale of a student identified goal is detailed in Table 7 and the consistent GAS rating scale utilized for all student participants is described in Table 8.

Table 7. Goal Attainment Scale: Making a Simple Snack

Student Concern:	Unable to make a simple snack for himself when he gets home from school
Goal:	Independently makes 1 snack, consisting of 2 ingredients and no more than 4 steps
Time Line:	1 school year (10 months)
Level of Attainment	
Much less than expected: Score of -2	Requires close supervision to make 1 snack, consisting of 1 ingredient and no more than 4 steps
Somewhat less than expected: Score of -1	Independently makes 1 snack, consisting of 1 ingredient and no more than 4 steps
Expected level of outcome: Score of 0	Independently makes 1 snack, consisting of 2 ingredients and no more than 4 steps
Somewhat more than expected: Score of +1	Independently makes 2 snacks, consisting of 2 ingredients and no more than 4 steps
Much more than expected: Score of +2	Independently makes 2 snacks, consisting of 3 ingredients and no more than 4 steps

Table 8. Goal Attainment Scale: Daily Living Skill Independence

Concern:	Decreased independence in performing a variety of daily living skills
Goal:	Independently initiate, sequence, and execute to completion three different four-six step daily living tasks upon program completion.
Time Line:	1 school year (10 months)
Level of Attainment	
Much less than expected: Score of -2	Independently initiate, sequence, and execute to completion one four-six step daily living tasks upon program completion
Somewhat less than expected: Score of -1	Independently initiate, sequence, and execute to completion two different four-six step daily living tasks upon program completion
Expected level of outcome: Score of 0	Independently initiate, sequence, and execute to completion three different four-six step daily living tasks upon program completion
Somewhat more than expected: Score of +1	Independently initiate, sequence, and execute to completion four different four-six step daily living tasks upon program completion
Much more than expected: Score of +2	Independently initiate, sequence, and execute to completion five or more different four-six step daily living tasks upon program completion

Data Analysis

Two undergraduate research assistants will be employed to evaluate the data results. Inter-rater reliability will be established to improve the fidelity of the results. The qualitative data gathered from the open-ended questions on the surveys will be analyzed for themes. Data will be utilized to identify strengths and areas of improvement for *SPOT on Life Skills* based upon stakeholder satisfaction and demonstrated levels of increased student knowledge and self-determination skills. The quantitative data gathered from the survey Likert-based scales and the AFLS will provide numerical data in regards to satisfaction, interest, and gained skills corresponding with short-term program outcomes. This data will be represented as percentages of all program participant opinions or performance. The quantitative data collected from the GAS relative to individualized student goals cannot be interpreted as a program outlook, but rather on an individual level as every goal is different. The GAS for the program objective that all student participants will demonstrate increased independence in performing three different daily living skills can be utilized to measure overall program effectiveness.

Limitations

SPOT on Life Skill, is capped at 8 students per program session, so the program evaluation will include a very small sample size. Furthermore, as much of the program is tailored to the needs and the interests of the particular student group, most quantitative findings can only be reported in the form of case studies rather than aggregate level findings. A major component of the program is widespread exposure rather than

continued exposure. Depending on the individual student self-selected goal(s) they may only receive instruction of the skill during one 60-minute life skills class making it hard to correlate increased performance with the program. Likewise, when reporting areas of improved life skill independence through the AFLS, results cannot be fully attributed to *SPOT on Life Skills*. Results should be interpreted with caution and must also consider student maturity over the course of the year, and other services the student is receiving at school and/or at home to improve their independence in life skills.

Conclusion/Implications for Future Work

Evaluation findings will be utilized to inform ongoing program improvements, including any changes, additions, or removal of components to the life skills curriculum and/or work-based experience. Determining the perceived value of the topics addressed during the life skills class by the students, their parents/guardians, and the teachers will help direct the program topics so that they are meaningful to each student and respectful to cultural differences. Reviewing the rates of satisfaction from each stakeholder group and corresponding themes relative to what they liked and disliked about the program will be crucial information to adapt the program for sustainability. The quantitative data gathered for each individual student can help facilitate the development of postsecondary goals moving forward based on continued areas of need and interest. Additionally, utilizing the qualitative and quantitative data the team can identify what teaching methods led to increased student skill development and can explicitly provide this as a recommendation/accommodation within the student's IEP.

CHAPTER FIVE – Funding Plan

Program Overview

SPOT on Life Skills is an evidence-based life skills curriculum design model for middle school students with mild-moderate intellectual disabilities. Although the delivery of the curriculum is specifically targeted to students with mild-moderate intellectual disabilities, access to the curriculum will not be exclusively restrictive to this population. The curriculum is aimed at middle school students because research suggests that students of all disability types require increased time to learn, but that they have the ability to learn throughout their lifetime and as such should begin receiving transition programming as early as middle school (Bouck, 2010; Chiang, Ni, & Lee, 2017; Cummings, Maddux, & Casey, 2000; Frank & Sitlington, 2000; Matthews et al., 2015; Mazzotti et al., 2009). The ultimate goal of *SPOT on Life Skills* is to improve student independence in the skills needed for everyday life to promote positive postsecondary outcomes of these students.

The curriculum is designed by an occupational therapist (OT) (the author) who skillfully highlighted the distinct and vital contribution of OTs in the development and delivery of life skills programming. The author also recognized the value of interdisciplinary collaboration and accordingly designed the program so that it would be delivered by an OT, a special education teacher (SpEd teacher), and a speech and language pathologist (SLP). Furthermore, the program employs a person-centered approach by way of the interdisciplinary team collaborating with the students and their families in order to match delivery of interventions and activities in accordance with the

students/family's needs and interests. The curriculum model consists of a multifaceted intervention approach including self-determination skills training, self-care and independent living skills training, social skills training, and work-based experiences (Test et al., 2009). In line with the current evidence, the curriculum will include a training session for all school personnel who will be delivering the program (OT, SLP, SpEd teacher) (Bouck, 2008; Murray & Doren, 2013). Lastly, the inclusion of an accessible guidebook for teachers as well as a student friendly guidebook is included in the design to enhance the delivery of the curriculum.

The program will be piloted at the author's place of employment (public K-8 charter school within larger network of Boston Public Schools) which will allow the author to utilize local community resources to offset costs associated with initial program development. The pilot program will be evaluated in order to determine ease and affordability of implementation, as well as resulting student outcomes in skill development. This chapter will describe the available local resources, a breakdown of each budget item including the costs for dissemination and evaluation, and potential funding sources. The funding plan is essential to be able to analyze the costs associated with the development and implementation of the program to determine if it can practically and successfully be implemented in daily school-based practice.

Available Local Resources

Local resources from the author's place of employment, and community network that can be utilized to support the development and implementation of *SPOT on Life Skills* are as follows:

- Yearly School Budget: Provision of \$200 annually to OT (for supplies/treatment materials/evaluation kits)
- School technology carts: Access to Chromebooks and iPads
- Full time OT, SLP, and SpEd teacher built into school budget
- Full time staff requirement to attend school provided professional development every Wednesday afternoon: built in time to conduct training/allow for team collaboration
- Author, school occupational therapist, Christine Curtin MS, OTR/L will volunteer her time to develop the training to be provided to other staff and will take the lead on developing the program and collaboratively delivering the program
- School speech and language pathologist, Kelly Doyle M.S., CCC-SLP, will assist in the development and delivery of the program
- School substantially separate special education teacher, Nicole Koval M.S. Ed., will assist in the development and delivery of the program
- School psychologist, Gillian Adams M.A. will provide consultation related to special education laws and services
- Seek expertise from assistant director for transition special education for all of Boston Public Schools, Marisa McCarthy, Ed.D.
- Seek expertise from assistant director of K-8 special education for all of Boston Public Schools, Jennifer Sweeney MEd, regarding special education law and practices in middle school

- Author's academic mentor in PP-OTD program, Neeha Patel OTD, OTR/L will provide ongoing feedback relative to program development and share expertise in disseminating programs
- Author's academic advisor in PP-OTD program, Karen Jacobs, EdD, OT, OTR, CPE, FAOT, will provide feedback relative to funding plan and dissemination of program and share expertise in program development and sustainability
- Author's peer mentors in PP-OTD program, Kayla Hartt, MOT, OTR/L and Maryann Brennan MA, OTR/L, CSP, will provide ongoing feedback relative to program development
- Local Dunkin Donuts franchise donated 100 cups/lids, sleeves, and 50 coffee trays and local Panera franchise donated 100 cups/lids to support work-based experience

Needed Resources: Budget

The greatest expense associated with this program is staffing. However, the author intends to use full time staff to incorporate the program into their pre-existing caseloads as a method of service delivery to students which will minimize the cost. Staff training has an associated cost, but only incurs a one-time fee in order to promote success with personnel who will implement the pilot program. The author will provide free consultation to train staff the first year. Another large expense will be technology equipment (iPads, computer, iPhone) if personnel do not have or are unwilling to utilize their own devices. The requirement for materials to be used for intervention is variable based on individual student needs, but most items can be purchased at a relatively low

cost through Walmart.com, Amazon.com or the Dollartree.com. Other expenses associated with the program include the cost of dissemination and evaluation which are included in Table 9. Provision of the costs associated with an example in-school work-based experience is provided in Table 10.

