

Utah State University

DigitalCommons@USU

---

All Graduate Theses and Dissertations

Graduate Studies

---

8-2020

## National Survey of Professional Development on Writing Compliant Transition Individualized Education Programs

M. Faith Thomas  
*Utah State University*

Follow this and additional works at: <https://digitalcommons.usu.edu/etd>



Part of the [Disability and Equity in Education Commons](#), and the [Special Education and Teaching Commons](#)

---

### Recommended Citation

Thomas, M. Faith, "National Survey of Professional Development on Writing Compliant Transition Individualized Education Programs" (2020). *All Graduate Theses and Dissertations*. 7870.  
<https://digitalcommons.usu.edu/etd/7870>

This Dissertation is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact [digitalcommons@usu.edu](mailto:digitalcommons@usu.edu).



NATIONAL SURVEY OF PROFESSIONAL DEVELOPMENT ON WRITING  
COMPLIANT TRANSITION INDIVIDUALIZED EDUCATION

PROGRAMS

by

M. Faith Thomas

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

of

DOCTOR OF PHILOSOPHY

in

Disability Disciplines

Approved:

\_\_\_\_\_  
Robert Morgan, Ph.D.  
Major Professor

\_\_\_\_\_  
Kaitlin Bundock, Ph.D.  
Committee Member

\_\_\_\_\_  
Trenton Landon, Ph.D.  
Committee Member

\_\_\_\_\_  
Matthew Wappett, Ph.D.  
Committee Member

\_\_\_\_\_  
Tyson Barrett, Ph.D.  
Committee Member

\_\_\_\_\_  
Janis L. Boettinger, Ph.D.  
Acting Vice Provost for Graduate Studies

UTAH STATE UNIVERSITY

Logan, UT

2020

Copyright © M. Faith Thomas

All Rights Reserved

## ABSTRACT

National Survey of Professional Development on Writing Compliant Transition

Individualized Education Programs (IEPs)

by

M. Faith Thomas

Utah State University, 2020

Major Professor: Dr. Robert Morgan  
Department: Special Education and Rehabilitation Counseling

A national survey of special education administrators was conducted to determine the current professional development (PD) practices, the internal monitoring processes, and the impact of PD on transition IEP compliance. In addition, the study analyzed the extent to which there were similarities or differences between rural, suburban, and metropolitan local education agencies (LEAs). An explanatory sequential mixed methods design provided quantitative data from 147 respondents from across the U.S. and follow-up qualitative interviews with 14 participants representing rural, suburban, and metropolitan LEAs. The integrated results of quantitative and qualitative findings showed that less than 5 hrs per year of PD was provided on writing compliant transition IEPs to secondary special education teachers. While results found that internal monitoring systems are in place in the majority of LEAs, the fidelity of implementation is inconsistent. The continuous improvement process between PD and writing transition

IEPs was not found. Overall, the study found that rural, suburban, and metropolitan LEAs have more similarities than differences in their PD systems and internal monitoring systems and similar challenges impacting their LEAs to meet Indicator 13 compliance.

(223 pages)

## PUBLIC ABSTRACT

## National Survey of Professional Development on Writing Compliant Transition

## Individualized Education Programs (IEPs)

M. Faith Thomas

A national survey of special education administrators was conducted on current special education teacher trainings, the internal monitoring processes on transition IEPs, and the effect training has on compliance with federal law. In addition, this student researcher examined training and internal monitoring systems to determine if there were any similarities or differences between rural, suburban, and metropolitan school districts. An explanatory sequential mixed methods design gathered survey data from 147 special education administrators from across the U.S. and conducted interviews with 14 participants representing rural, suburban, and metropolitan school districts. When combining survey and interviews data, the results showed that less than 5 hrs of training was provided to secondary special education teachers on writing compliant transition IEPs per year. While results found that internal monitoring systems were in place in the majority of school districts, the fidelity of implementation is not consistent within or between school districts. The continuous improvement of trainings and writing transition IEPs was not found. Overall, the study found that rural, suburban, and metropolitan local education agencies (LEAs) have more similarities than differences in their professional development (PD) systems and internal monitoring systems and similar challenges impacting their school districts' transition IEP compliance.

## DEDICATION

I dedicate this academic work to my children who have been my motivation to complete my Ph.D. May this degree help all three of us to have brighter futures. In future decades, may we remember these years of struggle with fond memories.

*This degree honors parents:*

*My father, who taught me to dream.*

*My mother, who demonstrated how to succeed by*

*being determined, working hard, and staying eternally optimistic.*

This degree was made possible with the loving support of my life-long friend and legal counsel, Millie Corbin-Beverly, and the generosity and kindness of my friend, Steve Gasper.

## CONTENTS

	Page
ABSTRACT .....	iii
PUBLIC ABSTRACT .....	iv
DEDICATION .....	vi
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
DEFINITIONS OF KEY TERMS .....	xi
CHAPTER	
I. INTRODUCTION AND OVERVIEW .....	1
II. LITERATURE REVIEW .....	11
III. METHODS .....	50
IV. RESULTS .....	90
V. DISCUSSION .....	142
REFERENCES .....	158
APPENDICES	
A Pilot Study Findings .....	167
B Letter of Information Required by Institutional Review Board .....	177
C Indicator 13 Checklist .....	180
D Marketing Email .....	181
E Semi-Structured Interview Form .....	182
F Semi-Structured Interview Notes .....	183
G Qualitative Codebook .....	184
H Double Coder's Qualifications .....	185
I Auditor's Qualifications .....	192
J Dissertation Timeline .....	204
CURRICULUM VITAE .....	205



LIST OF TABLES

Table		Page
1	Pilot Study Demographics .....	48
2	Survey Questions' Relationship to Research .....	67
3	Respondents' Demographics .....	92
4	Professional Development Chi-Square Results .....	101
5	Internal Monitoring Process Chi-Square Results.....	107
6	Monitoring Report to OSEP .....	109
7	Phase 1 & 2 Integration of PD Characteristics.....	124
8	Phase 1 & 2 Integration of Internal Monitoring System.....	133
9	Phase 1 & 2 Integration of Internal Monitoring Systems in Rural, Suburban, and Metropolitan LEAs .....	137

## LIST OF FIGURES

Figure		Page
1	National Indicator 13 Compliance Statistics .....	6
2	Illustration of Literature Review Selection Process .....	15
3	Explanatory Sequential Mixed Method Design .....	56
4	Respondents' Meeting Inclusion Criteria .....	63
5	Data Analysis Procedure .....	85
6	Validity & Reliability Checks .....	85

## DEFINITIONS OF KEY TERMS

Rural: A geographic area with less than 10,000 residents (Health Resources and Services, 2019).

Suburban: A geographic area with 10,000 – 50,000 residents (Health Resources and Services, 2019).

Metropolitan: A geographic area with 50,000+ residents (Health Resources and Services, 2019)

Professional Development: A broad category of training which may include academic coursework or specialized training delivered in a variety of formats to licensed special education teachers including face-to-face, large group, small group, online or in written materials. Professional development may be provided by local, state, federal contractors or consultants to develop special education teachers' knowledge, effectiveness (Glossary of Education Reform, 2019), and implementation of transition and how to develop and write compliant transition IEPs using that knowledge. Throughout this document, the terms *professional development*, *professional development training* will be used interchangeably.

Secondary education: Education provided after elementary and before graduating or exiting high school (Merriam-Webster, 2019). Typically, secondary special education occurs in middle school, high school, and post-high services or programs for students ages 18-22 years.

Postsecondary employment: competitive employment, including supported employment (IDEA Section 300.43, 2004)

Postsecondary education/training: 4-year university, 2-year college, non-degree granting certificate from 2- or 4-year college/university program, vocational education, continuing and adult education, life skills instruction in higher education, apprenticeship, employer on-the-job training, or pre-apprentice training such as JobCorps (Fowler et al., n.d.).

Postsecondary independent living: Based on a student's individual needs, the specific skills that enable the transition-age youth to be a successful contributing member of their families and communities. Specific domains of independent living include: "daily living skills, leisure/ recreation, transportation, home maintenance, personal care, and community participation" (Indiana University, 2018).

Transition services:

- a) Transition services means a coordinated set of activities for a student with a disability that-
  - (1) Is designed within an outcome-oriented process, that promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation;
  - (2) Is based on the individual student's needs, considering the student's preferences and interests; and
  - (3) Includes-
    - (i) Instruction; (ii) Related services; (iii) Community experiences;
    - (iv) The development of employment and other post-school adult living objectives; and (v) If appropriate, acquisition of daily living skills and functional vocational evaluation.
- (b) Transition services for students with disabilities may be special education, if provided as specially designed instruction, or related services, if required to assist a student with a disability to benefit from special education. 20 U.S.C. 1402(34)(A) through (C). [20 U.S.C. 1401(34); 34 CFR §300.43]

Course of study: A detailed plan of the courses that secondary students will complete to prepare students to obtain the skills and prepare academically to achieve their

postsecondary goals. A course of study will specify what courses must be taken by students to complete their secondary education (Pacer Center, 2019).

Educational preservice preparation program (EPP): A university-based teacher preparation program which includes general education, subject-matter education (i.e. biology, math, special education, etc.), practicum field experience and/or student teaching (Morey et al., 1997). Upon completing the EPP, a person would be required to pass state-testing to become a certified/licensed teacher.

Licensure/credential: A state mandated criteria outlined by state legislation which a person must meet to become allowed to teach in a state (Morey et al., 1997). Licensure is typically aligned with a subject, grade level, or disability category.

#### Part B Indicator 13:

##### (1) Compliance for Indicator 13

“Percent of youth with IEPs aged 16 and above with an IEP that includes appropriate measurable postsecondary goals that are annually updated and based upon an age appropriate transition assessment, transition services, including courses of study, that will reasonably enable the student to meet those postsecondary goals, and annual IEP goals related to the student’s transition services needs. There also must be evidence that the student was invited to the IEP Team meeting where transition services are to be discussed and evidence that, if appropriate, a representative of any participating agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority.”(20 U.S.C. 1416(a)(3)(B))

##### (2) NTACT Checklist for Indicator 13 (see Appendix C)

OSEP approved measurement instrument developed by NTACT which may be used to monitor all compliance requirements of Indicator 13.

## **CHAPTER I**

### **INTRODUCTION AND OVERVIEW**

The purpose of the transition Individualized Education Program (transition IEP) is to support secondary students to identify, develop and refine their postsecondary goals based on their strengths, interests, preferences and needs and for annual goals, transition services and activities be thoughtfully planned to support students to achieve their postsecondary goals (20 U.S.C. 1416(a)(3)(B)). The Individuals with Disability Improvement Education Act (IDEA, 2004) mandated that secondary education provide transition services and activities to all students with disabilities, who are 16 years old and above, to develop skills and experiences for students to achieve their postsecondary goals for employment, education/training, and if applicable, independent living. By focusing on students' postsecondary outcomes, it was anticipated that transition-age youth would gain the secondary training and skills needed to be successfully employed in a career, complete postsecondary education or training, and have the independent living skills to be active community citizens. For quality transition IEPs to be developed and implemented, professional development training has been an essential part of special education districts' efforts to comply with IDEA (2004). Although professional development of special education teachers may not relate directly to improved postschool outcomes, compliant transition IEPs will at least provide the student and IEP team a goal-directed plan with aligned transition services and activities which can guide purposeful secondary programming based on the student's strengths, interests, preferences and support needs.

The continued challenges of improving the postsecondary outcomes for students with disabilities has been a catalyst for strengthening the federal legislation addressing transition. The national employment rate of people with disabilities continues to lag behind their non-disabled peers. According to the Office of Disability Employment Policy (ODEP), 16-19 year-old young adults with disabilities employment rate is 16.6% compared to their non-disabled peers at 29.9% (2018). As youth age, the discrepancy between employment rate increases. Young adults with disabilities ages 20-24 years old are employed at 31.6% compared to 65.0% of their non-disabled peers. The Bureau of Labor Statistics (BLS) echoes this discrepancy. According to the BLS, the 2017 unemployment rate for youth ages 16-24 was 4.2% but the unemployment rate for youth with disabilities was nearly double at 9.2% (2018). The number of people employed further highlights the disparity between people with and without disabilities. While 73.5% of non-disabled adults ages 16-64 were employed in 2017, only 29.3% of people with disabilities worked. When employed, the part-time employment rate for adults with disabilities is 20.2% which likely translates to many people with disabilities remaining on entitlement programs and living in poverty (BLS, 2018).

Upon further data analysis, completing high school and some level of postsecondary education/training impacts the employment rate of transition-age youth. Results of the National Transition Longitudinal Study 2 (NTLS2: Newman et al., 2011) of youth with disabilities, showed that youth who did not complete high school had an employment rate of 38.1% when interviewed, compared to 53.9% and 57.7% of youth with disabilities who had completed high school or some postsecondary education, respectively. Youth with disabilities who completed postsecondary education had an

employment rate of 83.2% when interviewed. While postsecondary education and training may have provided marketable work skills and improved the youth's ability to obtain employment, the data also revealed that young adults with disabilities may have the ability to get a job, but they struggle to maintain employment. The NTLS2 data revealed that 92.4% of respondents had been employed since high school, but at the time of the interview only 57.7% were actively employed (Newman et al., 2011, p. 57). For adults 5-8 years post high school, 92.7% had been employed, but only 59.1% were employed at the time of the interview (Newman et al., 2011, p. 57). Secondary schools often focus on pre-employment skills training through work experiences and pre-employment transition services through vocational rehabilitation, but job retention skills should also be taught to improve young adults' long-term employment success.

As noted above, postsecondary education may develop skills and abilities essential for transition-age youths' employment. The National Center for Education Statistics (NCES) indicated more students with disabilities are currently attending postsecondary education than in the past. NCES reports on average 11.1% of the 20.0 million college students disclose having a disability (2019). According to the NTLS2, of the 4,810 transition-age youth interviewed, 60% had attended postsecondary education during the eight years after completing high school (Newman et al., 2011). However, the NTLS2 findings showed that college students often do not acknowledge their disability or disclose their disability, and when they do, many students do not access accommodations. Only 28% of students disclosed their disability to the postsecondary institution with 19% receiving accommodations (Newman et al., 2011). Similarly, in a study of 1,223 college students, 8% (n=98) reported having a disability, and of those students, only 20% (n=20)



reported contacting the college's disability services office for accommodations (Schelly et al., 2011). While students may disclose their disabilities and be determined eligible for services under Section 504, the responsibility remains on the students to understand their disability, how it impacts their learning, and what accommodations are needed to access the college curriculum (Shaw, 2011). Without secondary students being taught about their disability and how specific accommodations support their academic success, students may not realize the importance of disclosing their disability and the benefit of accessing their accommodations in postsecondary settings. Self-advocacy skills curriculum such as the self-directed IEP (Martin et al., 1996) include facilitation activities to guide students' self-discovery of their disability and their accommodation needs. Reiterating the importance of self-advocacy skills, Test et al., (2009) identified self-advocacy as a predictor for postsecondary employment. Secondary educators should offer students opportunities to learn and practice self-advocacy skills in academic, employment, and community settings.

The research clearly showed the need to improve postsecondary outcomes for students with disabilities. This research data became a catalyst for the federal government's implementation of compliance requirements to ensure that special education districts were complying with IDEA (2004). The U.S. Department of Education, Office of Special Education Programs (OSEP) developed Part B Indicator 13 to hold states and local districts accountable for the transition IEP requirements of IDEA. All states' local education agencies (school districts) must be 100% compliant for Indicator 13 (OSEP, 2019a). Part B Indicator 13 compliance reinforced the necessity and

urgency of implementing transition IEPs for students 16 years of age and older. Part B compliance requires that the:

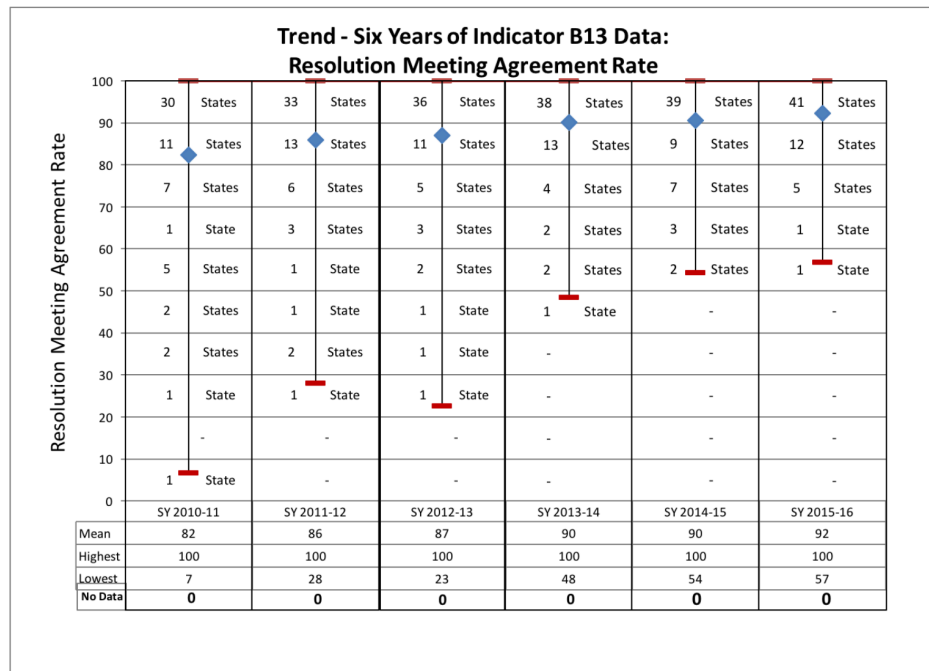
“Percent of youth with IEPs aged 16 and above with an IEP that includes appropriate measurable postsecondary goals that are annually updated and based upon an age appropriate transition assessment, transition services, including courses of study, that will reasonably enable the student to meet those postsecondary goals, and annual IEP goals related to the student’s transition services needs. There also must be evidence that the student was invited to the IEP Team meeting where transition services are to be discussed and evidence that, if appropriate, a representative of any participating agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority.”(20 U.S.C. 1416(a)(3)(B))

OSEP requires an annual compliance report which includes Indicator 13 from each state and U.S. territory. This report requires states to monitor transition IEPs to determine compliance (OSEP, 2019a). As shown in the Figure 1 from the Indicator 13 Reports, while there has been a steady improvement in compliance, there continues to be large discrepancies between states on their Indicator 13 compliance (OSEP, 2019a, p. 81). Although the federal government requires compliance, OSEP does not mandate how states monitor compliance. The variations in monitoring procedures are a limitation to the reports’ validity. For example, in the last OSEP report of 2015-2016, 48% of the states sampled transition IEPs across the state, 17% of states used a census, and 35% of states did not report how transition IEPs were identified for monitoring (OSEP, 2019a, p. 80). The variations in monitoring procedures continues with the transition IEP checklist used to determine compliance. For example, in 2015-2016, states reported using various monitoring checklists with 35% using the NTACTION checklist (see Appendix C), 3% using an adapted NTACTION checklist, 5% use a state-developed checklist and 54% of states did not identify what tool was used to monitor transition IEPs (OSEP, 2019a, p.79). In

addition, the final compliance report is also based on a “resolution meeting agreement rate” between OSEP and the individual state’s department of education (OSEP, 2019a, p.81). Therefore, the variations within the sampling procedure, measurement tool, and reporting procedures are a limitation to the validity of the report. Based upon these limitations, there is the potential that the need for professional development of special education teachers to write compliant and effective transition IEPs to be unknown. Currently, NTACT indicates that no data are collected on how states conduct [professional development] training and monitoring (C. Fowler, personal communication, September 28, 2018). Each state determines the appropriate professional development training for secondary teachers to ensure compliant transition IEPs.

**Figure 1**

*National Indicator 13 Compliance Statistics*



*Note:* Taken from Office of Special Education Programs. (2019b). Retrieved from <https://www2.ed.gov/programs/rsa-ntact/funding.html>.

Contributing to the need for professional development training on transition IEPs is the lack of special education teachers' transition preparation in educational personnel preparation programs (EPP). One emerging theory is that the lack of teachers' transition preparation and their lack of transition competency is contributing to the students' poor postsecondary outcomes (Morningstar & Benitez, 2013; Morningstar et al., 2018). Pre-service special education programs are key to improving teacher transition competencies which may result in students' obtaining their postsecondary goals (Morgan et al., 2014).

A reflection of the limited preservice instruction on transition is found in research of special education teachers developing and implementing transition IEPs. Although IDEA (2004) requires all secondary special education teachers to implement transition IEPs for students on their caseloads over the age of 16 years, Morningstar and Benitez (2013) found that special education "teachers of students with intellectual disabilities were more likely to perform transition competencies" than special education teachers of students with learning disabilities (p. 56). While transition services and activities preferably occur in a general education setting, the special education teacher of students with learning disabilities should be actively playing a role in transition planning, ensuring the transition IEP goals are being met, and that transition activities are occurring. Researchers determined that the number of transition-related courses and hrs of transition-related professional development were predictors for secondary special educators implementing transition services and activities.

While a special educator's transition competency is key to writing and implementing compliant transition IEPs, under half of the universities who participated in a national study offered even one secondary transition course (Morningstar et al., 2018).

To evaluate the amount of transition instruction in college programs, Morningstar et al. surveyed 140 universities' EPP. Results indicated that only 46% (n=67) of respondents required a transition course for graduation. Of those programs, fewer (n=41) required a transition course within their credential program (Morningstar et al., 2018, p. 9). These results indicate it is possible for special education teachers to obtain licensure with no more than limited knowledge regarding transition competencies, evidence-based transition practices, and/or the predictors for improving postsecondary outcomes for youth with disabilities. If special education teachers are not receiving the preservice instruction in transition to achieve required competencies, professional development is necessary. The research findings indicate a need for professional development for all secondary special education teachers to (a) understand the mandate of IDEA (2004) for secondary transition, and (b) gain the transition competencies to write and implement compliant transition IEPs which ensure secondary students' preparation to achieve their postsecondary outcomes for employment, education/training and independent living. The transition IEP should clearly delineate why, what, and how secondary education is supporting the student to identify and refine their postsecondary goals and develop the skills needed to achieve those goals through a variety of academic and community experiences. The Part B Indicator 13 compliance requirement provides the legal framework to develop and implement the transition IEP with the expectation it will improve the postsecondary outcomes of students with disabilities.

This dissertation research study was based on the premise that students' postsecondary outcomes would be improved if they are supported and guided by quality transition IEPs and the individual students' postsecondary employment,

education/training, and if applicable, independent living goals. The literature identified the need for ongoing professional development in transition IEPs. Multiple researchers have recommended conducting research to identify the most effective and cost-efficient means for delivering professional development to secondary special educators (i.e. Doren et al., 2013; Morgan et al., 2014; Morningstar et al., 2008; and Morningstar & Benitez, 2013). This study's purpose was to determine the current professional development practices, the internal monitoring processes, and the impact of professional development on transition IEP compliance in special education districts across the U.S.

The research questions (RQ) addressed in this study are listed below:

RQ 1. What are the characteristics of the professional development being provided to secondary special education teachers on developing compliant transition IEPs?

RQ 2. How are professional development opportunities similar or different for special education districts in rural, suburban, and metropolitan areas?

RQ 3. In what ways are special education districts conducting internal monitoring to ensure transition IEP compliance?

RQ 4. How are internal monitoring processes similar or different for special education districts in rural, suburban, and metropolitan areas?

## Summary

This chapter provided the context of the proposed research study, the purpose statement and research questions, and definitions of key terms which will be found throughout the proposal document. Chapter II includes a literature review of key components of this study including EPP in transition, state licensure requirements, and professional development training on transition and/or transition IEPs. Chapter III focuses the selected research design, the researcher's rationale for the design, and the methodology of explanatory sequential mixed methods. The chapter will also include a summary of the survey's development and the relevant findings from a pilot study conducted in Utah as development for this proposal. Chapter IV provides the results of the research study for each variable outlined in Chapter I. This paper closes with the discussion and conclusions from the research study in Chapter V.

