Parent Perspectives on Preparing Students with Intellectual Disabilities for Inclusive Postsecondary Education

Jeff C. Sheen
Utah State University

Follow this and additional works at: https://digitalcommons.usu.edu/etd
Part of the Education Commons

Recommended Citation
https://digitalcommons.usu.edu/etd/5875
PARENT PERSPECTIVES ON PREPARING STUDENTS WITH INTELLECTUAL DISABILITIES FOR INCLUSIVE POSTSECONDARY EDUCATION

by

Jefferson C. Sheen

A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Disability Disciplines

Approved:

_______________________________ _______________________________
Robert Morgan, Ph.D.  Jared Schultz, Ph.D.
Committee Co-chair    Committee Co-chair

_______________________________ _______________________________
Keith Christensen, Ph.D.  Timothy Riesen, Ph.D.
Committee Member    Committee Member

_______________________________ _______________________________
Terry Peak, Ph.D.  Mark R. McLellan, Ph.D.
Committee Member    Vice President for Research and Dean of the School of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah
2017
ABSTRACT

Parent Perspectives on Preparing Students with Intellectual Disabilities for Inclusive Postsecondary Education

by

Jefferson C. Sheen, Doctor of Philosophy

Utah State University, 2017

Major Professors: Robert Morgan, Ph.D., and Jared Schultz, Ph.D.
Department: Special Education and Rehabilitation

There are a greater number of inclusive postsecondary education (PSE) programs for students with intellectual disabilities (ID) in the U.S. than ever before. Consequently, there are a greater number of students with ID who now have the opportunity to participate in fully inclusive PSE programs with the intent of improving their transition outcomes related to employment, independent living, and quality of life. For students with ID to get the most out of these expanding PSE opportunities, it is imperative that they develop the personal competencies that will better prepare them to participate in such programs. The current study began the exploratory process of identifying, from a parent perspective, the personal competencies related to inclusive PSE readiness for students with intellectual disabilities in the broad categories of (a) the personal skills, (b) knowledge, and (c) attributes. This purpose was achieved by using a three-round Delphi survey, administered to a sample of parents of students with ID who have participated in
one of the 44 federally funded Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSIDs). The first round of the survey generated 56 items that participants in Round Two then rated on a 7-point scale of importance related to preparing students with ID for participation in inclusive PSE. In the final round of the Delphi survey, participants were provided with the mean, standard deviation, and frequency distribution for each of the 56 items from Round Two and asked to rerate each item based on the additional information provided. In Round Three the expert panel of parents gained consensus on 33 items related to personal skills, knowledge, and attributes they deemed important for students with ID to develop in order to be prepared for an inclusive PSE program. Results of the study were discussed in the context of the literature related to personal competencies for college readiness for students with and without ID. Additionally, implications, limitations, and recommendations for future research were discussed.
More and more students with intellectual disabilities (ID) have the opportunity to participate in a college experience by attending an inclusive postsecondary education program specifically designed to support these students. The goal of these programs is to help students with ID improve their opportunities to find employment that matches their interests, live more independently and enjoy a higher quality of life. To get the most out of their college experience, students with ID need to develop certain personal skills, knowledge, and attributes that will help them be better prepared for a college-based program. The parents of students with ID that have already had a chance to attend such a program can provide us with valuable insight into what types of personal skills, knowledge, and attributes might help other students be better prepared to participate in these inclusive college programs.

The current study began by asking a group of parents of students with ID that had attended at least one semester of an inclusive college program to list the personal skills, knowledge, attributes that they felt were most important in helping a student with ID be ready to attend an inclusive college program. Parents generated a list of 56 items that they then rated based on the level of importance they felt each item had. Only the items that reached a minimum level of importance as rated by at least half the parents were kept for
the final list of 33 items. The final results of the study were explored, how these results related to parents, student with ID, special educators, and inclusive college program staff were discussed, and recommendations for future research were presented.
This dissertation represents the culmination of my doctoral studies and marks an important transition in my life. The journey to this point has been rich and full thanks to the many dear and meaningful relationships I have formed along the way and because of the tremendous support and encouragement I received from family, mentors, colleagues, and friends. First and foremost, I would like to thank my wife, Paige, who has been with me through thick and thin for over two decades and has never wavered in her love and encouragement in all areas of my life. Her constant and steady presence has provided a safe harbor amidst the various storms of life. My oldest son, Tavin, who shows me by example how to do hard things and have the courage to try new challenges, has been a source of great joy and humor throughout our time together. My younger children, Hadley, Zadok, and Walker, who played “more quietly” at times so dad could do his homework, have blessed each day of this journey with their curiosity about the world, their joy in discovery and learning, and their endless supply of hugs and love. Special thanks to my parents, Cathryn and Russell, who instilled in me a love for learning and desire to be a kind and caring human being.

I would also like to thank my committee members. The opportunity to work with my major professors, Dr. Bob Morgan and Dr. Jared Schultz, throughout my doctoral program has been quite the adventure. Dr. Morgan’s passion for improving the lives of students with disabilities has been an inspiration and something I hope to emulate throughout my career. I consider him to be a true mentor and friend and am grateful for the invaluable time and expertise that he contributed toward ensuring the success of this
dissertation and ultimately my tenure as a doctoral student. Dr. Jared Schultz’s humor and joy in his work has also made a deep impression on me and I am grateful to him for recruiting me into this doctoral program and the many subsequent scholarly discussions around his white board that have been instrumental in my growth as a professional in the disability field. I am also immensely grateful for our many discussions about good music that led me to discover new artists and genres that provided the soundtrack to my writing.

Dr. Terry Peak is one of the people who first inspired me to pursue graduate school as an undergraduate student in her social work courses. It is a tremendous honor to have her serve on my dissertation committee. Her wit, wisdom, and support throughout my schooling and professional work is deeply appreciated. I appreciate Dr. Tim Riesen’s friendship and mentoring along the way. We have had many enlightening and important conversations in the time we have known each other and I appreciate his way of being in the world. There is always money in the tamale stand Dr. Riesen. Dr. Keith Christensen has been a dear friend for almost 20 years and his encouragement and support have been instrumental in my life well beyond this dissertation. I am grateful for his example of professionalism, scholarship, and enthusiasm for life. I am also grateful for that one time he drove my wife to the hospital so she could give birth to my daughter while I was out of town. Finally, I would not be writing any of this if it were not for Dr. Judith Holt. Dr. Holt took pity on me as a wide-eyed and idealistic young Social Work graduate student and brought me into the life-changing world of Disability Studies. I am forever grateful that she took me on as a practicum student and offered me my first professional job just before I graduated. Her mentoring and insistence that I never forget about the parent
perspective in my work, was instrumental in determining the focus of my dissertation and has guided me in many other areas of my career. To my fellow doctoral students, especially my close friends Sachin and Cherissa, thank you for the encouragement, laughs, and free therapy along the way. Thank you to the other faculty and staff in the Department of SPER who supported me as well, including but not limited to: Teresa Simonsen, Tammy Soto, Cosette Brunner, Anita Shuman, Kris Wengreen, Tracy Woolstenhulme, and Dr. Tim Slocum.

A deep bow of gratitude to the amazing students, parents, and staff associated with the Aggies Elevated program at Utah State University. Your dedication and passion for elevating everyone’s expectations about what is possible is a privilege to be a part of. To the folks at Think College and all the students, families, and staff trying to provide greater opportunities for students with intellectual disabilities, I thank you for the example of perseverance, optimism, and hard work. Thanks especially to Dr. Meg Grigal and Cate Weir for providing ideas and direct support to make this study possible.

Last but not least, I would like to thank my friends in the Cache Valley Sangha for being a balancing support that has kept me mindful of the bigger picture in life and helped me to embrace every part of this journey—the joy, sadness, and every experience in between. Special thanks to my noble friends, Emily and Megan. Emily’s life wisdom, poetry, and friendship encourage me to embrace life more fully. Megan’s friendship and music inspires me to live more deeply and love more authentically. To all those named and not named who have influenced my way of being in this world, I thank you for being part of my journey.
# Table of Contents

## IV. RESULTS

- Characteristics of the Sample ................................................................. 62
- The Delphi Survey .................................................................................. 65
- Summary ................................................................................................. 73

## V. DISCUSSION

- Personal Skills, Knowledge, and Attributes ........................................... 74
- Comparison with Previous Study ............................................................. 76
- Demographic Observation ....................................................................... 80
- Delphi Methodology with Parent Panel Observations ............................. 82
- Implications ............................................................................................. 83
- Limitations ............................................................................................... 86
- Recommendations for Future Research .................................................... 86
- Conclusion ............................................................................................... 89

REFERENCES ............................................................................................... 91

APPENDIX: IRB INFORMED CONSENT AND ROUND ONE SURVEY INSTRUMENT ........................................................................ 97

CURRICULUM VITAE ..................................................................................... 105
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Summary Table of the Steps, Phases, and Activities Involved in the Execution of a Three-Round Delphi Survey</td>
<td>56</td>
</tr>
<tr>
<td>2.</td>
<td>Demographics of the Sample</td>
<td>63</td>
</tr>
<tr>
<td>3.</td>
<td>Round 2 and Round 3 Results for All 56 Items Including Median and Interquartile Range</td>
<td>67</td>
</tr>
<tr>
<td>4.</td>
<td>Final List of Inclusive PSE Preparation Items Meeting Consensus Including Median and Interquartile Range</td>
<td>70</td>
</tr>
<tr>
<td>5.</td>
<td>Comparison of Current Study Final Consensus Items with Selected Milsom and Dietz (2009) Study Final Consensus Items</td>
<td>72</td>
</tr>
<tr>
<td>6.</td>
<td>Consensus Items and Examples of Related Competencies and Factors</td>
<td>77</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Think college standards for inclusive higher education</td>
<td>31</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Importance of the Problem

Since 2010, there have been 44 model demonstration projects, referred to as Transition and Postsecondary Education Programs for Students with Intellectual Disabilities (TPSIDs), serving students with intellectual disabilities (ID) at approximately 85 institutions of higher education (IHEs) across the U.S. (U.S. Department of Education, 2016). The 44 TPSIDs are designed to offer college experience and educational opportunities specifically to persons with ID. These programs represent the latest wave in a dramatic increase in the number of inclusive postsecondary education (PSE) programs that have become available to students with ID in the past decade. While PSE opportunities for students with ID have been available in the U.S. to some degree since the 1970s, early PSE programs were largely segregated, stand-alone programs that, although located on a college campus, kept students with ID isolated from students without disabilities most of the time (Neubert, Moon, Grigal, & Redd, 2001). In the 1990s, the major trend was to focus on dual enrollment programs that provided PSE opportunities and transition supports to students between 18 and 21 who were still eligible for special education services from the local school district (Neubert et al., 2001; Thoma et al., 2011). These programs often, although not always, provided greater levels of integration with peers without disabilities than PSE programs in the 1970s and 1980s by offering students with ID opportunities to audit regular classes and participate in
college social and recreational activities (Neubert et al., 2001).

By the early 2000s, the type of PSE programs available to students with ID could generally be categorized on a continuum of inclusiveness ranging from substantially separate, to mixed, to inclusive (Hart, Grigal, Sax, Martinez, & Will, 2006; Stodden & Whelley, 2004). While the majority of programs were still at the middle to low end of the inclusion continuum, the number of PSE programs pursuing greater levels of inclusion was steadily increasing (Neubert et al., 2001; Thoma et al., 2011). Beginning in 2010, the number of PSE programs at the higher end of the inclusion continuum noticeably accelerated. This was due in large part to the passage of the 2008 Higher Education Opportunity Act (HEOA), which among other things, provided the funding for TPSID model demonstration projects that are designed to expand the number of “high quality, inclusive, model comprehensive transition and postsecondary programs for students with ID” (Grigal, Hart, & Weir, 2013, p. 51).

The push for the passage of the HEOA and the subsequent increase in the number of more inclusive PSE programs (specifically TPSIDs) has been driven by a number of different factors. These factors include federal mandates related to improving transition planning and subsequent postsecondary outcomes for this population (e.g., Individuals with Disabilities Education Act amendments of 1997 and 2004), and perhaps most importantly, a growing expectation of parents of students with ID that the inclusive education their children experienced in the K-12 system could continue into the higher education system (Grigal & Hart, 2010; Grigal & Neubert, 2004; Hart et al., 2006; Neubert et al., 2001; Uditsky & Hughson, 2006; Wilson, Hoffman, & McLauglin, 2009).
Indeed, in a study of parents of students with disabilities, including those with ID, Grigal and Neubert (2004) found that a majority of parents felt that attending college after high school was the preferred outcome for their student with a disability.

The expectation of parents that students with ID can and should have the opportunity to continue on to a college experience with their peers who do not have disabilities, is a natural outgrowth of the inclusion movement that began in the 1970s and was explicitly codified in the Americans with Disabilities Act (ADA) of 1990. Highlighting the importance of inclusion for individuals with disabilities, including ID, in all aspects of society, the ADA states, “the Nation’s proper goals regarding individuals with disabilities are to assure equality of opportunity, full participation, independent living and economic self-sufficiency for such individuals…” (Americans with Disabilities Act of 1990). As each new generation of students with ID experiences, additional opportunities to more fully participate in all aspects of society, the expectations of parents regarding what is possible and what can lead to improved outcomes for their children continue to grow.

Of all the stakeholders involved in trying to improve postsecondary outcomes for students with ID, parents are often, the ones who have the most at stake because of the lifelong support role (e.g., emotional, legal, physical, etc.) that they are expected to play for their children with ID. In many cases, parents of children with ID continue to serve as the primary support for their children with ID well into adulthood (at least informally if not as a legal guardian). As the primary support for their adult child with ID, parents have a vested interest in ensuring that their child has access to the supports and opportunities
that will provide the highest quality of life. Thus, the role of parents in the transition process for students with ID is critical. It has often been the efforts of parents advocating for more inclusive education opportunities for their children that has led to systemic change, whether in the K-12 system or the development of inclusive PSE programs in the U.S. (Grigal, Hart, & Weir, 2011). The vital role that parents play in ensuring that their child with ID gets the most appropriate and beneficial education possible and has developed the personal skills, knowledge, and attributes needed to be prepared for the transition to adulthood (e.g., PSE, employment, independent living) has long been recognized by educators and lawmakers. The 1997 and 2004 amendments to the Individuals with Disabilities Education Act (IDEA) recognized the family’s critical role in the planning and decision-making process related to their child’s education and transition plan and required educators to collaborate with parents on developing an individualized education plan (IEP), including a section on transitioning to adulthood (Wehmeyer, Morningstar, & Husted, 1999; Wilson et al., 2009).

In a comprehensive review of best practices in transition to adult life for youth with ID, Papay and Bambara (2014) found that family involvement in transition planning was consistently identified as one of the seven most common best practices. They reported that “youth who had experienced family involvement [in transition planning] were 41 times more likely to have attended PSE between 2 and 4 years out of high school than youth whose families were not involved” (Papay & Bambara, 2014, p. 144). Research regarding the effect of parent expectations on the decision of students with ID to pursue PSE, has found that parent expectations for PSE is a strong predictor of whether
that child does indeed pursue a college experience after high school (Doren, Gau, & Lindstrom, 2012; Grigal & Hart, 2012; Martinez, Conroy, & Cerreto, 2012; Newman, 2005; Yarbrough, Getzel, & Kester, 2014).

It is clear that parents of students with ID have been a driving force in the movement to develop and expand inclusive PSE opportunities for their children (Grigal & Hart, 2010; Grigal & Neubert, 2004; Hart et al., 2006; Neubert et al., 2001). It is also clear that parents play a critical role in the transition planning process for their children and that the likelihood of these students participating in PSE programs increases when parent expectations for a college experience are part of the transition planning process (Doren et al., 2012; Griffen, McMillan, & Hodapp, 2010; Martinez et al., 2012). However, despite the recognition that parents play an essential role in planning and preparing their student with ID to participate in inclusive PSE programs, there is very limited research on the parent perspective regarding PSE for students with ID in general, and no research could be located on the parent perspective regarding the types of personal skills, knowledge, and attributes that help students with ID prepare to participate in such programs.

In their review of the relevant literature, Yarbrough et al. (2014) found that only eight studies directly examined the perspective of parents of young adults with ID related to PSE. None of these studies examined the types of personal skills, knowledge, and attributes needed by students to participate in a PSE program. Similarly, in their review of related literature, Papay and Bambara (2014) found no research that explored student characteristics, in the form of personal skills, knowledge, and attributes that parents
perceive as being crucial for students to have in order to be prepared for a PSE program. Instead, the research to date has focused on barriers to participation in PSE from a family perspective and the role that family income, parent education level, parent employment, and parent expectations play in whether or not a student with ID chooses to participate in a PSE program (Doren et al., 2012; Griffen et al., 2010; Martinez et al., 2012; Neece, Kraemer, & Blacher, 2009; Papay & Bambara, 2014; Papay & Griffen, 2013; Yarbrough et al., 2014). Although these variables are critically important to informing the PSE literature and establishing a baseline for reducing barriers to participation in PSE for this population, existing research does not explore what the National Collaborative on Workforce and Disability for Youth [NCWD] (2016) refers to as the personal competencies (i.e., personal skills, knowledge, and attributes) that students with ID need to develop to support the transition to a PSE program.

With the number of more inclusive PSE programs growing each year, especially with the two rounds of funding for TPSIDs, there are a greater number of students with ID who have the opportunity to participate in a PSE program with the intent of improving their general transition outcomes related to employment, independent living, and quality of life. If students with ID are to get the most out of these rapidly expanding PSE opportunities, it is imperative that they develop the personal skills, knowledge, and attributes that will better prepare them to participate in such programs. Parents of students with ID who have had the opportunity to participate in a TPSID program are on the leading edge of understanding what types of personal competencies their children need to be ready to participate in such programs. Therefore, the purpose of this study is to
identify the personal skills, knowledge, and attributes that parents of students with ID consider important for these students to have, in order to be prepared to participate in an inclusive PSE experience.