Table 9. Program Costs

Budget Item	Cost: Year 1	Cost: Year 2	Justification (Must have vs. nice to have)
Curriculum Outline Development:			
Time Invested by OT	\$0 (part of PP-OTD coursework)	\$0 (part of PP-OTD coursework)	Must have BU PP-OTD Capstone requirement https://www.bu.edu/sargent/academics/departments-programs/occupational-therapy/ppotd/curriculum/
Time invested by SLP and Special Education teacher to contribute ideas	\$0 (volunteer/part of job responsibilities)	\$0 (volunteer/part of job responsibilities)	Must have *See available local resources section
Training:			
Consultant/ Presenter (Occupational Therapist)	\$0 (provided for free by author)	\$200 for 2-hour presentation Driving travel over 30 miles = \$0.58 per mile, cost of flight or use of web-based technology	Must have Consulting Fees and Rates https://www.consulting.com/consulting-fees-rates IRS Mileage Rate Reimbursement https://www.timesheets.com/blog/2017/02/driving-costs-covered-mileage-rate/
OT, SLP, Special Education Teacher presence	\$0 (they receive school PD credits)	\$0 (they receive school PD credits)	Must have Most schools require school staff to complete school provided

			professional development hours (Mizell, 2010)
Facility usage - school	\$0	\$0	Must have - school based program
Personnel:			
Occupational Therapist	\$64,000 annual salary OR \$42/hour (1.25 hour per week x 40 weeks = \$2,100)	\$64,000 annual salary OR \$42/hour (1.25 hour per week x 40 weeks = \$2,100)	Must have 2015 OT Salary and Workforce Survey, median school-based clinician salary - calculated 4.8% increase between 2015 to now (2019) as there was a 4.8% median increase from 2010 to 2015. https://www.aota.org/~media/corporate/files/secure/educations-careers/salary-survey/2015-aota-workforce-salary-survey-low-res.pdf Average OT hourly rate https://www1.salary.com/Occupational-Therapist-hourly-wages.html
Speech and Language Pathologist	\$65,000 annual salary OR \$51/hour (1.25 hour per week x 40 weeks = \$2,550)	\$65,000 annual salary OR \$51/hour (1.25 hour per week x 40 weeks = \$2,550)	Must have 2017 SLP Health Care Survey - average school based SLP annual salary https://www.asha.org/uploadedFiles/2017-SLP-Health-Care-Survey-Annual-Salary-Report.pdf
Special Education Teacher	\$55,267 annual salary	\$55,267 annual salary	Must have Average special education teacher salary in the U.S. in 2019 https://www1.salary.com/Special-Education-Teacher-Salary.html
Supplies:			
*Unless otherwise specified, all rates retrieved from Walmart.com, Amazon.com,			

or Dollartree.com with selection of lowest costing items while still maintaining quality			
Teacher Guidebook	\$0 (available on google drive, option to print at school's expense)	\$0 (available on google drive, option to print at school's expense)	Must have
Student Guidebook	\$0 (available on google drive, option to print at school's expense)	\$0 (available on google drive, option to print at school's expense)	Must have
Printer & Paper	\$0 (school owned)	\$0	Must have
Laminator & sheets	\$22 \$11 (100 pack of sheets)	\$11	Nice to have (helps increase longevity of materials)
Photocopier	\$0 (school owned)	\$0	Nice to have
Computer	\$159 (Samsung chromebook 3)	\$0	Nice to have (could use staff computer if personnel are willing)
iPad & Charger	\$329	\$0	Must have Base iPad https://www.apple.com/ipad-9.7/
Apps	\$0 (google maps, alarm clock, camera/video) More if individual team desires	\$0 (google maps, alarm clock, camera/video) More if individual team desires	Must have
iPhone	iPhone 7 = \$499 Phone plan, pay as you go =	Phone plan, pay as you go = \$3 per month (10 cents per minute or text	Nice to have (could be owned by personnel who are willing to allow use of their personal device in treatment)

	\$3 per month (10 cents per minute or text message over 30) \$3 x 10 months = \$30	message over 30) \$3 x 10 months = \$30	iPhone 7 https://www.apple.com/shop/buy-iphone/iphone-7 T-Mobile pay as you go plan https://prepaid.t-mobile.com/pay-as-you-go
Money	\$110 (2 \$20 bills, 3 \$10 bills, 5 \$5 bills, 10, \$1 bills, 8 quarters, 10 dimes, 20 nickels, 100 pennies)	\$0	Nice to have (personnel could loan their own money to use during lesson)
Wallet	\$10 x # of students	\$10 x # of students	Nice to have (could also just purchase 1)
Gift card (imitated credit card)	\$10	\$10	Must have
Toothbrush/ toothpaste	\$2/student	\$2/student	Nice to have (students could bring own their own personal ones from home)
Deodorant	\$1/student	\$1/student	Nice to have (students could bring in from home)
Hand Soap	\$0 (in school bathroom)	\$0 (in school bathroom)	Must have
Mirror	\$0 (in school bathroom)	\$0 (in school bathroom)	Must have
Microwave	\$60	\$0	Nice to have
Toaster Oven	\$45	\$0	Nice to have
Crockpot	\$30	\$0	Nice to have
Mini Fridge (with freezer)	\$140	\$0	Nice to have (may need permits from building maintenance, could use staff fridge)
Clean water source	\$0 (school offered)	\$0 (school offered)	Nice to have

Bowls	\$1 x # of students	\$1 x # of students	Nice to have
Plates	\$1 x # of students	\$1 x # of students	Nice to have
Cups	\$1 x # of students	\$1 x # of students	Nice to have
Utensils (spoon, fork, knife)	\$3 x # of students	\$3 x # of students	Nice to have
Cutting board	\$1	\$0	Nice to have
Measuring cups	\$1	\$0	Nice to have
Dish Soap	\$1	\$1	Nice to have
Towels (dish towel/hand towel/paper towel)	\$2 (2 towels)	\$2 (2 towels)	Nice to have
Food	~\$50	~\$50	Nice to have
Tupperware containers	\$5 (5 containers)	\$0	Nice to have
Clothing with a variety of fasteners (zipper, button, snaps, ties) Shirts, pants, underwear, socks, coat, hats, gloves, bathing suit	\$0	\$0	Brought in by students and/or old clothes from personnel
Shoes (with and without laces as appropriate)	\$0	\$0	Student brings in/wears
Hangers	\$1 (plastic 7 count) \$1 (felt 2 count)	\$0	Nice to have
Laundry Basket	\$2 (1 white basket, 1 colorful basket)	\$0	Nice to have
Broom and dust pan	\$10	\$0	Nice to have
Vacuum	\$30	\$0	Nice to have

Cleaning spray	\$1	\$1	Nice to have
School/work supplies (stapler, three-hole punch, writing utensils, labels, highlighter, folders/binders)	\$0 (school provided)	\$0 (school provided)	Nice to have
Key & lock	\$5	\$0	Nice to have
Facilities:			
School building: classroom, bathroom (with sink), communal areas	\$0	\$0	Must have
Table and chairs	\$0	\$0	Must have
Wall Outlet	\$0	\$0	Must have
Wifi	\$0 (provided in school building)	\$0 (provided in school building)	Must have
Dissemination:			
*See Chapter 6 for detailed item costs associated with dissemination plan			
Dissemination Cost to Primary Target Audience	\$0	\$0	Must have Part of OT's contractual hours/job responsibilities or volunteer time by program author
Dissemination Cost to Secondary Target Audience	\$2,435	\$0	Must have Justification included in Table 6.2 (Chapter 6)
Evaluation:			
Google Forms (to create survey)	\$0	\$0	Must have Free with google email account https://www.google.com/forms/about/
Creation of Goal Attainment Scales	\$0 (volunteer time by author)	\$0 (volunteer time by author)	Must have

Assessment of Functional Living Skills	\$249.95 x # of students	\$249.95 x # of students	Must have All Assessments https://functionallivingskills.com/store/
Time spent to review and interpret evaluation results	\$12/hour x 18 hours (6 hours per each administration of survey 3x annually) = \$216	\$12/hour x 18 hours = \$216	Must Have BU undergraduate research assistance base hourly pay https://www.glassdoor.com/Hourly-Pay/Boston-University-Undergraduate-Research-Assistant-Hourly-Pay-E3734_D_KO18,50.htm
Estimated Total Cost (Excluding expense for Program Personnel):	\$5,550.75	\$1,865.75	Calculated for 5 student participants

Table 10. Cost of Example Work-Based Experience

Example Work-Based Experience Option: Coffee Cart		
Budget *All costs retrieved from amazon.com	Year 1	Year 2
Coffee Urn	\$30	\$0
Coffee Maker	\$25	\$0
Coffee	\$22 (40 oz) x ~9 (~1 per month at a rate of 1 full urn and 1 full pot of coffee each week) = \$198	\$22 (40 oz) x ~9 (~1 per month at a rate of 1 full urn and 1 full pot of coffee each week) = \$198
Cups/lids/sleeves/stirrers	\$34 (package of 90) x 4 (based upon 10 customers per month) = \$136	\$34 (package of 90) x 4 (based upon 10 customers per month) = \$136
Cream	\$90 (package of 360 creamer singles) * ~2 = \$40	\$90 (package of 360 creamer singles) * ~2 = \$40
Sugar	\$19 (1200 packets) * ~2 = \$38	\$19 (1200 packets) * ~2 = \$38
Flavor syrup (optional)	\$11 (750 ml) (lasts ~1 month based on number of customers so * ~10 = \$110)	\$11 (750 ml) (lasts ~1 month based on number of customers so * ~10 = \$110)
Recommended \$5 monthly donation per customer	\$50 in return (based on 10 customers per month) to offset other costs * 10 months = \$500 profit	\$50 in return (based on 10 customers per month) to offset other costs * 10 months = \$500 profit
Estimated Total:	\$77	\$22

Potential Funding Sources

Table 11 describes potential funding sources for *SPOT on Life Skills*, which include local, state, and federal grants, crowdsourcing and utilization of personal capital.