## **CHAPTER II**

### **LITERATURE REVIEW**

The purpose of this literature review was to highlight the research related to writing compliant transition IEPs. The literature search began by identifying the two main sources of records related to developing secondary special education teachers' skills in write compliant transition IEPs. First, undergraduate special education programs are preparing secondary educators on IDEA 2004 and the Part B Indicator 13 compliance components. Therefore, research articles on preservice education preservice programs in transition was included in the literature review to determine if there was a gap in new teacher's skills to write compliant transition IEPs. Second, professional development is conducted with licensed secondary special education teachers to maintain proficiency in writing compliant transition IEPs and to fill any gaps in new teachers' undergraduate education preservice programs. Therefore, articles on professional development in writing transition IEPs or any component of a transition IEP was included in the literature review.

#### **Methodology**

The foundation of this literature review's methodology was based on Participants, Intervention, Criteria, and Objective (PICO) criteria as described by Liberati et al. (2009). Those criteria were (a) Participants - secondary special education teachers, (b) Intervention – professional development/education preparation programs, (c) Criteria – qualitative and quantitative research published in peer reviewed journals, (d) Objective – identification of effective professional development approaches for increasing secondary special educator skills in writing transition IEPs; and identify any gaps in undergraduate



education preservice programming that would indicate a need for professional development.

Peer-reviewed journal articles since 2004 were searched. This year was selected because IDEA was approved in 2004 and the 100% compliance mandate for Part B Indicator 13 became effective on July 1, 2005. Therefore, any reviewed research on transition needed to include the IDEA 2004 revisions and the transition requirements.

### ***Database Search***

This student researcher conducted the literature search and coding with support from two additional doctoral students in the Disability Disciplines Program. One of the doctoral students conducted database searches in Education Source, ERIC, EBSCOhost, PsychInfo and Google Scholar. Search terms used with each data base included a combination of “Individualized Education Program” OR IEP, “Professional Development” OR PD OR train\* AND transition, secondary special education and transition, compliance AND transition, IEP AND “postsecondary goals”. Using the researcher to researcher method, the student researcher contacted Dr. David Test and Dr. Valerie Mazzotti, respected national transition researchers, for recommendations of articles and/or researchers. Drs. Test and Mazzotti recommended research by five researchers: Morningstar, Flannery, Lombardi, Rowe and Desimone.

### ***Screening Procedures***

The student researcher screened the articles’ titles and abstracts regarding the articles’ eligibility for inclusion in the literature review. The inclusion criteria for the review included (a) quantitative or qualitative research, (b) participants were secondary special education teachers or university programs for secondary special education

teachers, (c) published in peer-reviewed journal, (d) participants were located in the United States, (e) research conducted after 2004, and (f) addressed training for writing IEPs or a transition component of the IEP.

The two additional doctoral students independently confirmed the articles that had been appropriately excluded or included in accordance with these criteria by reviewing the titles and abstracts. The three doctoral students compared their lists of eligible articles and computed agreement rates of 100%.

Following the selection of the studies, the student researcher conducted an ancestral search on the reference lists for each selected article. No additional new peer-reviewed articles were found through this method. In an attempt to identify additional information sources, the student researcher also conducted forward searches of the selected articles using Google Scholar and searched for articles on researchgate.com. Both of these methods failed to generate additional articles. (see Figure 1)

### ***Coding Procedures***

The student researcher did the full-text coding of the qualitative articles. The two additional doctoral students double-coded the full-text of the quantitative articles to determine further eligibility for inclusion in the literature review. The coding form was created using Microsoft Excel® with 19 coding categories for each article. Excel® was the chosen software because it was familiar with each researcher and would increase their efficiency in coding. The coding categories included: Author's last name/year of publication, article title, coder's initials, research question(s), sample size, ages/grades taught by special education teacher(s), instruction method of professional development, location of training, research design, sampling technique, independent variable,

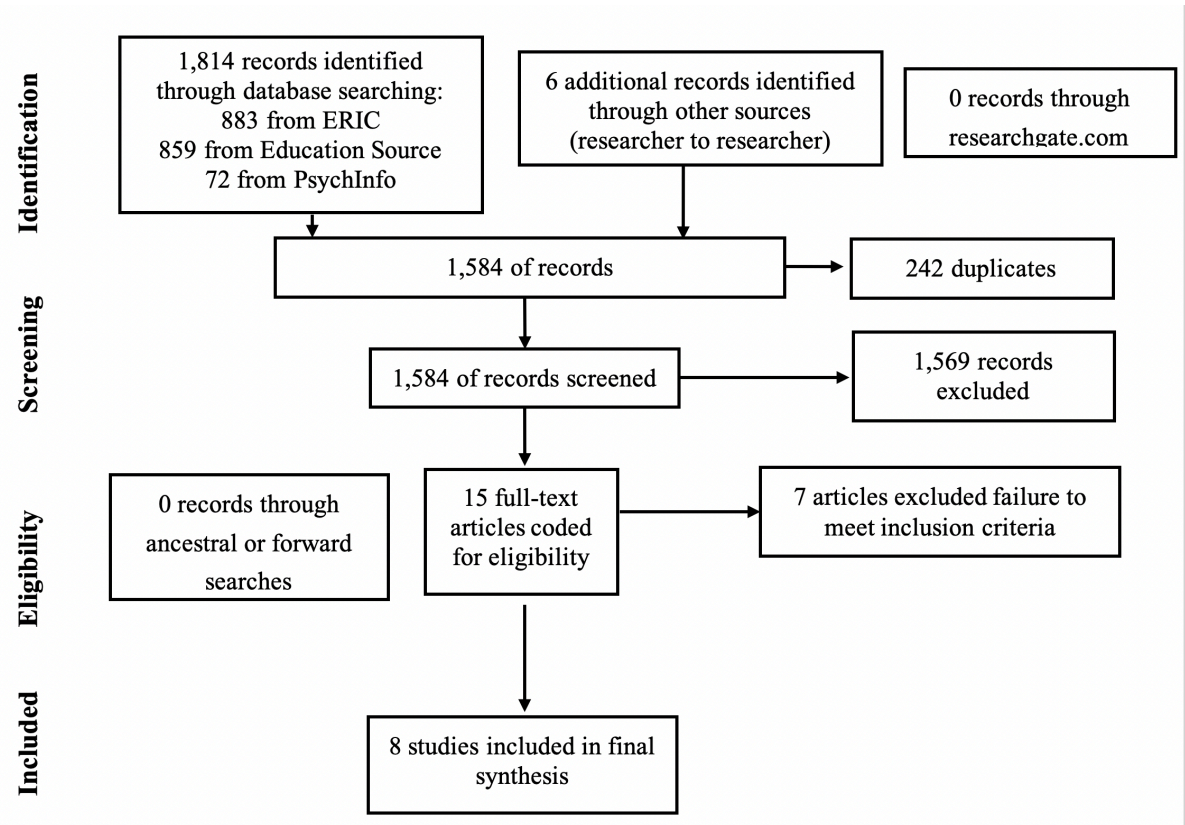
dependent variable, data collection technique, threats to validity, data analysis methods, and author's conclusions.

### ***Selection Process and Outcomes***

Figure 2 is a flow chart diagram that illustrates the method used to identify journal articles to be included in this literature review. The literature search process using ERIC, Education Source, Psych Info and Google Scholar returned 1, 814 peer-reviewed journal articles. The articles were screened using Zotero software for duplicates, leaving 1,584 to be screened. Six additional articles were identified using the researcher-to-researcher search method. However, these articles were duplicates of those found during the literature search process. After the journal article titles and abstracts were screened for the study's inclusion criteria, 15 studies remained. During full text coding, seven of these articles were excluded by the coders because the full-text article review identified them as not meeting the inclusion criteria. Reasons for the exclusion of the articles included not focusing on professional development or undergraduate education of secondary special education teachers and taking place outside of the United States. An ancestral and forward search was completed on the five articles, which resulted in no additional articles meeting the inclusion criteria. Confirming the literature review identified all relevant peer-reviewed articles, the student researcher reviewed a peer-reviewed annotated bibliography on transition-focused professional development (Holzberg et al., 2018) in which no additional articles were included which met the inclusion criteria for this literature review.

**Figure 2**

*Illustration of Literature Review Selection Process*



**Summary of Literature**

A secondary special education teacher’s skill in writing compliant transition IEPs integrates three key areas in secondary special education: university transition EPP, the individual state licensure requirements, and PD for licensed secondary special education teachers. This literature review demonstrates the complexity of the relationship between university EPP, state licensure requirements, and PD. For example, when IDEA 1990 was implemented, teachers who were licensed prior to 1990 required PD to understand the transition planning requirements. Similarly, in 2004 when Indicator 13 compliance was

mandated, licensed secondary special education teachers needed PD to learn the required components of a transition IEP as well as how to infuse transition into their curriculum. As a result of mandated policy changes, university EPP modified their special education curriculum to provide instruction to university students on transition planning, transition services and activities, as well as, transition IEP compliance requirements. The university EPP modifications ensured that new graduates would enter the workforce with adequate knowledge to meet the federal mandates for transition. In order to encourage university EPP to include transition and ensure special education teachers possessed transition knowledge, multiple states offered certification in transition (Simonsen et al., 2018).

While SEA and LEA PD have been an integral part of quality transition planning and services and meeting the transition IEP compliance requirements (Indicator 13), the paucity of research in transition PD highlights the need for studies that identify the current state of PD on transition and describe how to write transition IEPs. Therefore, this literature review is divided into two sections related to secondary special education, EPP and PD. The EPP subsection also contains the interdependent topic of state licensure requirements.

### ***Educational Preservice Preparation Programs (EPP)***

Transition researchers highlighted the importance of university EPP to provide undergraduates the knowledge, evidence-based practices, and competencies to be special educators working with transition-age youth (i.e. Benitez et al., 2009; Lubbers et al., 2008; Maheady et al., 2016; Morningstar & Benitez, 2013, etc.). Three key studies summarized in the following paragraphs show the interconnected relationship between a

states' requirements for secondary special education teachers in transition, university EPPs, and special education teachers' transition competencies.

In 2018, Morningstar et al. conducted a study to determine the level of educational preparation of special education teachers by surveying university programs' overall transition coursework. Researchers developed an online survey which aligned with the Council for Exceptional Children (CEC) standards for transition and the evidence-based predictors identified by the NTACTION. The survey's social validity was confirmed by piloting the survey with five university transition researchers with revisions made based on their feedback. The final survey consisted of three parts. The first section included 61 questions regarding demographics of the respondents and their universities' EPP. The second section asked respondents to evaluate the EPP for providing the needed skills and competencies to students on a 5-point rating scale ranging from (1) strongly disagree to (5) strongly agree. In the third section respondents rated the various transition skills on their level of importance for special education teachers on a 5-point rating scale ranging from (1) very unimportant to (5) very important. In the survey's final section, respondents indicated if and by what method their EPP provided instruction on seven transition content areas. Researchers emailed the EPP coordinators, Department Chairs or Deans of Education to participate in the online survey from a sample of 688 college programs offering special education EPP. All initial contacts were asked to forward the information to someone else within their university if they were unable to answer the survey questions. From June – September 2016, completed surveys were collected from 145 education faculty who represented 140 universities from 43 states, Washington D.C. and Puerto Rico. The resulting response rate was 23.5% (Morningstar et al., 2018, p.7).

Of the responding university EPPs, 45% reported faculty who specialized in transition education or transition research (Morningstar et al., 2018, p. 9). Few respondents indicated that their EPP had received federal funding for transition. For example, only 13.2% received transition personnel preparation grants in the past and 7.6% currently held transition personnel preparation grants (Morningstar et al., 2018, p. 9).

Although only 7.6% of EPP respondents indicated their state had a transition endorsement, specialization or credential, 46.2% (n=67) required their students to take a transition planning course. Of the EPP requiring a transition planning course, 61% (n=41) required a transition planning course within their credential program. This datum sparked the specific question, do university EPPs' curriculum included content on developing and writing Indicator 13 compliant transition IEPs? Unfortunately, specific research on transition course content was not found after an extensive search of the literature. Therefore, the student researcher delved deeper into the research findings of Morningstar et al. (2018) to identify research questions related to transition IEP compliance components.

Morningstar and her colleagues (2018) surveyed university EPPs on 18 transition IEP-related items (pp. 13-14) which aligned with the IDEA 2004 transition definition and the Part B Indicator 13 compliance requirements (OSEP, 2019a). The Educator Preparation Program Transition Content Survey responses resulted in neutral results (neither unimportant or important) for 32/34 transition content items including 17/18 transition IEP items. Positive results indicated three items were important to EPP, including promoting active involvement of families during transition planning which received an average rating of 4.08 (with 1 being not very important and 5 being very

important) with a standard deviation of 0.88. While family attendance at conferences is a predictor for improving postsecondary outcomes (Mazzotti et al., 2016), it is not an Indicator 13 compliance requirement (OSEP, 2019a). Similarly, one item related to Indicator 13 compliance was rated as important - including the student, family, team members and other related agency members in the transition planning process which ranked as 4.10 ( $SD=0.86$ ) (NTACT, 2012). However, the other 17 transition IEP compliance related items were rated neutral by EPP. For example, providing referrals for students/families to postsecondary and community services averaged 3.18 (out of a 1-5 score with 3 being neutral); utilizing a variety of transition assessments results to develop transition plans averaged 3.48 ( $SD=1.09$ ), and using transition assessment results to identify supports needed in postsecondary settings averaged 3.48 ( $SD=1.11$ ). Similarly, the other transition items which were not related to transition IEP compliance received neutral ratings such as using transition evidence-based practices and curricula which averaged 3.67 ( $SD=1.07$ ) (Morningstar et al., 2018, pp. 13-14).

Based on their findings, Morningstar et al. (2018) recommended university EPPs increase their transition coursework. The researchers argued that by offering additional coursework and self-evaluating their programs for improvement, the university EPP would increase teachers' knowledge and increase their self-confidence in transition thereby increasing the frequency that transition services and activities are offered to secondary special education students (Morningstar et al., 2018, p. 11).

The authors of the study recommended readers use caution when generalizing the study's findings to all university EPP. The self-report research design has potential for bias for positively skewed data (Morningstar et al., 2018). Because respondents are



biased and see themselves and their programs more positively than an unbiased respondent, self-report designed studies often have more positive results or positive skew in their data (Boyle et al., 2005, pp. 21-22). However, this study's findings did not demonstrate an overwhelming positive skew in the data. Rather, the majority of the responses in the study were neutral. The neutral ratings of the transition IEP related items demonstrated that responding university EPPs may be challenged to integrate transition IEP requirements into their curriculum and do not consider transition coursework a high priority.

While Morningstar et al. (2018) revealed a challenge of EPP integrating transition into their curriculum, Simonsen et al. (2018) focused on the relationship between university EPP and state certification requirements. Researchers conducted a systematic state-level policy analysis to identify the requirements in university EPP related to secondary special education transition. A five-step method was used to collect data which included "(a) searching state education agency (SEA), state vocational rehabilitation agency and other legislative websites for relevant licensure policies; (b) categorizing policy statements based on preestablished criteria; (c) communicating directly with SEA and VR directors to verify the information collected; (d) developing a current snapshot of state credentialing policies related to secondary transition; and (e) analyzing changes to policies since the last investigation in 2013" (Simonsen et al., 2018, p .29). Data were collected from all 50 states, Washington D.C., and seven U.S. territories. This student researcher has only included analysis obtained from the SEAs due to its relevance to this proposed study.

Simonsen and colleagues (2018) randomly assigned website data collection. SEA websites and state administrative codes were searched to “identify the transition-related credentials, standards, and course requirements for secondary special education teachers” (Simonsen et al., 2018, p. 29). The collected information was placed into a Microsoft Excel® spreadsheet. Interrater reliability was performed by double-coding the first 12 states’ data. Then, researchers met to come to consensus on the collection and coding procedures. The final interrater reliability was 96.3% for the 650 items collected (Simonsen et al., 2018).

A follow-up online survey was emailed to SEAs’ secondary transition personnel to verify the website data. The email included a cover letter outlining the study’s purpose, a link to the data collected for their state, and a request for a contact name for any additional information. Verification and/or revisions to the data were made based on SEA’s feedback. Reminder emails to complete the survey were sent to non-responders 1 month after the initial email. A final reminder was sent 2 months after the initial email. If additional clarification or information was needed, the researchers contacted the state transition staff directly. Data verification occurred over a 4-month period, with only 16.7% (n=7) of respondents providing revisions. The survey response rate was 76% (n=44) with the states response rate was 84% (n=42) (Simonsen et al., 2018, p. 30).

Descriptive data analysis of states’ policies identified three themes: (a) secondary transition credentials, (b) professional standards, and (c) college courses. Trends in policies were identified by comparing state-by-state policy data. The study’s outcomes identified eight states with special education/licensure in transition. However, only Michigan required the transition-related credential in order to work in a transition

coordinator position. The majority of states did not track the credentials of their transition professionals or specify their qualifications. Unfortunately, none of the states' administrators had data regarding how many secondary special education professionals possessed a transition credential (Simonsen et al., 2018, p. 33).

Although few states required transition licensure, a majority of states (n=33) possessed transition-related standards and/or preservice coursework in transition (Simonsen et al., 2018, p. 33). Despite the transition standards, only Washington D.C. and Massachusetts required all special educators to complete transition-related coursework. Although other states had less stringent requirements, there were examples of transition EPP being emphasized. For example, Utah, South Dakota, and Louisiana required transition-related coursework for some special educators; 29 states had transition-related state professional standards for secondary special education licensure; and 11 states had transition-related professional standards for all special educators (Simonsen et al., 2018, p. 34).

Simonsen et al. (2018) made two key recommendations related to special education EPP. The first recommendation was for state policy changes to increase the number of states offering state transition licensure. The researchers argued that offering a state transition licensure would incentivize the universities to strengthen their special education EPP in transition. Their recommendation indicated a belief that policy changes would have a greater impact on university EPP than grassroots call for better prepared secondary special education teachers. Because states have not documented the employment of teachers with a transition licensure, it is unknown if SEAs and LEAs benefit from transition licensure by having higher transition IEP compliance rates or

higher postsecondary outcomes for students with disabilities (Indicator 14) than SEAs and LEAs who do not.

Simonsen and her colleagues (2018) recommended future research on the type and scope of PD for licensed secondary special teachers to determine if there is a difference between states based on the EPP requirements. The differences between states may be found in the amount, type, and provider of PD based on the transition licensure requirements. For example, a special education teacher with transition licensure may have the knowledge and expertise to provide effective transition PD; whereas a LEA in a state without licensure may require outside consultants to provide effective transition PD. The difference in the type and amount of PD may impact the budgets of both SEA and LEA. During an era of frequent education budget cuts, this may have a large impact on a SEA and LEA.

A third study emphasized the need for university EPP and PD in transition due to special education teachers' lack of confidence in their transition competency and its impact on transition services (Morningstar & Benitez, 2013). The study's purpose was to identify the predictor variables of professional development for secondary special education teachers to implement transition planning and services. Morningstar and Benitez developed the Secondary Teacher's Transition Survey to determine special education teacher's preparation for and frequency of performing 46 transition competencies for a larger study on teachers' perceptions of their transition competencies (Benitez et al., 2009). The researchers used secondary data analysis to identify predictor variables for implementing transition services rather than the frequency of providing those services. The Secondary Teacher's Transition Survey (STTS) was developed based

on the transition requirements in IDEA 2004, the special education and transition teacher standards and current topics in special education such as cultural diversity and assistive technology. The instrument was also based on a literature review of effective transition practices, the special education EPP transition curriculum and teachers' perceptions of their provision of transition services from which Morningstar and Benitez identified 46 competencies in six domains: Instructional Planning, Curriculum and Instruction, Transition Planning, Assessment, Collaboration, and Additional Competencies (Morningstar & Benitez, 2013, p. 54).

The STTS was divided into two sections. The first included demographic information including details regarding teachers' preparation and experience in teaching transition in school and community settings. The second section of the survey asked respondents to rate their level of preparation for and the frequency in which they performed the 46 transition competencies. Respondents rated items on a 4-point rating scale regarding for their preparation with 1 being very unprepared and 4 being very prepared. A high reliability of these results was obtained with a Cronbach's alpha coefficient of .96 and .94, respectively for the two sections. The internal reliability also demonstrated good to high reliability with an alpha coefficient range of .83 to .95 (Morningstar & Benitez, 2013, p. 54).

The participants' selection process began with a database of 35,000 secondary special education teachers. From that population, approximately 6,200 special education teachers were randomly selected who taught students with learning disabilities, intellectual disabilities, emotional disabilities, and non-categorical disabilities. Then, a stratified random sampling method was used to recruit 1,800 secondary special educators

identified as teaching students with learning disabilities (67% participants), intellectual disabilities (11% participants), emotional disabilities (11% participants), and noncategorical disabilities/resource room (11%) to participate in the study (Morningstar & Benitez, 2013, p. 53).

Survey packets were mailed to 1,800 secondary special education teachers along with self-addressed postage paid envelopes. Follow-up postcards were sent to non-responders. After 20 days, a second survey was mailed; and, after 2 months a third mailing to non-responders.

Of those recruited, 86 participants were not special educators, therefore, the final participant pool was reduced to 1,714. With a response rate of 33%, 557 secondary special educators from 31 states participated in the study with half of the respondents being from rural areas.

Analysis of the demographic data revealed that almost half of the respondents had not completed any EPP transition coursework. On average, the respondents had received 28 hrs of PD with 75% of respondents indicating they had completed between 1-50 hrs of professional development, and only 14% responded never receiving any transition professional development. Reiterating the importance of special education teacher's education and training, this study found a statistically significant correlation between the amount of preparation through transition college courses, staff development hrs, and certification with the frequency in which they performed the transition competencies. A regression analysis of the data determined that the predictors for implementing transition services and activities were the number of transition courses completed in EPP ( $\beta=.27$ ,

$p < .001$ ), number of hrs of transition professional development ( $\beta = .28$ ,  $p < .001$ ), and certification status ( $\beta = .1$ ,  $p = .03$ ) (Morningstar & Benitez, 2013, p. 57).

The researchers acknowledged four study limitations which may hinder the generalizability of their findings. First, this was a self-report survey design. As previously mentioned, the self-report results may have not been accurate due to personal bias causing a positive skew. Second, researchers were concerned that two questions required respondents to recall how many classes and hrs of PD they had completed in the past. Because these are historical data rather than collected immediately after a training, the data may not be accurate. The third limitation was the low response rate of 33% with teachers from only 31 states which limits the generalizability of the results. The final limitation was the researchers' concern that 95% of respondents possessed the appropriate certification which is not representative of the overall population. Currently, due to a shortage of special education teachers many special education teachers are not certified and have limited certification status (Morningstar & Benitez, 2013). While study limitations existed, the paucity of transition research and the statistically significance results reiterate the importance of this study's findings.

Morningstar and Benitez (2013) made two overarching recommendations addressing the transition curriculum of EPP and PD. First, university EPP were recommended to incorporate transition content for "highly effective and ongoing professional development" (Morningstar & Benitez, 2013, p. 60) that was based on a comprehensive system training and technical assistance that may be delivered in multiple formats. Second, researchers recommended shifting from the traditional workshop and to implementing a model in which (a) teachers learn specific transition content and how to

infuse that content into their secondary classes and activities; (b) a hybrid training model be used which includes self-directed learning, face-to-face instruction and online modules, and (c) time allocated during the training for teachers to infuse the content in their lesson plans and class activities (Morningstar & Benitez, 2013, p. 61).

### ***Professional Development Effectiveness***

Despite the changes in federal legislation and the mandate for transition IEP compliance, a national analysis of PD training and its effectiveness for secondary special educators for writing compliant transition IEPs has not been conducted (Fowler, personal communication, November 2018). However, researchers have conducted regional studies to identify the amount of transition PD provided (Lubbers et al., 2008) and the effectiveness of PD delivery method for improving compliance of a transition IEP component (Doren et al., 2013; Flannery et al., 2015; Lowman, 2016). Within this subsection, the paucity of research on PD on writing compliant transition IEPs is evident. After an extensive literature search, only the following articles have been published since 2004 which addressed transition IEPs or transition IEP compliance components.

Lubbers et al. (2008) conducted a statewide research study in Florida to determine the professional development and technical assistance needs of secondary special education teachers in transition. The researchers developed a survey with expert input from the Florida Transition Task Force and key transition stakeholders (including individuals with disabilities, family members, waiver services, education, and higher education). Researchers made revisions based on expert feedback. The three survey sections were (a) participant demographics and position; (b) curriculum regarding



transition, planning and transition training; and, (c) qualitative responses on barriers, effective transition practices and solutions.