**Context and Significance of the Study**

Data from the National Longitudinal Transition Study-2 (NTLS2) have consistently indicated that young adults with intellectual disabilities are the least likely subgroup of students with disabilities to participate in PSE (Wagner, Newman, Cameto, Garza, & Levine, 2005). Similarly, students with ID are the group least expected to be involved in PSE or to have PSE as a transition goal (Wagner et al., 2005). In the first round of data available from the NTLS-2 study, only 8.3% of parents of students with ID indicated that they expected their child to definitely get some type of PSE experience compared to 66.9% of parents who stated that their child with ID definitely or probably would not get any PSE (Wagner et al., 2005). The actual percentage of students with ID attending any type of PSE program according to the 2005 NTLS-2 data was 15%, with 5.1% of these students (of the 15%) attending a 2-year college and 0% attending a 4-year university. However, although students with ID remain the least likely of all disability groups to participate in PSE opportunities, there has been an increase in the PSE participation rates of students with ID since 2005. By 2011, the last year NTLS-2 data were collected, the percentage of students with ID attending any type of PSE program had almost doubled to 28.7%, with the percent of students attending a 2-year college increasing from 5.1% to 18.9% and the percent attending a 4-year university moving
from 0% to 6.7% (Newman et al., 2011).

At the same time that the number of students with ID choosing to pursue PSE has increased, particularly the number attending 2- and 4-year colleges and universities, the number of PSE programs available to support these students at these colleges and universities has expanded. In 2006, Hart placed the number of recognized PSE programs in the U.S. at 110 and by 2010, Hart, Grigal, and Weir placed the number of PSE programs for students with ID at approximately 250. This suggests a substantial growth in PSE programs. However, these numbers are not based on a consistent definition of PSE program. For example, definitions of PSE programs may include everything from one individual student with ID taking a class at a local community college on their own, to a dual-concurrent enrollment option being offered to students with ID in a local school district, to a fully inclusive PSE program offered on a 2- or 4-year college campus. Additionally, these numbers do not include any of the model demonstration TPSIDs, which are the programs of focus for this study. While is it difficult to accurately measure the growth in general PSE programs available to students with ID over the past decade, the growth in the number of TPSID programs is very clear. In 2010, there were 27 grantees in 23 states that received HEOA funding to implement the first round of TPSID programs. Another 25 TPSID awards were made in 2015 (17 new awards and 8 continuing awards) bringing the total number of TPSIDs grants funded since 2010 to 44.

As both the number of PSE programs available to students with ID, including the TPSID projects, and the number of students with ID participating in PSE programs has increased, so too have the opportunities to conduct research in this area (Grigal et al.,
2013). A review of research focusing on PSE for students with ID conducted by Thoma et al. (2011), covering the literature from 2001-2010, found that most PSE research in this area consisted of program descriptions or state/regional/national surveys focused on program characteristics. Of the 24 research articles reviewed by Thoma et al., 18 focused on program descriptions or examined specific program characteristics. Another five articles used case study methods to study individual student experiences, and one article reported on a survey of parents regarding their expectations for their child’s postsecondary school outcomes.

In a review of the most recent studies involving PSE for students with ID, Grigal et al. (2013) indicated that a wide variety of methodologies have been used to examine different aspects of this broad topic including: secondary analyses of existing data sets such as the NTLS2, national surveys focused on describing program characteristics, and qualitative research with different stakeholder groups including students with ID, college students without disabilities, higher education faculty and families. Grigal et al. also reported that, as of 2012, there were 16 TPSID projects conducting over 60 research projects on different topics such as mentoring, use of natural supports, and faculty attitudes.

Despite the recent increase in research on PSE for students with ID, this is a research field that is still in its infancy (Grigal, Hart & Weir, 2011). With limited funding for research in this area available prior to the funding of the first round of TPSIDs in 2010, and the lag time between conducting research and publication, there remain gaps in the literature around important aspects of PSE for students with ID (Grigal, Hart, & Weir,
One of these gaps is understanding PSE for students with ID from a parent perspective (Chambers, Hughes, & Carter, 2004; Davies & Beamish, 2009; Martinez et al., 2012; Neece et al., 2012; Yarbrough et al., 2014). Only five of the studies referred to in the reviews by Thoma et al. (2011) and Grigal et al. (2013) had parents of students with ID as the primary research subjects.

Gaining a greater understanding of how parents of students with ID view and experience their child’s involvement in a PSE program, and more specifically with one of the TPSID programs, would be a significant contribution to the literature in this area. As the role of TPSIDs is to model and demonstrate what works regarding PSE for students with ID, it is likely future PSE programs for this population will look to the experiences of the TPSIDs for guidance, and as Papay and Griffin (2013) stated, “with greater understanding of the perspectives and priorities of parents, programs might be developed to better meet the needs of their community” (p. 113).

A second gap in the research literature relates to gaining a better understanding of what personal competencies students with ID need, to be ready for PSE experiences (Grigal, Hart, & Weir, 2011; Thoma et al., 2011). In their reviews of current PSE and ID research, none of the studies referenced by Grigal et al. (2013) or Thoma et al. (2011) addressed what personal competencies students with ID need to successfully participate in a PSE program. Gaining a better understanding of the personal competencies in the form of personal skills, knowledge, and attributes that students with ID need to develop to transition to a TPSID program would be instrumental for three reasons. First, a better understanding of the personal competencies that support students with ID to participate in
a TPSID program, particularly from a parent perspective, could lead to developing more effective interventions around improving relevant personal skills, knowledge, and attributes that parents can implement earlier in the transition process. Second, a better understanding of the personal competencies that support participation in a TPSID program may lead to the identification of gaps between the K-12 system’s current efforts to prepare students with ID for the transition to PSE and the personal skills, knowledge, and attributes that students should be working to develop to be adequately prepared for this transition. Identifying any such gaps between what is being taught and what is needed for successful participation in a TPSID program could benefit special educators and allow them to adjust their efforts to better prepare students with ID for the transition to PSE. Third, more information in this area could support improved collaboration between parents and educators. Better collaboration between parents and professionals that more fully takes into the account the parent perspective, is likely to provide better opportunities, at an earlier age, for students with ID to get the support and resources that they need to develop the personal skills, knowledge, and attributes that will help them be prepared for a PSE experience. Indeed, “intentionally soliciting the perspectives of students with IDD and their families can help to ensure that new programs and opportunities develop in a way that meets their needs” (Papay & Griffin, 2013, p. 114).

The current study aims to enhance understanding of the parent perspective regarding what personal skills, knowledge, and attributes are important for students with ID to develop so that they can be adequately prepared to participate in and benefit from a TPSID program. The study includes a research partnership with parents of students with
ID that have participated in one of the 44 TPSID funded programs and utilizes a three-round Delphi survey method to gather a mix of qualitative and quantitative data. The Delphi method is designed to systematically gather informed opinions and perceptions from a panel of experts on a particular topic (Fleming, Boeltzig-Brown, & Foley, 2015, Vázquez -Ramos, Leahy, & Hernández, 2007). In the current study, parents of students with ID are considered experts on the topic of focus (the idea of parents as experts is discussed in more detail in Chapters II and III). During the first round of a Delphi survey, participants are asked to respond to a few open ended questions, producing qualitative data. The researcher then takes this qualitative data and develops items for participants to rank on a Likert-type rating scale in rounds two and three to establish a quantitative basis for meeting a predetermined level of consensus among the participants (Vázquez-Ramos et al., 2007). The use of the Delphi survey method is intentional and designed to add to the methodological diversity of the literature in this area. None of the research discussed by Thoma et al. (2011) or Grigal et al. (2013), including the research projects currently underway among the first round of TPSIDs, referenced the use of the Delphi survey method to gather information from primary stakeholders like parents. A detailed description of the Delphi method, including the benefits and limitations of using such a method in the context of the current study is provided in Chapter III.

**Purpose Statement and Research Questions**

The purpose of this study was to begin the exploratory process of identifying, from a parent perspective, (a) the personal skills, (b) knowledge, and (c) attributes that
students with ID need to be prepared to participate in a TPSID program. This purpose was achieved by using a three-round Delphi survey, administered to a sample of parents of students with ID who have participated in one of the 44 TPSID funded programs, to answer the following research questions.

RQ1: From a parent perspective, what personal skills do students with intellectual disabilities need to be prepared to participate in an inclusive PSE program?

RQ2: From a parent perspective, what knowledge do students with intellectual disabilities need to be prepared to participate in an Inclusive PSE program?

RQ3: From a parent perspective, what attributes do students with intellectual disabilities need to be prepared to participate in an inclusive PSE program?

**Definition of Key Terms**

*Attribute:* A quality or characteristic that someone or something has (Cambridge English Dictionary, 2016).

*Delphi Survey:* A systematic consensus-gaining process used to survey and collect the opinions of experts on a particular subject (Yousuf, 2007). For purposes of this study, a three-round Delphi survey will be used to determine the personal competencies that parents of current and former TPSID students believe that students with ID need to develop to be better prepared for the transition to PSE.

*Inclusive Postsecondary Education:* PSE programs for students with ID that are at the high end of the inclusion continuum typically focus on providing opportunities for authentic participation in all aspects of typical student life on a university or college campus. These inclusive PSE programs emphasize the integration of students with ID with students without disabilities in all aspects of the academic, social, career
development, self-determination, and independent living opportunities naturally provided in a university or college setting (Grigal, Hart, & Weir, 2011; Uditsky & Hughson, 2012).

*Intellectual Disability:* A disability originating before the age of 18 that is characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. Intellectual disability is the preferred term for the disability historically referred to as mental retardation (American Association of Intellectual and Developmental Disabilities, 2016). More specifically, the Higher Education and Opportunity Act of 2008 defined a postsecondary student with ID as a person (1) with mental retardation or a cognitive impairment characterized by significant limitation in intellectual and cognitive functioning and adaptive behavior as expressed in conceptual, social, and practical adaptive skills; and (2) who is currently, or was formerly eligible for FAPE under IDEA 2004 (Higher Education Act of 2008).

*Knowledge:* Knowledge is an awareness or familiarity with facts, information, and skills gained through experience or education (Oxford English Dictionary, 2016).

*Personal Skills:* In general, “a skill is the ability to do something well” (Oxford English Dictionary, 2106). In the context of the current study, personal skills refer to a cluster of skill areas such as communication skills, problem-solving skills, self-advocacy skills, decision making skills, and self-management skills that research indicates are important abilities that students need to develop to successfully participate in a PSE program (NCWD, 2106).

*Prepared to participate:* For the purpose of this study the term “prepared to
participate” refers to the minimum level of personal skills, knowledge, and/or attributes that a parent believes a student with ID needs to have developed in order to begin participating in an IPSE program and complete at least the first semester of such a program given the supports and resources of a typical TPSID program.

Postsecondary Education: PSE is a formal educational experience after high school that is often in the form of a 2-year college, 4-year university, or vocational/technical education (Shaw, 2009).

Transition and Postsecondary Education Programs for Students with Intellectual Disabilities (TPSID): Model demonstration projects authorized and funded by the Higher Education Opportunity Act of 2008 that are designed to assist institutions of higher education to create or expand high quality, inclusive model comprehensive transition and postsecondary programs for students with intellectual disabilities.

There are eight required components for TPSIDs.

1. serve students with intellectual disabilities;

2. provide individual supports and services for academic and social inclusion of students with intellectual disabilities in academic courses, extracurricular activities, or other aspects of the institution of higher education’s regular postsecondary program;

3. with respect to the students with intellectual disabilities participating in the model program, provide a focus on:
   a. Academic enrichment;
   b. Socialization;
   c. Independent living skills, including self-advocacy skills; and
   d. Integrated work experiences and career skills that lead to gainful employment;

4. integrate person-centered planning in the development of the course of study for each student with an intellectual disability participating in the model program;
5. participate with the coordinating center established under section 777(b) in the evaluation of the model program;

6. partner with one or more local educational agencies to support students with intellectual disabilities participating in the model program who are still eligible for special education and related services under the Individuals with Disabilities Education Act, including the use of funds available under part B of such Act to support the participation of such students in the model program;

7. plan for sustainability for the model program after the end of the grant period; and

8. create and offers a meaningful credential for students with intellectual disabilities upon the completion of the model program (U.S. Department of Education, 2016).

**Summary**

This chapter provided a brief introduction to the problem addressed by this study, a context for the problem and discussion of the significance of the study, a purpose statement with accompanying research questions, and definitions of key terms. Chapter II provides a review of relevant literature in three main topical areas: (a) general history and description of PSE programs; (b) relevant research on PSE for students with ID; and (c) parent perspectives on PSE for students with ID. Chapter III describes the three-round Delphi survey methodology and rationale for its use in the current study. Chapter IV presents findings from the Delphi survey. Last, Chapter V provides a discussion of the findings, implications, and future research recommendations.
CHAPTER II
REVIEW OF THE LITERATURE

The purpose of this review was to survey the current literature regarding postsecondary education for students with intellectual disabilities to establish a rationale for the current study, and provide a foundation for specific research questions and data collection methods. A broad review of the relevant literature was conducted via a search of electronic research databases, including Academic Search Premier, Education Source, ERIC, Psychology and Behavioral Sciences Collection, and Psychinfo. Search term strings included intellectual disability and (postsecondary education or post-secondary, post secondary, higher education, college, or university), and parent or family, (perspectives, attitudes, beliefs, or feelings). Using these search strings, a total of 129 initial articles, dissertations, books, book chapters and policy documents were identified. In addition, a secondary search for articles was conducted by examining the reference list of each article that was retrieved from the initial database search.

Articles from the initial search were included in the final review if they were published in a peer reviewed journal, or were disseminated by the National Coordinating Center of TPSIDs, and were focused primarily on individuals with intellectual disabilities in postsecondary education as defined for this study. For the purposes of this review, a narrow definition of the term intellectual disability (defined in Chapter I: Key Terms) was used versus a broader definition of ID, which is sometimes used in the literature and includes a wider range of developmental disabilities, including Autism and traumatic brain injury. The term postsecondary education used for this review refers to a program
that provided education and vocationally focused training to individuals with intellectual disabilities who had exited the public school system, and was located within a two- or four-year college or university setting. Articles were not included in the final review if they (a) focused exclusively on dual enrollment PSE programs for 18-22 year olds still in the k-12 school system, (b) were not specific to students with intellectual disabilities, or (c) included studies conducted outside the U.S. or Canada. Applying these inclusion criteria resulted in 38 primary articles that were reviewed. For the purposes of this review, the content of these 38 primary articles was organized into three main topical areas: (a) general history and description of PSE programs; (b) relevant research on PSE for students with ID; and (c) parent perspectives on PSE for students with ID. While some articles only addressed issues in one of these areas, several articles touched on more than one of the topical areas and were thus included in the discussion under each relevant heading.

**General History and Description of Postsecondary Education Programs**

To more fully understand the development of TPSID programs and the advancement of the general Inclusive Postsecondary Education (IPSE) philosophy that provides the framework for such programs, it is important to examine the various pieces of legislation and preceding models of PSE that have laid the groundwork for the TPSID model demonstration programs, which are the focus of this study.

**Key Legislation**

The evolution of PSE for students with ID, from the original substantially
separate programs that began in the 1970s, to the model demonstration efforts of the first
TPSIDs beginning in 2010, is tied to several key pieces of federal legislation. Legislation
that has supported the development of additional educational opportunities for students
with disabilities, including those with ID, and laid the groundwork for increasing the
availability and viability of PSE programs include: (a) Public Law 94-142 (Education for
All Handicapped Children Act), later reauthorized as the Individuals with Disabilities
Education Act (IDEA), with key transition related amendments to IDEA occurring in
1997 and 2004; (b) Section 504 of the Rehabilitation Act of 1973; (c) the Americans with
Disabilities Act (ADA); and (d) the Higher Education Opportunity Act (HEOA; Grigal,
Hart, & Weir, 2013; Stodden & Whelley, 2004; Wehmeyer et al., 1999).

**Public law 94-142 and IDEA amendments.** Public Law 94-142 was enacted to
give students with disabilities access to a free and appropriate public education in every
state in the U.S. This legislation provided the foundation for delivering quality instruction
to students with ID and other disabilities at the elementary and secondary levels (Stodden
& Whelley, 2004; Wehmeyer et al., 1999). The IDEA amendments of 1997 and 2004
built on the foundation of Public Law 94-142 by providing transition related funding and
implementing mandates designed to improve postsecondary transition planning and
improve general transition outcomes for students with disabilities in the areas of
employment, independent living and postsecondary education (Grigal et al., 2013;
Stodden & Whelley, 2004; Wehmeyer et al., 1999).

The 1997 IDEA amendments provided additional focus on transition related
services and required transition planning begin at the age of 14 instead of 16 (Wilson et
This was in recognition that students and families needed to start planning earlier for the types of courses and supports the students would need during the high school years to reach their adult transition goals (Wilson et al., 2009). The 1997 amendments also required that the annually updated transition plan include a statement regarding the student’s course of study and the services and supports needed to assist the student to have more opportunities to participate in the general curriculum as a way to support their progress toward their transition to adulthood (Wilson et al., 2009). The 2004 IDEA amendments extended the 1997 amendments by specifying that increased access to the general curriculum should be used to support each student’s specific post-school goals, including a desire to attend college if applicable (Wilson et al., 2009). According to the 2004 amendments, a student’s post-school goals were to be based on each student’s unique strengths, preferences, needs, and an age appropriate transition assessment (Wilson et al., 2009). Further, transition services according to the 2004 amendments should be a “results oriented process that is focused on improving the academic and functional achievement of the child with a disability to facilitate movement from school to post-school” (§602 (34) (A)).

**Section 504 of the Rehabilitation Act and the Americans with Disabilities Act.** These two pieces of legislation protect the rights of people with disabilities to participate in certain aspects of society. Section 504 protects an individual’s right to participate in or benefit from any program that receives federal funding, including educational programs provided at public institutions of higher education (Grigal et al., 2013). The broader Rehabilitation Act of 1973, of which Section 504 is but one part, also
established the system of training and financial assistance that individuals with disabilities, including ID, can apply for to support educational programs that lead to employment (Stodden & Whelley, 2004). Similarly, the ADA ensures that “otherwise qualified” individuals with disabilities have equal access to educational opportunities and environments and provides for reasonable accommodations to support such access (Grigal et al., 2013; Stodden & Whelley, 2004). Each of these pieces of legislation has provided the legal rights and related supports that have encouraged individuals with disabilities, including those with ID, to pursue postsecondary education opportunities.

**Higher Education Act.** In 2008, the Higher Education Act of 1965 was reauthorized as the Higher Education Opportunity Act (HEOA). The HEOA is landmark legislation that has built on the ideas and policies of the previously discussed legislation, to expand access to PSE for student with ID in unprecedented ways (Grigal et al., 2103). The key provisions of the HEOA include: (a) defining the term intellectual disability in the context of higher education, (b) establishing the Comprehensive Transition and Postsecondary Program (CTP) as a new category under which students with ID can apply for and receive certain types of federal financial aid (i.e., Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, and Federal Work Study), (c) waiving previous federal financial aid eligibility requirements, such as a need for a high school diploma or General Education Development (GED) diploma for students with ID who are attending an institution that has received the CTP designation, (d) authorizing and appropriating funding for the TPSID demonstration projects, and (e) creating a National Coordinating Center for TPSID projects and the general expansion of inclusive PSE
opportunities for students with ID (Grigal et al., 2013; Grigal, Hart & Weir, 2011; Papay & Griffin, 2013).