Table 11. Potential Funding Sources

Funding Type	Funding Source	Funding Description/ Requirements
Grant	Boston Educational Development Fund http://www.bedf.org	<ul style="list-style-type: none"> - Provide grants to Boston Public Schools in order to establish and sustain educational programming and instructional goals to support the learning of all students. - Supports career readiness programs and social skills programs - Any member of the Boston Public Schools in any position may apply for a grant. - Undisclosed funding amounts but has secured \$108 million in funds in the last 10 years. - Previous relevant project: “Wentworth Training Program” a community based vocational training program for students 18-22 years of age with disabilities. <p>(Boston Educational Development Fund, 2019)</p>
Grant	Doug Flutie, Jr. Foundation - Adult Independence Grant http://www.flutiefoundation.org/apply-grant	<ul style="list-style-type: none"> - Goal of grant is to “promote 1) Access to Services, 2) Active Lifestyles, and 3) Adult Independence for individuals across the autism spectrum” (Doug Flutie Jr. Foundation for Autism, p. 1, 2019) - Any school or approved 501(c)(3) organization may apply - Will only provide a grant that pays for no more than 15% of total program budget - Grants of up to \$20,000 <p>(Doug Flutie Jr. Foundation for Autism, 2019)</p>
Grant	Dudley Allen Sargent Research Fund: Doctoral Student Fund https://www.bu.edu/sargent/research/research-funding-administration/dudley-allen-sargent-research-fund/	<ul style="list-style-type: none"> - Open to Boston University Sargent college post-professional doctoral students - Provides financial assistance to doctoral students engaged in research - Grants of up to \$5,000 <p>(Boston University, 2019)</p>

<p>Grant</p>	<p>Allison Keller Education Technology Program http://www.flutiefoundation.org/allison-keller-education-technology-program</p>	<ul style="list-style-type: none"> - Grant open to schools and organizations who support individuals with autism. - Goal of grant is to provide financial assistance to provide technology to support individual learning outcomes/performance. - Technology includes iPads, Apps, Smartboards, Laptops, Technology Training - Grants of up to \$7,500 <p>(Doug Flutie Jr. Foundation for Autism, 2019)</p>
<p>Grant</p>	<p>Shapiro Foundation - Disability Inclusion Initiative http://www.shapirofamilyfdn.org/OurGrantmaking/DisabilityInclusionInitiative/tabid/169/Default.aspx</p>	<ul style="list-style-type: none"> - Provide grants to community-based organizations including schools in the Greater Boston Area - Foundation’s aim is to support individuals with disabilities to be as independent as possible in order to integrate into the community and have a better quality of life. - Unspecified grant maximum, previous grants have received between \$8,000-\$35,000 - Related projects: “Easters Seals Massachusetts” a program to develop transition services for students aged 14-26 through leadership programs and collaboration with schools and state agencies; “Jewish Vocational Service” a program to train adults with disabilities in job skills; “Massachusetts Advocate for Children” a program whose aim is to support students aged 14-22 in the transition planning process; “Triangle” teaches individuals with disabilities self-advocacy skills to prevent abuse in the community. <p>(The Carl and Ruth Shapiro Family Foundation, 2019)</p>
<p>Grant</p>	<p>U.S. Department of Education: Interdisciplinary Preparation in Special Education Early Intervention and Related Services for Personnel Serving Children with Disabilities who have High-Intensity Needs,</p>	<ul style="list-style-type: none"> - Open to institutions of higher education and private nonprofit organizations. - Purpose of the grant is to help train personnel to have the knowledge and skills to work with students with disabilities with high needs utilizing up to date evidence-based findings. - Grants up to \$250,000 <p>(U.S. Department of Education, 2019)</p>

	<p>CFDA Number 84.325K: Focus Area A https://www2.ed.gov/fund/grant/apply/grantapps/index.html?page=2&offset=5</p>	
Grant	<p>Bank of America Charitable Foundation https://about.bankofamerica.com/en-us/what-guides-us/charitable-foundation-grant-faq.html#fbid=1cDoHiTzIJQ</p>	<ul style="list-style-type: none"> - Open to public nonprofit organizations - Grant aimed to improve workforce development and education, community development, and basic needs in order to encourage economic mobility - One initiative is dedication to support people with disabilities as evidence by a 30 year partnerships with Special Olympics and employment of individuals with disabilities - Grants ranging from \$2,500 to \$50,000 <p>(Bank of America, 2019)</p>
Crowd Sourcing	<p>GoFundMe.com</p>	<ul style="list-style-type: none"> - Crowdsourcing website designed for individuals, groups, or organizations to fundraise money for a variety of causes - Previous related projects: functional life skills school store, life skills culinary arts, life skills curriculum - You set desired amount of funding and advertise your link to increase funding response. Free to sign up. <p>(GoFundMe, 2019)</p>
Crowd Sourcing	<p>DonorsChoose.org</p>	<ul style="list-style-type: none"> - Crowdsourcing website specifically designed for public school initiatives to support student's education. - Previous related projects: Technology for students with disabilities, support for a snack cart and cooking unit via a refrigerator in the classroom, apartment set up including a washing machine, coffee maker and toaster to support life skills - You set desired amount of funding and advertise your link to increase funding response. Free to sign up. <p>(DonorsChoose, 2019)</p>

Personal Capital	Utilization of personal funds earned from salary	Purchasing small supplies from Dollar Tree, Walmart, or online through Amazon.com. Volunteering time. Paying for parts of dissemination, including conference fees.
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Conclusion

SPOT on Life Skills is a curriculum designed to provide life skills instruction to middle school students with disabilities through a weekly life skills class and work-based experience. The program is intended to be delivered by the student’s occupational therapist, special education teacher, and speech and language pathologist as part of their IEP to offset program costs. However, if conducted separate from caseload requirements, the program will incur a high weekly cost associated with staffing. The curriculum is to be developed for free by a school-based OT (author), SLP, and special education teacher (author’s co-workers). The curriculum can be adapted to best meet the needs and interests of the students and parents/guardians who it is serving. In addition, the long list of potential materials/resources required to provide instruction in the following skill areas: self-determination, self-care, independent living, social skills, and work-based experience, can be customized to meet the school’s needs. Estimated costs related to dissemination and program evaluation are described and will be utilized to revise the program. All costs may not be able to be funded directly by the school where the program will be implemented, so the inclusion of potential grants and crowdsourcing initiatives is included to support the implementation and dissemination of the program. Key stakeholders can utilize this information to make an informed decision about the practicalities of supporting the program initiative to increase middle school students with

disabilities level of independence and promote positive long-term postsecondary transition outcomes.

CHAPTER SIX – Dissemination Plan

Description of the Proposed Program

SPOT on Life Skills is an evidence-based life skills curriculum for middle school students with disabilities developed by an occupational therapist (OT) with support from a special education teacher (SpEd teacher), and a speech and language pathologist (SLP). The curriculum is specifically designed for middle school students with mild-moderate intellectual disabilities, but the program is not restrictive to only this population. The curriculum is designed to promote collaborative practices by special education teachers and related service providers in the school setting. Research has indicated that when OTs and teachers consistently collaborate with one another in a respectful way they have a better understanding of each other's roles and are better able to support each other and the students they work with (Bose & Hinojosa, 2008; Morris, 2013; Orentlicher, Handley-More, Ehrenberg, Frenkel, & Markowitz, 2014; Seruya & Garfinkel, 2018; Villeneuve, 2009). The delivery of the curriculum includes a once weekly life skills course facilitated by the OT, SpEd teacher, and SLP, and a weekly work-based experience facilitated by the SpEd teacher with OT and SLP consultation. The curriculum includes a variety of intervention activities and teaching/learning methods aimed to help students develop self-determination and independence in self-care and independent living skills, social skills, and work skills. The specific intervention activities are to be selected by the school team in collaboration with the students and their family/guardians in order to tailor the curriculum to best meet the needs and interests of the students. Promoting student's development of skills through exposure and training as

early as middle school is predicted to lead to increased independence and improved postsecondary outcomes upon their transition from secondary education (Cimera, Burgess, & Bedesem, 2014; Cimera, Burgess, & Wiley, 2013; Kiraly-Alvarez, 2017).

Dissemination Goals

There are two long term goals projected as a result of disseminating the key messages to the primary and secondary audiences. The first long-term goal has one associated short-term goal, and the second long-term goal has two related short-term goals.

- 1) Long Term Goal:** OT practitioners will play a significant role in transition planning and delivery of programming in the school system.

Short Term Goal: The dissemination of the program to primary and secondary audiences will result in school-based OTs reporting an increase in the use of functional occupation-based interventions in middle school settings.

- 2) Long Term Goal:** *SPOT on Life Skills* will influence an increase in the number of stakeholders advocating for the provision of transition services to improve students with disability's postsecondary outcomes.

Short Term Goal 1: The dissemination of the program to the primary audience will result in one middle school in the Boston area (author's place of employment) implementing the program next school year (SY 19-20).

Short Term Goal 2: The dissemination of the program to primary and secondary audiences will increase school administrators, OTs, SpEd teachers, and SLP's ability to articulate the benefits of collaborative practices and each other's distinct value in the provision of transition services in the school setting.

Target Audiences

The below section defines the primary and secondary audience for whom the dissemination messages will be directed. Description of the key messages, the sources or messengers who will distribute the information, and the specific dissemination activities including person-to-person contact, written materials, and electronic media will also be detailed for each audience.

Primary Audience

The primary audience for program dissemination is the school administration, the special education director, the OT, the SLP, the SpEd teacher, and the parents/guardians of the middle school students in the substantially separate classroom in the K-8th grade Boston school targeted for the pilot of the program (author's place of employment). The goal of program dissemination to the primary audience is for these stakeholders to support the program and implement it next school year (SY 19-20).

Key Messages.

- *SPOT on Life Skills* will consist of a weekly life skills class to provide instruction in self-care, independent living, and social skills, and a weekly work-based experience as these interventions have been positively correlated with higher rates

of postsecondary education, employment and/or independent living for students with disabilities (Bouck & Joshi, 2015; Hillier, Fish, Cloppert & Beversdorf, 2007; Landmark, Ju, & Zhang, 2010; Majeski et al., 2018; Test et al., 2009). This intervention approach can easily be embedded into the workload of the school's full time OT, SLP, and SpEd teacher. The weekly life skills class will be delivered as part of the student's special education and related service minutes per their IEP. The work-based experience will be part of the special education classroom curriculum directly relating to IEP goals/objectives. The OT, SLP, and SpEd teacher will adapt the program as needed during weekly Wednesday professional development time.

- *SPOT on Life Skills* will promote school staff collaboration with parents/guardians in order to complete transition assessments and work with students to set goals. Research has indicated that collaborative practices increase parent trust and satisfaction with school programming and foster an aligned life skills curriculum to the needs and interests of the targeted students (Juan & Swinth, 2010; Mazzotti et al., 2015).
- Although IDEA 2004 does not mandate the provision of transition programming which includes identification of postsecondary goals until a student with a disability turns 16 years of age, *SPOT on Life Skills* is designed with the student's long-term interest in mind. It is understood that students with disabilities require increased time to develop and generalize novel skills, suggesting that provision of life skills as early as middle school would lead to increased skill development and

independence over time in order to change the trajectory of the current dismal postschool outcomes for students with disabilities (Bal, Kim, Cheong, & Lord, 2015; Cimera et al., 2014; Cimera et al., 2013; Clark, Field, Patton, Brolin, & Sitlington, 1994; Cummings, Maddux, & Casey, 2000; Schwind, 2017; Wehmeyer, 2015; Westbrook et al., 2015).