Researchers performed a stratified random sampling of 2,000 secondary special education teachers from a list from the Florida Department of Education comprised of one-third middle school and two-thirds high school special education teachers. In addition, 70 transition contacts from each of the 67 Florida LEAs were included in the participant sample for a total sample population of 2,070. The researchers mailed the survey with a cover letter introducing the study's purpose and a return prepaid envelope. District administrators received separate letters notifying them of the statewide study. Researchers mailed a follow-up postcard reminder and collected data/responses over a 4-month period. Researchers collected data from 63 of the 67 Florida school districts; however, the overall response rate was 26% (n=533) with 59% of identified transition contacts responding (n=41). Although Florida has many rural areas, 70% of respondents were from large or very large LEAs (Lubbers et al., 2008, pp. 282-283).

Three independent reviewers analyzed the qualitative responses for categories, themes, and subthemes. The reviewers met to reach 100% consensus on all data. Reviewers conducted chi-square analysis on categorical data and Wilcoxon rank sum tests for ordinal and continuous variable. A priori statistical significance was established by researchers at  $p=.01$  (Lubbers et al., 2008, p. 283).

Approximately two-thirds of the high school educators and transition personnel responded that they had received training on developing transition IEPs, however, less than half of middle school educators indicated they had received similar training. The transition contacts, high school teachers, and middle school teachers were given

significantly different PD. For example, transition contacts averaged training on 7.9 topics, high school teachers averaged 3.7 topics, and middle school teachers averaged 2.2 PD topics ( $p < .0001$ ) (Lubbers et al., 2008, p. 284). The researchers noted that all of the training topics were related to transition IEPs but did not include training specifics in the article, so it is unknown whether the training topics were related to transition IEP compliance requirements. Lubbers and colleagues included respondent's quotes that suggested the teachers were not familiar with the transition IEP compliance requirements. For example, one respondent stated "Most, if not all of the students I work with, do not need transition services. So, I don't pursue information about them" (Lubbers et al., 2008, p. 287) clearly indicated that the teacher was not aware that transition is mandated for all students with IEPs not just some students with disabilities.

The authors identified multiple barriers to effective transition practices from their study. The authors' first concern was that secondary teachers rely on their EPP for their transition knowledge. Because Florida does not have transition credentialing, the first barrier was EPP and PD not providing sufficient transition knowledge. The authors highlighted other specific barriers which might impact a transition IEPs compliance. For example, failure of parents giving consent to refer a minor student for adult services; lack of available employment services and supports; or limited availability of services in rural communities (Lubbers et al., 2008, p. 289). However, no compliance data were reported in this study; consequently, it is unknown if the training and barriers identified impacted transition IEP compliance.

The researchers identified three limitations. First, the low response rate of middle school teachers to the qualitative questions was problematic. Second, the attrition rate of

respondents which researchers suspected was caused by participant fatigue, however, they did not provide the approximate time required to complete the survey. And finally, the researchers biggest concern and limitation was the respondents' overall lack of transition training that may have influenced teachers' abilities to accurately respond to the survey (Lubbers et al., 2008, p. 290). Regardless of the limitations, the researchers' findings identified a need for future transition PD, including writing compliant transition IEPs.

Lubbers and colleagues (2008) made two recommendations related to transition IEP compliance. First, they reported that future research was needed on the role of EPP and transition licensure in secondary special education teachers' transition knowledge. Second, future research should focus on transition PD to identify the effective methods for increasing transition knowledge of licensed secondary special education teachers (Lubbers et al., 2008, p. 290). While these recommendations address a gap in transition research, a quantitative study would evaluate the effectiveness of EPP and PD in transition, measure the extent transition barriers in Florida, and allow for disaggregation of data to specific transition IEP compliance or another area of interest.

Three studies, (Doren et al., 2013; Flannery et al., 2015; Lowman, 2016) evaluated the effectiveness of PD in meeting the compliance requirement for one component of a transition IEP. These studies provide the foundation for future researchers to build upon to develop evidence-based practices in PD for writing compliant transition IEPs. Lowman conducted a repeated measures research to identify the most effective PD training method for writing IEP goals and objectives with speech-language pathologists (SLPs). Lowman's specific research question was "Do three

different training methods, web-based only, workshop-only, and workshop followed by peer coaching, produce differential effects on the quality of standards-based IEP objectives developed by school-based SLPs?" (Lowman, 2016, p. 213).

Lowman's (2016) participants were a volunteer convenience sample of 49 SLPs from five different school districts. The SLPs averaged 12 years' experience with an average of 10 years in a school setting; all participants possessed master's degrees. Prior to the study, 48% (n=24) of the participants had received transition IEP training within an average of 5 years. The majority of the participants (57%) spent 3 hrs per week developing IEPs. The intervention (PD method) was randomly assigned with 14 SLPs who received web-based only training; 17 SLPs received workshop only training, and 18 SLPs received workshop plus online asynchronous peer coaching training.

All participants received the same content regardless of the PD method. The content related to transition IEP compliance included the providing knowledge and developing skills for using assessment data to develop standard-based IEP goals and objectives; and, writing Present Level of Performance (PLOP) which are the foundation for annual goals and objectives (Lowman, 2016). As previously mentioned, this study did not identify the participants who supported transition-age youth. However, this PD content is related to transition IEPs because the assessments would include age appropriate transition assessments and the transition IEP would include annual goals supporting the students transition services and activities (OSEP, 2019a, p.79).

For the first intervention, web-based only, participants were offered unlimited access for 2 months for online training, but no other support was provided. Participants had no face-to-face interaction with professional leading the PD in this intervention

method. For the workshop-only and workshop-plus-peer-coaching participants, the participants received a half-day training in their school district. The workshop was held in the morning with 4 hrs of training delivered by “PowerPoint lecture, group discussion, examples, case studies, presenter modeling and handouts” (Lowman, 2016, p. 214). The author did not specify who conducted the training. Not only did participants learn how to align communication skills with state standards, but they also learned data collection methods for developing PLOP and writing measurable annual goals and objectives. For participants receiving workshop-plus-peer-coaching, an additional hr of training was provided in the afternoon to teach the participants about peer coaching and how to provide constructive feedback. Participants also were taught how to log-in to the peer coaching website where feedback would be provided. The workshop-plus-peer-coaching participants were paired and could only provide feedback to each other. Participants were required to post a PLOP goal, and objective within 2 weeks of the initial training. By the third week, participants provided peer feedback between each pair. This schedule continued for the 2 months of the intervention.

Data collection occurred at four points during this study. First, pre-training data were collected by participants submitting PLOP, goals and objectives from three IEPs. Second, a 10-question content knowledge test was given to the three intervention groups with the web-only participants completing an online version and the workshop/workshop-plus-peer-coaching groups completing paper-pencil versions at the completion of the morning workshop. Third, 1 week after the workshop, all participants submitted a PLOP, goal and objective that had been written after the training. Finally, all participants

submitted three PLOP, goals and objectives at the end of the peer coaching intervention which would have been 2 months after the workshop intervention.

Data analysis was conducted by two graduate assistants. The researchers scored the PLOP, goals and objectives on three criteria:

1. The objective relates to the scope and sequence of state educational standards.
2. The outcome of the behavior is meaningful for improving the child's communication.
3. The objective includes a (a) behavior, (b) condition, and (c) criterion.

Interrater reliability was determined by a point-by-point agreement. Training and consensus building between the graduate assistants and the author occurred for the first 20 practice objectives and achieved 90% interrater reliability. The graduate assistants maintained interrater reliability for the remainder of the data with pre-training 91%, post-training 98% and post-coaching 94% (Lowman, 2016, p. 216).

Lowman (2016) conducted multiple data analyses of participant demographics, test scores, pre-training, post-training, and post-coaching scores between and within groups. The one-way analysis of variance (ANOVA) and post hoc analysis determined that the web-based only group had more years of experience working in a school than the workshop with peer coaching group ( $p=.006$ ), while the workshop only and workshop with peer coaching groups spent more time writing IEPs than the web-only group ( $p<.05$ ) (p. 216). A two-way ANOVA analysis with a post hoc analysis revealed the workshop only intervention group and the workshop plus peer coaching group had statistically significant higher objectives than the web-only group,  $p=.009$  and  $p=.003$ , respectively. However, there was no difference between the workshop only and workshop plus peer

coaching groups ( $p=.94$ ). Additional 3x3 two-way ANOVA without repeated measures determined there was no statistically significant difference between the three groups' pre-training data. While the workshop-only and workshop plus peer coaching showed statistically significant improvement from pre-training to post-training ( $p=.03$ ,  $p=.01$  respectively) and post-coaching ( $p=.05$ ,  $p=.001$  respectively) when compared to the web-based intervention group. However, there was no statistical difference between the workshop only and workshop plus peer coaching groups. Lowman double-coded the peer coaching feedback that was given during the peer coaching intervention during their pair exchanges. He discovered that there was a statistically significant difference between his ratings and the peer coaches' ratings. Therefore, Lowman hypothesized the peer coaching did not provide critical feedback needed to improve their outcomes more than the workshop only group.

Lowman's (2016) study revealed the PD delivery method does impact the effective implementation of knowledge when writing IEPs. As mentioned before, neither the secondary SLPs nor secondary IEPs were disaggregated from the elementary data, however, one would assume secondary SLPs were included since the authors indicated participants represented k-12. The study's findings indicated that web-only training was able to convey content (as shown by the post-training score), however, it did not have the same long-term impact on implementing the knowledge as the workshop method.

Lowman (2016) recommended that the PD delivery method clearly align with the desired outcome of the training. For example, if the goal was to raise content knowledge only, the web-based training resource may be an excellent option. Conversely, if the PD's goal was to change behavior of participants (i.e. improve quality of work or implement

knowledge) and a workshop included a clear content focus with applied learning opportunities, the workshop delivery may be the better PD delivery method. Lowman also recommended that a train-the-trainer model may have a greater impact than the workshop plus peer coaching.

Lowman's (2016) study had multiple limitations which included (a) the influence of previous knowledge of the participants impacting their scores, (b) follow-up not conducted beyond the coaching time period to determine if there was a long-term impact of the PD method, and (c) technology difficulties accessing the peer coaching website which may have caused participants to be disgruntled and/or limited their feedback. The results indicated a statistically significant difference in the implementation of PD content and improvement in IEPs. Although the researcher had anticipated continuous improvement from the workshop plus peer coaching intervention, data analysis also showed there was no statistical difference on the impact on writing IEP objectives between the workshop only and the workshop plus peer coaching interventions. One explanation was identified when analyzing the evaluation ratings of IEP objectives by the peer coaches' ratings and the researcher. There was a significant difference between the ratings with peer coaches and those of the researcher on the same IEP objectives. Peer coaches had not provided critical feedback for improving the IEP objectives, but instead offered praise and vague feedback. Thus, the peer coaching had not added to the participants' knowledge base nor had the coaches held their peers to a high standard of writing. Therefore, the study's findings make one question if peer coaching would improve writing IEPs if implemented correctly. If not, administrators would have to question whether the benefits of peer coaching are worth the financial investment. These



results demonstrated the importance of conducting research and disseminating information about evidence-based PD methods on writing transition IEPs. Special education administrators making PD decisions need to consider that the most economical (web-based PD) may not have an effective impact on the compliance transition IEPs over time.

Doren et al. (2013) conducted a study to “examine the effects of the impact of a professional development model on the quality of postsecondary goals while controlling for potential student and teacher-level correlates” (p. 216). Researchers had two research goals: (a) determine the impact of professional development on the postsecondary goals for employment and education/training in transition IEPs, and (b) determine if the teacher’s characteristics impacted the quality of their postsecondary goals.

The researchers recruited participants from one county in a Northwest state by contacting principals in five school districts. After principals signed letters of agreement, individual secondary special education teachers were sent recruitment emails. Follow-up emails were sent to non-respondents. If special education teachers showed interest, researchers emailed information regarding the study’s purpose, participant’s responsibilities, and consent forms were signed. Payment for substitute teachers was provided when teachers were out of their classroom for more than 3.5 hrs. Study participants included 18 secondary special education teachers from 12 high schools who were responsible for developing and writing transition IEPs. Of the 18 special education teachers ranging in age from 24 to 63 years old, 14 had masters’ degrees with teaching experience ranging from less than 1 year to 39 years. The PD intervention’s goal was to train secondary transition teachers on writing compliant transition IEPs whose content

aligned to support students' progress and/or attainment of their postsecondary goals. The foci of the approximately 18 hrs of PD occurring over the course of one academic year were on (a) transition IEP components; (b) planning strategies to develop postsecondary goals; and (c) research-based training methods to improve the special educator's performance (Doren et al., 2013, p. 216).

Researchers created a transition IEP coding manual based on The Transition Requirements Checklist and the NTACTION Indicator 13 Checklist. The coding manual included "operational definitions, sample IEP content, and a rating scale...[to evaluate] post-secondary quality" (OSEP, 2019a, p.79). National, state and local researchers and transition practitioners provided feedback and revisions on the coding manual. Researchers piloted using the coding manual to evaluate sample IEPs not included in the study. Piloting included weekly meetings to compare findings and reach consensus. Researchers continued piloting the coding manual until interrater reliability reached 90% agreement during their initial review of all postsecondary goals. All transition IEPs included in the study were double coded by two researchers. If interrater reliability fell below 90% on any transition IEP, the researchers met and resolved their difference at weekly meeting where all the researchers agreed (Doren et al., 2013, p. 218).

The PD intervention was provided throughout the academic school year. The PD intervention included: (a) an initial 2.5-day training; (b) 2 months later, a half-day extended practice session; (c) 1 month later, a 1.5 hr after-school session; (d) 1 month later, another 1.5 hr after-school session; and (e) 1 month later, a final 2.5 hr after-school session. The PD included a variety of delivery methods including: (a) small group, (b) ongoing practice, (c) active learning using problem-solving strategies, (d) connecting

teacher's prior experience with learning, and (e) PD learning communities. The initial 2.5-day training provided the foundation for all future PD and focused on the transition IEP development process, purpose of postsecondary goals and their relationship to course of study, PLOP, transition services, and annual goals, and the alignment of all components with the student's individual strengths, interests, and preferences.

Participants used PD content to evaluate one of their own IEPs and develop post-secondary goals for a variety of case studies. During the 1.5 hr after-school meetings, the researchers facilitated participants in a professional learning community model to identify their needs and transition IEP related-interests and problem-solve those issues through group discussion. The participants also continued to evaluate their transition IEPs and provided critical feedback during the after-school meetings. (Doren et al., 2013, p.219).

Researchers conducted data analysis using a hierarchical linear model which incorporated the "fact that student IEPs (Level 1) are nested within teachers (Level 2) and are thus likely to be more alike in comparison with IEPS selected at random" (Doren et al., 2013 p. 219). Researchers collected "137 transition IEPS (Level 1) nested within 18 teachers (Level 2)" (Doren et al., 2013, p .219). The researchers analyzed the 3-5 sample transition IEPs from each participant at pre-PD and post-PD and used the intercepts-as-outcomes models to determine the effects of the PD while controlling for the Level 1 and Level 2 predictors identified in the hierarchical linear model (Doren et al., 2013).

The study's results indicated that PD did positively impact the postsecondary goal for education/training compliance (coefficient 1.76,  $p < .001$ ) however the postsecondary employment goal was less affected (coefficient .56,  $p = .40$ ) (p.220). The amount of PD also was shown to have no impact on either postsecondary goal with results of dosage

with postsecondary employment PD dosage (coefficient 0.01,  $p=.937$ ) and postsecondary education/training PD dosage (coefficient -0.05,  $p=.825$ ) (p.220) (Doren et al., 2013, p. 220).

The authors identified three limitations of the study. The first limitation was the compliance of the transition IEP did not necessarily correspond to the quality and amount of special education services the students receive. The second was that the study did not use randomized controls. Instead, the design featured a convenience sample of volunteers and the lack of a control group inhibited researchers from knowing if moderating factors influenced the results rather than the PD intervention. Finally, the third limitation was the small number of participants (N=18) in the study which inhibited the generalizability of the findings to all secondary special education teachers (Doren et al., 2013, p. 222).

Based on their findings, Doren et al. (2013) provided key recommendations for future research. The researchers recommended a qualitative study of secondary special education teachers' perceptions of the transition IEP components. Doren and colleagues hypothesized that this insight might provide guidance on the PD delivery method and support required to help teachers write quality transition IEPs. The researcher's second recommendation for future research was to identify the "the optimal combination of intensity, duration, content, and type of training that will yield the greatest impact on IEP quality and implementation without straining state, district and local school budgets" (Doren et al., 2013, p. 223) using a quasi-experimental and randomized control group designs. The authors' recommendation demonstrated the reality of SEAs and LEAs to not only provide secondary special education teachers the content and implementation support over time, but also consider the economically feasibility given the overall cost of

PD. This recommendation implied the importance of considering the entire cost of PD which includes the cost of substitute teachers (and locating substitute teachers), transportation, technology requirements, and training space. An essential research step is to identify the current PD methods being implemented because it will provide a baseline of regarding the current frequency, content and rigor of PD on writing compliant transition IEPs.

In 2015, Flannery et al. conducted a pre and post quantitative research to extend the study of Doren et al. (2013) by including another cohort of teachers and including additional transition IEP components and the alignment of those components in the transition IEP. The research questions for this study were:

1. To what extent did the PD impact the inclusion of the required transition components in the IEP (postsecondary goals, course of study, present levels, and annual goals)?

2. To what extent did the quality of the transition components improve after the PD? (Flannery et al., 2015, p. 15)

Researchers analyzed the impact of the PD intervention on six dependent variables: (a) postsecondary goal for employment, (b) postsecondary goal for Education, (c) postsecondary goal for independent living, (d) course of study, (e) present levels, and (f) annual goals (Flannery et al., 2015, p.15).

The recruitment process began by researchers contacting districts within a 100-mile radius. “Ten districts located within 4 counties in a Northwestern state represented rural (2), town (4), suburb (1) and city (3)” (Flannery et al., 2015, p.15). Participants were recruited from 21 high schools and 18 to 21-year-old programs. Following the same

recruitment process as described in Doren et al. (2013), after letters of agreement were signed with each district, secondary special education teachers were emailed recruitment letters. If the teachers were interested, the study's purpose was explained and letters of consent were signed by the participants. Researchers included 27 secondary special education teachers in the extended study.

Three university faculty with experience teaching in college students and k-12 special education students designed and delivered the PD intervention to participants. The PD intervention curriculum was based on a literature review, IEP and transition requirements. The university faculty solicited feedback on the curriculum from six secondary teachers which was used to modify the curriculum and delivery method (Flannery et al., 2015).

Flannery and her colleague's PD intervention delivery method replicated the Doren et al. (2013) sequence with an initial 2-day PD and six follow-up meetings formatted as a Professional Learning Community (PLC). The PD invention for the 2-day training included postsecondary goals, present levels, transition services, course of study, annual goals, and alignment of the transition IEP to the present levels (which include transition assessment) and postsecondary goals (Flannery et al., 2015, p. 17). As with Doren et al. method, the six follow-up sessions included two 1.5-day sessions and four 1.5-hr sessions in after school meetings. These meetings focused on practicing applying their knowledge writing IEPs, problem-solving and exchanging information.

The researchers collected demographic information from each participant and conducted a pre and post-test data collection by evaluating three to five transition IEPs written by each participant. The researchers replicated Doren et al.'s (2013) process to

develop a coding manual with a rubric for data collection. The coding manual and rubric were piloted by six coders and one university faculty scoring sample IEPs to build consensus until their interrater reliability reached 90% (Flannery et al., 2015).

Researchers double-coded 18 (67%) transition IEPs and interrater reliability was calculated for each item on the rubric. For any interrater reliability below 90%, the researchers met to develop a consensus on the rating. Based on this initial coding experience, final revisions were made to the coding manual and rubric. Then, researchers used this final coding manual and rubric to collect pre and post data from participants' transition IEPs. All IEPs were double coded and interrater reliability was calculated on a quarter of the IEPs overall IEP rating (interrater reliability=90.29%) as well as the individual transition components (interrater reliability average range=85.05-97.02%) (Flannery et al., 2015, p. 19).

To answer research question 1, researchers conducted t-tests on pre-PD IEPs (N=112) and post-PD IEPs (N=95) to determine the proportional change. The researchers indicated that the PD did have a statistically significant change on the inclusion of postsecondary goals for education although they extended their alpha level to  $p=.016$ . Similarly, they reported statistical significance on postsecondary goals for independent living but extended their alpha level to  $p=.030$ . However, while a positive trend was shown in the analysis of the other transition IEP variables, there was not a statistically significant effect (Flannery et al., 2015, p. 19, 21).

The researchers' results for research question two showed statistically significant impact of the PD intervention on participants' writing compliant postsecondary goals for employment ( $p=.004$  with  $p<.05$ ) and postsecondary goals for education ( $p=.003$  with

$p < .05$ ). There was also a statistically significant improvement of transition IEPs that had compliant postsecondary goals aligning with the IEP's course of study. Researchers found no statistically significant impact on compliance for postsecondary goals for independent living or course of study.

The authors identified three limitations in their study. Because this study design replicated Doren et al. (2013), the first limitation was the lack of a control group and the issue of participants drawn from a convenience sample and not randomly assigned. The researchers acknowledged a second limitation which was that the participants selected which transition IEPs would be included in the study. This bias could have influenced the quality of IEPs submitted to researchers and impacted the results' validity. The third limitation was that all participants were from the same regional area of the U.S. and in small number. Both of these factors limit the generalizability of the study's findings to secondary special education teachers across the U.S. The final limitation was the potential for measurement error due to the interrater reliability being 90% thereby allowing for a 10% error rate in the data (Flannery et al., 2015).

When discussing their findings, Flannery and her colleagues (2015) voiced concern in the university EPP for writing transition IEPs. Seventy-four percent (23/27) of study participants had completed their EPP since the initial implementation of IDEA which included transition requirements. In addition, 48% (13/27) completed their the EPP after the reauthorization of IDEA 2004 and the implementation of the Part B Indicator 13 compliance requirements. The researchers recommended university EPP focus on developing transition IEPs and ensuring a comprehensive understanding by educators on



the transition IEPs purpose and the alignment of transition IEPs with the students' postsecondary goals.

Flannery and her colleagues (2015) recommended future longitudinal research to “understand the relationship between [transition IEP] compliance, teacher delivery of the IEP, and student postschool outcomes” (Flannery et al., 2015, p. 23). The researchers replicated the recommendations in Doren et al. (2013) including research on the PD delivery method to determine the “most efficient and effective ways to provide PD” (p. 23) and to conduct qualitative research on the teachers' perceptions of their difficulties writing compliant transition IEPs.

Although the above literature focused on the effectiveness of PD methods for increasing transition IEPs' Indicator 13 compliance and the impact of teachers' demographics on transition IEPs, an additional factor which may impact PD is the school's setting. Flannery and her colleagues (2015) mentioned that their participants represented rural, town, suburban, and city settings, however no data analysis was conducted on demographic variables. One qualitative study revealed that rural special education administrators were also challenged provide PD that was cost effective and accessible in rural communities. Berry et al. (2011) conducted a national study with the purpose being to delineate the professional development needs of rural special educators. Two research questions relevant to this literature review included (a) “What PD provided by the district do teachers report as helpful to them and (b) What additional topics would teachers find helpful, if they were provided?” (Berry et al., 2011, p. 4). The qualitative study involved telephone interviews with rural special education administrators and teachers. The researchers developed different surveys for administrators and teachers.

The researchers developed the surveys based on a literature review and focus group results. National experts reviewed and provided feedback on the surveys. Special education teachers piloted the survey.

The participant pool was identified from rural districts identified in the 2005-06 National Center for Education Statistics as rural and districts eligible for the Rural Education Achievement Program (REAP). This method identified 8,646 rural districts of which 10% were randomly selected by a computer and yielded 864 rural districts. Berry and her colleagues (2011) sent recruitment letters to special education administrators in the selected rural districts to introduce the study and solicit volunteers. The researchers conducted follow-up calls to 494 rural administrators resulting in 373 administrators from 43 states agreeing to participate. Researchers randomly selected 55 districts volunteer districts and identified 522 special educators to recruit. A recruitment letter of introduction and follow-up telephone calls were made by researchers to ask each special education teacher to volunteer. Researchers conducted interviews with a maximum of ten teachers per district. Study participants included 203 special education teachers from 33 states for a response rate of 84% (Berry et al., 2011, p. 4)

Researchers conducted telephone interviews between April and December, 2009. Interviewers received 2 days of training to ensure consistency in survey administration. Interviewers were observed during training and at 1, 2, and 5 months after the training to calculate a 98% consistency rating in interviewing and response recording (Berry et al., 2011, p. 5). Interviews were designed to take 30-60 min to administer and special education teachers were paid \$20 for their participation (Berry et al., 2011, p. 4).