**Models of Postsecondary Education**

Researchers typically refer to four primary models when discussing the PSE options available to students with ID. These models include: (a) substantially separate; (b) mixed or hybrid; (c) inclusive individual support; and (d) dual enrollment (Aylward & Bruce, 2014; Hart, Grigal, Sax, Martinez, & Will, 2006; Stodden et al., 2004). Alternately, Hart et al. (2010) divide PSE options for students with ID into three broad categories including dual or concurrent enrollment options, college initiated programs, and individual- or family-initiated supports. However, as most researchers use the four primary models, which generally fit within one of the three broad categories presented by Hart et al. when discussing the types of PSE options available to students with ID, these four models are delineated below.

**Substantially separate.** Substantially separate PSE programs represent the oldest model of PSE for students with ID, with some such programs appearing as early as the 1970s (Neubert et al., 2001). Substantially separate programs are PSE programs that, while housed on a 2- or 4-year campus, are developed and maintained as stand-alone programs independent of the larger college or university system. These programs typically meet most, or all of the following criteria.

- Students participate in classes only with other students with disabilities.
- The PSE program is housed separately from other campus programs available to typical students.
- The course of study focuses on life skills or other transition topics, does not include standard college courses and does not result in a recognized
certificate, license, or degree.
- Students who attend such programs may or may not have the opportunity to participate in generic social activities on campus and regular interaction with typical students on campus is rare.
- Employment training opportunities typically consist of a rotation of standard job sites that are not directly tied to student areas of interest.
- The PSE program typically serves students who are still eligible under IDEA to receive special education services and is staffed and funded by the local education agency (Alyward & Bruce, 2014; Hart et al., 2006; Stodden & Whelley 2004).

**Mixed/hybrid.** Students who enroll in a mixed or hybrid PSE program typically participate in a combination of regular college courses and social activities that include students without disabilities as well as a series of separate transition and life skills courses with just other students with disabilities (Alyward & Bruce, 2014; Hart et al., 2006; Stodden & Whelley 2004). In this model, students may take regular college courses for credit or for audit and generally participate in integrated on-or off-campus employment opportunities as part of the program (Alyward & Bruce, 2014; Hart et al., 2006; Stodden & Whelley 2004). Funding and staff support for mixed/hybrid programs are often provided through a collaboration of local education agencies and postsecondary institutions (Stodden & Whelley 2004). As a result, the mixed/hybrid model PSE programs are significantly more integrated with the regular campus schedule and student body than substantially separate PSE programs. Mixed/hybrid PSE programs may serve either students 18-21 who are still eligible for special education services under IDEA, students over the age of 21 who are no longer eligible for special education services under IDEA, or both groups (Alyward & Bruce, 2014; Hart et al., 2006; Stodden & Whelley 2004).

**Inclusive individual support model.** PSE experiences that fall under this model
are often initiated by the student or student’s parents as part of the IEP process. This makes it difficult to track how many students with ID might be accessing such a PSE experience or what that experience entails (Hart et al., 2010). Often this is because such opportunities are setup informally between parents and a specific instructor or department at a college or university, or may be facilitated by a connection between the local school district or vocational rehabilitation office and the local institution of higher education (Hart et al., 2010). However, in general, the distinguishing characteristics of the inclusive or integrated individual support PSE model for students with ID include:

- students participate in college courses, certificate programs, or degree programs (for audit or credit) that match their career goals and interests;
- all services are student centered and determined by the student’s goals;
- students receive individualized supports from an interagency or cross-campus team;
- student supports are provided in the form of educational coaching, peer tutoring and mentoring, assistive technology, natural supports and/or typical academic accommodations provided by the institution’s disability resource center to any student with a disability;
- there is typically no program base on campus or set of required life skills/transition specific courses that students must complete (Alyward & Bruce, 2014; Hart et al., 2006; Neubert et al., 2001; Stodden & Whelley 2004; Thoma et al., 2011)

**Dual enrollment.** Local secondary education agencies often have long-standing collaborative relationships with local institutions of higher education that allow for juniors and seniors in high school to enroll in specific college courses for a small fee (Grigal & Hart, 2010). This type of arrangement is often referred to as concurrent or dual enrollment. For students without disabilities, this is a cost-efficient way to get a head start on acquiring college credits that will lead to a certificate or degree. More recently, the opportunity to pursue concurrent or dual enrollment status has been expanded in some
states to include high school students with disabilities, including ID, who are still receiving IDEA-based transition and education services. By definition, the dual enrollment PSE model focuses on students under the age of 21 who are still eligible for special education services (Alyward & Bruce, 2014; Grigal & Hart, 2010).

Transition and Postsecondary Education Programs for Students with Intellectual Disabilities

Most of the research on models of PSE predates the development of the TPSIDs; therefore, TPSIDs are not typically discussed in the research as a distinct model. Rather, in the most current research, TPSIDs are generally described from the perspective of being grounded in an overarching inclusive framework or philosophy of inclusive PSE that supports the common goals and purpose of TPSIDs, which is to increase access to inclusive PSE for students with ID (Jones et al., 2015). In general, the TPSIDs increase access to inclusive PSE for students with ID by providing “individualized supports that promote participation within existing academic coursework and inclusion in campus life” (Kearns, Kleinert, Harrison, Sheppard-Jones, Hall, & Jones, 2011, p. 11). In addition to providing supports for academic work, the TPSIDs also provide training and supports related to independent living and employment, all leading to a meaningful credential at the end of the program (Kearns et al., 2011). However, individual TPSIDs may incorporate different elements of the primary PSE models, particularly, dual enrollment, mix/hybrid, and inclusive individual support model to meet these broad goals of inclusion.
Inclusive Postsecondary Education Philosophy

As PSE opportunities for students with ID have grown in number over the last several decades, so too have the ideas about what a fully inclusive PSE experience looks like (Causton-Theoharis, Ashby, & DeClouette, 2009; Grigal et al., 2013; Uditsky & Hughson, 2012). Both Grigal et al. and Uditsky and Hughson pointed out that there has been confusion over the years regarding what constitutes a truly inclusive PSE experience for students with ID. Many existing PSE programs claim to be inclusive just by virtue of being located on a 2- or 4-year campus, however, the actual structure of the program may reinforce segregation and isolation of students with ID from the rest of the student body (Grigal et al., 2013; Uditsky & Hughson, 2012). To clarify what is meant by inclusive PSE, Uditsky and Hughson have put forth a robust definition and philosophy of inclusive PSE in an attempt to standardize the language and conceptual framework around what full inclusion of students with ID in a college or university setting actually entails. It is this definition and philosophy of inclusive PSE (discussed below), which has been refined by these researchers over the last three decades, that has helped to inform and drive the legislative and policy efforts that led to the passage of the HEOA in 2008 and the subsequent funding and creation of TPSIDs.

Uditsky and Hughson (2012) defined inclusive PSE as an opportunity provided to students with ID that allows them to “experience authentic student life at a university, college, or technical institute” with the term authentic meaning that students with ID have the same opportunities to engage in all aspects of campus life that typical students have (p. 299). According to Uditsky and Hughson, a quality, inclusive PSE experience
involves providing students with ID the opportunity to learn and grow in the following five contexts.

1. Academic: students pursue a coherent program of study in course-related activities that develop their capacities.
2. Social: students make friends, connect with social networks, and pursue a social life in company with fellow students.
3. Associational: students join and participate in organizations that reflect their interests and concerns.
4. Employment: students explore their options for work through internships, career guidance, and part-time and summer jobs.
5. Family: students assume a new place in their families as their competence, confidence, and autonomy grow and new possibilities emerge. (pp. 299-300)

The philosophy underlying this definition of inclusive PSE has its roots in the social model of disability, which locates the source of inequality and lack of opportunity for individuals with disabilities in the social and economic structure of a particular society, not within the individual’s physical or mental limitations (Uditsky & Hughson, 2012). Uditsky and Hughson argued that the philosophy of inclusive PSE “rests on the concept of embedding individuals with ID within normative pathways to the maximum extent across the lifespan” (p. 299). Normative pathways are defined as “the life avenues ordinarily pursued by individuals without disabilities” and include things like career paths, educational plans, and the development of social relationships (Uditsky & Hughson, 2012, p. 299). From this perspective, inclusive PSE becomes a normative pathway that naturally builds on the inclusion students with ID experience in primary and secondary education settings (Uditsky & Hughson, 2012). Indeed, Uditsky and Hughson, along with other researchers (Alyward & Bruce, 2014; Grigal et al., 2013) posited that developing fully inclusive PSE programs for students with ID is a matter of human and civil rights, and a moral imperative that recognizes the value of all students and supports
their full participation in society. Alyward and Bruce succinctly stated that developing additional inclusive PSE programs, such as the TPSIDs, shows a “commitment to post-secondary teaching that recognizes the value in teaching all those who can learn, not just in teaching those who can reach pre-determined academic goals” (p. 46).

**A Framework for Inclusion**

With new guidance from the HEOA of 2008, Grigal et al. (2013) and their colleagues at the Think College national coordinating center for TPSID grantees began working to develop a guiding, standards-based conceptual framework for inclusion of students with ID in higher education (Grigal, Hart, & Weir, 2011; Jones et al., 2015). The Think College Standards for Inclusive Higher Education framework builds on the foundation of the philosophy and definition of inclusive PSE that Uditsky and Hughson (2012) began working to develop starting in the late 1980s. At its core, the framework seeks to address lack of consistency in the definition of what constitutes a fully inclusive PSE program in the U.S. (Grigal, Hart, & Weir, 2011; Jones et al., 2015). Prior to HEOA, there was no federal guidance on what specific components that support inclusion were expected to be included in a PSE program, or what the standards for academic progress students with ID should be held to (Grigal, Hart, & Migliore, 2011). Without a set of standards or guidance regarding inclusion, and the HEOA providing only general parameters for programs that were interested in becoming CTPs, Think College set out to create a standards-based framework for inclusion that could help guide the development of new inclusive PSE programs. Such a framework also allows well-established programs re-evaluate their level of, and commitment to, full inclusion of students with ID in the
The standards-based conceptual framework for inclusive PSE put forward by Think College is based on the premise that “inclusive communities in higher education embrace a shared commitment to value all people and to provide equal and authentic opportunities for individuals with various differences to interact, collaborate, and learn from one another” (Jones et al., 2015, p. 1). Additionally, a fundamental belief reflected in the framework is that “being a welcomed and valued member of a community is not charity or a gift, but a human right extended to everyone, regardless of perceived ability, gender identity, culture, socioeconomic status, race, or other forms of perceived difference” (Jones et al., 2015, p. 2). The following list details the philosophy and values that emerged out of the discussions that led to the development of the Think College Standards for Inclusive Higher Education.

- Inclusion is a human right. It involves one belonging to a community, having access to equal opportunities, being free to choose one’s own life path, being actively engaged with and alongside others, and being valued for what one brings to the interaction.

- Inclusion is realized when there is mutual and ongoing benefit among people of varying abilities, gender identity, culture, socioeconomic status, race, and other forms of diversity, with shared eagerness to create and sustain those relationships across all aspects of higher education.

- Inclusion is dependent on individual and communal perspectives, moving beyond benevolence, clinical/medical interests, or indifference to an attitude about and perception of ability that demonstrates a value placed on difference throughout the higher education community.

- Inclusive institutions of higher education celebrate intellectual diversity in the same way that they celebrate racial, gender, cultural, religious, and other forms of diversity. They recognize that diverse learners require and inspire pedagogical innovation, and that innovation benefits all students. They place value on experiences and perspectives of others, respect all forms of learning, and provide opportunities for all students to develop to their fullest potential.
The Think College Standards provide quality indicators and benchmarks that inclusive PSE programs can use to determine how inclusive their policies and practices truly are in comparison with the what a panel of experts on inclusive PSE consider essential for best practice in this area (Grigal, Hart, & Migliore 2011). There are eight elements, divided into two groups of four standards that make up the Think College Standards. These elements are Academic Access, Campus Membership, Self-Determination, Integration with College Systems, and Practices, Coordination and Collaboration, Sustainability, and Ongoing Evaluation (Grigal, Hart, & Migliore 2011; Grigal et al., 2013). Figure 1 illustrates how these eight standards are combined to form the Think College Standards-Based Conceptual Framework.

The benefits of having a formal set of standards, quality indicators, and benchmarks to guide the development and evaluation of emerging and existing inclusive PSE programs are numerous. At the individual program level, the Think College Standards provide a road map for IPSE programs to follow in developing policies and practices that are based on the philosophy and values of full inclusion and that are directly tied to the best practices that support these values (Jones et al., 2015). At the systems level, having a consistent conceptual framework for what constitutes an inclusive PSE experience allows for researchers to begin developing an evidence base to support what is currently understood to be best practice (Grigal et al., 2013; Jones et al., 2015). A framework for inclusion helps to standardize the concept of inclusive PSE, which provides opportunities to more
effectively compare and contrast the various aspects of new and existing inclusive PSE programs that may lead to better outcomes for students with ID (Grigal et al., 2013; Jones et al., 2015). Indeed, it is the Think College Standards that provide a consistent framework for the original and new TPSIDs to evaluate their programs so that they can compare policies and practices using a common language and metric. While the Think College Standards do not mean that all TPSIDs look and operate the same (there is plenty of room within the framework for programs to tailor their programs to meet their local
situation), the framework does provide, for the first time, a more cohesive and consistent understanding of what a fully inclusive PSE program for students with ID can and should look like. Of all the inclusive PSE programs available in the U.S. the TPSIDs are the programs that are the most similar in nature because of their ties to the National Coordinating Center and their grounding in the Think College Standards. This makes sampling parents of students who have participated in a TPSID versus other types of less standardized PSE programs the focus of the current study, because these students have had more of a consistent experience for the parents to base their feedback on.

**Relevant Research on Postsecondary Education for Students with Intellectual Disabilities**

The idea that students with ID can benefit from participating in PSE and should be given the opportunity to pursue a college experience challenges the assumptions of many parents and professionals (e.g., k-12 teachers and IHE faculty) that attending college is not feasible for these students (Brand, Valent, & Danielson, 2013; Grigal & Hart, 2011; Uditsky & Hughson, 2006). However, proponents of PSE for students with ID argue that it is time to raise students, parents, and professionals’ expectations for what is possible for students with ID to accomplish and learn by participating in a college experience (Grigal & Hart, 2011; Stodden & Whelley, 2004; Uditsky & Hughson, 2006). These proponents are clear that inclusive PSE for students with ID is more about reaping the benefits of the overall college experience rather than achieving a specific academic credential, although academic progress is an essential component of inclusive PSE
programs (Grigal & Hart, 2011; Hart, Grigal, & Weir, 2010; Stodden & Whelley, 2004; Uditsky, Frank, Hart, & Jeffery, 1988; Uditsky & Hughson, 2006). Grigal and Hart pointed out that many typical students attending college, experience growth and development in a wide variety of life areas well beyond academics, and that given the opportunity, students with ID can also experience tremendous growth and learning across many life domains as a result of participating in a college experience.

Specifically, advocates for increased inclusive PSE opportunities for students with ID assert that participating in a college experience allows these students to explore and define personal goals across academic, social, and employment domains (Grigal & Hart, 2011; Hart et al., 2010; Stodden & Whelley, 2004). In a college setting, students with ID have an opportunity to make more choices than ever before and this supports the development of self-determination and self-advocacy skills that they will use across the lifespan (Grigal & Hart, 2011). Additionally, the practical skills that students learn from having to navigate a complex adult environment such as scheduling, goal setting, conflict resolution, interpersonal communication, attention to deadlines and instructions, and so forth, are skills that generalize to other adult environments and support greater independence and quality of life (Grigal & Hart, 2011; Hart et al., 2010).

Essentially, the college experience for students with ID is about learning how to learn, and it creates a foundation for these individuals to become lifelong learners who have high expectations for what they are capable of accomplishing as adults and full members of society (Grigal & Hart, 2011; Hart et al., 2010; Stodden & Whelley, 2004). As Stodden and Whelley discussed, lifelong learning can have a significant impact on the
opportunities for individuals with ID to participate in gainful and satisfying employment, which can provide a sense of purpose, and supports personal well-being and financial independence.

The research around PSE for students with ID, as Grigal, Hart, and Weir (2011) put it, is in “an embryonic stage” (p. 3). This is particularly true regarding research involving the TPSIDs, which have only been in existence since 2010. The following section provides a summary of the most relevant research regarding PSE for students with ID that supports the need for the current TPSID focused study.

As highlighted in Chapter I, the literature regarding PSE for students with ID from the 1970s through the 1990s mostly included program descriptions and position statements regarding the need for PSE programs for this population (Neubert et al., 2001). There were a few qualitative studies conducted during this timeframe that provided some insight into the lived experience of students with ID, but no research on documented outcomes or program evaluation (Neubert, 2001). In their review of the literature from 2001-2010, Thoma et al. (2011) found that the literature continued to primarily consist of program descriptions and position statements regarding PSE for students with ID. They found little in the way of research-based outcome reports, despite calls for more outcome-focused research in the pre-2001 literature (Thoma et al., 2011). However, Thoma et al. did identify a few studies that discussed the connection between students with ID participating in some type of PSE and improved employment outcomes. These studies examined whether the findings regarding the benefits of PSE for students in general (e.g., lower unemployment and higher lifetime earnings) might generalize to
students with ID who have the opportunity to participate in some level of PSE, even though these students are the least likely to participate in PSE and are the most likely to be unemployed after high-school (Grigal, Hart, & Migliore, 2011; Migliore, Butterworth, & Hart, 2009; Papay & Griffin, 2013; Smith, Grigal, & Sulewski, 2012; Uditsky & Hughson, 2006; Zafft, Hart, & Zimbrich, 2004).