Sources/Messengers.

The author, Christine Curtin, a full-time occupational therapist is at the targeted school for the pilot of the program and will play a key role in disseminating the key messages to the school administration, SLP, SpEd teacher, and parents/guardians. At the start of the dissemination, Christine will also specifically work closely with the special education director to gain her as a liaison between school staff and administration to support the initial pilot of the program and be an advocate for sustaining the program.

Dissemination Activities.

Two primary dissemination activities will be implemented for the primary audience including person-to-person contact and distribution of written materials.

Person-to-person contact.

- Meetings between OT practitioner and special education director.
- OT and special education director will meet with school administration (principal and director of operation).
- OT will present information to SLP and SpEd teacher.
- OT to call each individual student's parents/guardians to determine their level of interest in having their student participate in the program.

- OT to host a parent information/ question and answer session after school.

Written materials.

- Provision of a PowerPoint and brochure with key messages including relevant literature and proposed program design.
- Delivery of sample lesson plans.

Secondary Audience

The secondary audience for program dissemination is school-based occupational therapists, school-based speech and language pathologists, special education teachers, special education directors/program coordinators, and parents/guardians of middle school students with disabilities across the United States.

Key Messages.

The key messages for the secondary audience are separated by the five distinct stakeholders as they are tailored to each group.

For School-based Occupational Therapists.

Occupational therapists can promote the profession by sharing their expertise in the area of transition planning/programming in the context of the Occupational Therapy Practice Framework. The domains of practice addressed by OTs include activities of daily living (ADLs), instrumental activities of daily living (IADLs), rest/sleep, education, work, play, leisure, and social participation which are all relevant to transition planning (American Occupational Therapy Association, 2014). OTs need to capitalize on their distinct skill set to expand their presence in this area of practice through the provision of occupation-based interventions in school settings to improve the postsecondary outcomes

of students with disabilities. The program will provide a curriculum that OTs can implement through collaborative practices to support students in developing the occupations needed for life.

For School-based Speech and Language Pathologists.

Students with mild-moderate cognitive disabilities are likely to demonstrate difficulties with communication and social skills (Boat & Wu, 2015). These are important skills in order to support individuals in obtaining and maintaining paid employment, engage in leisure activities, communicate with peers to complete group work, locate and secure housing, and seek assistance which are all relevant to the goals for postsecondary outcomes (employment, independent living, postsecondary education). Accordingly, SLPs distinct skill set in addressing communication and social skills should be directly linked to transition programming and individualized transition goals in school settings. The program will support SLPs engagement in collaborative life skills programming with a whole unit surrounding social skills development, and with communication and social skills embedded throughout in natural context through simulated learning activities.

For Special Education Teachers.

Special education teachers are skilled at adapting general education curriculum to match the academic and cognitive skill levels of students with disabilities to promote learning. However, in addition to a focus on academics, special educators are tasked with supporting students with disabilities engagement in all aspects of the school day. The National Association of Special Education Teachers (2019) defined 12 subject areas to be

addressed in a student's IEP as follows: communication skills, health and safety skills, language arts, language development skills, leisure time activity skills, life skills, math skills, perceptual motor skills, reading skills, self-help skills, social skills, and visual sensory skills. SpEd teachers could benefit from the specific expertise of OTs to address life skills, self-help skills, and perceptual motor skills, and the expertise of SLPs to address communication skills, language development skills, and social skills.

Accordingly, the program will promote interdisciplinary collaboration to better target these skill areas to enhance student performance. The program also encourages a prospective outlook for students so that special educators work with families to determine what the long-term goal is for each individual student in order to better deliver instruction in a more functional way. Part of the IEP process is creating a transition plan when the student turns 16, but the program is based off of evidence that suggests earlier life skills intervention leads to better long-term outcomes for students with disabilities (Cimera et al., 2014; Cimera et al., 2013).

For Special Education Directors/Administrators.

Special education (SpEd) directors play a vital role in making decisions regarding special education programs, overseeing IEP compliance, and managing special education teachers with the ultimate goal of supporting students with disabilities in achieving their individualized goals (Special Education Guide, 2019). As part of IEP compliance, SpEd directors must ensure that all students with disabilities have transition plans incorporated into their IEP by age 16. However, proactive SpEd directors should support programming that initiates the delivery of life skills for students with disabilities in

middle school as aligned with the literature that indicates early delivery of transition services promotes higher rates of employment upon completion from secondary education (Cimera et al., 2014; Cimera et al., 2013). The program provides an evidence-based model for OTs, SLPs, and SpEd teachers to implement with middle school students with mild-moderate cognitive disabilities. The program requires minimal funding and demonstrates innovative practices that are aimed to foster a rise in positive post-school outcomes for students with disabilities, which is the intent of special education.

For Parents/Guardians of Middle School Students with Disabilities.

Current evidence-based research suggests that individuals with disabilities have lower rates of employment, independent living, and enrollment in postsecondary education as compared to individuals without disabilities (Kraus, Lauer, Coleman, & Houtenville, 2018). However, evidence has indicated that students with disabilities who have been provided with transition services as early as 14 years of age have comparably better postschool outcomes to students who did not receive transition services until 16 years of age (Cimera et al., 2014; Cimera et al., 2013). Parents/guardians are equal members of IEP teams and the most valuable advocate for their students and as such should communicate a desire for their child to receive early life skills instruction starting in middle school. Parents/guardians can present the program to their student's IEP team to support the team in implementing an evidence-based curriculum and engage in communication with parents/guardians to provide parents/guardians and their students a voice as part of the ongoing transition assessment and setting of individualized goals.

Sources/Messengers.

The primary sources that will spread the information to the secondary audience are well-known organizations and networks that are viewed as credible to each of the five distinct stakeholders.

For school-based Occupational Therapists.

The American Occupational Therapy Association (AOTA) is a well-supported organization that serves as an advocate for occupational therapists and as a source of education through research and professional standard setting. Members of AOTA have access to up to date evidence-based research published in the *American Journal of Occupational Therapy*, *OT Practice Magazine*, and *SIS Quarterly Practice Connections*. AOTA provides recommendations for OT's involvement in transition planning and programming. AOTA also has a school-based special interest section and a transition workgroup.

For school-based Speech and Language Pathologists.

Speech and Language Pathologists (SLPs) utilize the American Speech-Language-Hearing Association (ASHA) as a credible source for the setting of standards and for up to date evidence-based literature. ASHA serves as an advocate for SLPs and has a special interest group for school-based issues.

For Special Education Teachers.

The National Association of Special Education Teachers (NASSET) is a sound source for special education (SpEd) teachers to stay up to date with current issues through research literature and networking opportunities. NASSET also provides resources and

professional development courses to educate SpEd teachers on transition services.

For Special Education Directors/Administrators.

The Council for Exceptional Children (CEC) is a credible professional organization that advocates for policies and funding to enhance special education. CEC also provides a variety of professional development opportunities and has a special interest division on career development and transition. The Council of Administrators of Special Education (CASE) is affiliated with the CEC and is a credible international association providing resources to guide special education policies and practice. Additionally, the National Education Association (NEA) is the leading organization for public educators. NEA advocates for quality public education for all and seasonally publishes *NEA Today Magazine* which includes evidence-based literature.

For Parents/Guardians of Middle School Students with Disabilities.

The Center for Parent Information & Resources (CPIR) is a credible organization that provides parent-friendly evidence-based materials and hosts educational workshops and trainings for parents of students with disabilities and parent centers. Special Education Parent Advisory Councils (SpEd PACs) are organized by parents of students in special education for parents of students in special education to provide education about federal and state laws and share information about local resources. Furthermore, dissemination of *SPOT on Life Skills* to parent/guardians of middle school students with disabilities will be provided by the public-school administration and special education directors and by other parents of students who have previously received life skills intervention through the program curricular.

Dissemination Activities.

There are multiple dissemination activities for the secondary audience. This section is organized by various stakeholders.

For School-based Occupational Therapists.

- *Person to person contact:* Submission of a proposal to present a poster presentation relevant to the program at the upcoming 2019 MAOT conference and at the 2020 AOTA conference. OT from pilot program to network with school-based OTs at 2019 MAOT conference and at 2020 AOTA conference.
- *Written information:* Submission of an article to OT Practice Magazine within 6 months of the completion of the program to share program findings. Delivery of program information brochures at AOTA conference and submission to AOTA to post brochure on their website.
- *Electronic media:* Postings on ‘Pediatric Occupational Therapists’, ‘The Pocket Occupational Therapist’ and ‘School-Based Occupational Therapists’ Facebook groups relevant to OT’s role in providing functional occupation-based interventions in middle school settings and description of the program to enhance life skill development. Aim of postings is to provide education and also promote discussion among OTs.

For School-based Speech and Language Pathologists.

- *Person to person contact:* SLP from pilot program to attend 2020 ASHA conference and network with other school-based SLPs to share

information about the program.

- *Written information:* SLP to distribute program brochures at ASHA. Brochure to be submitted to be posted to ASHA website.
- *Electronic media:* Postings on ‘Pediatric Speech Therapy’ and ‘School based SLP’ Facebook groups

For Special Education Teachers/ Special Education Directors/ and Parents/Guardians

of Middle School Students with Disabilities.

- *Person to person contact:* OT, SLP, and SpEd teacher and a parent/guardian from pilot program to attend 2019 transition conference hosted by The Arc of Massachusetts and network with participants.
- *Written information:* Distribution of brochures at transition conference.

For Parents/Guardians of Students with Disabilities.