The participants' responses to open-ended survey questions were entered into a computer database. The principal investigator and her colleagues categorized the data responses into themes. The research team's interrater reliability of the categorization of data was 95% (Berry et al., 2011, p.6).

The researchers highlighted that teacher shortages in rural areas have resulted in districts hiring special education teachers who have limited/alternative licensure or are supporting students with disabilities out of their primary area of expertise (Berry, et al., 2011). These challenges have resulted in rural districts focusing on professional development opportunities on special education. The researchers' findings indicated that 70% of rural districts held training once per month, one of the most frequent training topics being on special education processes such as writing IEPs. Of the 10 trainings identified in the study, the professional development on special education processes such as writing IEPs was identified as most helpful by 22% of respondents. In addition, 76% of the rural special educators appreciated local trainings in their districts which required no travel. Teachers identified significant barriers to participating in professional development trainings outside of their local districts being traveling distances (33%), childcare (13%), and securing substitutes for classes (32%). Based on these findings, we anticipated that rural special educators may receive more training and use technology-based formats of instruction more than non-rural areas.

Berry and colleagues (2011) also made a recommendation for future research based on their study's results. Although the need for local PD benefits the special education teacher and minimizes the cost to the school districts, administrators must

balance the cost savings with the effectiveness of the training and the trainer's content knowledge.

### **Summary**

Secondary special education teachers' knowledge, development, and writing of compliant transition IEPs are influenced by their state licensure/certification requirements, university EPP, PD effectiveness and their LEAs' characteristics. Although research has not demonstrated a causal relationship between compliant transition IEPs and improved postsecondary outcomes of students with disabilities, the transition IEP is a legal document and agreement between the LEA, students and parents on the transition services, activities, annual goals for skill attainment to support students with disabilities. The first step in researching the link between transition IEP compliance and improved postsecondary outcomes for students with disabilities is to ensure that secondary special education teachers have the skills to write a compliant transition IEP. As this literature review demonstrates, the research in PD for writing transition IEPs is in its infancy. The studies' limitations and the similar recommendations have provided guidance for future studies to identify the rigor, frequency, and amount of PD being compared to its effectiveness and feasibility (Doren et al., 2013; Flannery et al., 2015; Simonsen et al., 2018).

With the variation in university EPP and state licensure requirements in transition (Simonsen et al., 2018), researchers have demonstrated the need for ongoing PD on writing transition IEPs (Morningstar & Benitez, 2013). Although the current research provides a foundation of knowledge on PD, gaps in prior research design and data analysis serves as an impetus for this student researcher to gather more specific

information to develop a more holistic picture of PD for writing transition IEPs. Therefore, this student researcher conducted a mixed methods study which included a national survey of special education administrators to identify the amount, frequency, delivery method, effectiveness, and cost of PD being provided in LEAs to licensed secondary special education teachers. Data analysis was conducted to determine if there was a difference in the PD being offered to new secondary special education teachers and returning secondary special education teachers; and if there was a difference in the PD when comparing rural, suburban, and metropolitan areas. Semi-structured interviews were conducted with special education administrators for additional insight into the PD process. The research design addressed the gaps in the current literature and the limitations from the previous studies.

One consistent limitation of the reviewed research was the use of teacher self-report of their EPP and PD. Because teachers can only report on their personal experiences, they do not have knowledge on an LEAs approach to PD or the extent in which it is being provided to all secondary special education teachers. In addition, the secondary special education teachers may not have a full appreciation for the mandated compliance for Indicator 13, the current compliance status of their LEA, or the impact of PD on the overall LEAs compliance. To avoid this limitation, this study was conducted with special education administrators who were responsible for (a) hiring secondary special educators and know their transition qualifications; (b) providing and funding PD; (c) documenting PD attendance and effectiveness; and (d) tracking transition IEP compliance for the LEA.

The existing research also has gaps in providing a clear understanding of PD characteristics (amount, frequency, method, effectiveness, feasibility) and its recipients (for example, new teacher vs. returning teacher; rural vs. suburban vs. metropolitan). According to Morningstar and Benitez (2013), participants averaged 28 hrs of staff development in transition, while 14% of respondents reported they had not received any staff development in transition. Based on the variation of respondents in the number of hrs of staff development, Morningstar and Benitez concluded that the staff development opportunities in transition are “erratic at best” (Morningstar & Benitez, 2013, p. 60). Although Morningstar and Benitez collected data on the amount of PD being provided, their survey used large ranges for the number of PD hrs. While Morningstar and Benitez survey range was between 0, 1-50 hrs, and 50+, this student researcher broke that range into smaller increments to get a clearer picture on the amount of PD being provided. Although the amount of PD did not impact compliance in Doren et al. (2013), the paucity of research allows for this to be further explored.

Conflicting researchers’ recommendations on the delivery methods of PD have also created the need for further research. For example, Berry et al. (2011) identified the need for rural special education teachers to receive PD, but the study showed a preference for local training which may conflict with Lowman’s (2016) findings that web-only PD delivery was ineffective on writing compliant transition IEPs. Therefore, this research study analyzed whether rural LEA’s are using more web-only PD delivery method than LEAs in more populated settings.

## CHAPTER III

### METHODS

In this chapter, the student researcher will describe the explanatory sequential mixed method design that was used for this study. To assist the reader in following this multi-phased design, the subsections of sample population, sampling method, instrument and procedure, data collection and data analysis are divided into two separate sections to outline the protocols for the quantitative phase and the qualitative Phase 1 in the same linear style that the method was implemented. Prior to describing quantitative and qualitative phases, the student researcher will describe a pilot study conducted to develop the survey instrument used in the quantitative phase.

#### **Pilot Study**

The student researcher conducted a pilot study from November 2018-January 2019 in Utah to develop the survey instrument used in the quantitative phase of this study. The survey questions were developed based on IDEA (2004) regulation definitions and the NTACTION Indicator 13 checklist. After the 30-multiple-choice questions and their multiple-choice responses were drafted by the student researcher, Dr. Catherine Fowler reviewed the survey and provided input on questions and choice options (Fowler, personal communication, September 2018). Lavinia Gripentrog, the Utah State Board of Education's transition coordinator, also reviewed the survey to ensure face validity for Utah special education administrators. Based on the transition coordinator's feedback, minor wording revisions were made by the student researcher to align with Utah terminology.

The pilot study consisted of an online Qualtrics survey which was distributed via email to a list of the Utah special education directors provided by the Utah State Board of Education. A 2-week turnaround time was given for participants to complete the survey. At the 2-week deadline, a follow-up email was sent extending the deadline for 2 days. If the special education directors were unable to complete the survey, they were encouraged by the student researcher to distribute the survey to another staff person who could respond (e.g., an assistant special education director, transition coordinator or high school special education department chair). In addition to the email distribution, recruitment was conducted at the Utah Transition Symposium in January 2019. Postcards with the study information, Qualtrics link and QR code were placed at the USU display table and passed out during concurrent sessions by the student researcher. The pilot survey was closed 2 days following the Utah Transition Symposium.

### ***Pilot Study Results***

From the list of 41 public school districts' special education directors, 18 respondents started the survey. An accurate response rate from the districts could not be calculated because the LEAs were not identified on the survey. Therefore, multiple respondents could have been from a single district, therefore, the response rate would not be accurate. Although 18 participants began the survey, only 16 completed the survey which resulted in an 11% participant mortality rate (see Appendix A for pilot study results). To increase the respondent completion rates, questions were able to be skipped by the respondent and continue with the survey. Therefore, the sample size fluctuated between questions. The respondents represented metropolitan (38.9%), suburban (38.9%)



and rural (22.2%) communities. Other details regarding the respondents' demographics are shown in Table 1 below.

**Table 1**

*Pilot Study Demographics*

Characteristics	Total N=17
<b>District Size</b>	
65,000+ students	n=1 (5.8%)
30,000+ students	n=11 (5.8%)
5,000-29,999 students	n=5 (29.4%)
1,000-4,999 students	n=5 (29.4%)
<1,000 students	n=5 (29.4%)
<b>Respondent's Role</b>	
Special education director	n=10 (58.8%)
Assistant special education director	n=2 (11.8%)
Transition coordinator	n=2 (11.8%)
Department Chair	n=0 (0%)
Special education teacher	n=3 (17.6%)
<b>Education Experience</b>	
15+ years	n=9 (52.9%)
10-14 years	n=4 (23.5%)
5-9 years	n=3 (17.6%)
2-5 years	n=1 (5.9%)
<1 year	n=0 (0%)
<b>Transition Experience</b>	
15+ years	n=4 (23.5%)
10-14 years	n=2 (11.8%)
5-9 years	n=2 (11.8%)
2-4 years	n=6 (35.3%)
<1 year	n=3 (17.6%)

Because each state determines their own transition IEP monitoring process, the pilot study's results were not expected to mirror the results from the national study. Nonetheless, 11 pilot respondents (64.7%) indicated they were monitored each year. According to the Utah respondents, 12 LEAs (69%) had internal monitoring process to assist with Indicator 13 compliance. The pilot study also showed that 18 respondents (73%) used monitoring forms developed by the Utah State Board of Education, one LEA (9%) used a locally developed monitoring form and one LEA (9%) used the NTACTION Indicator 13 checklist. The Utah respondents (n=11) also had varying responses on the percentage of transition IEPs that were internally monitored by the district: (a) three respondents (27.2%) monitored 100% of their transition IEPs; (b) two respondents (18.2%) monitored 75% of their transition IEPs; (c) four respondents (36.2%) monitored 25% of their transition IEPs; and (d) two respondents (18.2%) monitored less than 25%. The majority of Utah respondents indicated that internal district monitoring was conducted by the special education director or the transition coordinator.

This pilot study was based on the premise that LEAs provide PD to their special education teachers on writing transition IEPs and Indicator 13 compliance requirements. In Utah, eleven LEAs (65%) reported conducting annual PD for returning teachers on writing transition IEPs and ten LEAs (59%) reported annual PD on Indicator 13 compliance. The literature review revealed that EPP are not providing extensive coursework in transition, therefore, this student researcher expected LEAs to provide additional PD on writing transition IEPs and Indicator 13 to new teachers. However, the pilot study showed that 11 respondents (65%) provided the same PD to new teachers and

returning teachers on writing transition IEPs and 12 LEAs (71%) provided the same PD on Indicator 13 compliance.

When pilot study respondents were asked to discuss the training and content of their PD on writing transition IEPs, 88% of respondents indicated that Indicator 13 compliance PD had improved their LEA's compliance. The training preferences reported by 16 respondents showed that 13 LEAs' (82%) teachers preferred a single day or less of PD and 12 LEAs (75%) indicated a preference for a face-to-face workshop. Thirty-eight percent of respondents (n=11) also reported that Indicator 13 compliance was provided by local staff. The results indicated that the majority of LEAs used training materials were from the Utah State Board of Education's developed resources (41%) for their training content. Materials accessed by other respondents were reported as (a) NTACTION resources being used by 18% of respondents; (b) Utah-based resources were used by 28% of respondents; and (c) other unidentified resources were used by 13% of respondents.

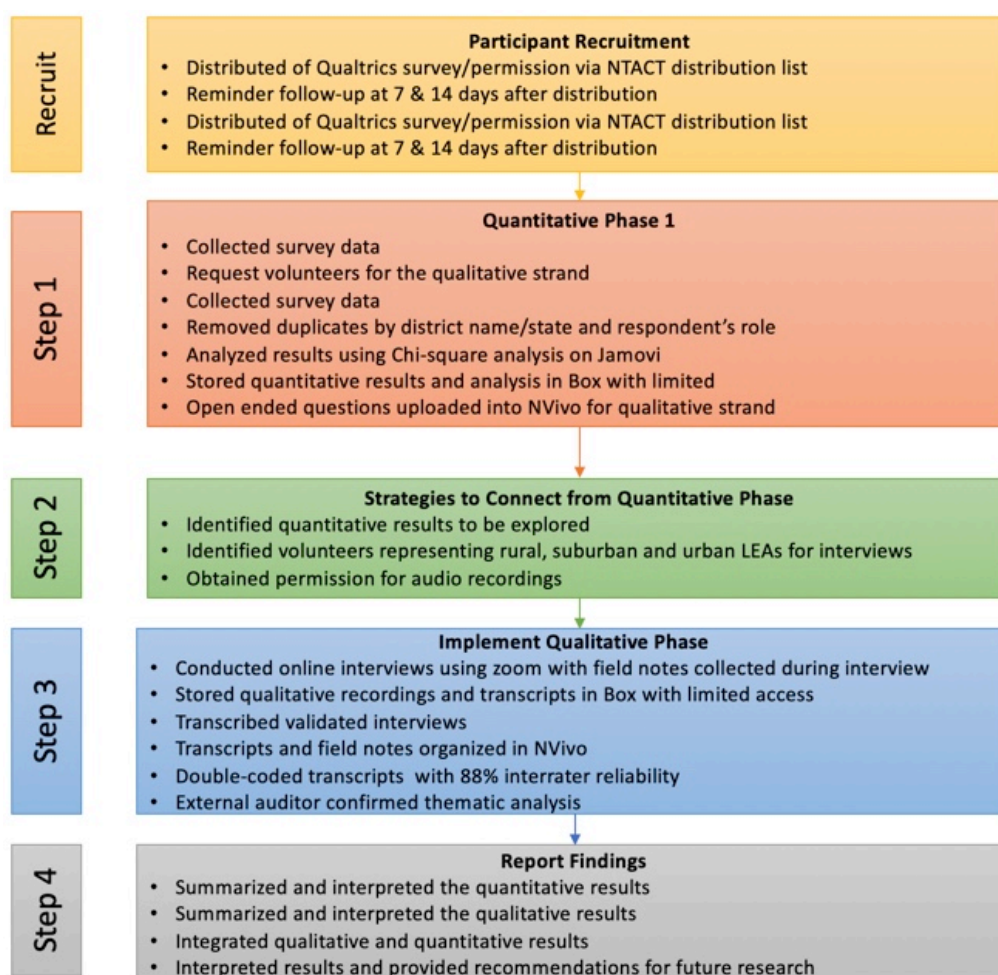
Because a gap in the literature exists on the ways LEAs are meeting the PD needs of special education teachers in writing transition IEPs and Indicator 13 compliance, this national study was expected to provide data and insight into the state of transition PD in the U.S. A mixed methods design was selected for this proposed research project in order to generate more in-depth information (Creswell, 2014, p. 2018; Creswell & Plano Clark, 2018, p. 234; Yin, 2017, p. 63) and provide local special education administrators' perspectives on the research findings.

### **Study Design**

The student researcher approached this study from a pragmatic worldview philosophy. The pragmatic theory seeks practical, action-oriented information that helps

resolve a real-world problem within the real-life context and constraints of the situation (Creswell, 2014, pp. 10-11; Patton, 2015, p. 152-153). Grounded in this pragmatic worldview, the student researcher was concerned about the actions being taken in LEAs to provide PD on writing transition IEPs and meeting Indicator 13 compliance. The mixed methods design aligned with the pragmatic worldview because it incorporated both quantitative and qualitative research methodology. Not only did this method identify current practices in the quantitative phase, but also the qualitative phase helped the student researcher gain an understanding of the complexities of PD in rural, suburban, and metropolitan areas (Creswell, 2014, pp. 10-11).

The explanatory sequential mixed methods design was selected because of its potential to provide more insight and depth to the research than a single method (Creswell, 2014; Creswell & Plano Clark, 2018; Teddlie & Tashokkori, 2009). This complementary design allowed one method to enhance and clarify the second (Cameron, 2009; Creswell, 2014). The sequential method was selected given the resources and personal constraints to collect and analyze data (i.e. data could only be collected from one source at a time (Creswell & Plano Clark, 2018, p. 80). A flowchart of the explanatory sequential mixed methods design provides a visual to follow the methods' implementation (see Figure 3).

**Figure 3***Explanatory Sequential Mixed Methods Design*

*Note.* Adapted from Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research*. Los Angeles, CA: Sage publications.

Two data collection phases were used, first phase being quantitative (see Figure 3, Step 2) and the second phase being a qualitative phase (see Figure 3, Step 3). The qualitative follows up the quantitative phase to explain and interpret the quantitative results from the participants' perspective (Creswell, 2014, p. 224). In the quantitative phase, a cross-sectional online survey collected responses from special education administrators to report on the 2019-2020 school year's PD for training secondary special

education teachers how to write compliant transition IEPs. The second, qualitative phase consisted of follow-up semi-structured interviews conducted with a convenience sample taken from the original quantitative purposeful sample. In the qualitative phase, the student researcher interviewed LEAs' special education administrators to explore the potential PD discrepancies/similarities between rural, suburban, and metropolitan communities (Creswell & Plano Clark, 2018). The rationale for following the survey study with interviews from selected survey respondents was that interviewees could (a) interpret survey data from their perspectives, (b) provide insights into why survey respondents answered questions the way they did, and (c) offer recommendations for PD going forward.

The survey's quantitative data were collected and analyzed to provide objective information related to the amount and model for PD on writing transition IEPs and the process for monitoring transition IEPs' compliance within an LEA (Gall et al., 2007). The first phase of quantitative results informed and guided the qualitative phase and the design of the interview questions (Ivonokova et al., 2006, p. 11). The second, qualitative phase, was used to build upon those results by interpreting and explaining the quantitative findings through the respondents' viewpoints (Creswell, 2014, p. 19; Creswell & Plano Clark, 2018; Ivanokova et al., 2006; Patton, 2015, p. 306; Subedi, 2016, p. 574). The interview questions were phrased to coincide with the results of the quantitative phase (Creswell & Plano Clark, 2018).

### **Target Population**

Special education administrators in public school districts across the United States were recruited to participate in this study because they are responsible for the PD budgets

and special education PD provided to secondary special education teachers. Special education administrators were recruited via email and asked to voluntarily participate. There were four primary sources used to recruit participants (see Figure 2, Participant Recruitment). The first recruitment source was the NTACTION distribution list. NTACTION is the national resource center funded by the OSEP, U.S. Department of Education and the Rehabilitation Services Administration for distributing secondary transition-related resources, conducting transition research, and building the capacity of states to meet OSEP requirements of multiple transition indicators including Indicator 13 for transition IEPs (OSEP, 2019b). Because this is a known transition organization and individuals have signed up to be on their distribution list, it was expected these recipients would be more likely to respond (Saleh & Bista, 2017, p. 71). However, this expectation was not met. Due to the low response of only 38 respondents resulted from the NTACTION distribution, an amendment to IRB was made to include a participant incentive and distribute the survey to three additional recruitment sources.

An incentive of ten \$100 amazon e-gift cards were given to 10 randomly selected participants who voluntarily provided their email for inclusion in the drawing. In the previous January distribution of the survey by NTACTION, 38 people completed the survey. Of those, 11 (29%) provided their emails to volunteer for the qualitative phase of the study. Those 11 individuals' emails were included in the random raffle drawing for the incentive. There were 119 respondents from the February recruitment who volunteered to participate in the incentive raffle. The 130 emails were uploaded into a research randomizer ([random.org/lists/](https://random.org/lists/)). The first 10 people on the randomized output list were emailed a \$100 Amazon e-gift card.

Utah State University's IRB approved three additional recruitment sources which were used in February. The first additional recruitment source was an email distribution list provided by NTACTION of the states' special education directors and transition coordinators. The IRB procedure amendment allowed the student researcher to directly email the directors and coordinators and ask for their assistance distributing the survey link within their states. The direct email was sent on February 12, 2020 and a follow-up email was sent on February 21<sup>st</sup>.

The second additional recruitment source was the leadership of each state's Council for Administrators of Special Education (CASE). Through a google search, the student researcher found each state's CASE board members' roster. The CASE board members were directly emailed by the student researcher and asked to complete the survey and/or distribute it to their state's local special education administrators.

The third additional recruitment source was the special education attendees at the National CEC conference held in Portland, Oregon in February 2020. The student researcher used the conference's app to identify secondary special educators who attended the conference and googled their names plus their schools' names to find their public school email addresses. Then, the conference attendees were individually emailed by the student researcher and asked to participate in the online survey (see marketing email in Appendix D).

Recruited participants were encouraged to delegate survey completion to a subordinate with the knowledge of transition and/or Indicator 13 compliance. Professionals who completed the survey were special education directors, assistant special education directors, transition coordinators, and secondary school special



education department heads. From the February recruitment, 184 individuals completed the survey for a total of 222 respondents from the January and February recruitments.

In order to eliminate multiple responses from one LEA from the data analysis, participants were asked to identify their LEAs' names and their state. In order to ensure participant anonymity, the LEA names were removed and destroyed from the database after the duplicates were removed. The directions within the survey and on the Utah State University's Institutional Review Board's (IRB) consent agreement specified this procedure and indicated no identifying information would be kept in the database (see Appendix B).

### **Ethical considerations**

Prior to conducting the study, the study protocols were approved through Utah State University's IRB. This approval provided reassurance the study was designed to reduce ethical issues (Creswell & Poth, 2018). In addition to the respondents' anonymity, Creswell (2014, pp. 93-94) identified other potential ethical concerns which were addressed in this research design, IRB agreement, and participant informed consent form. First, no identifying information (i.e. IP addresses, location of respondent, etc.) were recorded within the Qualtrics survey. Second, respondents voluntarily participated and had the ability to stop participating at any point during the research study. A letter of information outlining the study, procedures, risks, confidentiality, and withdrawal from the study was embedded on the initial page of the Qualtrics survey (see Appendix B). After reading the letter of information and prior to starting the survey, participants responded to a Qualtrics question that they were above 18 years and agreed to participate. Third, the online survey was designed to take less than 10 min to complete. Fourth, all

data were saved on a restricted-access file on Box.com which was approved by IRB for data storage. Finally, due to the COVID-19 pandemic and the school closures across the United States beginning March 12, 2020, the final interviewees in suburban, metropolitan, and rural districts were not scheduled. When transcribed interviews were sent for the interviewees' confirmations after March 12th, the student researcher acknowledged the pandemic and its priority over the research study. The email stated if respondents did not return transcripts by a specific date, the student researcher would assume the transcripts were acceptable and be used for analysis.

## **Phase 1**

### **Sampling Method for Quantitative Phase**

A purposeful sampling method was selected in this study to increase the number of knowledgeable respondents. When purposeful sampling is used, the goal is to obtain useful information and insight from knowledgeable respondents (Patton, 2015, p. 46). In order to reach the special education administrators, participant recruitment was conducted using the NTACTION distribution list, CASE members, and CEC Conference secondary special educator attendees. NTACTION distributed the survey information to its mailing list at no cost (C. Fowler, personal communication, December 2019). According to Dr. Fowler, there were 3,300 special education professionals on their distribution list including 60 state special education directors and 60 state transition coordinators (C. Fowler, personal communication, April 25, 2019). Therefore, the student researcher anticipated that the majority special education professionals on the distribution list would hold a position of special education director, assistant director, transition coordinator or

secondary special education department chair and would the knowledge to accurately complete the survey. The state-level special education directors and state-level transition coordinators were encouraged to distribute the survey within their states, however, it was not appropriate for those positions to complete the survey since they do not have an LEA's perspective.