**Postsecondary Education and Employment Outcome Research**

Although there is very little research on the outcomes of PSE for students with ID, there are studies (Grigal, Hart, & Migliore, 2011; Hughson, Moodie, & Uditsky, 2006; Migliore et al., 2009; Smith, Grigal, & Sulewski, 2012; Zafft et al., 2004) that suggest PSE for this population has a positive impact on employment outcomes, which is often considered to be a primary focus of the transition planning process. Indeed, a review of the NTLS2 data set by Grigal, Hart, and Migliore reported that the only post-high school transition goal that was a predictor of employment for students with ID was having a goal of attending a 2- to 4-year college. In the only quantitative study regarding the connection between PSE for students with ID and employment outcomes not based on the secondary analysis of a large data set, a small ($N = 40$) matched cohort study of students with ID who did and did not participate in PSE found that those students who had participated in some level of PSE were more likely to be competitively employed at higher wages. They also required less supports to perform the functions of their job than those students who did not participate in PSE (Zafft et al., 2004).

A review of administrative data by Hughson et al. (2006) regarding the
employment status of all students with ID who had graduated from inclusive PSE programs in Alberta, Canada since the 1990s indicated that “over 70% were employed either part-time or full-time in a wide range of job opportunities” (Uditsky & Hughson, 2006, p. 8). An analysis of data from the national vocational rehabilitation database (RSA 911) conducted by Migliore et al. (2009) found that “youth with ID who participated in postsecondary education were 26% more likely to leave vocational rehabilitation services with a paid job and earn a 73% higher weekly income” (p. 1). Finally, in a related analysis of the American Community Survey (ACS), Smith et al. (2012) found that although students with ID access PSE less than students without disabilities, there was a positive association between enrollment in PSE and employment for youth with ID.

The ACS data showed that people with more education (including those with ID) were employed at higher rates, which supported the findings of Zafft et al. (2004), Hughson et al. (2006), and Migliore et al. (2009). Smith et al. (2012) suggested that higher rates of employment for individuals with ID who participate in PSE may create long-term positive economic outcomes such as a paying into the tax system and less reliance on programs like Supplemental Security Income (SSI) that make providing PSE options for students with ID more cost effective. To date, however, no such longitudinal data have been reported.

While limited in scope, the research regarding the impact that PSE for students with ID may have on producing more positive employment outcomes is promising. In addition, research on PSE for students without disabilities has found that participating in some level of PSE leads to
...long-term benefits such as better health and longevity, higher reported happiness, and more participation in civic, charitable, and democratic institutions” and “has been associated with development of independence, lifelong friendships and professional relationships, and higher self-esteem. (Thoma et al., 2011, pp. 175-176)

Further research is needed to determine whether the positive employment outcomes found in early studies is replicated in future studies and whether the other positive life outcomes identified for students without disabilities generalize to students with ID.

In addition to the need for more replication research and generalizability studies regarding the benefits and potential outcomes of participating in PSE for students with ID, Grigal, Hart and Migliore (2011) have called for research to explore and identify the factors that affect the attendance, retention, and outcomes of students with ID accessing PSE, including their academic skills and preparation, the nature of their college experience and the quality of their employment outcomes. (p. 14)

In response to the call for research in this area, the proposed study seeks to explore what students with ID need, to be prepared to participate in an inclusive PSE experience. Specifically, the three research questions posed by this study sought to gather more information regarding what personal skills, knowledge, and attributes are important for students with ID to develop to be better prepared to attend and participate in an inclusive PSE program, specifically a TPSID.

**College Readiness and Students with Intellectual Disabilities**

According to Papay and Griffin (2013), the link between having some PSE experience and improved lifetime employment outcomes for typical students has been an impetus for the recent focus on college and career readiness for all students. However, as
with the outcome research on PSE for students with ID, there is relatively little research on college readiness for students with ID, although there are a few publications that discuss college readiness for students with disabilities in general, including students with ID.

According to Wilson et al. (2009), data from the NTLS2 data set suggest that students with ID are not well prepared for college enrollment and take fewer academic courses than students with other types of disabilities during the last 2 years of their secondary education. The number of academic courses a student takes during the last 2 years of high school is seen as an indication of preparation for college, with a greater number of academic courses during this timeframe seen as an indicator that the student likely plans to continue to some form of PSE (Wilson et al., 2009).

In a report developed for the College and Career Readiness and Success Center, Brand et al. (2013) discussed strategies for improving college and career readiness for students with disabilities (including ID). In this report, Brand et al. advised that more must be done to ensure the students with disabilities have the knowledge and skills to fulfill their potential to participate in PSE and “earn a degree or certificate, and find employment that leads to independence, self-sufficiency and civic engagement” (p. 2). Brand et al. pointed out that college readiness for typical students usually focuses on academic achievement and standardized tests, but that for students with disabilities, such a focus does not recognize other strengths, knowledge, and personal skills or abilities that these students have in other life areas. They argued that in addition to considering basic academic skills, college readiness for students with disabilities should focus on assessing
and developing skills in other areas. These areas include:

- independence, self-determination, social and emotional skills and attitudes (e.g., maturity, resiliency, self-management, self-advocacy, and interpersonal relations),
- college knowledge (e.g., finding the right postsecondary education match, understanding the college application process, and applying for financial aid),
- critical thinking, lifelong learning, and employment. (Brand et al., 2013, p. 6)

In their report on college and career readiness for students with significant cognitive disabilities, for the National Alternate Assessment Center (NAAC), Kearns et al. (2011) emphasized that participating in PSE, while an important goal in the transition planning for many students with ID, is one step on the way to a career and adulthood. Similar to the recommendations of Brand et al. (2013), Kearns et al. suggested that in preparation for college and careers, students with ID should be assessed on and given the opportunity to develop skills in areas beyond academics that will support their participation in PSE and employment. These skills include: “working independently for extended periods of time, recognizing the need for and seeking assistance when needed, demonstrating appropriate social skills and working effectively in small groups” (Kearns, et al., 2011, p. 17). These are all skills the Kearns et al.’s research contended were important for success in any adult focused environment like PSE and employment.

In the most recent report to address college readiness for students with disabilities the National Collaborative on Workforce for Disability (NCWD) stated that “a wide range of personal competencies and non-academic factors have an impact on students’ chances of persisting and completing a postsecondary credential or degree” (NCWD, 2016, p. 1). The NCWD report described the personal competencies that all students, including those with disabilities (applicability to students with ID was not explicitly
addressed in the report), need to be ready to participate in college and careers as consisting of particular personal skills, knowledge, and attributes (NCWD, 2016). Research cited in the NCWD report suggests that developing competencies in the following areas effects preparation for all college students.

- Self-awareness
- Decision-making skills
- Goal-setting and planning skills
- Self-advocacy skills
- Communication skills
- Problem-solving skills
- Self-management skills
- Leadership Skills
- Ability to seek out and use assistance
- Ability to develop supportive relationships
- Confidence in one’s abilities
- Perseverance (NCWD, 2016, p. 2)

In addition to developing competencies in these areas, the NCWD (2016) report indicates that students with disabilities need to develop additional competencies related to: (a) knowledge about one’s rights and responsibilities as an individual with a disability; (b) ability to determine whether, when, and how to disclose one’s disability in different situations; and (c) ability to find, request, and secure supports and accommodations along with an understanding of their use, not only in an academic environment, but also how they may be adapted to a work-based environment (NCWD, 2016, pp. 2-3).

Research questions one, two, and three of this study gathered information directly from parents of students with ID regarding what personal competencies, delineated by personal skills, knowledge, and attributes they felt were critical for their student to develop in order to participate in a TPSID program. Because parents have been a driving force in the development of PSE opportunities for students with ID (Grigal & Hart, 2010;
Grigal & Neubert, 2004; Hart et al., 2006; Neubert et al., 2001; Uditsky & Hughson, 2006; Wilson et al., 2009), and they are often intimately involved in the decision of their young adult with ID to participate in PSE (Doren et al., 2012; Grigal & Hart, 2012; Martinez et al., 2012; Newman, 2005; Yarbrough et al., 2014), exploring parents’ perspectives regarding what they think is needed for their young adults with ID to be college ready is a critical step in expanding the literature in this area.

Developing a better understanding of parent perspectives on college readiness in the context of a TPSID program provides the opportunity to compare and contrast the perspective of parents of students with ID with what researchers like Brand et al. (2013), Kearns et al. (2011), and NCWD (2016) indicate are important college readiness skills, knowledge and attributes for students with disabilities to develop. As Uditsky and Hughson stated, “Clearly, the expectation for better futures increases and inspires the need for more knowledge and understanding about best practices in the provision of inclusive PSE for adults with developmental disabilities” p. 3).

**Parent Perspectives on Postsecondary Education for Students with Intellectual Disabilities**

The literature base exploring parent perspectives on PSE for students with ID is very limited (Griffin et al., 2010; Kraemer & Blacher, 2001; Neece et al., 2009). There has been very little research to date on how the transition to PSE is generally experienced by parents of children with ID, either in the timeframe prior to the funding of TPSIDs in 2010, or since (Griffin et al., 2010; Yarbrough et al., 2014). And no research was found
that specifically addressed the perspective of parents regarding the personal skills, knowledge, and attributes that their young adults need to participate in a TPSID program.

Conducting research on the parent perspective regarding students with ID participating in an inclusive PSE program like a TPSID is important for several reasons. As described earlier and reiterated here, parents are instrumental in the transition planning process (Papay & Bambara, 2014). Obtaining a better understanding of parents’ perspectives regarding what is needed to help prepare their young adult to participate in PSE is critical to developing more effective collaborative approaches that families, educators and service providers can employ to adequately prepare students with ID for PSE opportunities (Griffin et al., 2010; Grigal & Hart, 2012).

Research regarding parent perspectives in this area can help educators and service providers better align their services to meet the needs of students with ID that are interested in participating in PSE. It can also help to ensure that students with ID have full access to the opportunities for PSE created by the law (Chambers et al., 2004; Martinez et al., 2012). Additionally, as Davies and Beamish (2009) described, the transition to adulthood, including PSE, for students with ID is complex and understanding the parent perspective is essential as parents are often considered the experts on their child based on their lived experience as a primary caregiver, with an intimate understanding of the unique abilities and challenges their child with ID has (De Geeter, Poppes, & Vlaskamp, 2002).

Parents know the strengths and capabilities of their child and often understand better than professionals the aspirations and dreams that both they and their child have for
the future (Cooney, 2002). Finally, parent involvement in the transition process is identified in the literature as a best practice that is correlated with a greater likelihood of participating in PSE, and better employment, independent living, and quality of life outcomes (Grigal & Hart, 2012; Papay & Griffin, 2014).

Despite the recognition of the important role that parents play in influencing the participation of students with ID in PSE and calls for more parent focused research (Chambers et al., 2004; Davies & Beamish, 2009; Martinez et al., 2012; Yarbrough et al., 2014), there remains a dearth of parent focused research in this area. As Davies and Beamish stated, “In theory, parents are portrayed as valued providers of information and as the prime advocates for young adults experiencing the transition to post-school life. Yet in practice, parents are infrequent participants in transition research” (p. 248).

If parent perspectives on the personal competencies that students with ID need to develop to be more prepared for PSE opportunities are not explored in greater detail, there is a significant risk that the efforts of educators and other service providers to support the transition of students with ID into PSE programs, however well intentioned, will not be as effective as they could be. The current study was a direct response to the call for more parent-focused research in this area and was designed to gain additional insight from parents, as the primary research participants, regarding preparing students with ID for participation in an inclusive PSE program.

In one of the most recent studies that addresses, at least in part, the transition of students with ID to PSE from a parent perspective, Papay and Bambara (2014) provided a brief summary of research in this general area. In this summary, they indicate that several
earlier studies found that certain family characteristics such as family income, parent expectations, parent education level, and parent employment status were positively associated with postschool outcomes such as participation in PSE. In extending this research, Papay and Bambara examined what family characteristics might predict successful postschool outcomes, including PSE. They found that students with ID who had their family involved in the transition planning process were more likely to attend PSE at a statistically significant rate. This finding supported earlier research by Kraemer, McIntyre, and Blacher (2003) and Wagner, Blackorby, Cameto, and Newman (1993) that “family involvement is a strong predictor of positive quality of life outcomes for youth with ID” (Papay & Bambara, 2014, p. 144). None of the research summarized by Papay and Bambara examined the specific issues that were explored by the research questions of this study.

Yarbrough et al. (2014) summarized the findings of eight studies, spanning the last 20 years that investigated some aspect of transition for students with ID, parent expectations, and/or PSE for students with ID (Chambers et al., 2004; Cooney, 2002; Griffin et al., 2012; Kraemer & Blacher, 2001; Martinez et al., 2012; Masino & Hodapp, 1996; Newman, 2005; Wagner, Newman, Cameto, & Levine, 2005). While each of these studies investigated some of these aspects, Yarbrough et al. determined that none of these studies directly examined the relationship between parent expectations for their student with ID to participate in PSE. Therefore, Yarbrough et al. attempted to do just that in their study, which was the first study in this area to include parents of students with ID accepted into a comprehensive transition program/TPSID program (ACE-IT in College at
Virginia Commonwealth University). The stated purpose of the Yarborough et al. study was to

...explore how parental expectations for their son or daughter with ID to go to college grew; what factors contributed to this experience; and what advice these parents would have for educators, community agency personnel, college administrators, and for other parents. (p. 5)

Yarbrough et al. (2014) found that (a) 50% of the parents in the sample expected their child with ID to attend college, but a majority of students in the sample (75%) did not have PSE listed as an IEP goal; (b) expectations about their child attending college were influenced by the child setting PSE as a goal, teacher recommendations for the specific ACE-IT program, or hearing about ACE-IT from other community sources; and (c) it was important to not underestimate the ability of youth with ID to continue to learn, to be connected to the broader community to learn about these types of opportunities, and to understand the benefits of a college experience that go beyond academics.

In an attempt to extend the literature in this area and add to the findings of Yarbrough et al. (2014), this study moved beyond exploring parent expectations regarding their child attending PSE to investigate more specifically what personal competencies in the form of personal skills, knowledge, and attributes parents think their child needs, to participate in an IPSE program like a TPSID. Additionally, this study uses a three-round Delphi survey versus a standard survey method, such as the one used by Yarbrough et al. The study by Yarbrough et al. had a very small sample for a standard survey (N = 12). This study utilized a sample of 29 parents to form a panel of experts, which is an acceptable sample size range for a three-round Delphi survey (Clayton, 1997; Hsu & Sandford, 2007a).
Other studies in this area also provide support for the research questions that are the foundation for this study. In a relatively large survey of 553 families of youth with I/DD in Florida, Benito (2012) found that over half of the respondents (59%) reported that they did not feel like the education system had prepared their child with I/DD for life after high school, including PSE. The three research questions for this study explored what specific personal skills, knowledge, and attributes that youth with ID need to develop to be better prepared for the transition to PSE. These questions are based on the assumption that having a better understanding of what parents think is needed to better prepare students with ID for PSE will provide information that families, educators and other service providers, can use to more effectively prepare these students for life after high school, especially PSE. No studies could be located that have previously examined these types of questions for this population.

Summary

The literature reviewed in this chapter (a) addresses the general history and models of PSE for students with disabilities, (b) provides an overview of TPSIDs and the associated inclusive PSE philosophy, (c) summarizes relevant research related to PSE for students with ID, including studies in the areas of employment outcomes and college readiness, and (d) and discusses recent research exploring the parent perspective on PSE for students with ID. It is clear from the literature reviewed in this chapter that the number of inclusive PSE programs and the number of students with ID participating in such programs has increased significantly in the past decade and will likely continue to
increase well into the future. The literature is less clear about what the overall benefits of participating in an inclusive PSE program are for students with ID, but research suggesting that participating in some level of PSE improves employment and independent living outcomes for these students is emerging and encouraging.

Relatively little information was found in the literature about college readiness specifically for students with ID and no research could be located that explicitly investigated the personal skills, knowledge, and attributes that students with ID need to develop in order to participate in an inclusive PSE program, like a TPSID. Similarly, there was limited research regarding the parent perspective on students with ID participating in an inclusive PSE program in general, and no studies that explored the parent perspective on what types of personal skills, knowledge, and attributes that parents of students with ID believe are important for their child to develop in order to participate in an IPSE program were found. Therefore, this study seeks to expand the literature in this emerging area of research by beginning to address the paucity of information related to college readiness for students with ID and the parent perspective on students with ID participating in an inclusive PSE programs.

The underlying rationale for this study is based on the following assumptions: (a) if participation in PSE has the potential to significantly improve the overall transition outcomes for students with ID, it is important for researchers to explore what personal skills, knowledge and attributes these students need to be prepared to participate in such programs; (b) because research shows that parents play a significant role in students with ID choosing to participate in PSE, gaining a better understanding of these issues from a
parent perspective is vital; (c) if researchers have a better understanding of what personal skills, knowledge, and attributes that parents of students with ID believe are important for these student to have in order to be prepared to participate in an inclusive PSE program, stakeholders, including parents, special educators, and community providers will be able to better support students with ID in developing necessary competencies in these areas; and (d) better prepared students will be more likely to get the most out of participating in an inclusive PSE program and subsequently more likely to experience the improved transition outcomes, including better employment and more independent living success that research suggests can result from participating in a PSE experience.
CHAPTER III
METHODOLOGY

A review of the preliminary research has shown that participation in PSE programs may improve employment and independent living outcomes for students with ID. Additionally, it is clear from the broader literature that parent expectations play a significant role in whether a student with ID decides to pursue PSE and that parents are key partners throughout the transition to PSE planning process. However, there is a dearth of research exploring the participation of students with ID in inclusive PSE programs from a parent perspective in general, and no research could be located on the parent perspective related to the personal skills, knowledge, and attributes that these students need to develop to be prepared for participation in inclusive PSE programs. Therefore, this study explores parent perspectives on preparing students with ID for participation in inclusive PSE.

Research Questions and Design

The purpose of this study was to begin the exploratory process of identifying, from a parent perspective, (a) the personal skills, (b) knowledge, and (c) attributes, which students with ID need to be prepared to participate in an inclusive PSE program. This purpose was achieved by using a three-round Delphi survey, administered to a sample of parents of students with ID who have participated in one of the 44 TPSID programs, to answer three research questions. From the parent perspective,

RQ1: From a parent perspective, what personal skills do students with intellectual
disabilities need to be prepared to participate in an inclusive PSE program?

RQ2: From a parent perspective, what knowledge do students with intellectual disabilities need to be prepared to participate in an Inclusive PSE program?

RQ3: From a parent perspective, what attributes do students with intellectual disabilities need to be prepared to participate in an inclusive PSE program?