- *Person to person contact:* OT to attend Special Education Parent Advisory Councils (SpEd PACs) and communicate/network with parents/guardians. Parents/guardians are prompted to engage in discussion amongst one another regarding the program and provision of life skills interventions in the middle school setting.
- *Written information:* Submission of article to ‘Center for Parent Information & Resources’ website. Distribution of brochures at local SpEd PACs.

For Special Education Teachers.

- *Electronic media:* Postings on ‘Special Education Teachers’ and ‘Special Education Resource Teachers’ Facebook groups

Budget

The dissemination activities for the primary target audience requires time built into the employee’s full-time contractual hours and some additional volunteer time contributed by the primary program developer (the author), as part of the requirements for her doctoral project. The bulk of the costs are associated with printing of brochures and associated costs to send select members of pilot program to AOTA conference, ASHA conference, and Transition Conference to disseminate information to secondary audience. The OT practitioner (the author) plans to contribute additional volunteer hours to write proposals, design the brochure, create a poster, write articles, and post and respond to comments on social media to deliver information to the secondary target audience.

Table 12. Dissemination Cost for Primary Target Audience

Primary Target Audience		
Dissemination Activity	Cost	Justification
OT to meet with special education director.	\$0	Time part of full-time employees' contractual hours; OT will volunteer time to prepare for meeting as part of capstone.
OT with special education director to meet with school administration (principal and director of operation).	\$0	Time part of full-time employees' contractual hours; OT will volunteer time to prepare for meeting as part of capstone.
OT to present information to SLP and SpEd teacher.	\$0	Time part of full-time employees' contractual hours during weekly professional development; OT will volunteer time to prepare for presentation as part of capstone.
OT to call each individual student's parents/guardians to determine their level of interest in having their student participate in the program.	\$0	Time part of OT contractual work hours.
OT to host a parent information/ question and answer session after school.	\$0	OT will volunteer time as part of capstone.
Provision of a PowerPoint and brochure with key messages including relevant literature and proposed program design.	\$0	OT will volunteer time to create as part of capstone.
Total	\$0	

Table 13. Dissemination Cost for Secondary Target Audience

Secondary Target Audience		
Dissemination Activity	Cost	Justification
2019 MAOT conference registration	\$55	Presenter rate http://maot.org/
2020 AOTA conference registration	\$451	For AOTA member, no associated travel costs https://www.aota.org/Conference-Events/annual-conference/cost.aspx
Submission of proposal for poster presentation & potential creation of poster	\$0	OT will volunteer time to submit proposal and create poster as part of capstone.
Printing Poster	\$29.99	1 poster https://www.staples.com/services/printing/posters/
Submission of article to OT Practice Magazine	\$0	OT will volunteer time to write article as part of capstone.
Facebook postings	\$0	Free media account, OT will volunteer time to write posts and respond to comments.
Brochures	\$359.99	For 1,000 brochures (or \$25.99 for 25 brochures, unable to purchase individually) https://www.staples.com/services/printing/sales-marketing/brochures/ OT will volunteer time to develop brochure.
2020 ASHA Conference	\$390	ASHA conference registration for ASHA member https://convention.asha.org/Registration_Housing/Registration-Fees/
	\$200	Travel cost https://www.google.com/flights#flt=/m/01cx_/m/0ply0.2019-11-20*/m/0ply0./m/01cx_.2019-11-24;c:USD:e:1;sd:1;t:f
	\$360	Accommodations (3 nights at ~\$120 each) https://www.hotels.com/sd1404711/hotel-special-deals-orlando/
2019 Transition Conference (The Arc of Massachusetts)	~\$300	Unknown – Registration cost TBD Was \$75 for 2017 conference = ~\$300 for 4 adults https://thearcofmass.org/conference/ No travel or housing cost

Submission of article to 'Center for Parent Information & Resources' website	\$0	OT volunteer time to write article.
Distribution of brochures at local SpEd PACs	~\$290	500 miles Driving travel over 30 miles = \$0.58 per mile https://www.timesheets.com/blog/2017/02/driving-costs-covered-mileage-rate/ Could also send via email. OT to volunteer time to attend meetings.
Total:	\$2,435.98	Cost of 2019 transition conference registration estimated for 4 adults and estimated cost for travel.

Table 14. Total Dissemination Cost

Dissemination Costs	
Total Dissemination Cost to Primary Target Audience (Table 6.1)	\$0
Total Dissemination Cost to Secondary Target Audience (Table 6.2)	\$2,435.98
Total Dissemination Cost:	\$2,435.98

Evaluation

The dissemination activities will be deemed successfully based on evaluation of person-to-person contact, written information, and electronic media activities which will be tracked via an online source (google excel) by the OT. The OT will track the number of participants who attended the poster presentation at AOTA and MAOT and will retain a list of the number of new contacts received through networking efforts. The OT will also track the number of brochures distributed and denote if the brochures have been successfully posted on the AOTA and ASHA websites. Other successes of written information dissemination activities will include the acceptance to present a poster

presentation at AOTA and MAOT, an article submission to OT Practice Magazine, and an article submission to ‘Center for Parent Information & Resources’. Lastly, the number of ‘likes’ and ‘comments’ on postings to social media will be tracked to determine the successfulness of electronic media activities. Ultimately, the greater the volume of people reached and brochures/posters/articles accepted as accounted by these measures the greater the success of the dissemination activities.

Conclusion

SPOT on Life Skills is a model life skills curriculum for middle school students with disabilities. The program is aimed at increasing the provision of life skills/transition services to students with disabilities as early as middle school to improve student’s postsecondary outcomes. Additionally, the program is designed to display the benefits of interdisciplinary collaboration as demonstrated by a pilot of the program in one middle school. The program is also intended to invigorate OT’s use of functional occupation-based interventions in the middle school setting and provide evidence to support the increase in OTs being key players in the development of transition plans and the delivery of transition programming in the school setting. The dissemination of the program will first be provided to the primary target audience, the relevant employees at the middle school targeted for the pilot of the program, in order to gain approval and share knowledge for implementation of the program. Additionally, the results of the program will be disseminated to the secondary target audience, which consists of OTs, SLPs, SpEd teachers, SpEd directors, and parents/guardians across the U.S to maximize awareness of the program and increase interdisciplinary practices to provide life skills to

middle school students with disabilities. The total cost of the dissemination plan is \$2,435.98.

CHAPTER SEVEN - Conclusion

SPOT on Life Skills is an innovative program designed to mitigate the poor postschool outcomes of students with disabilities through a collaborative life skills curriculum to be implemented in the middle school setting. According to the U.S. Department of Education (2019), 14% of all public-school students in the U.S. are served under the Individuals with Disabilities Education Act of 2004 (IDEA 2004). IDEA 2004 has established guidelines for the provision of transition services in the public-school setting with the intention of improving students with disabilities postschool outcomes. Yet, in 2016, there was a reported 40.7% employment gap between individuals with and without disabilities, and notably higher rates of poverty and lower school completion rates among individuals with disabilities across the U.S. (Kraus, Lauer, Coleman & Houtenville, 2018).

IDEA 2004 specifies that transition services must be based on student needs, interests, and preferences (IDEA 2004). However, there are no specifications for the transition assessment nor guidelines for the development of postsecondary goals. Additionally, there are no requirements to integrate evidence-based practices into transition programs, and no widely accepted transition programs/life skills curriculums resulting in a lack of consistency in high-quality transition programs (Bouck, 2010; Grigal, Hart, & Migliore, 2011; Jangia & Costenbader, 2002; Landmark, Ju, & Zhang, 2010). IDEA 2004 mandates provision of transition services by the year a student turns 16. Emerging evidence has shown that provision of transition services by age 14 leads to better long-term outcomes as compared to waiting until the year a student turns 16 years

of age (Cimera, Burgess, & Bedesem, 2014). These factors compounded upon one another necessitate the need for a change in transition programming.

Occupational therapy practitioners (OTPs) are skilled at supporting client's engagement in everyday occupations relevant to postsecondary outcomes (independent living, employment, postsecondary education) (American Occupational Therapy Association, 2014). However, current evidence has indicated that school-based OTs are underutilizing their distinct skill set, as noted by few OTPs providing occupation-based interventions in middle school settings, and OTPs having minimal to no involvement in transition planning or programming across the U.S. (Mankey, 2011). OTs are skilled at treating clients holistically; they consider the person factors, occupational demands, and the physical and social environment as it relates to a person's participation in their daily occupations. *SPOT on Life Skills* capitalizes on the expertise of school-based OTs to develop, adapt, and implement a functional occupation-based life skills program.

SPOT on Life Skills is guided by the propositions of Kolb's experiential learning theory (ELT). The ELT describes four cyclical phases of learning as: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, Boyatzis, & Mainemelis, 1999). Engaging in learning via experiences in these four phases signifies that: 1) learning is an ongoing process, 2) learning is a holistic process, and 3) learning occurs when individuals interact with the environment around them (Cruz Sudo, 2014). Student participants will be exposed to an array of life skills, will have opportunities to watch others perform tasks, engage in discussion, think about what to do, and perform the activities in the context of the environment.

The content of the program is based upon current research evidence of the methods that have resulted in positive postsecondary outcomes for individuals with disabilities. As such the program will include a multifaceted approach to intervention (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Browder & Cooper-Duffy, 2003; Cobb & Alwell, 2009; Giust & Valle-Riestra, 2017; King, Baldwin, Currie, & Evans, 2006; Kingsnorth, Healy, & Macarthur, 2007; Kohler & Field, 2003; Kraemer, Stice, Kazdin, Offord & Kupfer, 2001; Luecking, Fabian, Contreary, Honeycutt, & Luecking, 2018). Specific proven interventions include: transition assessment/goal setting (Majeski et al., 2019); self-care and independent living skills training (Bouck & Joshi, 2015); social skills training (Hillier, Fish, Cloppert, & Beversdorf, 2007); and paid or unpaid work-experiences (Landmark et al., 2010). The proven approaches to intervention include: 1) planning and delivery of intervention through interdisciplinary collaboration (Bouck, 2008); 2) integration of technology (Fairman, Bendixen, Younkin, & Krcko, 2016); and 3) varied and deliberate selection of the learning environment including opportunities for simulated learning, inclusion, and community-based experiences (Hoover, 2016).