### **Response and Attrition Rates**

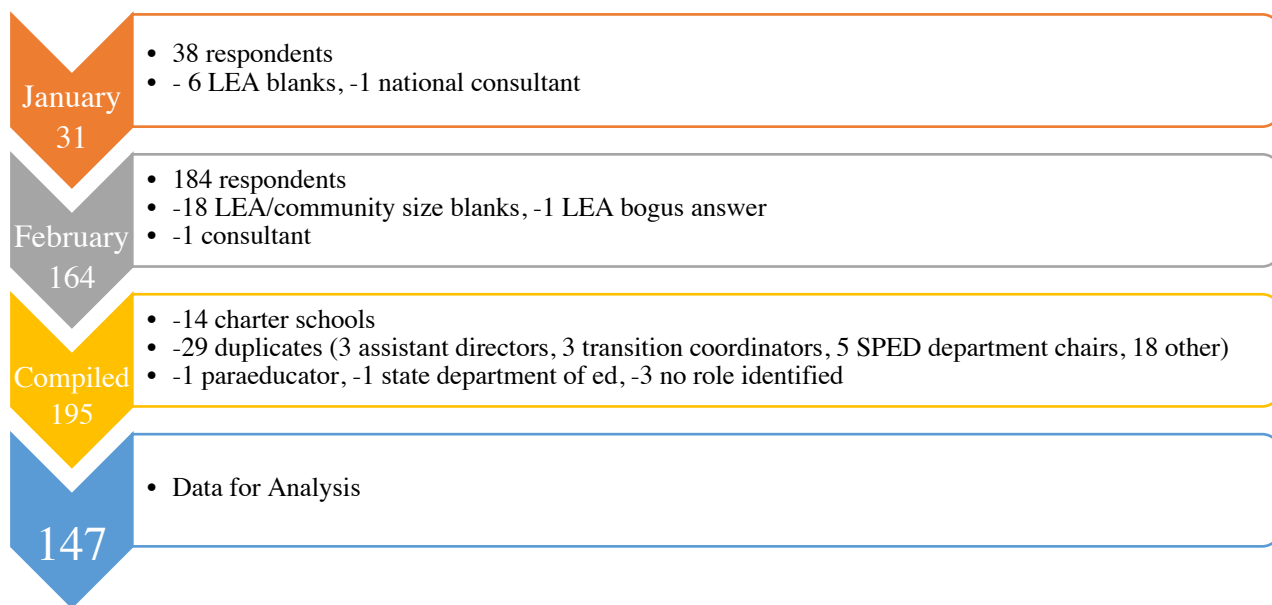
According to Gall et al. (2007), a minimum of 100 participants are needed in survey research. To increase response and completion rates, the student researcher incorporated factors that researchers identified in a systematic literature review by Fan and Yan (2010) to increase response rates. First, the potential respondents on the NTACTION distribution list have a high interest in transition and are more likely to increase the response of an online survey (Fan & Yan, 2010, p. 133; Sinclair et al., 2012, p. 2). Second, the online survey took less than 10 min to complete. Completion rates of 13 min or less have been shown to have higher responses rates and less mortality than longer surveys (Fan & Yan, 2010, p. 133, 135; Saleh & Bista, 2017, p. 71). One study found that respondents are 91.1% more likely to complete a survey that requires less than 15 min (Saleh & Bista, 2017, p. 67). Third, the student researcher's contact information was provided to any respondent that needed help to complete the survey (Fan & Yan, 2010, p. 135). Fourth, the survey questions were short and written with simple language to support quick comprehension and responses (Fan & Yan, p. 136; Saleh & Bista, 2017, p. 71). Research findings indicated that surveys with short and concise questions were 94.1% more likely to be completed (Saleh & Bista, 2017, p. 67).

## Participant Selection

To prepare the raw data for analysis, the January respondents' data was checked to indicate they were on the that NTACT mailing list. This allowed the number of columns from the January and February respondents to match. In preparing the January data, the student researcher removed six surveys that had non-responses for the name of the LEA and 1 was removed because the respondent was a national consultant (see Figure 4). A total of 31 surveys were included from the January participants.

**Figure 4**

### *Respondents' Meeting Inclusion Criteria*



Similarly, the student researcher prepared the February data for analysis by first removing all the responses who did not complete their LEA name or community-size. In addition, one survey was removed because a false LEA name (entered xyz) was given and another was removed that was completed by a national consultant (see Figure 4). At

that point, the student researcher merged the Qualtrics raw results from the 31 January respondents and the 164 February respondents into a single Microsoft Excel file. This compiled file of 195 respondents was cleaned by removing 14 charter schools from the database. The student researcher also sorted the raw data by sorting the raw data in alphabetical order by LEA name and state to visually identify duplicates. Where district duplicates existed, the student researcher compared the participants' roles and retained the data for the participant with the highest authority. For example, a special education director's results were kept over an assistant special education director's results from the same LEA. Similarly, a special education department chair's data would be kept over a special education teacher's response from the same district. This student researcher assumed the staff with the highest-level of authority would have the most accurate information regarding an LEA's training and compliance reports. There were 29 duplicates removed of which three were assistant special education directors, three were transition coordinators, five were special education department chairs, and 13 were in the other category. Upon deeper analysis of the respondents' roles, an additional five surveys were removed with one being a paraeducator, one being a state-level employee, and three who did not identify a role.

After duplicate removal, the remaining 147 respondents' data were uploaded to the statistical online software, Jamovi (The jamovi project, 2020). Through Jamovi® all analyses were conducted including descriptive data analysis and chi-square analysis of nominal data. All analysis, reports, graphs and field notes were stored in restricted-access folder on Box.com.

### **Instrument and Procedure for Quantitative Phase**

Administering the survey to the target population was the first step of the quantitative phase of the study (see Figure 3, Step 1). The quantitative phase provided objective data and insight into the actions and practices within LEAs (Creswell & Plano Clark, 2018). The student researcher developed a 31-item multiple-choice online survey based on information needed to make data-driven decisions for PD (Mazzotti et al., 2018). The compliance criteria specified in Part B Indicator 13 (OSEP, 2019a), IDEA (2004), the NTACTION Indicator 13 Checklist (NTACT, 2012) and the research literature were used as the survey questions' foundation. As previously mentioned, the student researcher made revisions based on the pilot study's results and feedback from the NTACTION Assistant Director (C. Fowler, personal communication, December, 2018). Additional feedback was provided by Dr. Teresa Grossi from the Indiana Institute of Disability and Community, a national leader in transition (T. Grossi, personal communication, March 2019). The student researcher identified three areas for survey revision based on the pilot study's findings and the experts' feedback. The revisions included: (a) removed duplicate surveys from the same LEA completed by different staff; (b) added questions to determine if participants knew the definitions for transition IEPs and Indicator 13; and (c) provided survey options for each question that allowed a person to respond with "unknown". In addition, the student researcher revised questions' terminology to be applicable to national participants and requested volunteers for the study's qualitative phase.

Table 2 shows the survey's key components. The gray-shaded areas identify the study's RQ. In the left-hand column below, the gray areas are specific survey questions

related to RQs. The middle column on the table provides the rationale or purpose of the survey question being asked. The final column on the right-side of the table links the survey question to the applicable research literature.

The participants remained anonymous by the researcher analyzing only the state and local community demographic information. The method for eliminating LEA duplicate responses, required participants to include their LEAs' names and their states on the survey. After removing duplicates, the student researcher removed all LEA names from the data to maintain the participants' anonymity. The Qualtrics online survey contained 31 multiple-choice questions including the demographic information recommended by Mazzotti et al. (2018) such as the participants' job titles, education levels, years working in the field, years working in secondary transition, the districts' settings (rural, suburban, metropolitan) and districts' student enrollment. As shown in Table 1, the other questions were specific to the PD on writing transition IEPs, transition research, IDEA (2004) and Indicator 13 compliance requirements. A follow-up reminder with the survey link was sent 7 days after the initial invitation by NTACT to the special education administrators. To increase participation, a final email was sent 14 days after the initial distribution. An email follow-up reminder of the survey's closure date was sent 7 days after the initial email to participants recruited in February.

The survey generated information about the frequency, length, formats and trends of PD for secondary special educators in rural, suburban, and metropolitan LEAs across the U.S.

**Table 2***Survey Questions' Relationship to Research*

<b>Survey Question</b>	<b>Rationale</b>	<b>Citation</b>	<b>Dependent Variables</b>
Demographics			
What is the size of your local LEA?			
What is the type of school district you represent?			
What is your role in the LEA?	Demographic information to compare the responses to determine if there are any patterns based on demographics.	Berry et al., 2011	Respondent characteristics
What is your education level?			
How many years of experience do you have in special education?			
How many years of experience do you have in secondary special education transition?			
Does your district employ special education teachers with state certification or endorsement in secondary special education transition?			
	In order to determine if a school district is employing individuals who have specialized training of transition.	Morningstar & Benitez, 2013; Morningstar et al., 2018; Morgan et al., 2014; Simonsen et al., 2018	
RQ1: What are the characteristics of the professional development models being provided to secondary special education teachers for developing compliant transition IEPs?			
How many hrs of professional development training per academic year do your secondary special education teachers receive in writing transition IEPs?	If a school district is emphasizing the importance of transition IEPs compliance, it would be expected that PD training plans for staff.	Doren et al., 2013; Lubbers et al., 2008; Morgan et al., 2014; Morningstar et al., 2008; Morningstar & Benitez, 2013	PD Characteristics



Survey Question	Rationale	Citation	Dependent Variables
<p>RQ1: What are the characteristics of the professional development models being provided to secondary special education teachers on developing compliant transition IEPs?</p>			
<p>When did your returning secondary special education teachers most recently receive training on writing transition IEPs?</p>			
<p>When did your returning secondary special education teachers most recently receive training on Indicator 13 compliance requirements?</p>	<p>If a school district is emphasizing the importance of transition IEPs and their compliance, it would be expected that professional development training plans for staff.</p>	<p>Doren et al., 2013; Lubbers et al., 2008; Morgan et al., 2014; Morningstar et al., 2008; Morningstar &amp; Benitez, 2013</p>	<p>PD Characteristics</p>
<p>Do new secondary special education teachers (1st or 2nd year at secondary level) receive the same training on Indicator 13 compliance?</p>			
<p>Do your new secondary special education teachers (1st or 2nd year at the secondary level) receive the same training on writing transition IEPs as returning teachers?</p>			
<p>What training format do you currently use for you secondary special education teachers' training?</p>			
<p>What training format do your LEA's teachers prefer?</p>	<p>In order to identify the most frequent professional development models used in LEAs.</p>	<p>Doren et al., 2013; Flannery, et al., 2015; Lowman, 2016; Morgan et al., 2014; Morningstar et al., 2008; Morningstar &amp; Benitez, 2013</p>	<p>PD Characteristics</p>
<p>What length of training do your LEA's teachers prefer?</p>			

<b>Survey Question</b>	<b>Rationale</b>	<b>Citation</b>	<b>Dependent Variables</b>
RQ3: In what ways are special education districts conducting internal monitoring to ensure transition IEP compliance?			
Do you know the required components of transition IEPs for Indicator 13 compliance?	If transition IEPs are a priority in a school district, it would be expected that the special education leadership knows the compliance requirements.	Doren et al., 2013; Mazzotti et al., 2018	Respondent characteristics
Does your LEA have an internal monitoring process for Indicator 13 compliance?	If transition IEPs are a priority in a school district, it would be expected that procedures are in place for ongoing monitoring and professional development training plans would be based on their strengths and challenges in writing IEPs.		
What percentage of transition IEPs are monitored internally each year?			
What monitoring tool does your LEA use for compliance?	If transition IEPs are a priority in a school district, it would be expected that procedures are in place for ongoing monitoring and that a state or national monitoring tool would be used.	Doren et al., 2013; Mazzotti et al., 2018	Internal monitoring characteristics
Who conducts your LEA's internal monitoring for Indicator 13 compliance?	If transition IEPs are a priority in a school district, it would be expected that procedures are in place for ongoing monitoring and professional development training plans would be based on their strengths and challenges in writing IEPs.		

<b>Survey Question</b>	<b>Rationale</b>	<b>Citation</b>	<b>Dependent Variables</b>
When was the last time your LEA's compliance for Indicator 13 was reported to your state's department of education and sent on to the U.S. Department of Education?	If transition IEPs are a priority in a school district, it would be expected that the special education leadership knows the compliance requirements.		
When did your returning secondary special education teachers most recently receive training on Indicator 13 compliance requirements? Do new secondary special education teachers (1st or 2nd year at secondary level) receive the same training on Indicator 13 compliance?	In order to determine if a school district is emphasizing the importance of compliant transition IEPs.	Doren et al., 2013; Lubbers et al., 2008; Morgan et al., 2014; Morningstar et al., 2008; Morningstar & Benitez, 2013	PD Characteristics
Who provides your Indicator 13 compliance training?	In order to identify the most frequent professional development models used in LEAs.	Doren et al., 2013; Flannery, et al., 2015; Lowman, 2016; Morgan et al., 2014; Morningstar et al., 2008; Morningstar & Benitez, 2013	
Based on Indicator 13 monitoring data, has your LEA changed its methods of writing transition IEPs? If yes, please describe.	To determine if professional development is based data-driven decisions.	Doren et al., 2013; Mazzotti et al., 2018	Dependent on Response

Survey Question	Rationale	Citation	Dependent Variables
<p>Is there anything else you would like to tell us about your LEA's Indicator 13 compliance efforts?</p>	<p>Based on Indicator 13 monitoring data, has your LEA changed its methods of writing transition IEPs? If yes, please describe.</p>	<p>Doren et al., 2013; Mazzotti et al., 2018</p>	<p>Dependent on Response</p>
<p>Is there anything else you would like to tell us about your LEA's Indicator 13 compliance efforts?</p>			

(Desimone, 2009). Although the survey relied on self-report of participants, researchers have found that a well-designed survey can provide accurate data. Many educational research findings are based on self-report data collection methods (e.g., Boyle et al., 2005; Desimone, 2009, p. 190).

### **Data Analysis of Quantitative Phase**

Inferential statistics were performed on the respondents' survey data to determine if there were statistically significant differences which would allow generalizations to be made about the populations in which they were drawn (Creswell, 2014, p. 163; Gravetter & Wallnau, 2014, pp. 8, 610). Chi-square tests were used to determine any association between categorical variables (Creswell, 2014, p. 164). Because all survey responses were nominal (categorical), chi-square was the most appropriate analysis to perform. Chi-square analysis is based on the hypothesis that no preferences exist and the expected results should be of equal proportion. The difference between expected and observed responses are statistically significant indicates the differences are unlikely to occur if there really was no effect on the population (Cohen, 2013, p. 717; Gravetter & Wallnau, 2014, pp. 512, 530). An a priori level of significance was set at  $p < .05$  to determine statistical significance. The goodness of fit analysis is appropriate when a single population is analyzed (Gravetter & Wallnau, 2014, p. 520). Therefore, goodness of fit analysis was conducted for RQ1 and RQ3. Because multiple analyses were conducted in order to answer the research questions, the student researcher calculated a post-hoc false discover rate (FDR) to decrease the likelihood of false positive results (Benjamini & Hochberg, 1995).

When analyzing the relationship between the survey responses and the categories of rural, suburban, and metropolitan communities, independent-samples chi-square test (contingency analysis) were conducted. The independent-samples chi-square test was selected to compare “more than two samples ...[with] a response variable that has three or more categories” (Huck, 2004, p. 463). The purpose of the contingency analysis is to determine if there is statistically significant differences between the categories (Gravetter & Wallnau, 2014, p. 523). When conducting a chi-square analysis with multiple categorical responses, the sample size must be large enough for the analysis to be accurate. If the expected results from the analysis are too small, the results are invalid (Cohen, 2013, p. 730; Gravetter & Wallnau, 2014, p. 534). The conservative rule is that if any expected frequency is less than five, the analysis is invalid (Cohen, 2013, p. 718). The liberal view is that if the average expected frequency is two or above, the analysis is valid (Huck, 2004, p. 475). Because this study is an exploratory study with addressing gaps in research, the student researcher implemented the liberal criteria for this analysis.

If the independent-samples chi-square result was statistically significant ( $p \leq .05$ ), the post-hoc analysis of observed and expected responses’ residuals were analyzed. Because there were more than two categories being compared, a Cramer’s V analysis to determine the association between variables in the chi-square analysis (Cohen, 2013, p. 728; Kotrlik et al., 2011). In addition, the post-hoc FDR calculation was made to reduce false positives caused by multiplicity problems (Benjamini & Hochberg, 1995).

### **Summary of Quantitative Methods**

The explanatory sequential mixed methods research design required that the quantitative phase be implemented first with respondents completing an online survey.

Purposeful sampling of the target population was the method used to recruit respondents. Special education administrators were recruited by NTACTION and direct emails from the student researcher to state CASE board members and CEC conference attendees. The student researcher examined raw data from 222 respondents (38 respondents from January recruitment and 184 from February recruitment) and prepared the data for analysis by eliminating duplicates from the same LEA, removing surveys missing the essential components of LEA name and community size, and removing national and state consultants. This process resulted in 147 unique surveys for analysis. The raw data was uploaded into Jamovi (The jamovi project, 2020). for analysis. The quantitative phase was the foundation for the study's second qualitative phase.

## **Phase 2**

The explanatory sequential mixed methods design used by the student researcher had a follow-up explanation variant (Creswell & Plano Clark, 2018, p. 82). The follow-up phase was used to explain the preliminary quantitative findings from Phase 1 (Creswell & Plano Clark, 2018, p. 234). As the qualitative method begins, it is essential for the qualitative student researcher, Faith Thomas, to reflect on her "biases, values, and experiences" that she brings to the study (Creswell & Plano Clark, 2018, p. 229).

### **Reflexivity Statement**

Faith Thomas completed her Masters of Education at Indiana University, Indianapolis, with a concentration in transition in 1998. Based on her academic preparation, she began a career at the Indiana Institute on Disability and Community (IIDC) in 1999. As a project coordinator at IIDC, she worked on multiple collaborative

projects focused on improving the employment outcomes of transition-age youth. In 2004 when IDEA and Indicator 13 were implemented, she worked on an Indiana Department of Education grant to monitor over 3,000 IEPs per year with a team of 3 other team members for Indicator 13 compliance. As a part of that project, she monitored IEPs from metropolitan, suburban, and rural communities in Indiana and saw a broad range of transition IEPs from compliant IEPs to non-compliant IEPs. Through her monitoring, she found compliance was a challenge in all communities. In addition, a part of this project was providing technical assistance to special education districts that were identified by the Indiana State Department of Education for systemic Indicator 13 compliance challenges. This required the student researcher to conduct audits on schools' compliance, discuss challenges with the special education directors, develop technical assistance plans which included small group instruction, as well as, one-on-one support to secondary special education teachers to learn how to write compliant transition IEPs. Over the course of her tenure at IIDC, she provided support to hundreds of secondary special education teachers in Indiana.

In addition to her fifteen years working at IIDC, she was also a transition coordinator at a suburban school district in southcentral Indiana. Per her contract, it was required that the secondary teachers wrote compliant transition IEPs. She developed an internal monitoring system and monitored 30% of all transition IEPs for the approximately 50 special education teachers (25-30 students per caseload) in the district including five self-contained classrooms and a classroom at a court-mandated residential mental health treatment center. Based on the monitoring outcomes, she provided small



group and one-on-one training to the special education teachers on writing transition IEPs.

This experience has given the student researcher a comprehensive understanding of the challenges secondary special education teachers have writing transition IEPs. In addition, she is knowledgeable about the level of support needed by struggling teachers to meet students' needs, federal compliance requirements, and state department of education's expectations. Based on her experiences, she recognizes her biased belief that some secondary education programs may not be preparing undergraduates for the realities of the classroom, nor are they providing the experiences and knowledge to write a quality and compliant transition IEP. Therefore, the student researcher believes that PD on writing transition IEPs is essential. Her current research reflects that belief and is designed to advance research related to compliant transition IEPs.

With this self-understanding, the student researcher began the qualitative method and the continued reflection of how her past work experiences influenced her interpretation of PD for writing compliant transition IEPs (Creswell & Plano Clark, 2018, p.229).

### **Sample Population of the Qualitative Phase**

The qualitative phase's implementation occurred after the quantitative data were collected (See Figure 2, Step 3). The sample qualitative population was the respondents from the quantitative survey who self-selected for a follow-up interview based on an interest in transition IEPs.

### **Sampling Method of the Qualitative Phase**

From the self-selected population, purposeful convenience sampling was conducted in order to get equal representation from each category with five rural respondents, five suburban respondents and five metropolitan respondents (Johnson & Christensen, 2019; Teddlie & Tashakkori, 2009). To improve the efficiency and maintain the study's timeline, convenience sampling was used to select the five respondents from rural, suburban, and metropolitan communities (See timeline in Appendix G). In this convenience sample, individuals self-identified. This intentional sample enabled the student researcher to obtain thorough explanations of the quantitative results and to compare and contrast groups' responses (Creswell & Poth, 2018, pp.148, 159). The convenience sampling method involved the student researcher sorting the 64 interview volunteers from the 147 respondents. The 64 volunteers were sorted in Microsoft Excel by state, community size, district size, and role. When selecting respondents from the volunteers, a priority was given to respondents with in the role of highest authority and to those from different states. When selecting the five volunteers representing metropolitan areas, a priority was given to respondents from LEA's with 65,000+ students because they represented the largest districts in the U.S. Of those districts, the respondents from different states were selected to ensure a broader perspective of transition PD. When selecting the five volunteers representing suburban areas, all of the volunteers came from LEA's with 5,000-30,000 students. Just as with the metropolitan volunteers, respondents were selected to ensure a diversity of state representation. After three of the initial suburban respondents did not respond to the email interview request, three additional respondents were identified and contacted. One of these respondents came from a district

with 30,000-65,000 students. Selecting respondents from the rural districts mirrored the selection of metropolitan and suburban respondents. Selected respondents represented districts of <1000 students, 1,000-5,000 students, and 5,000-30,000 students from different states.

The volunteering respondents' information was saved in a secure, restricted-access folder located on Box.com. Per the USU IRB guidelines, this information will be saved for 3 years and then destroyed.

### **Sampling Procedure**

The following steps were taken to identify the interviewees.

1. Respondents completed the survey and were included in the in Phase 1 analysis.
2. Recruitment for participation in the qualitative phase occurred with the special education administrators at the bottom of the quantitative survey. Respondents asked to volunteer for a 30-min interview to provide insight into survey's findings.
3. From the convenience sample of self-selected volunteers (n=64), respondents were purposefully selected to get five people representing each group of rural, suburban, and metropolitan categories (n=15).
4. Selected respondents were contacted via email to schedule the date and time for the interview that best fit their schedules. Communication records were maintained as part of the interview protocol on the semi-structured interview form (see Appendix D). Interviews occurred between February 27-March 12, 2020. Due to the COVID-19 pandemic, after March 13 no additional

interviews were conducted. Only 14 interviews were conducted which resulted in unequal representation from each size community.

5. At the beginning of the interview, the student researcher reviewed the letter of information for a second time to ensure the interviewees were reminded they could withdraw from the study at any time.
6. The interview was digitally recorded via Zoom.com and stored in a restricted-access folder on Box.com as approved by the IRB.

### **Ethical Considerations**

Potential ethical concerns identified by Creswell (2014, pp. 93-94) were addressed in the research design, IRB agreement, the participant informed consent form, and the oral consent to reduce ethical issues. First, prior to conducting the study the interview protocol was approved through Utah State University's IRB. This approval provided reassurance that the study was designed to reduce ethical issues (Creswell & Poth, 2018). Second, respondents in the qualitative phase self-selected by volunteering at the bottom of the online survey. Therefore, many respondents remained completely anonymous by not volunteering for the follow-up interview. Third, participants were reminded that their participation was completely voluntary and they could end their participation at any time. Fourth, the follow-up interviews were held to 30 min which limited the time commitment of their participation and posed limited hardship to respondents. Finally, due to the COVID-19 pandemic 2020 and the school closures across the United States beginning March 12th, the final interviewee was not scheduled. Therefore, four metropolitan, four suburban, and four rural interviews were conducted for a total of 12 interviews for analysis.

### **Instrument and Procedure of the Qualitative Phase**

The semi-structured interview questions allowed the interviewee to interpret and expand the survey's preliminary results (Creswell & Plano Clark, 2018, p. 234). The student researcher created a standardized open-ended interview instrument. The wording and order of the questions were presented to each interviewee (Patton, 2015, p. 438). This standardized interview structure benefited analysis because responses remained on topic through each interview for comparison purposes (Patton, 2015, p. 438) (see Appendix D, the semi-structured interview form).