A research partnership was formed with the TPSID National Coordinating Center known as Think College. As the National Coordinating Center, Think College is funded by the Office of Postsecondary Education, U.S. Department of Education to provide support, coordination, training, and evaluation services for the TPSID grantees. At the request of the researcher, Think College staff disseminated an invitation to participate in this research study to all 44 previous and current TPSID grantees. Each TPSID grantee was then asked to forward the invitation to the parents of all students who had completed at least one semester in their respective programs. The parents who responded constituted the expert panel for the three-round Delphi survey. Prior to recruiting parents, approval was obtained from Utah State University’s Institutional Review Board (IRB).

Participants

Proper selection of an expert panel is critical to the quality of any Delphi study (Clayton, 1997; Hsu & Sandford, 2007a; Jenkins & Smith, 1994; Skulmoski, Hartman, & Krahn, 2007; Yousuf, 2007) and provides support for the validity of a Delphi study’s results and the choice of this method “over other less painstaking and rigorous survey procedures” (Clayton, 1997, p. 378). According to the literature, to be considered an appropriate participant for an expert panel, an individual should (a) have expert knowledge on the subject matter, (b) be willing to commit to the process over a
substantial period of time, (c) be able to give thoughtful feedback, and (d) have a stake in
the outcome of the study (Clayton, 1997; Hsu & Sandford, 2007a; Jenkins & Smith,
1994; Skulmoski et al., 2007). Parents of children with ID who have participated in at
least one semester of a TPSID program are assumed to meet the above criteria.
Specifically, it was assumed that they have a stake in the outcome of the study, and thus
would be able to give thoughtful feedback and commit to completing all three rounds of
the survey. Most importantly, it was assumed that parent participants have expert
knowledge on the focus for the current study. This assumption of parental expertise is
based on literature that supports the idea that parents are no longer considered
nonprofessionals in most research on the family experience (De Geeter et al., 2002). In
fact, in education research, parents are frequently considered experts on their dependent
children’s lived experiences, in addition to the individual’s own perspective. According
to De Geeter et al., “there is a growing recognition that parents, on the basis of their
special bond and lengthy experience with their child, can provide reliable and hence
valuable information regarding the planning of the required care and education [for their
child]” (p. 443).

As recommended for most Delphi studies (Jenkins & Smith, 1994), this study
used a nonrandom, purposive sample selected using targeted recruiting from the network
of TPSID programs. Participants were recruited from the population of parents whose
child with ID has participated for at least one semester in one of the 44 current or
previously funded TPSID programs. This was the sole inclusion criterion. For the
purpose of this study, an individual was considered to meet the role of parent if they are
the biological, adoptive, or step-parent of a student with ID, or if they currently or previously served as the legal guardian/primary caretaker for a significant portion of the student’s life, prior to enrolling in a TPSID program.

According to Hsu and Sandford (2007a), the size for a Delphi sample, while always dependent on the purpose of the study and level of expertise needed to contribute to the study (Clayton, 1997; Skulmoski et al., 2007), is typically less than 50 with a majority of studies having a sample size between 15 and 20 respondents. Other researchers suggest that for an expert panel drawn from a homogeneous population, a sample size of 10 to 15 participants is adequate, while a panel size of 5 to 10 participants is acceptable when drawn from a heterogeneous population (Clayton, 1997; Skulmoski et al., 2007). The current study established an expert panel of 29 homogenous participants for the first round of the survey. Of the original 29 participants, 21 (72%) completed the second round and 17 (59%) completed the third round. Thus, the panel size for the current study remained above the adequate threshold established in the literature. Attrition between rounds of a Delphi is not uncommon (Clayton, 1997; Hsu & Sandford, 2007a) and the attrition rate for this study between the first and third round kept the sample size within the expected parameters recommended in the literature (Clayton, 1997; Hsu & Sandford, 2007b Skulmoski et al., 2007) and was almost identical to the attrition rate reported in the most closely related study found in the literature (Milsom & Dietz, 2009).
Instrumentation

Delphi Survey

A Delphi survey is a research methodology that mixes qualitative and quantitative techniques to collect, organize, and refine the opinions of subject matter experts to reach consensus regarding a specific real world issue (Hsu & Sanford, 2007a; Vázquez-Ramos et al., 2007; Yousuf, 2007). The Delphi method seeks to gain input from a group of experts to establish priorities that are based on group, versus individual opinion (Clayton, 1997; Yousuf, 2007) and can be a particularly useful method when precise information about a complex issue is not readily available or when there is little, or no, information on the topic of study (Fleming et al., 2015; Yousuf, 2007).

Originally developed in the 1950s to address complex military scenarios, the Delphi method has been used widely in educational settings over the last several decades and has become increasingly common in rehabilitation counseling research during the past decade (Fleming et al., 2015; Vázquez-Ramos et al. 2007; Yousuf, 2007). This increased interest in using the Delphi method to explore complex issues related to disabilities may be due to the focus of this method on obtaining and relying on the perspective of the stakeholders most directly impacted by the issues being examined (Clayton, 1997). Developing a better and direct understanding of the lived experience of individuals with disabilities and other key stakeholders, such as parents, is a fundamental component of effective research and interventions in the special education and rehabilitation counseling fields.

The Delphi method is designed to minimize several of the more common
challenges that arise when collecting group opinion through other conventional methods such as focus groups or single surveys with large samples (Clayton, 2007; Hsu & Sandford, 2007a). Notable characteristics of the Delphi method include: (a) improved subject anonymity; (b) the use of an iterative process to gather controlled feedback, which can lead to more thoughtful and reflective input from participants; and (c) the ability to use a variety of statistical analysis techniques to interpret the data (Clayton, 1997; Fleming et al., 2015; Hsu & Sandford, 2007a). According to Linstone and Turoff (1975), the Delphi method is considered an appropriate methodology to use when one or more of the following conditions exist: (a) subjective opinions from a group of content experts is more appropriate than using more precise analytical techniques; (b) participants are geographically dispersed and unable to meet in person due to time and expense constraints; (c) anonymity of responses is likely to encourage participants to provide more candid feedback; and (d) reducing the ability of one participant to dominate the conversation is likely to encourage all participants to contribute more fully. Hartman (1981) aptly summed up the Delphi method as “a really quiet, thoughtful conversation, in which everyone gets a chance to listen” (p. 497).

Because all of these conditions existed in the current study, a Delphi survey was considered an appropriate method to employ. Additionally, use of the Delphi method allowed the researcher to explore the parent perspective using a method that has not been widely used with this stakeholder group. This provided an opportunity to directly explore the pros and cons of using a Delphi method with parents as expert panel members as a secondary component to the primary focus of the study. Finally, use of the Delphi method
for the current study allowed the researcher to make preliminary comparisons to elements of the most similar study that could be located in a review of the literature. Milsom and Dietz (2009) used a comparable Delphi design to explore college readiness factors for students with Learning Disabilities from the perspective of special education and higher education professionals. While there are distinct differences between students with ID and those with learning disabilities, comparing relevant results of the Milsom and Dietz study with findings from the current study allowed the researcher to identify similarities and differences between what parents and professionals consider important factors related to college readiness for these two different, but somewhat related populations.

Although a Delphi survey can incorporate as many rounds as needed to achieve consensus among participants, three rounds are considered adequate for most studies (Fleming et al., 2015; Hartman, 1981; Hsu & Sandford, 2007a; Yousuf, 2007). Table 1 provides a succinct summary of a typical three-round Delphi survey process, which the current study closely followed.

**Procedures**

The current study used a three-round Delphi method to survey an expert panel of parents whose child with ID had participated in at least one semester of a TPSID program. Importantly, the use of a three-round Delphi method for this study was based upon the assumption that parents comprising the expert panel would be willing and able to respond honestly and accurately to each round of the survey. Study participants were asked to respond to a series of three survey rounds with each round of the survey
Table 1

Summary Table of the Steps, Phases, and Activities Involved in the Execution of a Three-Round Delphi Survey

<table>
<thead>
<tr>
<th>Steps</th>
<th>Phases</th>
<th>Activities</th>
</tr>
</thead>
</table>
| 1     | Selection | a. Identification of potential experts  
|       |         | b. Invitation to participate  
|       |         | c. Recruitment of panelists  
|       |         | d. Constitution of the panel of experts |
| 2     | Exploration (Round 1) | a. Demographic Survey  
|       |         | b. Distribution of Delphi Round 1 (survey with open-ended questions/prompts)  
|       |         | c. Follow-up of Delphi Round 1  
|       |         | d. Collect Delphi Round 1  
|       |         | e. Collation and categorization of results (content analysis)  
|       |         | f. Construction of Delphi Round 2 (first generation of potential items) |
| 3     | Evaluation (Round 2) | a. Distribution of Delphi Round 2  
|       |         | b. Follow-up of Delphi Round 2  
|       |         | c. Collect Delphi Round 2  
|       |         | d. Collation and categorization of results (provided in terms of central tendency and measures of dispersion of participants’ responses)  
|       |         | e. Construction of Delphi Round 3 |
| 4     | Reevaluation (Round 3) | a. Distribution of Delphi Round 3 (participants are provided with summary statistics from the previous round and are encouraged to reevaluate their answers based on their individual and group responses).  
|       |         | b. Follow-up of Delphi Round 3  
|       |         | c. Collect Delphi Round 3  
|       |         | d. Re-collation and categorization of results (provided in terms of central tendency and measures of dispersion of participants’ responses).  
|       |         | e. Calculation of summary statistics |
| 5     | Final Consensus | a. Identification of items of which consensus was obtained.  

Note: Adapted from Vázquez-Ramos et al. (2007).

being open for approximately 10 days to provide participants with sufficient time to complete each survey.

Prior to beginning the first round, and after obtaining approval from the USU IRB and corresponding with Think College, the researcher sent a formal email invitation to participate in the study to Think College for dissemination to all current and former
TPSID grantees. The TPSID grantees were asked by Think College staff to email the study invitation to the parents of all current and former students who had participated in their program for at least one semester. The initial invitation to participate in the study included a brief description of the purpose of the study, including benefits and risks of participation and an IRB approval statement, the inclusion criteria, an overview of the three-round Delphi survey process, a statement regarding the voluntary nature of participation in the study and the confidentiality of responses, instructions for how to be entered into a drawing for one of three $50 prepaid Visa cards provided as an incentive to participate in all three rounds of the survey, and instructions for emailing the Principal Investigator to request the initial survey link. All of this information was also included in the IRB informed consent form that served as the first page of the Round One survey. A week after the first invitation to participate in Round One, a reminder email was sent to the TPSID grantees asking them to forward the survey link directly to eligible parents. A third and final invitation to participate in Round One of the study was sent 5 days prior to the closing date.

The electronic survey for all three rounds was constructed using the Qualtrics Research Suite (2013) web-based survey tool. Qualtrics was selected based on its combination of user friendly front-end interface for survey participants and robust back-end functionality and built in real-time data analysis tools for researchers. The researcher maintained a list of participant emails gathered from the informed consent form that each participant completed prior to beginning the first round of the survey in an Excel file independent of participant survey responses in Qualtrics. Collecting participant contact
information is a critical component of the Delphi survey process as the researcher needs to have regular communication with the expert panel to provide participants with feedback from previous rounds and encourage the completion of each subsequent round of the survey. Maintaining participant contact information separate from individual survey responses is designed to protect the confidentiality of participant responses.

**Round One**

The first round survey contained the approved IRB informed consent form. At the end of this form, participants were asked to provide their name, the date, and an email address so the researcher could send them subsequent rounds of the survey. By providing this information and clicking on the “next” button, participants formally consented to participate in the study. Participants were first asked to complete 11 demographic questions (see Appendix B) and respond to the following open-ended prompt.

1. In this section of the survey, we are going to ask you to list the personal skills, knowledge, attributes, or other factors that you think students with intellectual disabilities need to be ready to participate in an inclusive postsecondary educational program, like the program your student has participated in.

A definition for the terms personal skills, knowledge, attributes, and other factors was provided to assist participants in understanding how to respond to this prompt (see Appendix B).

The first round of the survey yielded 29 participants. Following the process for systematic content analysis outlined in Milsom and Dietz (2009), all Round One responses were reviewed and condensed to eliminate duplication and redundancy or expanded to clarify key concepts based on the unique responses provided by participants.
This summary of Round One responses was independently reviewed by two additional reviewers to refine the list by eliminating any additional duplication/redundancy of concepts or to pull out concepts that reviewers felt should have been separated out during the initial review. Reviewers discussed the final list of Round One responses until consensus was reached. Round One feedback generated a list of 46 items related to students with ID being prepared to participate in a TPSID PSE program. These 46 items loosely fell into the categories listed in the prompt for Round One: (a) personal skills, (b) knowledge, (c) attributes, or (d) other factors and served as the foundation for the items to be rated by the expert panel in Round Two. In addition to the 46 items generated by the expert panel, the researcher included 10 relevant items from the Milsom and Dietz study referenced above. This brought the total number of items to be rated in Round Two to 56.

**Round Two**

An email link to the second round survey was sent to all 29 Round One participants. Participants were asked to rate the importance of each of the 56 items related to preparing students with ID for participation in inclusive PSE on a scale of 1 (not at all important) to 7 (very important). A reminder email was sent 5 days after the initial Round Two link was distributed to participants and a final reminder email was sent 2 days prior to closing the round. There were a total of 21 respondents for Round Two (72% response rate). At the conclusion of Round Two, measures of central tendency and dispersion were calculated for each item, including the mean, standard deviation, frequency distribution, median and interquartile range.
Round Three

Following the data analysis for Round Two, the 29 participants who participated in Round One were sent an email link to the Round Three survey. The same list of 56 items provided in Round Two was provided to participants along with the mean, standard deviation, and frequency distribution for each item. Participants were provided an explanation of how to interpret these measures and asked to compare their ranking of each item from Round Two with the responses of the group and re-rate each item based on this additional information. Participants were explicitly told that it was their choice to rate each item the same way they did in Round Two or to change their rating based on the additional information provided. As in Rounds One and Two, a reminder email to complete the third and final round of the survey was sent to all participants several days after the initial link to Round Three was distributed. A total of 17 (59%) of the original 29 participants completed Round Three.

Measures of central tendency and dispersion are the typical statistics reported for a Delphi study (Hsu & Sandford, 2007a) and the median and interquartile range (IQR) are the most common of these measures that are reported, particularly for final results that are based on scales that do not have equal intervals, such as the one used in this study (Hsu & Sandford, 2007a; Jenkins & Smith, 1994). At the end of Round Three, a final median and IQR was calculated for each item to identify items that were considered to have reached consensus. For the purposes of this study, consensus was defined as an item having a median of 6.00 or higher and an IQR of 1.50 or lower. These cutoff scores were based on guidance from the literature (Hsu & Sandford, 2007a; Jenkins & Smith, 1994;
Milsom & Dietz, 2009). The use of median and IQRs and the stated cutoff scores for consensus in this study also allowed for a direct comparison to the results obtained by Milsom and Dietz on the 10 items from that study that were included in the list of 56 items for the current study.

**Summary**

This chapter discussed the three-round Delphi survey method used to address the research questions of the current study. An explanation of how participants were selected and invited to participate in the study, along with an overview of the Delphi process and a detailed explanation of how and what type data was collected during each of the three rounds was provided.
CHAPTER IV
RESULTS

The purpose of this study was to begin the exploratory process of identifying, from a parent perspective, the factors related to college preparation for students with ID in the broad categories of (a) personal skills, (b) knowledge, and (c) attributes. This purpose was achieved by using a three-round Delphi survey, administered to a sample of parents of students with ID who have participated in 1 of the 44 TPSID programs. Results of the three-round Delphi survey are presented in this chapter.

Characteristics of the Sample

The sample characteristics summarized in this section are presented in detail in Table 2. The majority of the sample were mothers (79%), white (83%) and Non-Hispanic (76%). The majority of participants were between the ages of 46-57 years (66%) with a small group over the age of 58 years (17%) and a small group under the age of 40 years (14%) and the ages of the participants’ students were spread across all age categories from 18-26 years with the largest single age category being 19 years (28%). Doctoral degree (28%) was the most frequently selected education level of participants followed closely by bachelor’s degree (24%) and high school diploma (24%). The most frequently reported primary disability of participant’s students was Intellectual/ developmental disability (31%) followed by autism spectrum disorder (28%). There were eight additional disability categories reported with one to three of the remaining students in each of the respective categories.
Table 2

**Demographics of the Sample**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parental role</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>23</td>
<td>79</td>
</tr>
<tr>
<td>Father</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>24</td>
<td>83</td>
</tr>
<tr>
<td>African American</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>More than one race</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>22</td>
<td>76</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td><strong>Parent age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52-57</td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>46-51</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td>58-63</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Under 40</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>40-45</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Student age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>20</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>21</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Parent education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctoral degree (Ph.D., Ed.D., J.D., etc.)</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td>Bachelor’s degree (B.A., B.S., etc.)</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Associate’s degree (A.A., A.A.S., etc.)</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Master’s Degree (M.A., M.S., MSW, M.Ed., etc.)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>High school diploma</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Primary disability of student</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual disability/developmental disability</td>
<td>9</td>
<td>31</td>
</tr>
<tr>
<td>Autism spectrum disorder</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td>Down syndrome</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral palsy</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>18q deletion syndrome</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>11q deletion syndrome</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>XXYY syndrome</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Learning disability</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Geographic region

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 8 (Mountain)</td>
<td>13</td>
<td>45%</td>
</tr>
<tr>
<td>Region 5 (South Atlantic)</td>
<td>10</td>
<td>34%</td>
</tr>
<tr>
<td>Region 6 (East South Central)</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td>Region 3 (East North Central)</td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>

Distance from home to TPSID

<table>
<thead>
<tr>
<th>Distance</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 miles or less</td>
<td>13</td>
<td>45%</td>
</tr>
<tr>
<td>20-50 miles</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>50-100 miles</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>100-200 miles</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td>200-300 miles</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Greater than 500 miles</td>
<td>4</td>
<td>14%</td>
</tr>
</tbody>
</table>

Parent perception of level of direct support needed (1 = very low, 5 = very high)

<table>
<thead>
<tr>
<th>Perception</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>35%</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>31%</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>28%</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Parent familiarity with PSE programs prior to attendance (1 = very low, 5 = very high)

<table>
<thead>
<tr>
<th>Familiarity</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>7</td>
<td>24%</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>28%</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>35%</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>10%</td>
</tr>
</tbody>
</table>

Geographically the region with the highest number of participants was Region 8-Mountain (45%), which includes Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico. Additional participants were located in Region 5 - South Atlantic, Region 6 - East South Central, Region 3- East North Central. Over half (65%) of the participants indicated that their student attended a TPSID program that was 100
miles or less from their home, while only four students (14%) attended a TPSID program that was more than 500 miles from home.