Applying the empirical evidence and theory resulted in a two-part school-year long life skills curriculum for middle school students with disabilities, aged 11-14. Part one is a weekly life skills class to be delivered collaboratively by an OT, a speech and language pathologist (SLP), and a special education (SpEd) teacher for a total of 34 weeks. The first two weeks of the life skills class will consist of students setting realistic goals for themselves relative to life skill development. Following this, there are four 8-week long units: Unit 1) self-care; Unit 2) independent living; Unit 3) social skills; Unit

4) work skills. Each unit consists of subunits with a variety of intervention activities that can be adapted to meet the individual needs of the students. Part two is a weekly simulated work-based experience to take place in the school setting facilitated by the SpEd teacher, OT, and SLP. The ‘job’ will be selected according to the resources available in the school and the student’s needs and interests. The pilot of the program comprises selling coffee and snacks to school staff alongside general education students. The work-based experience will span 32 weeks, starting after the first two weeks of goal setting in the life skills class. The program addresses the impact of the environment and the utilization of assistive technology and other evidence-based teaching methods to increase retention of taught skills.

Prior to program implementation, the OT, SLP, and SpEd teacher will receive a training to enhance program fidelity. Student recruitment for program participation will be directed at students with mild-moderate cognitive disabilities, students in substantially-separate classrooms, and will require that the student receive school-based OT and/or SLP services. The program is free for students as part of their IEP and only incurs a small fee for materials funded via the school budget or local, state, or federal grants. The curriculum consists of a multifaceted person-centered intervention approach. Accordingly, the facilitators will first interview the students and the students’ parent/guardian(s) about their needs and interests relative to life skill development. Student’s current strengths and needs relative to curricular areas will also be assessed through administration of the Assessment of Functional Living Skills (AFLs) to the parent/guardian(s) and SpEd teacher. It is expected through participation in *SPOT on*

Life Skills that students will develop increased independence in performing life skills and will have an increased knowledge base of the skills needed to live independently and gain and sustain employment.

It is intended, as a result of this program, that OTs will be more involved in transition planning and programming in the school setting and implement more occupation-based interventions in middle schools. *SPOT on Life Skills* particularly showcases OT's distinct value in assessment, collaboration, and provision of person-centered occupation-based interventions. OTs have a professional obligation to provide evidence-based holistic intervention to meet the needs of individuals across the life span. *SPOT on Life Skills* inspires OTs to demonstrate their expertise through application of the entire scope of practice in the school setting (American Occupational Therapy Association, 2011).

APPENDIX A: EXECUTIVE SUMMARY

Introduction

Requirements for the provision of transition services for students with disabilities was added to the Individuals with Disabilities Education Act (IDEA) in 1990. In the adapted IDEA of 2004, the focus on transition shifted from a process-based to a results-oriented focus (Gaumer Erickson, Noonan, Bussow, & Gilpin, 2014; Kochhar-Bryant, Saw & Izzo, 2007; Turnbull, Huerta, Stowe, Weldon, & Schrandt, 2006). As part of a student with a disabilities' individualized education plan (IEP), by the year the student turns 16 years of age IDEA 2004 mandates the inclusion of specific measurable postsecondary goals as determined by a transition assessment (Gaumer Erickson et al., 2014; Test & Grossi, 2011). The requirement to have postsecondary goals in IEPs enforces public school accountability for provision of transition services and ongoing measurement of student progress toward the identified goal. Yet, there are no guidelines or requirements for what to include in transition assessments, how best to develop postsecondary goals, or how to integrate evidence-based practices into transition programming. As a result, there lacks consistency in the provision of high-quality transition services across the U.S. (Bouck, 2010; Grigal, Hart, & Migliore, 2011; Jangia & Costenbader, 2002; Landmark, Ju, & Zhang, 2010). Consequently, there remains vast differences in the postsecondary outcomes of students with and without disabilities (Kraus, Lauer, Coleman, & Houtenville, 2018). The proposed program, *SPOT on Life Skills*, is intended to address this problem as an easily accessible evidence-based, theory driven curriculum centered around life skills development for students with disabilities.

IDEA 2004 breaks down postsecondary outcomes into three main categories: postsecondary education, independent living, and employment (Gaumer Erickson et al., 2014). Occupational therapists (OTs) are skilled at providing holistic client-centered intervention to support individual's participation in daily occupations directly linked to postsecondary outcomes including, but not limited to, school, work, and daily living (American Occupational Therapy Association, 2014). Yet, evidence suggests that OTs are underutilizing their distinct skill set in the school setting and are not widely involved in transition planning or programming (Mankey, 2011; Kardos & White, 2005; Spencer, Emery, & Schneck, 2003). OTs holistic approach to intervention, balancing client factors with the environment, and the occupational task demands, inherently equips them to work well on an interdisciplinary transition team to best meet individual student's needs (Johnson, 2017; World Health Organization, 2010). Special education (SpEd) teachers are typically the liaison between all parties coordinating transition services for students and play a crucial role in supporting families and adapting the educational curriculum (National Association of Special Education Teachers, 2019). Speech and language pathologists (SLPs) have the aptitude to support student's social and communication skill development relative to postsecondary outcomes (American Speech-Language-Hearing Association, 2019). Accordingly, *SPOT on Life Skills* proposes that the inclusion of collaborative transition practices that pull from the individual expertise of OTs, SLPs, and SpEd teachers will enhance the quality of transition programs and in turn foster improved postsecondary outcomes.

In contrast to IDEA 2004's mandate, the evidence literature suggests that the

provision of transition services before the age of 16 leads to increased skill development and employment outcomes (Cimera, Burgess, & Bedesem, 2014; Cimera, Burgess, & Wiley, 2013). For that reason, *SPOT on Life Skills* is targeted for middle school students with disabilities. In order to guide the development of the program, the author examined existing evidence literature regarding current methods or interventions that exist to promote development of life skills. This executive summary provides a synopsis of the theory and evidence base that guided the development of the program, the content outline of the life skills curriculum, and the hypothesized outcomes of implementing this program including the implications for OTs to increase their involvement in collaborative transition planning and programming in the school setting.

Project Overview

In order to determine a solution, one must first identify the root cause of the problem. The experiential learning theory (ELT) was used to support the model of the problem. The ELT consists of four phases of learning: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, Boyatzis, & Mainemelis 1999). Engaging in learning via experiences as described in each of the phases signifies that 1) learning is an ongoing process, 2) learning is a holistic process, and 3) learning occurs when individuals interact with the environment around them (Cruz Sudo, 2014). The identified root problem is the lack of occupation-based interventions and/or life skills curriculum for middle school students with disabilities. This is supported by the premise that there is no training or guidelines related to the provision of transition services. There are no lawful requirements for simulated

experiential or contextually relevant learning opportunities despite the fact that these opportunities enhance skill retention and better prepare students for employment (Walker, Vasquez, & Wienke, 2016; Landmark et al., 2010; Guy, Stillington, Larsen, & Frank, 2009). Additionally, few OTs are delivering occupation-based interventions in middle school settings (Mankey, 2011; Kardos & White, 2005; Spencer et al., 2003). Moreover, OTs are not incited to share their expertise in this area due to the lack of requirements for collaborative teaching practices even though collaboration has been proven to help align professionals to provide more intentional and holistic instruction relative to student's goals and skill level (Seruya & Garfinkel, 2018; Orentlicher, Handley-More, Ehrenberg, Frenkel, & Markowitz, 2014; Morris, 2013; Huang, Peyton, Hoffman, & Pascua, 2011; Juan & Swinth, 2010; Villeneuve, 2009). Lastly, evidence aligns with the proposition that learning is ongoing, denoting that providing transition services as early as 14 years of age or earlier has allowed students to be more directed in their post-school goals and has been correlated with more developed life skills as a result of repeated practice, and improved employment outcomes (Cimera et al., 2014; Cimera et al., 2013; Hollenbeck, Orentlicher, & Handley- More, 2015; Luecking, 2009; Wehmeyer, 2015; Schwind, 2017; Chiang, Ni, & Lee, 2017; Bal, Kim, Cheong, & Lord, 2015; Orentlicher et al., 2014). With the propositions of the ELT guiding the model of the problem, it was then determined that an extensive literature search must be done to determine how best to address the problem.

Key Findings

When conducting a comprehensive literature search to identify interventions that

exist to promote positive postsecondary outcomes for students with disabilities, it was discovered that a multifaceted approach to life skills intervention boosts skill development (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Browder & Cooper-Duffy, 2003; Cobb & Alwell, 2009; Giust & Valle-Riestra, 2017; King, Baldwin, Currie, & Evans, 2006; Kingsnorth, Healy, & Macarthur, 2007; Kohler & Field, 2003; Kraemer, Stice, Kazdin, Offord & Kupfer, 2001; Luecking, Fabian, Contreary, Honeycutt, & Luecking, 2018). In particular, the search revealed four main interventions correlated with positive outcomes: 1) transition assessment/goal setting, 2) self-care and independent living skills training, 3) social skills training, and 4) paid or unpaid work-experiences (Bouck & Joshi, 2015; Hillier, Fish, Cloppert & Beversdorf, 2007; Landmark et al., 2010; Majeski et al., 2018; Test et al., 2009). The search also delineated three approaches to intervention that have enhanced outcomes for students with disabilities. These include: 1) planning and delivery of intervention through interdisciplinary collaboration (Bouck, 2008), 2) integration of technology (Fairman, Bendixen, Younkin, & Krcko, 2016), and 3) varied and deliberate selection of the learning environment including opportunities for simulated learning, inclusion, and community-based experiences (Field, Blumenstein-Bott, Sinelle, Solomon, & Sawilowsky, n/d; Hoover, 2016; Moon, Simonsen, & Neubert, 2011; Ryndak, Ward, Alper, Montgomery, & Storch, 2010).

Recommendations for Program Implementation

When integrating the theoretical constructs with the evidence literature, it was determined that *SPOT on Life Skills*, as a year-long curriculum, will have two primary

elements: a weekly life skills class and a weekly work-based experience. The life skills class is to be delivered collaboratively by an OT, SLP, and a SpEd teacher following four major units: 1) self-care, 2) independent living, 3) social skills, and 4) work skills. Each unit will contain subunits consisting of a variety of intervention activities that can be adapted according to student's skill level. The weekly work-based experience will be a simulated in school 'job' facilitated by the SpEd teacher with collaboration from the OT and SLP.