As recommended by Creswell and Plano Clark (2018), six open-ended questions were developed for the study. Pilot testing was conducted prior to interviews to refine the protocol, instrument, and the interview technique of the student researcher. The student researcher's pragmatic worldview influenced the phrasing of the interview questions to be straight-forward and concise in order to get problem-solving strategies and techniques which could be used for recommendations for PD (Patton, 2015, p. 436). Upon completion of Phase 1, a pilot interview was conducted with a self-selected respondent in order to improve the social validity of the interview protocol and make any needed revisions (Creswell & Plano Clark, 2018, p. 328). The pilot test was conducted with a volunteer respondent from Phase 1. The student researcher conducted a 30-min interview with a transition coordinator from a suburban school LEA. The interview was conducted on Zoom.com to allow for the student researcher to practice the entire protocol. After conducting the interview, the student researcher was given feedback by the interviewee on the clarity of the questions, the flow/sequence of the questions, and the overall process. Based on the pilot, the student researcher did not change any questions.

However, the pilot reiterated the importance of the student researcher remaining focused without any filler conversation in order to maintain a 30-min interview. The semi-structured interview protocol shown below was developed by the student researcher following the guidelines outlined by Creswell (2014, p. 124).

1. Contacted volunteer respondent via email provided on the bottom of the online survey.
2. The email requested 30-min conference call for a day and time of their convenience to gain insight into the survey's preliminary findings.
3. Upon establishing an agreed upon date and time, the student researcher sent a zoom link and calendar invite to the interviewee.
4. At the beginning of the interview, the student researcher paraphrased the letter of interest to respondent which reminded them that they may withdraw from the study at any time. The student researcher requested the conference call be recorded via Zoom.us All volunteers gave permission for the video to be recorded.
5. The semi-structured interview form was followed which contained the script and interview questions (see Appendix D).
6. The recorded mp4 file was saved in a restricted access folder in Box.com. The video was transcribed by a third party.
7. The interview transcripts were emailed to respondents to verify its content's accuracy. The respondents were encouraged to add additional information to expand their responses. The COVID-19 pandemic began immediately following interviews. The student researcher sent interview transcripts to interviewees as the

pandemic spread across the U.S. The student researcher sent an email to all interviewees indicating transcripts would be considered confirmed unless the interviewee responded with changes. Two interviewees submitted written confirmations.

8. The student researcher uploaded the verified transcripts and the field notes into NVivo software for analysis.

## **Data Collection of Qualitative Phase**

### ***Data sources***

The student researcher collected four types of qualitative data in the study including open ended responses from the online survey, interview transcripts, field notes, and memoing. Each qualitative source is described in greater detail in the following paragraphs.

**Open-ended responses.** The online survey contained two open-ended questions at the bottom of the survey which allowed respondents to comment on PD for writing compliant transition IEPs. These responses were categorized by rural, suburban, and metropolitan communities and uploaded into NVivo for inclusion in the qualitative analysis.

**Interviews.** Individual interviews were conducted with a request that follow-up transcripts would be sent for their confirmation within 2 weeks. The interviews were designed to occur at one-point in time for a snapshot of LEAs' PD rather than a historical or longitudinal perspective (Patton, 2015, p. 255). One benefit of the one point in time interview was it expedited data collection and assisted meeting the study's timeline (Patton, 2015, p. 255). These 30-min interviews were conducted and recorded via

Zoom.com to increase the efficiency of data collection and reduce the cost of conducting the study. Interviews were conducted with 12 people with four respondents from rural, four respondents from suburban, and four respondents from metropolitan LEAs. These interviews were transcribed verbatim by a third party. Transcripts were sent to each interviewee to provide clarification or add to their responses to questions. The final transcripts and field notes recorded by the student researcher during the interviews were entered into NVivo for analysis. (See Appendix D, Semi-structured Interview Form).

With the participant's oral permission, the interview was conducted and recorded using the conferencing platform, Zoom.com. Audio recordings were required for participation; however, the video record was optional. The recordings were stored in a restricted-access folder on Box.com for transcription. As mentioned above, the researcher's goal was to interview 15 participants with equal representation from rural, suburban, and metropolitan communities. Due to cancellations caused by the COVID-19 pandemic 2020, the final interviewees from metropolitan and rural LEAs were not conducted because of the administrators' responsibilities within their districts.

**Field notes and memo-writing.** As recommended by Creswell and Poth (2018), field notes (see Appendix E) were written by the student researcher during the interviews. Memo-writing of emergent ideas and reflections were recorded throughout the qualitative phase by the student researcher and double coder. Memos are "short phrases, ideas, or key concepts" that occur to the student researcher (Creswell & Poth, 2018, p. 188) and were recorded immediately in an organized fashion in a notebook or word document (Charmaz, 2006, p. 80). The memos were a way to develop ideas or find connections between data (Charmaz, p. 85). The only criteria for memo-writing and field notes were



they must be “organized, categorized, and accessible throughout the qualitative phase” (Yin, 2017, p. 132) The student researcher maintained a spiral notebook for all field notes, meeting notes, and reflections. These field notes and memo-writing reflections were discussed during weekly research meetings with the primary faculty advisor, Dr. Bob Morgan. The field notes and memos created an audit trail which was a validation strategy to demonstrate the student researcher’s processing of information throughout the data collection and coding process (Creswell & Poth, 2018, p.188). The field notes, memos, and meeting notes were entered into NVivo and included in analysis.

### **Data Analysis of Qualitative Phase**

The researcher analyzed qualitative data using the NVivo software for assistance organizing, coding phrases, identifying themes, and interpreting the meaning of those themes to support or explain the quantitative results (Creswell, 2014, pp. 196-197). Figure 5 highlights the steps within the data analysis and Figure 6 aligns with the data analysis procedure to indicate the validity and reliability checks which will be implemented.

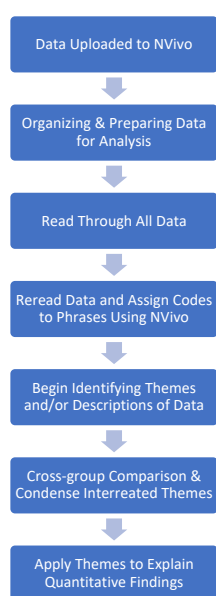
### **Validity**

Validity is defined as the procedures taken by the student researcher to confirm the accuracy of data (Creswell, 2014, p. 201). Creswell and Poth (2018, p. 259) recommended a minimum of two validation strategies of qualitative data. The student researcher incorporated three validation strategies: (a) seeking of participant feedback to ensure accuracy of interpretations and transcripts; (b) maintaining a chain of evidence; and (c) enabling external audits. As mentioned in the above interview subsection, the first validation strategy was seeking participant feedback to ensure the accuracy of interview

responses. The transcriptions of the audio/video recordings were emailed to each interviewee for editing and revisions to clarify or expand their responses to interview questions. After the transcripts were approved by the interviewees, the transcripts were uploaded into NVivo and stored in a restricted-access file on Box.com and the audio/video recordings were destroyed.

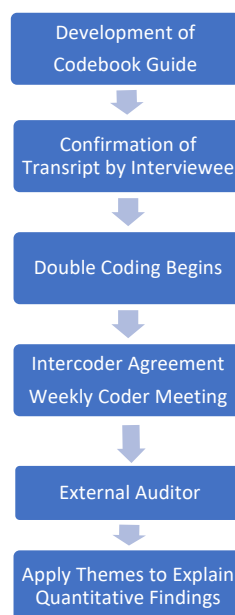
**Figure 5**

*Data Analysis Procedure*



**Figure 6**

*Validity & Reliability Checks*



*Note.* Adapted from Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches, 4<sup>th</sup> Edition*. Los Angeles, CA: Sage Publications.

The second strategy to increase the study's construct validity was maintaining a linear chain of evidence from the research question forward (Yin, 2017, pp. 134-135). The proposed study's chain of evidence sequence was: research question > interview questions > transcripts/notes > NVivo > analysis > findings. By using only one

organizational tool, NVivo, the student researcher maintained a chain of evidence in one location and allowed an external audit to clearly evaluate the process.

As the final validity strategy, an external auditor reviewed the study's analysis and results to determine if the findings, interpretations, and conclusions were supported by the data (Creswell & Plano Clark, 2018, p. 262). The student researcher selected Dr. Held as an external auditor due to her extensive career providing training, technical assistance, and graduate instruction to licensed secondary special education teachers on writing transition IEPs (see Appendix C for Dr. Held's curriculum vitae). The external auditor was CITI certified through Indiana University – Bloomington.

### **Reliability**

Reliability is defined as the student researcher's consistency within procedures and between participants (Creswell, 2014, p. 201). The primary strategy to maintain reliability was following of the study protocol developed by the student researcher.

The second reliability strategy was the thematic double-coding 100% of the transcripts by a content expert in transition (see Dr. Novak's curriculum vitae in Appendix F). The second coder is CITI certified through Bowling Green State University (Ohio) and had no previous connection to the research data. A preliminary codebook was developed by the student researcher which included the definitions of the dependent variables and the codes. The student researcher and second coder double-coded one transcript together via Zoom.us as they developed consensus on the codes, the code names, and the highlighted text segments (Creswell & Poth, 2018, p. 265). The researchers independently coded a second transcript. Using Zoom.com, the student researcher and second coder compared their codes on NVivo and finalized the codebook

(see Appendix G). The codebook was used to compare data to the defined codes and ensure the operational definitions were used by both coders (Creswell, 2014, pp. 199, 203; Creswell & Plano Clark, 2018, pp. 264-265). The second coder and the student researcher met via Zoom.com every two days to compare codes on transcripts and discuss emerging themes. Intercoder agreement was set at a minimum of 80% (Miles & Huberman, 1994) with intercoder agreement referring to agreement on the assigned codes for a specific text passage (Creswell & Poth, 2018, p. 265). The calculated intercoder reliability was 88% between the two coders for the 231 coded items. Of the total number of discrepancies (n=28), Dr. Novak and the student researcher resolved 29% (n=8) and agreed upon the final coding after discussing their rationale. The remaining 71% (n=20) of discrepancies were resolved by the external auditor who is a transition and PD expert and had no relationship to the research data (see Dr. Held's curriculum vita in Appendix I). The external auditor was CITI certified through Indiana University – Bloomington. To resolve these discrepancies, the coders' identifications were removed, and an excel spread sheet was given to the external auditor with the coded text sections. By comparing the text and the codebook, the external auditor determined the disputed codes.

### **Summary of Qualitative Methods**

The purposeful convenience sample of 12 respondents representing rural, suburban, and metropolitan LEAs were interviewed for the qualitative phase of the explanatory sequential mixed methods design. Interviews were conducted for 30 min, recorded via Zoom.com, and transcribed verbatim by a third party. Transcripts were sent to interviewees to confirm accuracy. Two interviewees responded to indicate inaccuracies or to suggest changes in transcripts. Transcripts, field notes, memoing, and open-ended

responses to the quantitative survey were uploaded and analyzed in NVivo. Multiple validity and reliability strategies were incorporated into the research design to ensure the qualitative data and analysis were accurate and complete.

### **Integration of Quantitative and Qualitative Results**

When analyzing the data from the qualitative and quantitative strands of the explanatory sequential design, the researcher used the qualitative results to explain or expand upon the quantitative results (Creswell & Plano Clark, 2018). The quantitative and qualitative findings were compared and contrasted in a joints table (see Tables 8, 9 and 10). Quotes from the qualitative results were used by the student researcher to strengthen the understanding of the quantitative results by connecting the reader to people and LEAs with examples of their strengths and challenges in PD and internal monitoring. The qualitative results were interpreted to understand why specific PD decisions were made by LEAs and what similarities or differences existed between rural, suburban, and metropolitan communities.

### **Summary**

The explanatory sequential mixed methods design was selected by the researcher which enabled both objective quantitative results to be collected and qualitative follow-up interviews to explain and interpret the quantitative results from the participants' perspective (Creswell, 2014, p. 224). In the quantitative phase, the student researcher collected responses through an online survey from special education administrators on PD for training secondary special education teachers how to write compliant transition IEPs. After eliminating duplicates, 147 responses were included in the study. In the second phase, the researcher conducted 30-min semi-structured interviews conducted

with a convenience sample taken from the original quantitative purposeful sample. In the qualitative phase, the student researcher interviewed 13 special education administrators to explore the potential PD discrepancies/similarities between rural, suburban, and metropolitan communities (Creswell & Plano Clark, 2018). The interview transcripts, field notes, memoing, and responses to open-ended survey questions were uploaded to NVivo for analysis. The findings from qualitative and quantitative phases of the study were integrated by the researcher to provide a wholistic picture of PD being in the U.S. to secondary special education teachers and the internal monitoring processes within an LEA.

## CHAPTER IV

### RESULTS

This chapter features the findings from the quantitative and qualitative phases of the research study (see Figure 1, Step 4). Following the Explanatory Sequential Mixed Methods design, the Phase 1 quantitative results are presented first, followed by the Phase 2 qualitative findings, and finally the integration of the quantitative and qualitative findings.

#### Phase 1

Data collection for Phase 1 occurred from January 17- February 28, 2020 with anonymous respondents completing a 31-item online survey. Based on the methods described in Chapter III, 147 responses were included for data analysis. The student researcher completed all survey analysis within the software Jamovi (The jamovi project, 2020) and stored in a restricted-access folder on Box.com as approved by IRB.

In order to receive the most information possible and encourage individuals to answer questions, respondents were allowed to skip questions within the survey. Therefore, individual questions may have a different number of respondents. The survey had a completion rate of 83.2% with 137 respondents completing the survey. The Qualtrics software indicated that survey would take 10 min to complete. The median and mode results indicated less than 10 min were required to complete the survey. Therefore, participation met the ethical consideration of not being overly cumbersome for respondents.

### *Demographics*

The purpose of the descriptive analysis of the demographic responses was to provide a broad overview and develop general conclusions about a population based on limited data (Gravetter & Wallnau, 2014, p. 90, 99). The rationale for collecting and analyzing descriptive statistics was that from these basic statistics graphs and/or tables could be created which may be used to identify patterns or trends within the data (Gravetter & Wallnau, 2014, p.110). The descriptive statistics were calculated for the overall study sample and for rural, suburban, and metropolitan groups on Jamovi.

A total of xxx respondents participated, representing 36 states were included in data analysis. The states with the most respondents included Indiana (n=33, 22%), Nevada (n=13, 9%), Minnesota (n=10, 7%), and North Dakota (n=11, 7%). The student researcher was originally from Indiana, worked over 20 years in secondary transition, and developed a professional network which contributed to the large percentage of respondents from Indiana. Respondents also represented rural (n=56, 38.1%), suburban (n=58, 39.5%), and metropolitan (n=33, 22.4%) communities. Participant recruitment was focused on special education directors and other special education administrators. The data demonstrated that the recruitment efforts were successful in reaching the targeted population with 78% (n=115) being in a special education leadership role with 45% of all respondents (n=66) being a special education director or assistant director (see Table 3). Other details regarding the respondents' demographics are shown in Table 3 below.

The student researcher analyzed the demographic characteristics for goodness of fit (one-sample chi-square test) to compare the nominal responses of the total sample. An



a priori level of significance was established at  $p < .05$ ,  $q < .05$ . The results indicated a statistically significant difference between the total sample of respondents' education levels ( $\chi^2 [2] = 107$ ,  $p < .001$ ,  $q = .002$ ). The respondents were significantly more likely to hold a master's degree than other degrees.

**Table 3**

*Respondents' Demographics*

Characteristics	Total N=147
<b>District Size</b>	
65,000+ students	4.1% (n=6)
30,000-64,999 students	9.8% (n=13)
5,000-29,999 students	34.7% (n=51)
1,000-4,999 students	38.8% (n=57)
<1,000 students	13.6% (n=20)
<b>Respondent's Role</b>	
Special education director	35% (n=52)
Assistant special education director	10% (n=14)
Transition coordinator	26% (n=38)
Department Chair	7% (n=11)
Special education teacher	22% (n=32)
<b>Education Level</b>	
PhD/EdS/EdD	19% (n=27)
Master's	73% (n=107)
Bachelors	8% (n=12)
<b>Years' Experience in Special Education</b>	
15+ years	76% (n=112)
10-14 years	12% (n=18)
5-9 years	10% (n=14)
2-4 years	2% (n=3)
<1 year	0%

Characteristics	Total N=147
Years' Experience in Transition	
15+ years	48% (n=70)
10-14 years	22% (n=33)
5-9 years	16% (n=23)
2-4 years	12% (n=18)
<1 year	2% (n=3)

When analyzing the demographic characteristics for rural, suburban, and metropolitan communities, the student researcher conducted an independent-samples chi-square test (contingency analysis). No statistically significant difference between the education levels of respondents from rural, suburban, and metropolitan LEAs ( $\chi^2$  [4, N=146] = 7.80,  $p=.099$ ,  $q=0.139$ ) were found from the contingency analysis. Similarly, for the total sample, there was a statistically significant difference in the respondents' years' experience in special education ( $\chi^2$  [3] = 209,  $p<.001$ ,  $q<0.002$ ) and years' experience in transition ( $\chi^2$  [4] = 86,  $p<.001$ ,  $q=.002$ ) with respondents more likely to have 15+ years' experience in both categories. The contingency analysis revealed no association between rural, suburban, and metropolitan communities due to the lack of statistically significant differences between the groups and the respondents' years' experience in special education ( $\chi^2$  [6, N=147] = 4.62,  $p=0.594$ ,  $q=0.685$ ) or years' experience in transition ( $\chi^2$  [8, N=147] = 10.1,  $p=0.256$ ,  $q=0.329$ ).

A contingency analysis was performed on the knowledge of respondents by role to Indicator 13 compliance requirements and the existence of an internal monitoring process within their LEA. A statistically significant difference was found in the contingency analysis for knowledge of Indicator 13 compliance ( $\chi^2$  [4, N=146] = 23.7,

$p < .001$ ,  $q = .002$ , Cramer's  $V = 0.403$ ) and an internal monitoring system ( $\chi^2 [8, N=146] = 28.5$ ,  $p < .001$ ,  $q = .002$ , Cramer's  $V = 0.312$ ). Based on the Cramer's  $V$  result indicating a relatively strong association (Rea & Parker, 2005, p.189). Respondents who identified their roles as "other" were more likely to not know Indicator 13 compliance requirements, while special education directors, assistant special education directors and transition coordinators were more likely to know Indicator 13 compliance requirements. With a moderate association indicated by the Cramer's  $V$  result, respondents who identified their roles' as special education department chairs in secondary schools and other roles were more likely to be uncertain of the existence of an internal monitoring process within their LEAs. Reiterating that the respondents were knowledgeable of the internal monitoring processes the contingency analysis found that special education directors, assistant special education directors, and transition coordinators were less likely to be uncertain of the existence of an internal monitoring process within their LEAs.

Responses to one survey question were problematic. The question asked if the LEA hired individuals with transition certification. As the Simonsen et al. (2018) article demonstrated very few states offer transition certification, however, 31% ( $n=46$ ) of respondents from 24 different states indicated transition certified teachers were hired. During the qualitative interviews, all respondents indicated they did not hire transition certified teachers because their state did not offer the certification. Therefore, based on the responses, the student researcher removed this question from analysis in the study due to a concern regarding the validity of the responses.

***RQ1: What are the characteristics of the professional development (PD) models being provided to secondary special education teachers on developing compliant transition IEPs?***

The dependent variable of PD characteristics was defined by the following specific qualities of the PD for writing compliant transition IEPs: (a) trainer for Indicator 13; (b) trainer for writing transition IEPs; (c) instructional method of training; (d) amount of training (hrs) received per academic year; (e) frequency for returning teachers training in academic years; and (f) combined training of returning and new teachers. A goodness of fit analysis for RQ1 found statistically significant differences for each characteristic.

**Trainer for Indicator 13 Compliance PD.** The first quality analyzed by the student researcher was identifying the primary trainer for Indicator 13 Compliance PD. Over half (60%) of the total respondents (n=142) indicated that their local special education administration provided training to their secondary special education teachers. When the student researcher compared who was the trainer for PD for goodness of fit (one-sample chi-square test), the results indicated a statistically significant difference between the total sample of respondents' responses ( $\chi^2 [4] = 163, p < .001, q = .002$ ). The student researcher conducted a post hoc analysis of the significant chi-square results to determine which variables were significantly different. When comparing the observed and expected results, the largest positive residual of [85/28.4] was found for the local special education directors. Therefore, special education administrators were more likely to be the trainers of Indicator 13 Compliance PD. The largest negative residuals were also shown for NTACTION [1/28.4], technical assistance consultants from a university [5/28.4] and the local state department of education [18/28.4]. Therefore, it is less likely that

NTACT, university technical assistance, or the state department of education were accessed to be the PD trainers.

**PD Trainer for Writing Transition IEPs.** The respondents were asked who was the primary trainer on writing transition IEPs within their LEAs. The goodness of fit analysis results indicated a statistically significant difference between the total sample of respondents' responses ( $\chi^2 [4] = 192, p < .001, q = .002$ ). The student researcher conducted a post hoc analysis of the observed and expected responses and the largest positive residual was found for the local special education administration [89/28.2] and the largest negative residual being NTACT [1/28.2]. Based on these results, it is more likely the trainer for PD on writing transition IEPs was provided by the local special education administration.

**Instructional Method.** Respondents were asked to identify the most primary instructional method used for their PD. A statistically significant difference was found through a goodness of fit analysis ( $\chi^2 [6] = 481, p < .001, q = .002$ ). The post hoc comparison of observed and expected results identified the largest positive residual was found with face-to-face workshop [110/19.9]. Therefore, it was more likely that face-to-face workshops would be the delivery format of PD on writing compliant transition IEPs. Negative residuals were found for PD being delivery occurring in a college course [1/19.99], asynchronous online training [3/19.9], and synchronous online training [1/19.9]. These negative residuals indicated college coursework and online trainings were less likely to be the PD format provided within an LEA.

The survey respondents also provided insight into their special education teachers' instructional method preference. The goodness of fit analysis resulted in a

statistically significant difference with ( $\chi^2 [5] = 261, p < .001, q = .002$ ). The student researcher conducted a post hoc analysis to identify the residuals between observed and expected responses. A positive residual for teachers' preferences for a face-to-face workshop [93/23.2] and negative residuals for online synchronous [8/23.2] and an online asynchronous [2/23.2] were determined. Therefore, secondary special education teachers were more likely to prefer face-to-face workshops and less likely to prefer online trainings.

**Amount of Training.** The respondents were asked to identify the amount of PD (in hrs) that their LEAs offered to their secondary special education teachers in writing compliant transition IEPs. The student researcher analyzed the total responses for goodness of fit (one-sample chi-square test), the results indicated a statistically significant difference between the total sample of respondents' responses ( $\chi^2 [5] = 212, p < .001, q = .002$ ). The student researcher conducted a post hoc analysis of the significant chi-square results to determine which variables were significantly different in the amount (number of hrs) of PD provided. When comparing the positive residual proportions of observed and expected results for the number of PD hrs, the positive residuals were found for 1-5 hrs [87/24.2] and 0 hrs [27/24.2]. The amount of training for writing compliant transition IEPs was more likely to be 0 hrs or between 1-5 hrs. Negative residuals were found for 6-10 hrs [15/24.2], 11-15 hrs [8/24.2], 16-20 hrs [2/24.2]. The amount of training was less likely to be over 6 hrs of PD.

**Frequency.** Respondents were asked to identify the most recent PD for returning secondary special education teachers in writing compliant transition IEPs. The goodness of fit analysis indicated a statistically significant difference in the frequency of training

for returning special education secondary teachers ( $\chi^2 [5] = 219, p < .001, q = .002$ ). When the student researcher compared the positive residual proportions of observed and expected results in a post hoc analysis, the largest positive residual was found for the response “within the last school year” [87/23.8]. Based on that result, the frequency of training for writing compliant transition IEPs for returning teachers was more likely to occur within the last school year. The largest negative residual was shown to be for the responses of “5 years or more” for the last training for returning teachers on writing compliant transition IEPs [1/23.8]. Therefore, it was less likely that PD on writing compliant transition IEPs occurred more than five years ago.

**Combined Training for New and Returning Teachers.** Respondents were asked if new and returning teachers received the same PD on writing compliant transition IEPs. A statically significant difference was found in the total survey responses about new and returning secondary teachers receiving the same training on writing compliant transition IEPs. The goodness of fit results were ( $\chi^2 [3] = 141, p < .001, q = .002$ ). When comparing the observed and expected results for the teacher training, the results showed that new and returning teachers were receiving the same training [97/35.8]. The negative residuals were found for that neither group received training [10/35.8] and that new and returning teachers were not receiving the same training [18/35.8]. Therefore, it was less likely that new and returning teachers did not receive any PD on writing compliant transition IEPs or that they received different PD.