In regard to the amount of direct support from program staff, volunteers, peers, and others that participants perceived their student needed to participate in the TPSID program, 66% indicated their student needed a Level 4 or 5 of support on a scale of 1 (very low) to 5 (very high). Only two participants (7%) indicated that their student could participate in a TPSID program with Level 2 support and no participants indicated that their student could participate in a TPSID program with only Level 1 of support. Finally, when asked to rate how familiar they were with postsecondary education programs for students with ID prior to their student enrolling in such a program, on a scale of 1 (not very familiar) to 5 (very familiar), there was a wide distribution across the levels. Almost half (45%) of the participants indicated that they were somewhat, or not very familiar with TPSIDs (Level 2 or lower), while another quarter (24%) indicated that they were very familiar with TPSIDs (Level 5) and 28% of the sample indicated that they were somewhat familiar with TPSIDs (Level 3) prior to their student’s enrollment.

**The Delphi Survey**

**Round One**

As stated in Chapter III, 29 participants completed Round One of the Delphi survey. These 29 participants generated 221 words and/or phrases in response to the prompt to “list the personal skills, knowledge, and attributes, or other factors that you think students with intellectual disabilities need to be ready to participate in an inclusive
postsecondary educational program, like the program your student has participated in.”

The 221 words and/or phrases were reviewed and condensed to eliminate duplication and redundancy or expanded to clarify key concepts as described in Chapter III, resulting in 46 items related to students with ID being prepared to participate in a TPSID PSE program that were included in Round Two. Ten additional items from a previous study by Milsom and Dietz (2009), deemed to be relevant to the current study, were added to the parent generated list of 46 items for a total of 56 items included in Round Two. A list of all 56 items included in Rounds Two and Three is in Table 3.

Rounds Two and Three

Following the guidance in the reviewed literature (Hsu & Sandford, 2007a; Jenkins & Smith, 1994; Milsom & Dietz, 2009), only items that received a median rating of at least 6.00 and an IQR of 1.50 or less were considered to have reached consensus for the purposes of this study. In Round Two, 28 of the 56 items (50%) met the cutoff for reaching consensus (see Table 3). In Round Three, 33 of the 56 items (59%) met the cutoff for reaching consensus and were thus retained as the final list of important items related to preparing students with ID for participation in inclusive PSE (see Table 4). Between Round Two and Three there were 12 items that moved into the consensus range and seven items that dropped out of the consensus range, leading to the net gain of five items that shifted the number of total items reaching consensus from 28 in Round Two to 33 in Round Three (see Table 3). Of the 12 items that gained consensus in Round Three, 11 did so due to the IQR moving down from 2.00 to 1.5 or
Table 3

Round 2 and Round 3 Results for All 56 Items Including Median and Interquartile Range

<table>
<thead>
<tr>
<th>Item</th>
<th>Median round 3 ((n = 18))</th>
<th>IQR round 3</th>
<th>Median round 2 ((n = 21))</th>
<th>IQR round 2</th>
<th>Between round consensus status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Able to follow instructions/directions</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>2. Able to ask for help (in both academic and social situations)</td>
<td>7</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>3. Able to manage medications independently (e.g., take the appropriate amount at the appropriate time, can order or tell someone when they need refills, can describe any side effects they may be having)</td>
<td>7</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>4. Demonstrates basic hygiene skills without regular prompting (e.g., showers regularly, teeth brushing, nail care, wearing clean clothes, etc.)</td>
<td>7</td>
<td>1</td>
<td>6</td>
<td>1.5</td>
<td>Stable</td>
</tr>
<tr>
<td>5. Accepts responsibility for their actions</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>0.5</td>
<td>Stable</td>
</tr>
<tr>
<td>6. Demonstrates resilience</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>7. Is kind to self and others</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>0.5</td>
<td>Stable</td>
</tr>
<tr>
<td>8. Demonstrates knowledge of personal safety awareness (e.g., stranger danger, how to navigate a new environment safely, know who to contact in an emergency or what to do when feeling unsafe, wear appropriate clothes for the weather, etc.)</td>
<td>7</td>
<td>1.3</td>
<td>7</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>9. Time management skills (e.g., can tell time, can track time using a watch or phone, can follow a schedule, use a planner, be on time for class)</td>
<td>7</td>
<td>1.3</td>
<td>7</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>10. Has an optimistic and/or positive attitude</td>
<td>7</td>
<td>2.3</td>
<td>6</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>11. Demonstrates persistence or perseverance</td>
<td>6.5</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>12. Recognize when they are sick, need to see a doctor, or ask for help</td>
<td>6.5</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>13. Demonstrates awareness that disability is just one aspect of who they are</td>
<td>6.5</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>14. Knows how to complete a task or do a job well</td>
<td>6.5</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>Lost</td>
</tr>
<tr>
<td>15. Makes decisions about participation in daily activities with or without support</td>
<td>6</td>
<td>0.3</td>
<td>6</td>
<td>1.5</td>
<td>Stable</td>
</tr>
<tr>
<td>16. Able to work, or learn to work, in a group environment and collaborate with others</td>
<td>6</td>
<td>0.3</td>
<td>6</td>
<td>2</td>
<td>Gained</td>
</tr>
<tr>
<td>17. Has a sense of curiosity</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>18. Has confidence and/or high self-esteem</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>Gained</td>
</tr>
<tr>
<td>19. Is flexible regarding schedules (e.g., the ability to mentally and/or emotionally adjust to unexpected changes in routines or schedules)</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>Gained</td>
</tr>
<tr>
<td>20. Is patient with self and others</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>21. Able to be out of their comfort zone</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Stable</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Item</th>
<th>Median round 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IQR round 3</td>
</tr>
<tr>
<td></td>
<td>Median round 2</td>
</tr>
<tr>
<td></td>
<td>IQR round 2</td>
</tr>
<tr>
<td></td>
<td>Between round</td>
</tr>
<tr>
<td></td>
<td>consensus</td>
</tr>
<tr>
<td></td>
<td>status</td>
</tr>
<tr>
<td>22. Can self-regulate behavior and emotions (e.g., ability to</td>
<td>6</td>
</tr>
<tr>
<td>stay calm or regain calm when things don’t go as planned or they</td>
<td>1</td>
</tr>
<tr>
<td>do not get their way)</td>
<td>6</td>
</tr>
<tr>
<td>23. Able to appropriately express emotions/feelings (e.g.,</td>
<td>6</td>
</tr>
<tr>
<td>loneliness, sadness, anger, being overwhelmed)</td>
<td>1</td>
</tr>
<tr>
<td>24. Able to ask questions for clarification, or ask for more</td>
<td>6</td>
</tr>
<tr>
<td>information when needed</td>
<td>1</td>
</tr>
<tr>
<td>25. Has a sense of independence from parents/family</td>
<td>6</td>
</tr>
<tr>
<td>26. Demonstrates desire to learn and willingness to improve and</td>
<td>6</td>
</tr>
<tr>
<td>work hard</td>
<td>1</td>
</tr>
<tr>
<td>27. Able to keep track of and take care of personal belongings</td>
<td>6</td>
</tr>
<tr>
<td>(e.g., clothes, phone, backpack and school supplies, etc.)</td>
<td>1</td>
</tr>
<tr>
<td>28. Able to make healthy food choices with or without prompting</td>
<td>6</td>
</tr>
<tr>
<td>29. Demonstrates the ability to regulate sleep (when they</td>
<td>6</td>
</tr>
<tr>
<td>go to bed and get up) in order to stay healthy</td>
<td>1</td>
</tr>
<tr>
<td>30. Understands the different roles of a professor versus student</td>
<td>6</td>
</tr>
<tr>
<td>or peer mentors versus students being mentored</td>
<td>1</td>
</tr>
<tr>
<td>31. Able to use assistive technology that helps them learn</td>
<td>6</td>
</tr>
<tr>
<td>(e.g., smart pens, speech to text software, various apps on a</td>
<td>1</td>
</tr>
<tr>
<td>phone or IPad).</td>
<td>6</td>
</tr>
<tr>
<td>32. Understands their personal learning style or how they learn</td>
<td>6</td>
</tr>
<tr>
<td>best (e.g., listening to audio books versus reading books;</td>
<td>1</td>
</tr>
<tr>
<td>writing notes versus having written notes supplied; actively</td>
<td>6</td>
</tr>
<tr>
<td>drawing versus looking at pictures)</td>
<td>2</td>
</tr>
<tr>
<td>33. Is proactive or purposeful in developing a daily schedule</td>
<td>6</td>
</tr>
<tr>
<td>34. Makes decisions related to making and / or having goals for</td>
<td>6</td>
</tr>
<tr>
<td>their future with or without support</td>
<td>1</td>
</tr>
<tr>
<td>35. Has a basic understating of social cues (e.g., eye contact,</td>
<td>6</td>
</tr>
<tr>
<td>personal space/boundaries; body language, tone of voice)</td>
<td>1</td>
</tr>
<tr>
<td>36. Has basic housekeeping skills (e.g., keeping a bedroom clean,</td>
<td>6</td>
</tr>
<tr>
<td>doing laundry, washing dishes)</td>
<td>1</td>
</tr>
<tr>
<td>37. Time management skills- can plan ahead for schedule changes</td>
<td>6</td>
</tr>
<tr>
<td>around school holidays</td>
<td>1</td>
</tr>
<tr>
<td>38. Has a basic understanding of interpersonal communication skills</td>
<td>6</td>
</tr>
<tr>
<td>(e.g., how to start/end a conversation; how to listen in a</td>
<td>2</td>
</tr>
<tr>
<td>conversation; understands body language and appropriate eye</td>
<td>6</td>
</tr>
<tr>
<td>contact of self and others)</td>
<td>1</td>
</tr>
<tr>
<td>39. Has a basic understanding of how to email, use the internet,</td>
<td>6</td>
</tr>
<tr>
<td>type on at least one device (smart phone, iPad, laptop)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Stable</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Item</th>
<th>Median round 3 (n = 18)</th>
<th>IQR round 3</th>
<th>Median round 2 (n = 21)</th>
<th>IQR round 2</th>
<th>Between round consensus status</th>
</tr>
</thead>
<tbody>
<tr>
<td>40. Has a sense of appreciation for education and the opportunity to attend a college program</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>2.5</td>
<td>Stable</td>
</tr>
<tr>
<td>41. Has general navigation skills (e.g., ability to find their way around campus with or without support of a map, smartphone, assistance from other students)</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>2.5</td>
<td>Stable</td>
</tr>
<tr>
<td>42. Demonstrates desire to participate in all areas of the college program and integrate into campus life</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>0.5</td>
<td>Lost</td>
</tr>
<tr>
<td>43. Takes initiative and is self-motivated to get assignments and daily living tasks done</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>1.5</td>
<td>Lost</td>
</tr>
<tr>
<td>44. Demonstrates a willingness to make friends and participate in social activities</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>45. Has a sense of purpose for their participation in a college program</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>46. Has a basic understanding of how college is different than high school</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>2.5</td>
<td>Stable</td>
</tr>
<tr>
<td>47. Demonstrates the ability to apply an understanding of interpersonal communication skills in new social settings</td>
<td>5.5</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>Stable</td>
</tr>
<tr>
<td>48. Demonstrates basic money management skills (e.g., understands the value of money, how to count money, how to track account balance, how to make basic purchases with cash or a debit card)</td>
<td>5.5</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>49. Demonstrates knowledge of available supports and how to advocate for their individual accommodations</td>
<td>5.5</td>
<td>1.3</td>
<td>6</td>
<td>1</td>
<td>Lost</td>
</tr>
<tr>
<td>50. Time management skills- can plan adequate time for studying, preparing for tests, and working on large assignments in smaller chunks of time to meet deadlines</td>
<td>5.5</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>Stable</td>
</tr>
<tr>
<td>51. Can make a plan to achieve their individual goals with or without support</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Lost</td>
</tr>
<tr>
<td>52. Independently demonstrates the need for physical activity/exercise</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1.5</td>
<td>Stable</td>
</tr>
<tr>
<td>53. Understands the social expectations at college</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1.5</td>
<td>Stable</td>
</tr>
<tr>
<td>54. Demonstrates knowledge of their strengths and weaknesses</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Lost</td>
</tr>
<tr>
<td>55. Has a sense of humor</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>2.5</td>
<td>Stable</td>
</tr>
<tr>
<td>56. Demonstrates a sense of creativity</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>Stable</td>
</tr>
</tbody>
</table>
Table 4

Final List of Inclusive PSE Preparation Items Meeting Consensus Including Median and Interquartile Range

<table>
<thead>
<tr>
<th>Item</th>
<th>Median (n = 18)</th>
<th>IQR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Able to follow instructions/directions</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>2. Able to ask for help (in both academic and social situations)</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>3. Able to manage medications independently (e.g., take the appropriate amount at the appropriate time, can order or tell someone when they need refills, can describe any side effects they may be having)</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>4. Demonstrates basic hygiene skills without regular prompting (e.g., showers regularly, teeth brushing, nail care, wearing clean clothes, etc.)</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>5. Accepts responsibility for their actions</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>6. Demonstrates resilience</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>7. Is kind to self and others</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8. Demonstrate knowledge of personal safety awareness (e.g., stranger danger, how to navigate a new environment safely, know who to contact in an emergency or what to do when feeling unsafe, wear appropriate clothes for the weather, etc.)</td>
<td>7</td>
<td>1.3</td>
</tr>
<tr>
<td>9. Time management skills (e.g., can tell time, can track time using a watch or phone, can follow a schedule, use a planner, be on time for class)</td>
<td>7</td>
<td>1.3</td>
</tr>
<tr>
<td>10. Demonstrates persistence or perseverance</td>
<td>6.5</td>
<td>1</td>
</tr>
<tr>
<td>11. Makes decisions about participation in daily activities with or without support</td>
<td>6</td>
<td>0.3</td>
</tr>
<tr>
<td>12. Able to work, or learn to work, in a group environment and collaborate with others</td>
<td>6</td>
<td>0.3</td>
</tr>
<tr>
<td>13. Has a sense of curiosity</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>14. Has confidence and / or high self-esteem</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>15. Is flexible regarding schedules (e.g., the ability to mentally and/or emotionally adjust to unexpected changes in routines or schedules)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>16. Is patient with self and others</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>17. Able to be out of their comfort zone</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>18. Can self-regulate behavior and emotions (e.g., ability to stay calm or regain calm when things don’t go as planned or they do not get their way)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>19. Able to appropriately express emotions/feelings (e.g., loneliness, sadness, anger, being overwhelmed)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>20. Able to ask questions for clarification, or ask for more information when needed</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>21. Has a sense of independence from parents/family</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>22. Demonstrates desire to learn and willingness to improve and work hard</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>23. Able to keep track of and take care of personal belongings (e.g., clothes, phone, backpack and school supplies, etc.)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>24. Able to make healthy food choices with or without prompting</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>25. Demonstrates the ability to regulate sleep (when they go to bed and get up) in order to stay healthy</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>26. Understands the different roles of a professor versus student or peer mentors versus students being mentored</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

*(table continues)*
### Item 27
Able to use assistive technology that helps them learn (e.g., smart pens, speech to text software, various apps on a phone or IPad).

**Median** (n = 18) 6  
**IQR** 1

### Item 28
Understands their personal learning style or how they learn best (e.g., listening to audio books versus reading books; writing notes versus having written notes supplied; actively drawing versus looking at pictures)

**Median** (n = 18) 6  
**IQR** 1

### Item 29
Is proactive or purposeful in developing a daily schedule

**Median** (n = 18) 6  
**IQR** 1

### Item 30
Makes decisions related to making and / or having goals for their future with or without support

**Median** (n = 18) 6  
**IQR** 1

### Item 31
Has a basic understanding of social cues (e.g., eye contact, personal space/boundaries; body language, tone of voice)

**Median** (n = 18) 6  
**IQR** 1

### Item 32
Has basic housekeeping skills (e.g., keeping a bedroom clean, doing laundry, washing dishes)

**Median** (n = 18) 6  
**IQR** 1.3

### Item 33
Time management skills- can plan ahead for schedule changes around school holidays

**Median** (n = 18) 6  
**IQR** 1.3

---

lower (#16, 18, 19, 23, 25, 30, 31, 32, 34, 35, 37, in Table 3). One item gained consensus in Round Three because the median increased from 5.00 to 6.00 (#36 in Table 3). Of the seven items that lost consensus between rounds, three did so because the median decreased from 6.00 to 5.5 or lower (#49, 51, and 54 in Table 3). The other four items dropped out of the consensus range because the IQR increased from either 0 or 1.00 to 1.75 or higher (#14, 38, 42, and 43 in Table 3).

**Comparison with Previous Study**

Of the 10 items from the Milsom and Dietz (2009) study (see Table 5) that were included in the current study’s list of 56 items for participants to rate, six items reached the consensus range just as they did in the original study. Of these six items, three had an identical median and IQR (#2, 6, & 8 in Table 5), one item had the same median, but a higher IQR in the current study (#3 in Table 5), one item had the same median, but a slightly lower IQR in the current study (#10 in Table 5), and one item had the same IQR, but had a higher median in the current study (#7 in Table 5). There were four of the 10
Table 5

Comparison of Current Study Final Consensus Items with Selected Milsom and Dietz (2009) Study Final Consensus Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Milsom &amp; Dietz Median</th>
<th>Milsom &amp; Dietz IQR</th>
<th>Current study median</th>
<th>Current study IQR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrates knowledge of their strengths and weaknesses</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2. Demonstrates resilience</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>3. Is proactive or purposeful in developing a daily schedule</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>4. Understands the social expectations at college</td>
<td>6</td>
<td>0.5</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>5. Has a sense of purpose for their participation in a college program</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>6. Able to use assistive technology that helps them learn (e.g., smart pens, speech to text software, various apps on a phone or IPad)</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7. Accepts responsibility for their actions</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8. Understands their personal learning style or how they learn best (e.g., listening to audio books versus reading books; writing notes versus having written notes supplied; actively drawing versus looking at pictures)</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>9. Demonstrates awareness that disability is just one aspect of who they are</td>
<td>6</td>
<td>1</td>
<td>6.5</td>
<td>2</td>
</tr>
<tr>
<td>10. Makes decisions related to making and / or having goals for their future with or without support</td>
<td>6</td>
<td>1.5</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

comparison items that reached the consensus range in the Milsom and Dietz study that did not reach the consensus range in the current study. Two of these four items failed to reach the consensus range due to a median that was too low (#1 & 4 in Table 5) and two did not reach consensus due to an IQR that exceeded the cutoff of 1.50 (#5 & 9 in Table 5).
Summary

This chapter presented the findings of the three-round Delphi survey employed for the current study and a comparison on selected items with the results of a previous study. Medians and interquartile ranges were analyzed to determine which items met the established cutoff range for consensus regarding the level of importance related to preparing students with ID for participation in inclusive PSE. Chapter V will present a summary of the results, as well as a discussion of the implications. The limitations of the current study and recommendations for further research will also be discussed.
CHAPTER V
DISCUSSION

This study explored parents’ perspectives regarding the personal competencies (i.e., personal skills, knowledge and attributes) that are important for students with ID to develop so that they can be prepared to participate in and benefit from inclusive PSE programs. The current study was a direct response to the dearth of research in this area. Prior to this study, no research could be located that directly examined the parent perspective related to the types of skills, knowledge, and attributes that might help students with ID prepare to participate in such programs. The parents who participated in this study are some of the first to have a student with ID participate in a TPSID program, and as such, provided information leading to an understanding of what types of personal competencies play a role in inclusive PSE readiness for these students. This chapter provides a summary of the key findings, as well as a discussion of the implications of these findings for various stakeholders, including parents, special educators and inclusive PSE providers. Limitations of the study and recommendations for future research are also discussed.