Middle school students with mild-moderate cognitive disabilities in substantially separate classrooms will be recruited for participation in the program. Prior to the start of the program, the OT, SLP, and SpEd teacher will assess each student's current areas of strengths and needs in each of the targeted units and will interview the parents/guardians of the students as well as the students to determine what is most important to them. Utilizing this information, the first week of the class will establish a foundation for the course by having each student identify realistic and attainable goals for themselves. The OT, SLP, and SpEd teacher will apply this information in order to tailor the content of the class and to design the simulated 'job' to match the needs and interests of the students it serves. The curricular content provides suggestions for how to grade activities and ways to integrate technology and other evidence-based teaching/learning methods. Furthermore, the curriculum will provide a model design of a simulated 'job' in the context of selling goods (coffee) to staff members within the school setting.

The OT, SLP, and the SpEd teacher will participate in a training course offered by the author and will receive a guidebook so that they may deliver the curriculum with

fidelity. Within the guidebook, there will be pre-established brochures and guidance to support dissemination of the program at any given public-school including obtaining administrative and parental approval, as well as requisite funding. Outside of the cost for the employees (OT, SLP, SpEd teacher), it is expected that the total cost to implement the program will be ~ \$2,000 depending upon the current resources available at the school site. The success of the program will be evaluated by tracking student progress toward their self-selected goal(s) identified at the start of the program. Additionally, the Assessment of Functional Living Skills, a standardized questionnaire, will be administered at the start and end of the program to determine if the students developed increased levels of independence in performing the daily living tasks addressed within the program. Open-ended survey questions will be asked of students at the start and end of the program to determine if they have increased their knowledge base of the skills needed to gain employment and live independently. The last measure of success will be based off of student, parent/guardian, and staff rated levels of satisfaction with the program. The long-term objective measure of success, outside of the scope of the evaluation, would be the postsecondary outcomes of the student participants.

General Conclusions

SPOT on Life Skills is a two-part life skills curriculum for middle school students with disabilities guided by theory and evidence. Specifically, evidence relative to interventions that have resulted in positive postsecondary outcomes for students with disabilities have been fully integrated into the development of the curriculum. This innovative program encapsulates the value of providing multifaceted life skills

interventions as early as middle school strengthened by interdisciplinary collaboration to fully meet the needs of each individual. The program capitalizes on the expertise of OTs in provision of holistic occupation-based interventions. It is intended that the program will facilitate an increase in OT's involvement in transition planning and implementation of occupation-based interventions in the school setting. Furthermore, it is anticipated that dissemination of *SPOT on Life Skills*, will influence stakeholders to advocate for an increase in life skills/transition programming utilizing collaborative practices, recognizing the distinct value of each professional's contribution.

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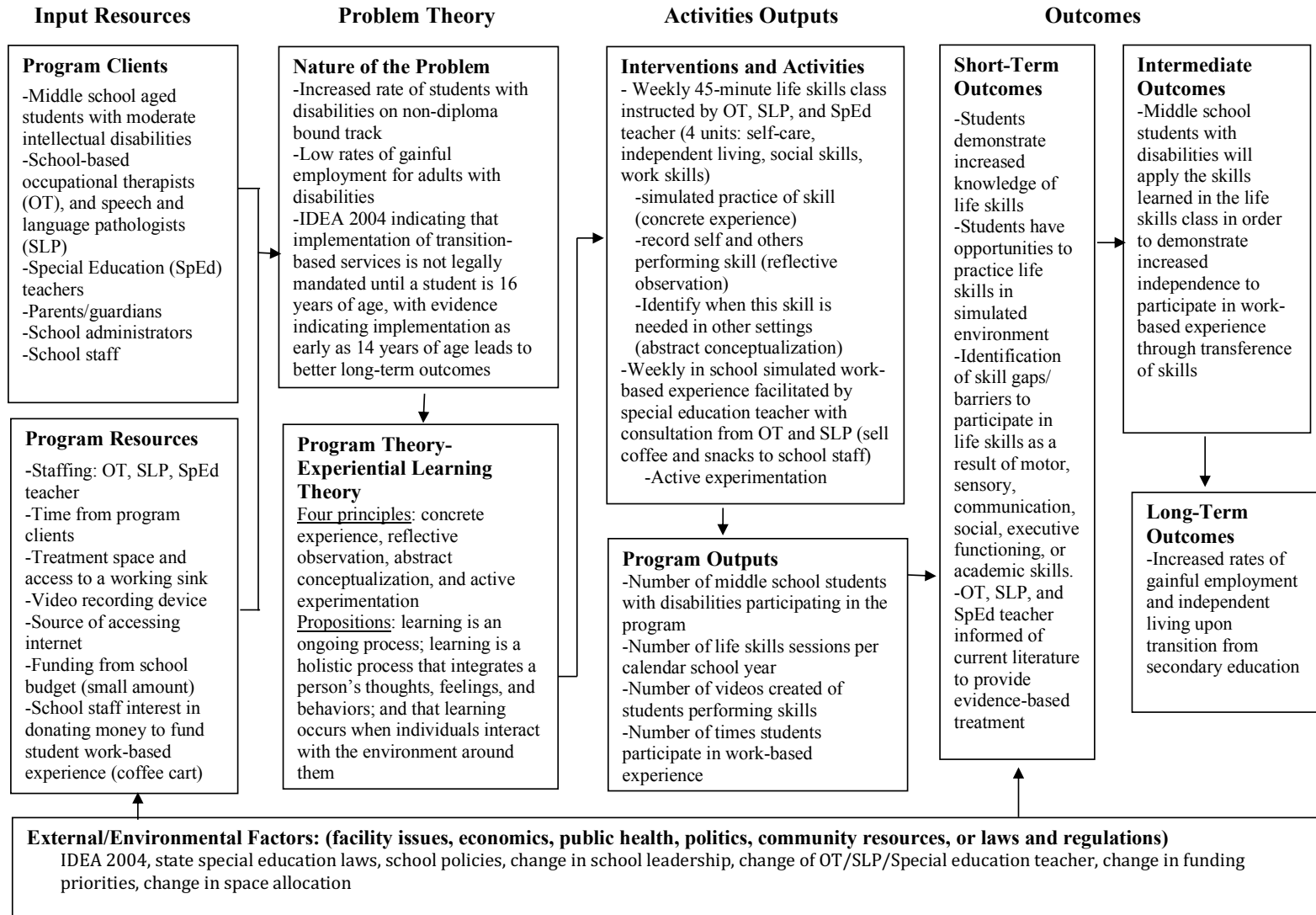
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APPENDIX B: LOGIC MODEL



APPENDIX C: EXAMPLE LESSON PLANS

Unit 1: Self-Care *Subunit 1: Hygiene*

Topic 1: Hand Washing

*Begin session by having each student participant read/describe their self-identified life skills goal for the year (Established first 2 weeks of program)

Description: The purpose of this lesson is to educate students and help them develop the skills to recognize when and where it is appropriate and/or necessary to wash one's hands and the skills to thoroughly wash hands with soap and water.

Materials Needed:

- Sink
- Soap
- Paper towels *or* hand towel *or* air dryer
*Best to have access to all three to increase generalizability of drying hands in different environments
- Based on adaptations:
 - iPad or iPhone
 - Access to color printer and laminator

Activity Analysis:

1. Recognize need to wash hands
2. Locate sink
3. Turn on faucet (faucet types may vary)
4. Locate soap and place on palm of hand (pump soap, automatic dispenser, etc.)
5. Rub front and back of hands together for 20 consecutive seconds
6. Rinse hands under water to remove all soap
7. Turn off faucet
8. Locate and retrieve drying mechanism
9. Dry front and back of hands
10. Throw away paper towel (If applicable)

Suggested Goals for the lesson:

(Level/type of assistance may vary based upon individual student's baseline performance)

1. Student will identify 2-3 times of day or situations in which it is appropriate and/or necessary to wash one's hands.
2. Student will identify and properly order the 4-step sequence (turn on sink, rub hands with soap, turn off sink, dry hands) of hand washing with the use of visual cue cards.

3. Student will turn on faucet and dispense soap from soap dispenser with no more than 1 visual demonstration.
4. Student will wash hands with soap and water for 15-25 consecutive seconds with no more than 2 verbal prompts.
5. Student will locate and utilize appropriate means to dry hands (air dryer, paper towels, hand towel).

Teaching Methods:

(The teaching method you select will be based upon the student's learning preferences and skill levels. It is recommended that you utilize more than one teaching method. It is best to have multiple options prepared and adapt the lesson in accordance with student response. If utilizing visuals or video modeling it is better to utilize real images/people vs. clip art or cartoons.)

- **Discussion**
 - Ask an open-ended question: "When should you wash your hands?"
 - Can utilize visuals of messy hands
 - Identify if the group missed any times in which they should have washed their hands
 - On dry erase boards have every student write down the steps of washing hands
 - Modified: have students order picture cards for washing hands
 - Challenge modified: include pictures that would not happen when washing hands
 - How long should we wash our hands?
 - Identify two ways to know how long to wash hands (count to 20 (or 10 twice), sing 'happy birthday' twice)
- **Video Modeling**
 - Click these links to see a point-of-view video model created by the author
 - <https://youtu.be/NjsJ3417mkM>
 - https://youtu.be/pU6nPJCfX_Q
 - *As you can see the two videos are both point of view but utilize two different types of sink knobs (turn vs. push), two different types of soap (wall mounted vs. mobile soap), and two different types of paper towels (wall mount vs. roll). Additionally, the individual is washing their hands for two different reasons (after using the toilet vs. hands are dirty). Utilizing multiple different video models can help with generalization. When you start it may be helpful to record your own video model in a familiar environment with a familiar adult's voice as an overlay.
 - Watch YouTube clips of instances in which people wash their hands (flushing toilet, hands in mud, about to eat, etc.)
 - Create video models with general education model students
 - Create video models of the student participants with your narration

- ***Physically Doing***
 - Enter bathroom/sink area and have students label materials
 - Students verbally identify materials
 - Have students match pictures or words to materials (vary based upon literacy level)
 - Have materials already labeled with words and ask students if they know what each object is called, or identify for them
 - Demonstrate washing hands
 - Adult model
 - Peer model
 - Scripting out all actions, utilizing few verbal directions, or performing silently
 - Have each student practice washing their hands, cue when necessary

Unit 2: Independent Living

Subunit 1: Personal Safety

Topic 1: Identifying personal phone number

*Begin session by having each student participant read/describe their self-identified life skills goal for the year (Established first 2 weeks of program)

Description: The purpose of this lesson is for students to identify their personal cellphone number or parent's number to call when necessary and/or share with trusted adults or on a job application.