**Preferred PD length.** Respondents were also asked to identify the special education teachers’ preferred length of a training event. A statistically significant difference in the survey responses about the secondary special education teachers’

preferred length of training. The goodness of fit results were ( $\chi^2 [5] = 73.1, p < .001, q = .002$ ). A post hoc analysis of the observed and expected results for the preferred length of PD found the largest positive residual was found for less than half-day [54/23.2] and single day [32/23.2]. This indicated that teachers are more likely to prefer half-day or single-day PD. The largest negative residual was for semester long training [3/23.2] and online asynchronous training [8/23.2]. Therefore, teachers were less likely to prefer a semester-long training or an online training that they can complete at their own pace.

***RQ2: How are professional development opportunities similar or different for LEAs in rural, suburban, and metropolitan areas?***

In order to compare the results of PD in the three sizes of communities, the student researcher conducted an independent-samples chi-square analysis. This test of association analysis was chosen because the researcher was comparing three or more comparison groups and responses of three or more categories (Huck, 2004, p. 467). When conducting a chi-square analysis with multiple categorical responses, the sample size must be large enough for the analysis to be accurate. If the expected results from the analysis are too small, the results are invalid. The liberal view of the average expected frequency (identified as a score of two or higher) was used to identify valid results (Huck, 2004, p. 475). Therefore, if the independent-samples chi-square analysis resulted in a statistically significant effect size ( $p \leq .05$ ), the observed and expected values were reviewed. When necessary, the averages of the total expected values were calculated. If the expected frequency was greater than or equal to two, the positive and negative residuals were analyzed. In addition, a Cramer's V analysis was calculated to determine



the association between variables in the chi-square analysis (Cohen, 2013, p.728; Kotrlik et al., 2011).

Multiple PD characteristics were examined as variables in the survey including: (a) trainer for writing transition IEPs; (b) trainer for Indicator 13; (c) instructional method of PD; (d) number of hrs of training received per academic year; (e) frequency for returning teachers training in academic years; and (f) combined training for returning and new teachers. The RQ1 results had statistically significant differences for each characteristic. For RQ2, a chi-square analysis was conducted to compare the PD characteristics to the community sizes and determine if a statistically significance existed. As shown on Table 4, there was no statistically significant difference between rural, suburban, and metropolitan LEAs for the PD characteristics of the trainer, instructional method, length, frequency, and combined PD opportunities. These results indicate there was no difference between these PD characteristics in rural, urban, and metropolitan LEAs.

There were two PD qualities which showed statistically significant  $p$  values between LEAs located in rural, suburban, and metropolitan communities: (a) instructional method preference and (b) hrs of training. These two qualities are discussed in the following subsections.

**Instructional Method Preference.** When responding to the research question regarding teachers' preference of instructional methods, the effect size approached statistical significance with  $\chi^2 [10, N=139] = 18.2, p=0.051, q=0.085$ , Cramer's  $V = 0.256$ . While the  $p$  and  $q$  results did not show statistical significance, this result may have been impacted due to the lack of power within the community sizes. The Cramer's  $V$

result indicated there was a moderate association between the characteristics. Because this study is exploring the relationship between these variables, this association indicates this may be an area for further study with larger sample size.

**Table 4**

*Professional Development Chi-Square Results*

<b>Category</b>	<b>Results</b>	<b>FDR Adjustment</b>
Trainer for Indicator 13	$\chi^2 [8, N=142] = 4.67, p=0.792$ Cramer's V = 0.128	$q=0.792$
Trainer writing IEP	$\chi^2 [8, N=141] = 5.59, p=0.693$ Cramer's V = 0.141	$q=0.743$
Instructional method	$\chi^2 [12, N=139] = 11.7, p=0.472$ Cramer's V = 0.205	$q=0.559$
Instructional method preference of teachers	$\chi^2 [10, N=139] = 18.2, p=0.051^*$ Cramer's V = 0.256	$q=0.085$
Hours of Compliance Training	$\chi^2 [10, N=145] = 11.6, p=0.312$ Cramer's V = 0.200	$q=0.390$
Hours of Writing Transition IEP Training	$\chi^2 [12, N=143] = 21.1, p=0.049^*$ Cramer's V = 0.271	$q=0.085$
Frequency (returning teachers)	$\chi^2 [10, N=144] = 7.83, p=0.646$ Cramer's V = 0.165	$q=0.727$
Combined training (new/returning)	$\chi^2 [6, N=143] = 4.10, p=0.663$ Cramer's V = 0.120	$q=0.728$

Category	Results	FDR Adjustment
Length preference (days)	$\chi^2 [10, N=139] = 16, p=0.098$ Cramer's V = 0.240	$q=0.139$
Resources for IEP training	$\chi^2 [10, N=88] = 15, p=0.132$ Cramer's V = 0.292	$q=0.177$
Resources for Indicator 13 training	$\chi^2 [12, N=83] = 17.4, p=0.134$ Cramer's V = 0.324	$q=0.177$

*Note:* Statistically significant results when  $p < .05$ ,  $q < .05$  are denoted by (\*).  
Cramer's V Result interpretation: ".00<.10 negligible association; .10<.20 weak association; .20 <.4 moderate association (Rea & Parker, 2005, p.189)"

When conducting a post hoc analysis of the expected and observed frequencies, the student researcher found that specific cells did not meet the conservative interpretation that each cell's expected response value must be greater than five (Cohen, 2013, p. 730; Rea & Parker, 2005, p. 190). However, the average expected result was 3.31 which exceeded the liberal requirement of the average expected cell value being greater than two (Huck, 2004, p. 475). Therefore, the chi-square analysis was determined a valid test for the data analysis. A Cramer's V result of 0.256 demonstrated a moderate association between variables in the chi-square analysis (Kotrlik et al., 2011; Rea & Parker, 2005, p. 189). Based on the results meeting the liberal requirement for expected cell values and the moderate association range of Cramer's V, the student researcher analyzed the residuals of the expected and observed values of responses. Positive residuals demonstrated that rural communities were more likely to prefer face-to-face workshop instruction [39/35.5]; suburban populations were more likely to be uncertain of their teachers' preferred instructional methods [11/6.33]; and metropolitan communities'

teachers were more likely to prefer asynchronous online training [4/1.78]. The largest negative residuals indicated that rural communities were less likely to be uncertain as to their teachers' preferences of instructional methods [3/6.10] and suburban communities' teachers were less likely to prefer online asynchronous training [0/3.17].

**Hours of Writing Transition IEP Training.** When responding to the research question regarding the number of PD hrs received by secondary teachers in writing compliant transition IEPs, a statistically significant difference was found between rural, suburban, and metropolitan results with  $\chi^2$  [12, N=143] 21.1,  $p=0.049^*$ ,  $q=0.085$ , Cramer's  $V=0.271$ . With an a priori effect size set at  $p<.05$ , this result met the level of significance. While the  $q$  result did not show statistical significance, this result may have been impacted due to the lack of power within the community sizes. The Cramer's  $V$  result of 0.271 indicated a moderate association between variables in the chi-square analysis (Kotrlík et al., 2011). Because this study is exploring the relationship between these variables, this association indicates this may be an area for further study with a larger sample size.

When conducting a post hoc analysis of the expected and observed frequencies, the average expected result was 6.81 which exceeded the liberal requirement of the average expected cell value being greater than two (Huck, 2004, p. 475). Therefore, the chi-square analysis was determined to be a valid test for the data analysis. Based on the results meeting the liberal requirement for expected cell values and the moderate association range, the student researcher analyzed the residuals of the expected and observed values of responses. The positive residuals with the largest differences included (a) more metropolitan LEAs had no training on writing transition IEPs with 7/5.2; (b)

more rural LEAs had no training on writing transition IEPs [13/9.4]; and (c) more suburban LEAs had 6-10 hrs of training [11/7.8] on writing transition IEPs.

***RQ3: In what ways are LEAs conducting internal monitoring to ensure transition IEP compliance?***

The internal monitoring system was defined by five characteristics including (a) knowledge of Indicator 13 compliance requirements; (b) existence of an internal monitoring process; (c) percentage of transition IEPs monitored in an LEA; (d) monitoring tool used by LEA; and (e) staff title who completes internal monitoring. The respondents' results were analyzed using one-way chi-square analysis (goodness of fit) for each characteristic.

**Knowledge of Indicator 13 Compliance.** Overwhelmingly, 92% of respondents (n=135) indicated they were knowledgeable of Indicator 13 compliance requirements for transition IEPs. Statistically significant goodness of fit results ( $\chi^2 [1] = 81.8, p < .001, q = .002$ ), indicated that LEAs were more likely to be knowledgeable of Indicator 13 compliance requirements.

**Internal Monitoring Process.** The survey results revealed 73% of respondents (n=107) had an internal monitoring process. The goodness of fit results found a statically significant difference in the number of LEAs with internal monitoring processes  $\chi^2 [2] = 106, p < .001, q = .002$  with a post-hoc positive residual of [107/48.7]. Therefore, LEAs were more likely to have an internal monitoring process for Indicator 13 compliance for transition IEPs.

In addition, a statistical significance was found between the relationship between the respondents' years of experience in transition and the existence of an internal

monitoring process ( $\chi^2 [8, N=146] = 22.5, p=.004, q=.007$ ). A moderate association was indicated by the Cramer's V results of 0.278. A post hoc analysis indicated that respondents with 15+ years transition experience were more likely to have an internal monitoring system within their LEA while respondents with 2-4 years of transition experience were less likely to have an internal monitoring system.

**Percentage of Transition IEPs Monitored.** Respondents were asked to identify the percentage of transition IEPs which were monitored within their LEAs. Thirty-five percent of the total respondents (n=37) indicated that 100% of their transition IEPs were monitored for Indicator 13 compliance. The chi-square goodness of fit analysis findings revealed a statistically significant difference with  $\chi^2 [4] = 20.0, p<.001, q=.002$ . The post hoc analysis of residuals indicated LEAs were more likely to monitor 100% of their transition IEPs with a positive residual of [37/21.4]. Therefore, it was more likely an LEA monitored 100% of their transition IEPs for Indicator 13 Compliance.

During a contingency analysis of the relationship between the percentage of IEPs internally monitored and the hrs of PD on Indicator 13 compliance, no statistically significance difference was found and a negligible association was found from the Cramer's V analysis ( $\chi^2 [25, N=107] = 20.05, p=.720, q=.753, \text{Cramer's } V=0.196$ ). Therefore, the results indicated there was not relationship between the hours of PD and the LEA's internal monitoring results.

**Monitoring Tool.** The majority of respondents (54%, n=58) indicated they used their state's department of education monitoring tool to determine an IEPs compliance for Indicator 13. The goodness of fit analysis found a statistical significantly difference  $\chi^2 [4] = 61.9, p<.001, q=.002$ . The post hoc analysis of positive residual showed [42/16] for

their state's department of education monitoring tool. Therefore, it was more likely an LEA used the state-developed monitoring tool to determine Indicator 13 compliance.

**Internal Monitor.** When respondents were asked who conducts the internal monitoring within their LEA, the two primary responses were special education directors (22%, n=23) and transition coordinators (30%, n=32). The goodness of fit analysis showed a statistically significant difference with  $\chi^2 [8] = 61.3, p < .001, q = .002$ . The post hoc analysis identified the largest positive residuals for transition coordinator [24/8.89] and special education director [18/8.89]. Therefore, it was more likely a transition coordinator or special education director conducted the internal monitoring within an LEA.

While the internal monitor was predominately the special education directors and transition coordinators, a statistically significant difference was found when comparing the LEA staff conducting internal monitoring and the most recent Indicator 13 report sent to OSEP  $\chi^2 [32, N=107] = 72.8, p < .001, q = .002$ . A relatively strong association was indicated by the Cramer's V results of 0.412 between these factors. The post hoc comparison of expected and observed residuals demonstrated that LEAs who reported to the OSEP within the last year were more likely to have peer monitoring of transition IEPs for Indicator 13 compliance. In addition, for LEAs whose report was 2-3 years ago, it was more likely the assistant special education director was conducting internal monitoring.

***RQ 4. How are internal monitoring processes similar or different for special education districts in rural, suburban, and metropolitan areas?***

As with RQ3, internal monitoring characteristics were defined by five data collection areas including (a) knowledge of Indicator 13 compliance requirements; (b)

internal monitoring process; (c) percentage of transition IEPs monitored; (d) monitoring tool used by LEA; and (e) role of staff who completes monitoring. The independent-samples chi-square (contingency) analysis was conducted for each research question related to internal monitoring compared to the community size (rural, suburban, and metropolitan). As shown in Table 5, the majority of the internal monitoring process' characteristics were not statistically significant between communities.

**Table 5**

*Internal Monitoring Process Chi-Square Results*

<b>Category</b>	<b>Results</b>	<b>FDR Adjustment</b>
Knowledge of Indicator 13	$\chi^2 [2, N=146] = 5.76, p=0.056$ Cramer's V=0.199	$q=.088$
Internal monitoring process	$\chi^2 [4, N=146] = 16.6, p=.002^*$ Cramer's V = 0.238	$q=.004^*$
Percentage of IEPs monitored	$\chi^2 [10, N=107] = 6.39, p=0.781$ Cramer's V = 0.173	$q=.792$
Monitoring Tool	$\chi^2 [8, N=107] = 13.7, p=0.089$ Cramer's V = 0.253	$q=.134$
Monitor	$\chi^2 [16, N=107] = 25.8, p=0.057$ Cramer's V = 0.347	$q=.088$
Report to Federal DOE	$\chi^2 [8, N=146] = 7.81, p=0.452$ Cramer's V = 0.164	$q=.550$

*Note:* Statistically significant results when  $p < .05$ ,  $q < .05$  are denoted by (\*).  
Cramer's V Result interpretation: ".00<.10 negligible association; .10<.20 weak association; .20 <.4 moderate association (Rea & Parker, 2005, p.189)"



One internal monitoring characteristic was statistically significant different based on the community's size.

**Internal Monitoring Process.** The purpose of this contingency analysis was to determine if there was a difference in the existence of internal monitoring process in rural, suburban, and metropolitan communities. The results showed a statistically significant difference ( $\chi^2 [4, N=146] = 16.6, p=.002, q=.004$ ) between different-sized communities. The Cramer's V results (0.238) indicated a moderate level of association (Rea & Parker, 2005, p. 189). A post-hoc analysis of the expected values found one cell's expected value to be 3.07 with all other expected values exceeding 5.37. Therefore, the average cell value exceeded the liberal requirement for the validity of the chi-square results. When conducting the post hoc analysis of residuals, the largest difference between expected and observed values were: (a) more metropolitan respondents were uncertain if their LEA had an internal monitoring process [8/3.07]; (b) fewer metropolitan respondents did not have an internal monitoring process [1/5.48]; (c) more rural respondents did not have an internal monitoring process [13/9.59]; and (d) fewer rural respondents were uncertain if their LEA had an internal monitoring process [1/5.37].

### ***Monitoring Report to OSEP***

When exploring the data, by conducting Independent Chi-square analysis, the student researcher found a relationship between the most recent monitoring report to OSEP on the LEA's Indicator 13 compliance and four PD characteristics (see Table 7).

**Instructional Method.** A statistically significant difference was found when comparing the instructional method used by an LEA to the most recent Indicator 13

report sent to OSEP with  $p=.0017$  and  $q=.031$ . A moderate relationship was indicated by the Cramer's V results of 0.271 between these factors. The post hoc comparison of expected and observed residuals demonstrated that LEAs who reported to the OSEP within the last year were more likely to have face-to-face workshops. However, LEA's were more likely to have one-on-one technical assistance if they had submitted their report within 2-3 years to OSEP.

**Table 7**

*Monitoring Report to OSEP Chi-Square Results*

Category	Results	FDR Adjustment
Instructional Method	$\chi^2 [24, N=139] = 40.8,$ $p=0.017^*$ Cramer's V=0.271	$q=.031^*$  $q=.002^*$
Preferred Length of PD	$\chi^2 [20, N=139] = 46.3, p<.001^*$ Cramer's V = 0.288	$q=.002^*$
Combination New/Returning for Indicator 13 PD	$\chi^2 [12, N=143] = 37.4, p<.001^*$ Cramer's V = 0.295	$q=.002^*$
Combination New/Returning for Writing Transition IEPs PD	$\chi^2 [12, N=143] = 45.8, p<.001^*$ Cramer's V = 0.327	$q=.002^*$

*Note:* Statistically significant results when  $p<.05, q<.05$  are denoted by (\*).  
Cramer's V Result interpretation: “.00<.10 negligible association; .10<.20 weak association; .20 <.4 moderate association (Rea & Parker, 2005, p.189)”

**Preferred Length of PD.** When analyzing the special education teacher's preferred length of training and the most recent Indicator 13 report to OSEP, a statistically significant difference was found with  $p<.001$  and  $q=.002$ . A post hoc analysis revealed of the expected and observed residuals indicated that less than half-day trainings

were preferred in LEA's who reported to OSEP within the last year. However, if the OSEP report was sent within the last 2-3 years, it was more likely that special education teachers would prefer multiple days of training.

**Indicator 13 Combined Training for New/Returning Teachers.** A statistically significant difference was found when comparing the combination of new and returning teachers receiving the same Indicator 13 training to the most recent Indicator 13 report sent to OSEP with  $p < .001$  and  $q = .002$ . A moderate relationship was indicated by the Cramer's V results of 0.327 between these factors. The post hoc comparison of expected and observed residuals demonstrated that LEAs who reported to the OSEP within the last year were more likely to have combined trainings for Indicator 13 compliance training for new and returning teachers.

**Writing Transition IEP Combined Training for New/Returning Teachers.** When comparing the when the most recent Indicator 13 report was submitted to OSEP and the training on writing transition IEPs combined for new and returning teachers a statistically significant difference was found. A moderate association between the factors was also indicated in the Cramer's V result of 0.295. A post hoc analysis of the expected and observed results from the chi square analysis showed it was more likely for a combined training to occur if their compliance report occurred within the last year.

## **Phase 2**

The second phase of the explanatory mixed methods design was to collect and analyze qualitative data which provided the context and explanation for quantitative results (Creswell & Plano Clark, 2018). The qualitative data from 12 interviews were coded based on the finalized codebook developed and agreed upon by the student

researcher and second coder (see Appendix G). The three themes were: (a) professional development system, (b) internal transition IEP monitoring system for continuous improvement, and (c) challenges to writing compliant transition IEPs.

***PD System Theme***

One theme identified during qualitative analysis was the PD System. Of the 231 pieces of qualitative text which were coded, 121 were related to PD systems. Three subthemes were identified under PD System: (a) special education teacher PD, 38% (n=88); (b) other capacity building, 10% (n=23); and (c) writing transition IEPs, 4% (n=10). Upon further analysis of the coded text, the subtheme of “other capacity building” was collapsed into special education teacher PD as part of the rationale for in-house trainers. The purpose of the other capacity building subtheme was to build the skills and knowledge of local staff to support the development of in-house trainers to conduct PD on writing compliant transition IEPs. The subtheme of writing transition IEPs was collapsed into the challenges in writing compliant transition IEPs. Both of these changes were agreed to by the double coder.

**Special Education Teacher PD.** Based on the qualitative findings, all of the LEAs embedded the Indicator 13 compliance and writing a transition IEP into one training. Therefore, when PD is referenced from this point forward it refers to PD for writing compliant transition IEPs. Five main factors emerged about special education teacher PD for writing compliant transition IEPs. These included: (a) the rationale for an in-house trainer, (b) continuum of instructional methods, (c) PD amount and frequency, (d) rationale for combining new and returning teacher PD, and (e) challenges for providing PD.

***Rationale for In-house Trainer.*** Only one metropolitan special education director had an outside consultant provide PD on writing compliant transition IEPs. However, the director's decision was challenged by the staffs' reaction, "[the consultant] did a great job when she was here. But when she [the consultant] leaves, I think those thoughts leave." Based on that concern, that metropolitan special education director began utilizing local staff.

All interviewees reported that in-house trainers were used to provide PD on writing compliant transition IEPs. The student researcher and double coder identified multiple reasons for LEAs to use an in-house trainer. First, there were financial benefits to LEAs who used an in-house trainer compared to hiring an outside consultant. Second, special education administrators wanted to develop internal expertise within their districts or buildings and were able to do so through in-house trainers. Third, by capitalizing on the knowledge of veteran teachers and special education department chairs, the special education administrators believed the special education teachers were more likely to ask for their assistance in the future. Finally, the special education administrators believed an in-house trainer would be better received and meet their teachers' needs more than an outside consultant.

***Continuum of Instructional Methods.*** The qualitative analysis findings indicated that LEAs were providing a continuum of PD instructional methods to meet the training needs within their districts, secondary school buildings, and with individual teachers for writing compliant transition IEPs. As one metropolitan special education administrator stated, "[We are] trying to offer all modalities."

The continuum ranged from writing a monthly newsletter to conducting large group instruction to 200 special education teachers within a metropolitan district. The five most predominate instructional methods were: (a) face-to-face, (b) online, (c) large group, (d) small group, and (e) one-on-one.

***PD Amount and Frequency.*** The amount and frequency of PD was extremely limited. Overall 92% of interviewees (n=11) agreed that their secondary special education teachers received 5 hrs or less PD per academic year on writing compliant transition IEPs. For example, one metropolitan special education administrator noted that the special education teachers received one Professional Learning Community (PLC) training per month to meet as a department. During that time, all areas of special education had to be covered, not just writing compliant transition IEPs. Therefore, “transition gets maybe 2 hrs per academic year.” Similarly, a metropolitan special education director stated,

One Monday per month is a district-wide professional development. It’s about 90 min to 2 hrs. So, we are talking about nine of those per year.

That’s approximately 18 hrs of total training. But in that time, they [special education teachers] have to be trained on teaching strategies and the entire compliance of the IEP. So yeah, transition gets very little [training time].

To maximize PD opportunities, another metropolitan special education administrator attended department chair meetings to provide instruction. Unfortunately, the time allotted was limited “you may have an hr, you may have 30 min, you may have 45 min” per month and writing transition IEPs might only be addressed one time per

academic year.

One rural special education director indicated that no training on writing compliant transition IEPs was provided in their LEA during the current academic year. This director focused their PD on “providing quality instruction” to students rather than focusing on compliance.

While most LEAs were challenged to provide transition IEP and Indicator 13 compliance training, there was one exception. One rural LEA had not met the 100% compliance mandate and was granted weekly PLC time to conduct PD and work on transition IEP compliance. The special education department chair noted her staff had “2 hrs per week” to focus on writing compliant transition IEPs.

**Challenges of Providing PD.** The final factor that emerged in the qualitative analysis was LEAs’ challenge to provide PD for secondary special education teachers to not only learn how to write a compliant transition IEP, but also to maintain compliance. As discussed in the above instructional methods subsection, there was limited PD time available for secondary special education teachers. In addition, PD on writing compliant transition IEPs is just one topic required. The following quote captured the time challenge due to other required trainings:

...time is an issue. And you remember, special education teachers have to be trained on, you know, everything from lock down drills; don’t forget all the lock down drills they have to have. And fire drills, and how to recognize the symptoms of suicide for prevention. And, you know, and then they’ve gotta be trained in all the general education curriculum, how to write a compliant IEP, and then they’re supposed to do transition.

One rural special education administrator stated that, “We are in a strong cycle for PLCs and we don’t have a lot of opportunity outside of our PLC time for professional development.” Therefore, with the limited PD time, this special education director has chosen to not provide training on Indicator 13 compliance or writing transition IEPs.

A second challenge was the access to and knowledge of resources. One suburban special education administrator noted that finding existing PD resources to implement within the LEA was challenging:

There are some fantastic transition trainings that are online... They are free and they’re fantastic, but they aren’t specific to writing IEPs...writing IEPs is individualized per school division. And, so it’s not as easy to mass produce a really good online module.

Other special education administrators echoed this statement citing that their states did not have uniform IEP systems. Therefore, each district had to develop their own PD to provide specific compliance information. For example, one rural special education department chair “created a whole presentation on what exactly goes in a transition IEP; what resources we have available in our district; and what sections you can put that information in; where to get information, and who to collect it from.” Not only are LEAs creating their own PD, they are googling resources rather than utilizing quality resources. For example, 33% (n=4) of the interviewees had not heard of or used resources from the NTACTION.