Personal Skills, Knowledge, and Attributes

This study involved a three-round Delphi survey, in which a panel of parents gained consensus on 33 items related to personal skills, knowledge, and attributes they deemed important for students with ID to develop in order to be to prepared for an inclusive PSE program. The intent of this exploratory study was to gain insight into what
personal competencies parents of students with ID, who have attended an inclusive PSE program, think are most important in preparing these students for such opportunities. Therefore, the goal was not to produce a list of items that fit neatly into the discrete categories of personal skills, knowledge, and attributes. Rather, the phrasing around having parents list personal skills, knowledge and attributes in the first round of the survey was intended to encourage the broadest response possible, in a way that encouraged participants to move beyond only providing general statements about students needing communication skills, self-advocacy skills, and so forth. For example, with many of the 33 final items, there is both a “knowing how to” element and a “willingness to do component” of the item, which means they could be categorized as either a personal skill or knowledge, or both. What is clear from the results of the three rounds, is that the items most consistently identified as most important by the expert panel line up very well with what the literature considers important personal competencies that all students, including those with disabilities, need to be ready to participate in a college level program (Brand et al., 2013; Kearns et al., 2011; NCWD, 2016).

These competencies go beyond the typical academic achievement standards that are indicative of college readiness for students without disabilities and recognize the need to assess the readiness of students with ID for PSE by examining the strengths, knowledge, personal skills, and attributes these students have in other life areas. As NCWD (2016) stated, “[there are] a wide range or personal competencies and non-academic factors [that] have an impact on student’s chance of persisting and completing a
postsecondary credential or degree” (p. 1). The competencies and factors referred to by NCWD (2016) and Brandt et al. (2013) include (a) self-awareness, (b) independence, (c) decision-making skills, (d) resiliency, (e) goal-setting and planning skills, (f) self-advocacy skills, (g) communication skills, (h) interpersonal relationship skills, (i) problem-solving skills, (j) self-management skills, (k) leadership skills, (l) ability to seek out and use assistance, (m) ability to develop supportive relationships, (n) confidence in one’s abilities, (o) perseverance, (p) and the ability to find, request, and use supports and accommodations. The highest rated items in Table 4 (#1-9) represent a mix of personal skills, knowledge and attributes that clearly fit within at least one, if not several, of the competency areas listed by Brand et al. and NCWD. The same can be said for the remaining 24 items on the final list of items reaching consensus (see Table 6). This seems to indicate that the items identified as important to the readiness of students with ID for PSE programs in the current study, are similar, if not identical to the competencies identified in the literature as being important to the college readiness of students without ID. Additionally, the items reaching consensus in this study help to operationalize the broader competencies and factors identified by NCWD (2016) and Brandt et al. (2013) at a level that allows for future and closer examination of how we currently prepare students with ID to develop these diverse personal competencies, when compared to other groups of students.

**Comparison with Previous Study**

As shown in Table 5, six of the 10 items from the Milsom and Dietz (2009) study
Table 6

Consensus Items and Examples of Related Competencies and Factors

<table>
<thead>
<tr>
<th>Item</th>
<th>Examples of related competencies and factors (NCWD, 2016; Brandt et al., 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Able to follow instructions/directions</td>
<td>(p) ability to find, request, and use supports and accommodations,</td>
</tr>
<tr>
<td></td>
<td>(i) problem-solving skills,</td>
</tr>
<tr>
<td>2. Able to ask for help (in both academic and social situations)</td>
<td>(l) ability to seek out and use assistance,</td>
</tr>
<tr>
<td></td>
<td>(p) ability to find, request, and use supports and accommodations,</td>
</tr>
<tr>
<td></td>
<td>(g) communication skills,</td>
</tr>
<tr>
<td></td>
<td>(h) interpersonal relationship skills,</td>
</tr>
<tr>
<td></td>
<td>(i) problem-solving skills,</td>
</tr>
<tr>
<td>3. Able to manage medications independently (e.g., take the</td>
<td>(b) independence,</td>
</tr>
<tr>
<td>appropriate amount at the appropriate time, can order or tell</td>
<td>(j) self-management skills</td>
</tr>
<tr>
<td>someone when they need refills, can describe any side effects they</td>
<td></td>
</tr>
<tr>
<td>may be having)</td>
<td>(table continues)</td>
</tr>
<tr>
<td>4. Demonstrates basic hygiene skills without regular prompting</td>
<td>(b) independence,</td>
</tr>
<tr>
<td>(e.g., showers regularly, teeth brushing, nail care, wearing</td>
<td>(j) self-management skills</td>
</tr>
<tr>
<td>clean clothes, etc.)</td>
<td></td>
</tr>
<tr>
<td>5. Accepts responsibility for their actions</td>
<td>(a) self-awareness,</td>
</tr>
<tr>
<td></td>
<td>(b) independence</td>
</tr>
<tr>
<td></td>
<td>(h) interpersonal relationship skills,</td>
</tr>
<tr>
<td>6. Demonstrates resilience</td>
<td>(d) resiliency,</td>
</tr>
<tr>
<td></td>
<td>(n) confidence in one’s abilities,</td>
</tr>
<tr>
<td></td>
<td>(o) perseverance,</td>
</tr>
<tr>
<td>7. Is kind to self and others</td>
<td>(a) self-awareness,</td>
</tr>
<tr>
<td></td>
<td>(h) interpersonal relationship skills,</td>
</tr>
<tr>
<td></td>
<td>(m) ability to develop supportive relationships,</td>
</tr>
<tr>
<td>8. Demonstrate knowledge of personal safety awareness (e.g.,</td>
<td>(a) self-awareness,</td>
</tr>
<tr>
<td>stranger danger, how to navigate a new environment safely, know</td>
<td>(b) independence,</td>
</tr>
<tr>
<td>who to contact in an emergency or what to do when feeling unsafe,</td>
<td>(c) decision-making skills,</td>
</tr>
<tr>
<td>wear appropriate clothes for the weather, etc.)</td>
<td>(i) problem-solving skills,</td>
</tr>
<tr>
<td>9. Time management skills (e.g., can tell time, can track time</td>
<td>(j) self-management skills</td>
</tr>
<tr>
<td>using a watch or phone, can follow a schedule, use a planner, be</td>
<td>(e) goal-setting and planning skills,</td>
</tr>
<tr>
<td>on time for class)</td>
<td></td>
</tr>
<tr>
<td>10. Demonstrates persistence or perseverance</td>
<td>(o) perseverance,</td>
</tr>
<tr>
<td></td>
<td>(d) resiliency,</td>
</tr>
<tr>
<td></td>
<td>(n) confidence in one’s abilities,</td>
</tr>
<tr>
<td></td>
<td>(o) perseverance,</td>
</tr>
<tr>
<td>11. Makes decisions about participation in daily activities</td>
<td>(a) self-awareness,</td>
</tr>
<tr>
<td>with or without support</td>
<td>(b) independence,</td>
</tr>
<tr>
<td></td>
<td>(c) decision-making skills,</td>
</tr>
<tr>
<td></td>
<td>(e) goal-setting and planning skills,</td>
</tr>
<tr>
<td></td>
<td>(f) self-advocacy skills,</td>
</tr>
<tr>
<td></td>
<td>(n) confidence in one’s abilities,</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Item</th>
<th>Examples of related competencies and factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Able to work, or learn to work, in a group environment and collaborate with others</td>
<td>(f) self-advocacy skills, (g) communication skills, (h) interpersonal relationship skills, (i) problem-solving skills, (j) self-management skills, (k) leadership skills, (m) ability to develop supportive relationships, (n) confidence in one’s abilities,</td>
</tr>
<tr>
<td>13. Has a sense of curiosity</td>
<td>(a) self-awareness, (b) independence, (c) decision-making skills,</td>
</tr>
<tr>
<td>14. Has confidence and / or high self-esteem</td>
<td>(n) confidence in one’s abilities, (a) self-awareness,</td>
</tr>
<tr>
<td>15. Is flexible regarding schedules (e.g., the ability to mentally and/or emotionally adjust to unexpected changes in routines or schedules)</td>
<td>(j) self-management skills, (i) problem-solving skills, (d) resiliency,</td>
</tr>
<tr>
<td>16. Is patient with self and others</td>
<td>(a) self-awareness, (j) self-management skills,</td>
</tr>
<tr>
<td>17. Able to be out of their comfort zone</td>
<td>(a) self-awareness, (b) independence, (d) resiliency, (n) confidence in one’s abilities,</td>
</tr>
<tr>
<td>18. Can self-regulate behavior and emotions (e.g., ability to stay calm or regain calm when things don’t go as planned or they do not get their way)</td>
<td>(a) self-awareness, (j) self-management skills, (i) problem-solving skills,</td>
</tr>
<tr>
<td>19. Able to appropriately express emotions/feelings (e.g., loneliness, sadness, anger, being overwhelmed)</td>
<td>(a) self-awareness, (j) self-management skills, (g) communication skills,</td>
</tr>
<tr>
<td>20. Able to ask questions for clarification, or ask for more information when needed</td>
<td>(g) communication skills, (h) interpersonal relationship skills, (i) problem-solving skills,</td>
</tr>
<tr>
<td>21. Has a sense of independence from parents/family</td>
<td>(b) independence, (n) confidence in one’s abilities,</td>
</tr>
<tr>
<td>22. Demonstrates desire to learn and willingness to improve and work hard</td>
<td>(o) perseverance, (e) goal-setting and planning skills,</td>
</tr>
<tr>
<td>23. Able to keep track of and take care of personal belongings (e.g., clothes, phone, backpack and school supplies, etc.)</td>
<td>(a) self-awareness, (j) self-management skills,</td>
</tr>
<tr>
<td>24. Able to make healthy food choices with or without prompting</td>
<td>(a) self-awareness, (j) self-management skills,</td>
</tr>
<tr>
<td>25. Demonstrates the ability to regulate sleep (when they go to bed and get up) in order to stay healthy</td>
<td>(a) self-awareness, (j) self-management skills,</td>
</tr>
<tr>
<td>26. Understands the different roles of a professor versus student or peer mentors versus students being mentored</td>
<td>(a) self-awareness, (g) communication skills, (h) interpersonal relationship skills, (m) ability to develop supportive relationships,</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Item</th>
<th>Examples of related competencies and factors (NCWD, 2016; Brandt et al., 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.</td>
<td>Able to use assistive technology that helps them learn (e.g., smart pens, speech to text software, various apps on a phone or IPad).</td>
</tr>
</tbody>
</table>
|      | (i) problem-solving skills,  
|      | (j) self-management skills,  
|      | (l) ability to seek out and use assistance,  
|      | (p) and the ability to find, request, and use supports and accommodations. |
| 28.  | Understands their personal learning style or how they learn best (e.g., listening to audio books versus reading books; writing notes versus having written notes supplied; actively drawing versus looking at pictures) |
|      | (a) self-awareness,  
|      | (j) self-management skills,  
|      | (l) ability to seek out and use assistance,  
|      | (p) and the ability to find, request, and use supports and accommodations. |
| 29.  | Is proactive or purposeful in developing a daily schedule |
|      | (e) goal-setting and planning skills,  
|      | (a) self-awareness,  
|      | (j) self-management skills, |
| 30.  | Makes decisions related to making and/or having goals for their future with or without support |
|      | (f) self-advocacy skills,  
|      | (e) goal-setting and planning skills,  
|      | (a) self-awareness,  
|      | (j) self-management skills, |
| 31.  | Has a basic understanding of social cues (e.g., eye contact, personal space/boundaries; body language, tone of voice) |
|      | (a) self-awareness,  
|      | (h) interpersonal relationship skills,  
|      | (g) communication skills,  
|      | (m) ability to develop supportive relationships, |
| 32.  | Has basic housekeeping skills (e.g., keeping a bedroom clean, doing laundry, washing dishes) |
|      | (j) self-management skills,  
|      | (i) problem-solving skills, |
| 33.  | Time management skills- can plan ahead for schedule changes around school holidays |
|      | (j) self-management skills,  
|      | (e) goal-setting and planning skills, |

that were included in the current study reached the consensus range. Notably, item #2, *Demonstrates Resilience*, was ranked the same by both groups at the high end of importance with an IQR of 1. This may be due to recognition by both expert panels that students with disabilities, particularly those with learning disabilities and ID, have had to deal with significant challenges related to learning in the K-12 school system and a perception that it is those students who have demonstrated the most resilience throughout their educational experience that are likely to be better prepared to face the challenges awaiting them in a PSE environment. Four of the items (#1, 4, 5, & 9 in Table 5) did not reach consensus in the current study like they did in the Milsom and Dietz study.
The difference in results for items #1- *Demonstrates knowledge of their strengths and weaknesses*, #4-*Understands the social expectations at college*, #5-*Has a sense of purpose for their participation in a college program*, and #9-*Demonstrates awareness that disability is just one aspect of who they are*, may be due to a number different reasons. There may be natural differences between the population of students with learning disabilities, which was the focus of the Milsom and Dietz study, and the population of students with ID that was the focus of the current study that shifted participants’ responses in one direction or the other. In addition, students with ID associated with the current group of participants may not have had the opportunity to explore these topical areas as part of their secondary education experience, leading parents to consider these items less important for this population to develop to be ready to participate in a PSE program. Finally, parents in the current sample may have felt that these items were related to personal skills, knowledge, or attributes that they would expect their student with ID to understand/develop only after they had the direct experience of being on campus in a PSE program. Further inquiry is necessary to more clearly understand the reasoning of the parents in this study.

**Demographic Observation**

There are a few results from the demographic section of the Round One instrument that are worth noting and which may provide opportunities for future exploration. First, almost half of the respondents (45%) came from Region 8- Mountain, which is the region where the TPSID program that the researcher is affiliated with is
located. This may indicate that familiarity with a particular program or researcher may be a key component in successfully recruiting participants for a more time- and effort-intensive data collection method such as a three-round Delphi survey. Second, only six of the 29 participants (21%) in Round One were fathers. It is not initially clear why the participation rate of fathers in the current study was so low, but this may be an issue worth exploring in more depth in future research studies. Third, 55% of the participants had a bachelor’s degree or higher, with 28% these participants having a terminal degree. This represents an educational attainment rate much higher than the national average for adults having a bachelor’s degree or higher, which is 33% (Ryan & Bauman, 2016). This seems to support the research regarding the positive influence of parental education level on the likelihood of students with disabilities choosing to pursue some type of postsecondary education (Doren et al., 2012; Griffen et al., 2010; Martinez et al., 2012; Neece, Kraemer, & Blacher, 2009; Papay & Bambara, 2014; Papay & Griffen, 2013; Yarbrough et al., 2014). However, in a somewhat bi-modal distribution of parent education levels, 24% of participants indicated that their highest level of education was a high school diploma. This percentage is identical to the number of participants with a bachelor’s degree. While not clearly determinable by the data collected for this study, which only collected education level for the responding parent, this result may indicate that in some cases the student with ID may have been a first generation college student. Exploring the dynamics of families where the student with ID is the first to attend PSE could provide additional understanding of the role that parent education level plays in students with ID pursuing PSE that might challenge, or refine, the existing research in
Finally, a majority of respondents (66%) indicated that they perceived their student needing a relatively high level (Level 4 or 5 on a scale with 5 being the highest) of direct support from program staff, volunteers, peers, to participate in the TPSID program. It would be informative to explore whether program staff and students share the same perceptions as parents regarding the level of support needed for individual students to participate in a TPSID program. Based on the experience of the researcher, who works with students in a TPSID on a regular basis, there may be a potentially significant difference in the perceived level of support needed to participate in a TPSID program between these groups.

**Delphi Methodology with Parent Panel Observations**

The study was a direct response to the call for more parent-focused research in this area (Grigal et al., 2011) and was designed to gain direct insight from parents, as the primary research participants. The current study was unique because parents of students with ID served as the expert panel for a three-round Delphi survey, a method that has not been widely used with this stakeholder group. While parent participants were not explicitly asked to rate or comment on their experience with this methodology, the overall response rate between rounds remained sufficiently high to meet the parameters of best practice outlined in the literature (Clayton, 1997; Hsu & Sandford, 2007b; Skulmoski et al., 2007). Additionally, the quality of the responses to the prompt in Round One met the expectations of the researcher, which were sufficient to develop the content
for the second and third rounds. Taken together, these observations would appear to support the view that a three-round Delphi survey can be a viable data collection method when working with parents of students with ID as the primary participants of a study. Further exploration of parent participant’s experience with the Delphi method could be instructive to future researchers interested in employing this method with similar groups of parents.

**Implications**

The findings from the current study may have implications for students with ID, their parents, special educators in secondary settings, and inclusive PSE service providers. The research questions addressed in this study were based on the primary assumptions that (a) having a better understanding of what parents think is needed to prepare students with ID for PSE would inform all stakeholders on how to more effectively prepare these students PSE opportunities, and (b) better prepared students will be more likely to get the most out of participating in an inclusive PSE program and be more likely to experience the improved employment and independent living outcomes that research suggests results from participating in PSE (Grigal et al., 2011; Hughson et al., 2006; Migliore et al., 2009; Smith et al., 2012; Zafft et al., 2004). Implications of this study are presented at the student and systems level.