Materials Needed:

- A working phone (ideally an iPhone as it is the most commonly found phone)
- Based on adaptations:
 - Access to color printer and laminator
 - White board and markers
 - Paper and pencil
 - Chromebook/computer

Activity Analysis:

1. Identify phone number to be used in teaching skill
 2. Identify purpose for number being used: calling or sharing number
 3. Recall 10 digits in correct order
 4. Input number directly into phone *Or* write phone number
- *Each of these tasks require different skill sets

Suggested Goals for the lesson:

(Level/type of assistance may vary based upon individual student's baseline performance)

1. Student will identify 2-3 times they would need to recall their own phone number.
2. Student will visually scan a phone keypad to type in their phone number when provided with a visual of their phone number.
3. Student will recall 3 consecutive digits in their phone number by end of lesson.

Teaching Methods:

(The teaching method you select will be based upon the student's learning preferences and skill levels. It is recommended that you utilize more than one teaching method. It is best to have multiple options prepared and adapt the lesson in accordance with student response. If utilizing visuals or video modeling it is better to utilize real images/people vs. clip art or cartoons.)

• ***Multi-Sensory Approach***

- Jump on trampoline and say a new number each jump
- Bounce a ball back and forth to partner and say a new number each pass
 - Start with chunking numbers (first three, next three, last four)
 - Have student read off a board
 - Have student repeat after teacher
- Have students sing phone number to the tune of a familiar song (an easy one to remember is *frere jacques*)
 - 123....123
 - 456....456
 - 7890....7890
 - That's my number....That's my number
- Write numbers in different textures (lotion/sand/shaving cream)
- Write (or type and print) the numbers 0-9 each on a separate page of printer paper in dark bolded font and arrange on the floor in the same order as presented on an iPhone keypad. To imitate as closely as possible under the number '2' write 'A B C' and the like for each number. Additionally, the pieces of paper can be colored light grey and cut out into a circle to imitate an iPhone. Have the student perform one or two footed jumps onto the numbers of their phone number (in order).

1	2	3
4	5	6
7	8	9
*	0	#

• ***Video Modeling***

- Video model a staff or peer performing any of the above multisensory approaches
- Person point of view video model of an individual dialing the phone number on an iPhone

- ***Physically Doing***
 - Dial phone number on iPhone
 - From memory
 - From auditory (adult or peer stating phone number out loud)
 - From visual (phone number written in front of them)
- ***Discussion***
 - Discuss whose number to use
 - Discuss when it would be helpful to remember that number
 - Discuss who it is safe to give that number to you

Unit 4: Work Skills
Subunit 1: Career Exploration

Topic 2: Career Exploration

*Begin session by having each student participant read/describe their self-identified life skills goal for the year (Established first 2 weeks of program)

Description: The purpose of this lesson is to increase the student participant’s awareness of different job opportunities and to get the students to start thinking about what they would like to do for work and what jobs they would be qualified for.

Materials Needed:

- Chromebook/computers
- Brochures/work-related books/visuals of occupations
- Potentially guest speakers (can utilize school staff)

Suggested Goals for the lesson:

(Level/type of assistance may vary based upon individual student’s baseline performance)

1. Student participants will name at least 2-3 jobs they learned about.
2. Student participants will describe the qualifications for 1 job that is of interest to them.
3. Student participants will identify 1 way to search for jobs.

Teaching Methods:

(The teaching method you select will be based upon the student’s learning preferences and skill levels. It is recommended that you utilize more than one teaching method. It is best to have multiple options prepared and adapt the lesson in accordance with student response. If utilizing visuals or video modeling it is better to utilize real images/people vs. clip art or cartoons.)

- ***Video Modeling/Videos***
 - Watching a video of someone searching the internet for jobs

- Watching short video clips of individuals on the job
- ***Physically Doing***
 - Search the internet for jobs
 - Keywords/websites written on board
 - Depending literacy levels utilize websites vs. videos
 - Sort jobs by interests (i.e. social vs. independent work, outside vs. inside work, manual labor vs. desk job, etc.)
- ***Discussion***
 - Create a list of the jobs students are aware of
 - Interview school employees about their experience working their job (i.e. interview custodial staff or front desk staff)
 - Students identify appropriate interview questions or interview questions provided to them
 - Homework assignment could be students interviewing a family member about their job
 - Create a list of things that students are excited for about work and nervous about work
 - Students are expected to have different lists from each other dependent upon individual interests
- ***Community Outing***
 - Dependent on school's resources go out into the community and identify different jobs (i.e. within grocery store there is a stocker, a cashier, a bagger; within McDonald's there is the cashier, the cook, the line prep, the custodian, etc.)
 - Or bring community to the school by inviting guest presenters
 - Involve general education students and host a 'job fair'

APPENDIX D: FACT SHEET



SPOT on Life Skills

A model life skills curriculum for middle school students with disabilities

Christine Curtin MS, OTR/L
OTD Candidate

Problem

- 14% of all public-school students in the U.S. are served under the Individuals with Disabilities Education Act of 2004 (IDEA 2004) (U.S. Department of Education, 2019).
- Students with disabilities (SWD) continue to have significantly poorer post-school outcomes (postsecondary education, employment, independent living) as compared to their same aged general education peers.
 - 40.7% employment gap between individuals with and without disabilities in the U.S (Kraus, Lauer, Coleman, & Houtenville, 2018).
 - Higher rates of poverty and lower school completion rates among individuals with disabilities (Kraus, Lauer, Coleman, & Houtenville, 2018).
- Few occupational therapy practitioners (OTPs) working in middle schools are implementing occupation-based interventions and OTPs do not play a significant role in providing transition-based services to school aged youth across the U.S. (Mankey, 2011).



<https://www.cnbc.com/2017/09/08/millennials-face-life-after-college-finding-a-quarter-life-crisis-instead-of-dream-jobs.html>

IDEA 2004's transition requirements aimed to improve postsecondary outcomes of SWD



- Students with individualized education plans (IEPs) must have a transition plan with measurable postsecondary goals by the year they turn 16
 - Evidence indicates that early implementation of transition services, by 14 years of age, leads to improved skill development and employment outcomes (Cimera, Burgess, & Bedesem, 2014)
- Goals to be established from a transition assessment
 - Vague requirements for transition assessment and no guidelines for development of postsecondary goals
- Transition services must be based on student needs, interests, and preferences
- Transition plan must include a statement of the transition services needed so the student can reach the goals
 - Absence of widely accepted transition program/life skills curriculum
 - No requirements to integrate evidence-based practices into transition programming



<https://otswithapps.com/2012/07/22/learn-to-tie-your-shoelace-using-apps-and-video-resources/>



<http://www.transforminghealth.org/stories/2013/10/class-teaches-life-skills-to-kids-living-with-disabilities.php>

Current Methods to Address the Problem Correlated with Positive Postsecondary Outcomes

Multifaceted approach to life skills intervention

Specific Interventions:

- 1) Transition assessment/Goal setting (Majeski et al., 2018)
- 2) Self-care and Independent living skills training (Bouck & Joshi, 2015)
- 3) Social skills training (Hillier, Fish, Cloppert & Beversdorf, 2007)
- 4) Paid or unpaid work-experiences (Landmark, Ju, & Zhang, 2010)

Approaches to intervention:

- 1) Planning and delivery of intervention through interdisciplinary collaboration (Bouck, 2008)
- 2) Integration of technology (Fairman, Bendixen, Younkin, & Krcko, 2016)
- 3) Varied and deliberate selection of the learning environment including opportunities for simulated learning, inclusion, and community-based experiences (Hoover, 2016)

SPOT on Life Skills is a school year-long two-part life skills curriculum for middle school students with disabilities, aged 11-14. The curriculum is derived from Kolb's Experiential Learning Theory and empirical evidence. Students must receive school-based OT and/or speech and language pathology (SLP) services in order to be eligible for program participation. The program is free for students as part of their IEP and only incurs a small fee for materials funded via the school budget or local, state, or federal grants. The curriculum consists of a multifaceted person-centered intervention approach. It addresses the impact of the environment and the utilization of assistive technology and other evidence-based teaching methods to increase retention of taught skills.

Specific program elements include:

- Training for facilitators: OT, SLP, Special Education (SpEd) Teacher
- Interview with student and parent/guardian(s) about their needs and interests relative to life skill development
- Assessment of student's current strengths and needs relative to curricular areas

Part 1: Weekly life skills class delivered collaboratively by the OT, SLP, and SpEd teacher (34 weeks total)

Weeks 1 and 2 begin with individualized goal setting. Four 8-week units follow:

- Unit 1) Self-Care
- Unit 2) Independent Living
- Unit 3) Social Skills
- Unit 4) Work Skills

Each unit consists of subunits with a variety of intervention activities that can be adapted to meet the individual needs of the student(s)

Part 2: Weekly simulated work-based experience to take place in the school setting facilitated by the SpEd teacher with collaboration from the OT and SLP



<http://javajoy.org>

Implications for Future Occupational Therapy Practice

- OTs are skilled at supporting client's engagement in everyday occupations relevant to postsecondary outcomes (employment, independent living, postsecondary education) (American Occupational Therapy Association, 2014)
- *SPOT on Life Skills* showcases OT's distinct value in assessment, collaboration, and provision of person-centered occupation-based interventions. It is intended as a result of this program that OTs will be more involved in transition planning and programming in the school setting and implement more occupation-based interventions in middle schools.

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CURRICULUM VITAE