**Student Level**

At the individual student level, parents and special educators could use the results from this study to supplement existing PSE preparation checklists designed for students
with disabilities, such as the one developed by Morgan and Riesen (2016). Using such a checklist, augmented by relevant items from the current study, early in a student with ID’s junior high and/or high school experience would give parents and educators more time to implement student specific interventions to help them develop the key skills, knowledge, and attributes identified in the current study as important for PSE readiness.

Special education teachers, particularly, could use a preparation checklist as a transition assessment with the resulting data leading to more targeted transition plan goals. Instruction could then be geared to increase discrete behaviors related to PSE preparation. Similarly, inclusive PSE staff might use the results to develop a screening tool that will help them assess the overall preparation level of students applying for admission. Having this additional information about individual students could provide staff with valuable insight into how likely a prospective student is to successfully transition into the PSE program. This can assist staff in making important decisions regarding program admission. Additionally, such a screening tool could help PSE service providers develop a better understanding of what areas admitted students may need additional supports in, prior to their arrival on campus.

**Systems Level**

At the systems level, the results of the current study may lead to the discovery of gaps between what is currently being done at the high school level to prepare students with ID for the transition to PSE and the personal skills, knowledge, and attributes that the current study suggests these students should be working toward in order to be prepared for this transition. Specifically, the results of the current study provide
opportunities for the secondary education system (as well as individual teachers) to evaluate how well current curricula and programs designed to help students with ID develop the functional skills (e.g., social and interpersonal communication skills, employment soft skills, instrumental activities of daily living) deemed necessary for the general transition to adulthood address the priorities of parents listed in Table 4. Identifying any such gaps between current practice and parent priorities would allow educators and other stakeholders to adjust their efforts and develop new or modify existing curricula and student level interventions to better prepare students with ID for the transition to PSE.

Hamblet (2011) has developed a curriculum to prepare students with specific learning disabilities for college, including developing personal and college survival skills as well as understanding college accommodations. Similar curricula need to be developed for students with ID to increase preparatory skills. Additionally, bringing the parent perspective on this topic into the discussion with educators and PSE providers is critical to developing more effective collaborative approaches to better prepare students with ID for PSE opportunities and better meet the needs of this population (Griffin et al., 2010; Grigal & Hart, 2012; Papay & Griffin, 2013). Ultimately, better collaboration between parents and professionals, that more fully takes into the account the parent perspective identified in this study, is likely to provide enhanced opportunities, at an earlier age, for students with ID to get the support and resources that they need to develop the personal skills, knowledge, and attributes that will help them get the most from an inclusive PSE experience.
Limitations

The Delphi method is designed to systematically gather informed opinions and perceptions from a panel of experts on a particular topic (Fleming et al., 2015). However, this method does have some limitations that may have influenced the results of this study. First, the proper selection of an expert panel is a critical component of the Delphi method (Clayton, 1997; Hsu & Sandford, 2007a). In the current study, parents of students with ID who had participated in a TPSID program were considered to meet the standards outlined in the literature regarding who might be deemed an expert on a particular topic (Clayton, 1997; Hsu & Sandford, 2007a). However, had a different sample of parent experts participated in the current study, the results reflected in Table 5 may have differed, as results of expert panels may vary depending on sampling method (Clayton, 1997). Thus, there are limitations regarding the generalizability of the results. Second, it was assumed that personal competencies related to personal skills, knowledge, and attributes needed for students with ID to be prepared to participate in inclusive PSE programs could be identified by the expert panel based on the initial prompt in Round One. It is possible that had the initial prompt been stated differently, the expert panel might have provided different responses. Finally, the results of the study may have been influenced by the limited geographical diversity of the expert panel. A similar panel from different geographical locations may have altered the results.

Recommendations for Future Research

Because of the exploratory nature of this study, the results are far from
conclusive. It is hoped that the current study will serve as a foundation for future research that more fully and analytically explores the parent perspective related to the many facets of students with ID transitioning to inclusive PSE programs. As Grigal, Hart and Weir (2011) put it, the field of study around students with ID participating in inclusive PSE programs, in general, is in “an embryonic stage” (p. 3), and this is amplified when examining the parent perspective. Future research could use the final list of items that the expert panel in this study developed to explore how other stakeholders, especially students with ID, inclusive PSE program staff, and special educators at the high school level, might rate the importance of each item for preparing this population for PSE programs.

Discovering similarities and differences among stakeholder groups regarding what personal competencies each view as being a priority for inclusive PSE readiness could lead to more effective collaborations and targeted interventions that better support students with ID to prepare for a successful transition to PSE programs. In addition, the current study did not explicitly ask participants if their student lived at home or on-campus/away from home while they were enrolled in an inclusive PSE program. Several of the final 33 items generated by this study may be more applicable and relevant to students participating in PSE programs with a residential component. For example, items related to personal hygiene, health and safety, time-management, and healthy eating and sleep habits (#3, 4, 8, 9, 23, 24 and 32 in Table 4) may take on additional importance for students living on-campus where they would need to be prepared to take responsibility for these types of tasks without the support of parents.
Future research should explore how the types of personal skills, knowledge, and attributes deemed important by parents for inclusive PSE readiness may differ between residential and nonresidential programs. Additionally, differences in the personal competencies deemed important by parents for participation in inclusive PSE programs versus substantially separate PSE programs might be explored. Researchers might also consider the use of additional methodologies to more thoroughly explore the topic covered by the current study. One example would be to conduct a large-scale parent survey using the final list of inclusive PSE readiness items generated by this Delphi survey to determine which of the items may generalize as being most important to preparing students with ID for PSE experiences. A second example would be to conduct qualitative studies to explore in more depth why parents believe certain personal skills, knowledge or attributes are so important in preparing students with ID for PSE programs, what they have done to prepare their own child for these experiences, and what they think other stakeholder groups could do to better support their efforts as parents in this area.

The use of the Delphi method to explore additional aspects of parents’ experiences in this topic area would also appear to be a viable option based on the solid response to the current study’s methodology, the quality of responses, and the between round attrition rates comparable to similar studies. There may also be opportunities for researchers to develop measures of individual student preparation based on the list of final items developed in the current study. Researchers could use these measures of preparation level to explore which items might be predictive of persistence to completion in inclusive PSE programs. Additionally, the topics of program evaluation and
professional development may also lead to future research topics, including exploring how current interventions in the transition field match up with the list of PSE readiness items that parents think are most important, and investigating and developing effective methods for supporting students with ID to develop (acquire, increase, and implement) the personal skills, knowledge and attributes that were identified as important in the current study.

Conclusion

The current study was the first to explicitly identify personal skills, knowledge, and attributes that were perceived by parents to be important in preparing students with ID for inclusive PSE opportunities. As the number of inclusive PSE programs across the country expand, and the number of families and students who are eager to pursue these opportunities continues to grow, there is an increasing responsibility of all stakeholders to ensure that these programs and opportunities develop in a way that truly meet the needs of those they are intended to serve. In order to do this, and allow students to make the most of these opportunities, it is critical to “intentionally solicit the perspectives of students with IDD and their families” (Papay & Griffin, 2013, p. 114). Parents of students with ID who have participated in a TPSID program are experts on their child’s experience and they bring an intimate understanding and unique perspective regarding the personal competencies students with ID need to be ready for a PSE program. With the exception of the students themselves, parents often have the most at stake when it comes to the planning and preparation to participate in a PSE program and the potential shift in
life long outcomes that such an opportunity represents for their student. If PSE providers and educators want to be truly effective in providing students with ID with the best possible chance of benefiting from the expanding inclusive PSE opportunities, they must understand and respond to the parent perspective regarding the key personal competencies that these students need to be ready to participate and thrive in PSE programs.
REFERENCES


APPENDIX

IRB INFORMED CONSENT AND ROUND ONE SURVEY INSTRUMENT
Parent Perspectives on Preparing Students with Intellectual Disabilities for Inclusive Postsecondary Education

Introduction
You are invited to participate in a research study conducted by Bob Morgan, Ph.D., Jared Schultz, Ph.D. and Jeff Sheen, MSW, in the Department of Special Education and Rehabilitation at Utah State University. The purpose of this research is to identify the personal skills, knowledge, and attributes that parents of students with intellectual disabilities consider important for these students to have, in order to be prepared to participate in an inclusive postsecondary education experience (college).

This form includes detailed information on the research to help you decide whether to participate in this study. Please read it carefully and ask any questions you have before you agree to participate. To be eligible to participate in this study, you need to be the parent (biological, step, or adoptive), legal guardian, or primary caretaker who has played a significant role in the life of a student with intellectual disabilities that has, or is currently participating in an inclusive postsecondary education program and who has completed at least one semester in the program.

Procedures
Your participation will involve taking part in a three-round survey that will gather your thoughts about what students with intellectual disabilities need, to be prepared to participate in an inclusive college experience. In the first round you will be asked to respond to several basic demographic questions and one open-ended prompt. The second and third rounds will involve ranking a series of items in order of priority. This study will be conducted over a period of approximately two months, beginning in mid-January of 2017. You will have 10 days to complete and return each round of the survey. You will have control over the place and time that you complete the three rounds of the survey and it is estimated that completing all three rounds of the survey will take less than 2 hours. We anticipate that up to 50 people will participate in this research study.

Risks
This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. The foreseeable risks or discomforts include loss of confidentiality, and survey fatigue. In order to minimize those risks, the researchers will provide clear instructions on how to complete each survey round and ask only essential questions that directly support the purpose of the research. More information on confidentiality is provided below.

Benefits
There is no direct benefit to you for participating in this research study. However, more broadly; your firsthand experience in helping your child prepare for and participate in an inclusive postsecondary education program is valuable in helping us better understand this issue. The knowledge and perspective you share can positively impact the experience of other parents and students with intellectual disabilities who are interested in participating in a program similar to the one your child was or is involved with.

Confidentiality
The researchers will make every effort to ensure that the information you provide as part of this study remains confidential. Your identity will not be revealed in any publications, presentations, or reports
resulting from this research study. Research records will be kept confidential, consistent with federal and state regulations. Only the researchers will have access to the data, which will be kept on a password protected computer or password protected survey account. To protect your privacy, personal/identifiable information will not be collected directly in the survey instruments. Potential identifiers within the surveys (i.e., region of postsecondary education program attended) are broad enough to prevent identification of respondents. To protect your privacy we ask that you do NOT identify yourself by name or the name of the program your child has/is attending when responding to the open-ended prompt.

We will collect your information through Qualtrics, an online survey tool. This information will be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage system and/or in a locked drawer in a restricted-access office. Any identifiable data collected as part of this study will be destroyed 3 years after the conclusion of the study. It is unlikely, but possible, that others (Utah State University or state or federal officials) may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

The research team works to ensure confidentiality to the degree permitted by technology. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online.

Voluntary Participation & Withdrawal
Your participation in this research study is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by informing the researchers that you will be withdrawing from the study. If you choose to withdraw after we have already collected information about you, any information that you provided that is not anonymous will be properly disposed of.

Compensation
For your participation in this research study, you will be eligible to be entered into a drawing for one of three $50 prepaid Visa cards. At the completion of the three survey rounds you will be sent an email from the researchers asking you if you have completed all three rounds of the survey and if you would like to be entered into the drawing. If you respond to this email in the affirmative on both questions you will be entered into the drawing. Winners will be drawn at the conclusion of the third and final round of the study and will be notified within two weeks of the completion of the final survey round.

IRB Review
The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigators at (435) 797-3251; bob.morgan@usu.edu or (435) 797-3478; jared.schultz@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Bob Morgan, Ph.D.
Principal Investigator
(435) 797-3251; bob.morgan@usu.edu

Jeff Sheen, MSW
Student Investigator
(435) 797-8113; jeff.sheen@usu.edu
Informed Consent
By clicking the “Agree” radial button below, you agree to participate in this study. You will also be asked to type your name and date in the corresponding text boxes. By providing your name, the date and clicking on the “agree” button you indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records.
Round One Instrument

If you agree to participate, please type your first and last name and today’s date in the text box.

Please provide your email address so that the links to the second and third rounds of the survey can be sent directly to you.

Demographic Questions:

1. What parental role do you most strongly identify with:
   a. Mother
   b. Father

2. Race:
   a. American Indian or Alaskan Native
   b. Asian
   c. Black or African American
   d. Native Hawaiian or Other Pacific Islander
   e. White
   f. More than one race
   g. Prefer not to answer

3. Ethnicity:
   *Hispanic* is an ethnic category for people whose origins are in the Spanish-speaking countries of Latin America or who identify with a Spanish-speaking culture. Individuals who are Hispanic may be of any race.
   a. Hispanic
   b. Non-Hispanic
   c. Prefer not to answer

4. Please select the age range that reflects your age at the time your student began participating in the TPSID program:
   a. Under 40 years old
   b. 40-45 years old
   c. 46-51 years old
   d. 52-57 years old
   e. 58-63 years old
   f. 64- or older

5. Please select the age that reflects the age of your student when they began participating in a TPSID program:
   a. 18 years old
   b. 19 years old
c. 20 years old
  d. 21 years old
  e. 22 years old
  f. 23 years old
  g. 24 years old
  h. 25 years old
  i. 26 years old
  j. Older than 26

6. What is your highest level of education completed?
   a. High School Diploma
   b. Associate’s Degree (A. A., A. A. S., or other Associate’s)
   c. Bachelor’s Degree (B. A., B. S., B. I., or other Bachelor’s)
   d. Master’s Degree (M. A., M. S., M. S. W., M. Ed., or other Master’s)
   e. Doctoral Degree (Ph. D., Ed. D., J. D., M. D., or other Doctorate)
   f. Other (please describe)

7. What is the primary disability diagnosis that your student has? If applicable, please list any secondary disability diagnosis your student may have.

8. Where in the United States did your child attend a TPSID program?
   a. Region 1 - New England (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut)
   b. Region 2 - Mid-Atlantic (New York, Pennsylvania, New Jersey)
   c. Region 3 - East North Central (Wisconsin, Michigan, Illinois, Indiana, Ohio)
   d. Region 4 - West North Central (Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa)
   e. Region 5 - South Atlantic (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida)
   f. Region 6 - East South Central (Kentucky, Tennessee, Mississippi, Alabama)
   g. Region 7 - West South Central (Oklahoma, Texas, Arkansas, Louisiana)
   h. Region 8 - Mountain (Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico)
   i. Region 9 - Pacific (Alaska, Washington, Oregon, California, Hawaii)

9. Approximately how far from the family home was the TPSID program your student attended?
   a. 20 miles or less
   b. 20-50 miles
   c. 50-100 miles
   d. 100-200 miles
   e. 200-300 miles
10. On a scale of 1 to 5 (with 1 being very low and 5 being very high), from your perspective, how much direct support from program staff, volunteers, peers, etc. did your student needed to participate in the TPSID program they attended?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

11. On a scale of 1 to 5 (with 1 being not very familiar and 5 being very familiar), how familiar with postsecondary education programs for students with intellectual disabilities would you say you were before your student attended such a program?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5

Open Ended Prompt:
In this section of the survey, we are going to ask you to list the personal skills, knowledge, and attributes, or other factors (as defined below) that you think students with intellectual disabilities need to be ready to participate in an inclusive postsecondary educational program, like the program your student has participated in.

- **Personal Skills**: In general, a skill is the ability to do something well. In this context, it is the ability of your student to do things like communicate with others (either verbally or in writing), or being able to track time and follow a schedule. Often personal skills fall into general categories like communication, problem-solving, or time management skills.

- **Knowledge**: A general awareness or familiarity with facts, information, or skills gained through experience or education. Some common examples of knowledge in this context may include knowing how to use a computer, iPad, or smartphone, knowing what to do when feeling sick, or knowing how to use a budget or track money.

- **Attribute**: A quality, characteristic or personality trait that you think would help a student with intellectual disabilities be better prepared to participate in a TPSID program. Some common examples of attributes include confidence, persistence, sense of humor, or curiosity.

- **Other factors**: Any items that you think do not fit in the categories of personal skills, knowledge, or attributes.
With this background information, when generating your list please include any specific personal skills, knowledge, attributes, or other factors that a student may have already developed or that would have been helpful had they developed prior to participating in an inclusive postsecondary educational program.

Please enter your list in the box below:
CURRICULUM VITAE

JEFFERSON C. SHEEN

Education

Utah State University, Disability Disciplines, Ph. D., 2017
University of Utah, Social Work, MSW, 2002 (Summa Cum Laude)
Utah State University, Sociology, B. S., 1999 (Summa Cum Laude)

Selected Professional Employment

Adjunct Instructor, Department of Social Work, 2011-Present
Adjunct Instructor, Department of Psychology-School Counseling Program 2007-Present
Project Director and Principal Investigator, Utah State University, 2002-Present

Selected Curricula (Total: 8)


**Selected Funded Grants and Contracts** (Total: 29 $4,405,371)

**Co-Principal Investigator**  
Transition Programs for Students with Intellectual Disability (*TPSID*) Model Demonstration Grant- Utah Postsecondary Education Programs

Funding Agency  
U.S. Department of Education- Office of Postsecondary Education

Funding Level  
$206,000 Annually

Duration  
October 1, 2015 – September 30, 2020

**Project Coordinator**  
Master of Transition Specialist Program

Funding Agency  
U.S. Department of Education

Funding Level  
$299,998

Duration  
January 1, 2014 – December 31, 2014

**Project Coordinator**  
New Community Opportunities National Training and Technical Assistance Project

Funding Agency  
ILRU at TIRR, Baylor University

Funding Level  
$457,000

Duration  
October 1, 2011 - September 30, 2015

**Principal Investigator**  
Interagency Outreach and Training Initiative - Healthy Lifestyles II

Funding Agency  
State of Utah/Utah State University

Funding Level  
$36,000

Duration  
July 1, 2010 - June 30, 2011

**Selected Presentations** (Total: 76)


**Selected Boards/Community Service** (Total: 10)

Chair-Developmental Skills Laboratory, Human Rights Committee, 2015-Present
Chair-Senator Hatch’s Advisory Committee on Disability, 2013-Present
Utah Statewide Independent Living Council–2010-Present; Vice Chair (2011-2012); Youth Subcommittee Chair (2011-2015)
Utah Legislative Coalition for People with Disabilities Executive Board, 2009-Present

**Selected Honors**

National Deans List of Graduate Students. 2002
University of Utah, Graduate School of Social Work - Warshaw Scholarship, 2001
University of Utah, Graduate School of Social Work - Willey Scholarship, 2000
Named Utah State University Sociology Department’s Outstanding Scholar, 1998-1999