### ***Internal Monitoring System for Continuous Improvement Theme***

The second theme that emerged from the 231 pieces of coded qualitative text was internal monitoring system for continuous improvement (n=64). Within that theme there were two subthemes: (a) continuous improvement for planning, implementing, and evaluating transition IEPs, 13% (n=30); and (b) continuous improvement for utilizing monitoring results, 15% (n=34).

**Continuous Improvement: Plan, Implement, and Evaluate.** With a federal mandate for 100% compliance for Indicator 13, all of the LEAs were conducting some internal monitoring for Indicator 13. Half of the LEAs had a team comprised of a district-level special education administrator, a building level special education administrator, and a building administrator to conduct monitoring on-site. However, the other half of respondents used a variety of staff to conduct internal monitoring. For example, 33% of LEAs (n=3) had secretary/clerical staff conducting monitoring of transition IEPs as they were received into the special education office. In one metropolitan LEA, the clerical staff was trained by an outside consultant and the special education director on Indicator 13 compliance. In two rural LEAs, the special education directors trained the administrative staff on their monitoring duties. In both of those rural LEAs, the clerical staff monitored to ensure information was entered into the transition IEPs and not that what was contained within the transition IEP met Indicator 13 compliance requirements. In contrast, one district employed one person just to ensure compliance on all indicators, including Indicator 13.

The differences in monitoring structures also applied to the amount of transition IEPs that were monitored. The range of transition IEPs monitored for Indicator 13

compliance varied from 0% to 100%. The only pattern that emerged was suburban, and metropolitan LEAs had more rigorous internal monitoring processes with more special education administration oversight than rural LEAs.

The third stage of the continuous improvement process model was to evaluate the monitoring results. All of the LEAs returned non-compliant transition IEPs to the special education teacher or case manager who wrote the IEP to fix the errors by a specific date. Most interviewees stated that when/if multiple IEPs were noncompliant on a teacher's caseload, the special education administrator would meet one-on-one with the teacher to discuss why the transition IEPs were not compliant and require those IEPs be corrected.

While non-compliant IEPs were asked to be revised/amended to meet compliance, there was no evidence that a follow-up was done to confirm the IEPs were corrected or that other similar non-compliant IEPs on the teacher's caseload were corrected.

**Continuous Improvement Plan: Utilize Results.** While the qualitative findings demonstrated that most LEAs have focused their efforts on planning, implementing, and evaluating their internal monitoring system, many LEAs had not incorporated the final step in the continuous improvement process of utilizing results. The findings revealed that special education administrators were concerned the monitoring results were not being used to hold teachers accountable for their transition IEPs' compliance. This lack of accountability may be impacted by the special education teachers who were supervised and evaluated by their building principals. The majority of special education administrators interviewed had been challenged to get principal buy-in on the importance of Indicator 13 compliance and incorporate results in teachers' yearly evaluations.

Multiple strategies were used by special education administrators to support principals to understand compliance results. For example, in one metropolitan LEA, the special education administrator provided Indicator 13 compliance training during the Principals' Professional Learning Community. Another metropolitan special education administrator developed an easy-to-interpret reporting format for principals with color coding Indicator 13 compliance results for each teacher. Others included principals in one-on-one training between the special education administrator and the teacher(s) who continued to be non-compliant. The response to these strategies ranged from teachers being placed on improvement plans to no ramifications for noncompliance. Only one metropolitan special education administrator indicated that compliance was a part of the district's teacher's evaluation system.

### ***Challenges in Writing Compliant Transition IEPs Theme***

The final emerging theme was the challenge that LEAs have with their teachers writing compliant transition IEPs and maintaining Indicator 13 compliance. Of the 231 pieces of coded texts, 16% (n=37) were related to these challenges. The primary challenges identified were: (a) the perception of changing compliance requirements each year; (b) the lack of certified special education teachers; (c) the lack of undergraduate programs instruction on writing compliant transition IEPs; and (d) the lack of teachers' relationships with students.

**Perception of Changing Compliance Requirements.** While IDEA 2004 and the Indicator 13 monitoring checklist approved by OSEP have not changed, the special education administrators continue to be challenged to meet their state's compliance requirements. A recurring message was the belief that the state departments of education

continue to change Indicator 13 compliance requirements each year. A prevailing feeling was that their state departments of education are “ridiculously nitpicky” and “not consistent” which was the rationale LEA’s used for being unable to achieve and maintain Indicator 13 compliance. One quote from a rural special education administrator conveyed their frustration, “What we were told to fix two years ago, we did, and then we got dinged on that [this year]...It would be nice if it wasn’t always a moving target...” This frustration of inconsistency and shifting compliance requirements may be best illustrated by the following quote from a metropolitan special education administrator:

Every year we’re getting new information...Every single time the Department of Education comes out again, there is a new way you have to write something. Or there’s different verbiage that they want...it’s constantly changing, yet the law hasn’t changed at all.

**Lack of Certified Special Education Teachers.** While one suburban special education director discussed their ability to hire and retain quality staff, an overall subtheme that emerged was the challenge LEAs face in writing compliant transition IEPs due to the lack of certified special education teachers. In a large district, the lack of certified teachers was a major limitation in writing compliant transition IEPs. This limitation is reflected by a metropolitan special education administrator who stated: “We have 37 teachers on emergency license[s]...we have people teaching who don’t even have a teaching degree. So, they don’t even know what transition is.” When districts are left with no other alternatives except hiring unlicensed special educators, LEAs must figure out how to support them. One suburban special education administrator shared their challenge, “we do hire people on what we call additional licensure plans, and so that

means those people are coming in and they haven't had any special education [college instruction] before. So, they're sort of on-the-job learning." Even if an LEA hires certified teachers, as noted by a metropolitan transition coordinator, there can be ongoing challenges to retaining staff, "...the 8 staff [special education teachers] we hired here...walked out the second week of school."

When administrators must focus on hiring and retaining staff to provide daily instruction and services to special education students, it is a challenge to provide adequate training to write complaint transition IEPs. In addition, staff turnover forces LEAs to be in a constant state of training and retraining secondary special education teachers on the fundamental elements of their job and the very basics of writing a transition IEP.

**Lack of Undergraduate Preparation.** When asked if new teachers who are recent graduates are able to write compliant transition IEPs, one suburban special education director who is also an adjunct college professor stated, "They get some of the theory behind writing an IEP and they might have written one sample IEP on a fake child. And so they might know technically what some of it means, but they don't understand the premise behind it." This disconnect with the practical experience of writing an IEP was echoed in a metropolitan special education director stating, "One of my teachers said she wrote like an 80 page IEP in college. I said, 'That's ridiculous!'" These quotes represent the concern that administrators expressed regarding the inadequate preparation of teachers at the undergraduate level and how it impacted their IEP writing.

**Lack of Teachers' Relationships with Students.** The qualitative data also reflected the necessity of special education teachers establishing relationships with their students in order to write a compliant transition IEP and support the student to obtain their postsecondary goals. One suburban special education administrator shared,

It's different at each school. Some schools assign case managers every year and they assign them based on who the student has for class. So, you do see your students. And then a couple of our high schools assign a case manager in ninth grade and that's your case manager throughout all four years of high school in the hopes that you build a relationship with that case manager and they really know you and can help you.

One special education administrator believed the teacher-student relationship impacted transition IEP compliance. The rationale for compliance was given, as well as the challenge of developing that relationship, in the following quote,

If you have a relationship, you understand what that student is in need of... even if they are not sure what they want to do, you know what they're capable, and you've seen things, and you can talk to them... that all coming [*sic*] from having a relationship in a conversation. And sometimes it's not always the teacher's fault that they don't have that relationship because of scheduling ... the case managers who are responsible for working with these students may only see them for just a smidge of time and not able [to develop a relationship].

The challenges identified in writing compliant transition IEPs are systemic issues that are not easily overcome in the educational system. These challenges demonstrate the complexity and need for strong relationships between students and teachers and highlights the need for an educational system that recognizes and fosters those relationships. Similarly, the need for open communication and collaboration between secondary special education transition IEP requirements and postsecondary education preparation programs are essential to improve transition IEP compliance and the outcomes of secondary students with disabilities.

### **Summary of Qualitative Findings**

Phase 2 of the explanatory mixed methods research design was the collection and analysis of qualitative data to provide insight and context into the quantitative results. From the qualitative analysis of the 14 interviews with special education administrators, three themes emerged: PD systems, internal monitoring systems for continuous improvement, and challenges to writing compliant transition IEPs. The findings indicated similar practices and challenges in rural, suburban, and metropolitan LEAs. However, differences were found in the rationale for and the quality of implemented systems in rural, suburban, and metropolitan communities.

### **Integration of Quantitative Results and Qualitative Findings**

The final step in the explanatory sequential mixed methods study was the integration of the qualitative findings to explain the quantitative results (Creswell & Plano Clark, 2018, p. 222). The research questions were answered based on the integrated results by looking for similarities, differences, inconsistencies and complexities within

the data (p. 233). Table 7 integrates qualitative findings and quantitative results to provide a deeper understanding of the results (Creswell & Plano Clark, 2018, pp. 237-238). Due to the time restriction of a 30-min interview, the student researcher prioritized what interview questions would provide the most insight into unexpected quantitative results. Therefore, not all facets of each research questions were explored during the interviews.

***RQ1: What are the characteristics of the professional development models being provided to secondary special education teachers on developing compliant transition IEPs?***

Four characteristics of PD were included in both the quantitative and qualitative phases of the study. These characteristics were (a) trainer of PD, (b) instructional method, (c) amount and frequency of PD, and (d) combined training for new and returning special education teachers. Table 7 compares these results and findings.

To understand the extreme difference between observed and expected results for PD instructional method, the interviewees were asked what PD instructional methods were used and why or why not those strategies were effective. Unlike the quantitative results, the qualitative findings indicated a continuum of instructional methods were being implemented.



**Table 7***Phase 1 & 2 Integration of PD Characteristics*

<b>Quantitative Results</b>	<b>Qualitative Findings</b>	<b>Quotes</b>
<p><b>Trainer</b> for Indicator 13 compliance PD  <math>\chi^2 [4] = 163, p &lt; .001, q = .002</math></p> <p>Observed/Expected Results  82/28.4 for special education director</p> <p><b>Trainer</b> for writing transition IEPs  <math>\chi^2 [4] = 192, p &lt; .001, q = .002</math></p> <p>Observed/Expected Results  89/28.2 for special education administrators</p>	<p>93% (13/14) conduct transition IEP compliance PD and use an in-house trainer</p> <p>100% (n=14) interviewees reporting merging PD for Indicator 13 compliance with writing transition IEP</p>	<p>“It’s more of a ‘boots on the ground’ person vs. just some outside person coming in. Plus, expense, to be honest. The state could provide someone through [redacted] and it’d be free, but my district is the very lowest funded district in the whole state. So, we do a lot with very little. There is no way that if I can save money by having an internal person who is well-skilled to do that [PD] I am not going to hire someone outside to do it.”</p> <p>“It seems like over the years our trainings have kind of merged together. You know, really when I-13 first came out years ago, it was like, compliance - you have to put this in for compliance. And now this is a transition IEP [training].”</p>

Quantitative Results	Qualitative Findings	Quotes
<p><b>Instructional Method</b>  <math>\chi^2 [6] = 481, p &lt; .001, q = .002</math></p> <p>Observed/Expected Results            93/23.2 for face-to-face workshop</p>	<p>10/12 LEAs use multiple modes of training special education teachers</p>	<p>“I’ve got to try something else because in person isn’t working.”</p> <p>“It’s just another modality, you know, it’s that visual, auditory, I guess it’s not very tactile except for turning on your computer. But just trying to offer all those modalities.”</p>
<p><b>Amount of Training</b>  <math>\chi^2 [5] = 212, p &lt; .001, q = .002</math></p> <p>observed/expected results            87/24.2 for 1-5 hrs PD            27/24.2 for 0 hrs PD</p>	<p>92% (13/14) of interviewees indicated they provided 5 hrs or less of PD to the secondary special education teachers on writing compliant transition IEPs</p>	<p>“We don’t have that many days [for training]. A lot of times there’s district initiatives that we want. For instance, I think we have one, two - about three PD days and an orientation. So, [a] very limited amount of time [for training] and especially the beginning of the year, you want to let people know about the initiatives that we’re doing.”</p>
<p><b>Frequency of Training</b>  <math>\chi^2 [5] = 219, p &lt; .001, q = .002</math></p> <p>Observed/Expected results            87/23.8 for this academic yr</p>		<p>“But secondly, up until last year, there wasn’t a huge need within our division to understand transition IEPs because the people who were writing them were all</p>

Quantitative Results	Qualitative Findings	Quotes
<p><b>Combined Training for New &amp; Returning</b>  <math>\chi^2 [5] = 219, p &lt; .001, q = .002</math>            Observed/Expected            97/35.8 combined training</p>	<p>100% (n=14) of respondents conducted combined training</p>	<p>veterans. So, we all kind of had what we needed in our toolbox and went with it.”</p> <p>“The only reason it was included this year was because of the results of our Indicator 13 and 14 reports from last year. So, that’s the only reason it was involved this year. In the past two years I have been at this division, it has not even been talked about.”</p> <p>“I don’t think they all get it the first time that they’re [in] training. So, I think hearing the training again at different times...they come away with something different each time...”</p>

**Instructional Methods.** As discussed in the Phase 2, the qualitative findings regarding special education PD models found a continuum of instructional methods being used to train teachers to write compliant transition IEPs. The continuum of instructional methods included: (a) face-to-face, (b) online, (c) large group, (d) small group, and (e) one-on-one. The rationale for each instructional method is provided below.

**Face-to-face.** The primary rationale for conducting face-to-face PD for secondary special education teachers on writing compliant transition IEPs was echoed by many interviewees. The special education administrators preferred providing training in person so they could (a) “look for understanding” in the teachers’ body language, (b) determine if they were “paying attention”, (c) confirm teachers “get it” by “check[ing] for comprehension of content”, and (d) decide “if they’re pissed off or that they don’t understand.” One metropolitan special education administrator commented that face-to-face instruction allowed the trainer to “stop and ask questions” whereas an online module would not. Perhaps a suburban special education director’s quote captured an underlying preference for face-to-face PD: “If you [teacher] are on a webinar, I can’t prove you [teacher] participated...[in a] face-to-face you’re signing in, I know you were in that [training]. Not only that, but if you were in that training, then I can hold you accountable.”

**Online.** Both pros and cons were found in the data for rationale for conducting online PD. One benefit identified in the data for providing online training was the reduction of the cost of teachers’ travel and time compared to face-to-face PD. One rural special education administrator noted the travel to his farthest school required 3.5 hrs. Equally as challenging was one metropolitan city’s traffic causing 1.5 hr commute to a centralized training location. Because PD was not mandated, there was an anticipation that online PD would have greater attendance due to its convenience.

A second benefit identified by one metropolitan special education administrator was the ability to offer professional growth points to teachers who completed online PD. The online format enabled teachers to “visit [PD content] as often as they want...so if

you're struggling, you can always have a reference." Another metropolitan special education administrator worked with her technology department to develop five videos less than 7 min long, to provide special education teachers' PD on the components of a transition IEP. This instructional method ensured a consistent message was being sent to all teachers and accessible at their convenience.

Challenges to conducting online PD also emerged in the data analysis. These negative experiences provide additional insight into the quantitative results. In contrast, 100% of the transcripts revealed that local LEAs were creating their own PD materials and transition resources (e.g. forms, checklists, videos, and handouts). Therefore, creating original online PD was a deterrent. For example, one suburban special education administrator stated that developing online PD is "very labor intensive" and "takes time to create a good module." Another metropolitan special education administrator also had a negative experience, "We did an online module. The teacher[s] would just watch it and be done. It wasn't improving any of their practice[s]."

**Large group.** Due to the limited PD time available and the necessity of sharing content with all secondary special education teachers, interviewees reported that conducting large group PD was an efficient way to provide the content. One metropolitan special education administrator indicated that PD at the beginning of the academic year typically included 200 secondary special education teachers.

**Small group.** In addition to the broad distribution of content in a large group, additional PD would be followed-up in a small group setting. The small group PD typically occurred in a secondary school's special education department meeting or during the special education department's common planning time. While small is a

relative term, in one metropolitan LEA, it was defined as 15-20 special educators. The following quotes highlight the benefits of small group PD: “it allows...[you] to stop and take a question,” to “build cohesion” between staff, and “gets everybody on the same page.” As one suburban special education director stated, “if some of the teachers in that group need a little extra on the IEP stuff, we can really focus on that [in the small group].”

In addition to small PD delivered to a special education department, another strategy identified in the qualitative data was for an LEA to provide specific PD to a small group of staff to build internal capacity. One metropolitan special education administrator focused more intensive training for a core group of special education teachers within the LEA who were “key players...people who had more influence...when I share information from it [national transition PD], [there would] be a person out there in the school to help support it.” Another suburban special education director identified a small group of staff to attend a national PD together in order to create a “common language...common vision....common understanding.”

***One-on-one.*** The final emerging sub-theme was that LEAs were providing more intensive support through one-on-one PD to struggling special education teachers. Depending on the LEA’s size, the one-on-one PD was provided by the special education director, transition coordinator, department chair, transition teacher or veteran special education teacher. The focus of the one-on-one PD was to achieve 100% compliance with Indicator 13 by addressing an individual teacher’s needs.

**Combining New Teacher and Returning Teacher PD.** A second extreme difference between observed and expected outcomes was the combining of new teacher

and returning teacher PD. The qualitative findings supported the quantitative findings and explained the rationale for combining those two groups of special education teachers.

Similar to the quantitative results, the qualitative findings also found that 100% of the LEAs were combining new teacher and returning teacher PD on writing compliant transition IEPs. There were three reasons the personnel were combined: (a) efficiency, (b) building relationships, and (c) refresher/realignment. Each of these reasons will be discussed in greater detail below.

The first rationale for combining new teacher and returning teacher training that emerged during data analysis was the limited time available for PD. When analyzing the qualitative findings, 92% of the interviewees' provided less than 5 hrs of PD on writing compliant transition IEPs. This limitation was a catalyst for developing efficient PD and combining the two related content areas.

A second rationale for the combined PD was the opportunity to develop relationships between the all of the secondary special education teachers. One rural special education administrator stated, "our buildings are all spread out...it lets people get face-to-face...so they already have a face to go with the name." The combined PD allowed veteran teachers to assist the new teachers and fostered collaboration. This combined training built relationships by encouraging the groups to answer each other's questions and discussing their concerns.

The third rationale was the benefit of combined PD for returning teachers. While the new teachers were receiving the PD's content for the first time, it was a "refresher" for the returning teachers and was seen by special education administrators as a way to "get everybody on the same page." A metropolitan special education administrator stated

the need for ongoing training more bluntly, “What needs to happen in [an] IEP and in the process of transition is the same for returning teachers and new teachers. And returning teachers aren’t doing quality work.”

The refresher PD was perceived as a way to achieve 100% compliance. The metropolitan special education administrator stated,

“I don’t think they all get it the first time that they’re [in] training.

So, I think hearing the training again at different times...they come away with something different each time...”

***RQ2: How are professional development opportunities similar or different for LEAs in rural, suburban, and metropolitan areas?***

The quantitative results found no statistically significant differences in the PD characteristics in rural, suburban, and metropolitan areas (see Table 4). When comparing the themes within rural, suburban, and metropolitan interviews, the PD opportunities were similar. Yet, upon further analysis of the qualitative data, there was a difference in the quality of PD and available resources in rural, suburban, and metropolitan LEAs.

First, the amount of PD provided in rural LEAs was very diverse. One rural special education director provided no training on writing compliant transition IEPs and did not send staff to outside conferences where they might learn those skills. A second rural special education director stated,

It [local training] takes up less time, I mean, probably [online] training modules, there’s multiple of them...I can teach them how to write a quality transition IEP in 30 min. I doubt there’s an online system that could do it in 30 min.



In contrast, one rural special education administrator had 2 hrs per week to meet with staff about writing compliant transition IEPs due to their non-compliance for Indicator 13. However, that special education administrator was required to find resources on their own with limited assistance from the district office. A second rural special education administrator echoed similar challenges of “learning as I go” regarding writing compliant transition IEPs. Only one rural special education administrator identified state resources that were used to create local PD.

The biggest inequalities were in the rural LEAs’ limited resources and transition expertise compared to suburban and metropolitan LEAs. Overall, the rural LEAs were not accessing a broader network of resources in writing compliant transition IEPs. Most suburban and urban LEAs referenced utilizing resources from the NTACTION, university resources, and/or the Division of Career Development and Transition (DCDT). However, 75% of the rural special education administrators had not heard of nor were familiar with NTACTION and its resources. In addition, none of the rural LEAs had accessed university resources.

***RQ3: In what ways are special education districts conducting internal monitoring to ensure transition IEP compliance?***

The quantitative results of the internal monitoring systems within LEAs were supported by the qualitative findings in this study. The qualitative data supported four characteristics of the internal monitoring process for LEAs: (a) existence of an internal monitoring system, (b) percentage of transition IEPs monitored for Indicator 13

compliance, (c) monitoring tool, and (d) internal monitor. Table 9 compares the data and provides context for the quantitative results with the qualitative findings.

**Table 8**

*Phase 1 & 2 Integration of Internal Monitoring Systems*

<b>Quantitative Results</b>	<b>Qualitative Findings</b>	<b>Quotes</b>
<p><b>Internal Monitoring System</b>  <math>\chi^2 [2] = 106, p &lt; .001, q = .002</math></p> <p>Observed/Expected Results            107/48.7 for internal monitoring process</p>	<p>100% (n=14) have an internal monitoring process</p> <p>There is an extreme variation in the amount and quality of monitoring that is conducted within LEAs.</p>	<p>I think the compliance has not been as good because we don't have as much of that internal checking of IEPs. Some of the high schools check each other's IEPs and I think those are the schools where they're really good."</p>
<p><b>Percentage of Transition IEPs monitored</b>  <math>\chi^2 [4] = 20.0, p &lt; .001, q = .002</math></p> <p>Observed/Expected Results            37/21.4 for 100% of transition IEPs monitored</p>	<p>100% monitored = 42% of interviewees (n=6)</p> <p>30% monitored = .08% of interviewees (n=1)</p> <p>20% monitored = .08% of interviewees (n=1)</p> <p>0% monitored = .08% of interviewees (n=1)</p> <p>33% Did not answer (n=4)</p>	<p>"Remember I [special education administrator] have 5,700 students. So minimally, you're getting two done a quarter. So that's eight a year... But if you [special education teacher] have thirty students and eight [get monitored], you know, eight to ten of them, I would say a third of them are getting reviewed."</p> <p>"Right now, we are trying to monitor</p>

---

Quantitative Results	Qualitative Findings	Quotes
		<p>100% because we were one of the schools in need on our [sic] - through the state. So, we're on the transition committee this year going through everything and trying to make sure that we are 100% compliant. Our goal in trying to make sure everybody amended their IEPs correctly."</p>
		<p>"I try to look at all of the teachers, which, that's a lot. I try and look at least one...If it's good, I may pull another one, and then [sic]. But if I pull one from a teacher and it's a problem, I pull a two and if it's a problem, I pull a three. Then I send an email and say, 'I need to meet with you.' And I'll put their supervisor, building principal as well... Last year I read about three something IEPs, like 358."</p>

---

Quantitative Results	Qualitative Findings	Quotes
<b>Monitoring Tool</b> $\chi^2 [4] = 61.9, p < .001, q = .002$	64% of interviewees (n=9) used a tool from their state department of education	“It was internally developed.”
Observed/Expected Results 42/16 State Department of Education Tool	14% of interviewees (n=2) used a tool they developed within their LEA	“It was based on NTACT.”
	14% of interviewees (n=2) was uncertain of the origin of the monitoring tool	
	7% of interviewees (n=1) staff check to ensure all items contained, not for compliance	
<b>Internal Monitor</b> $\chi^2 [8] = 61.3, p < .001, q = .002$	Multiple responses per interviewee	
Observed/Expected Results 24/8.89 transition coordinator 18/8.89 special education director	special education administrator(s) (n=8)  clerical staff monitor (n=3)  school psychologist (n=2)  school administrator(s) (n=2)  compliance staff (n=1)	“Our secretaries, you may see them in the window behind me, do some checks of transition plans but we don’t have a robust monitoring system for transitions IEPs...They check for the existence of goals, not necessarily compliance. They’re doing a rudimentary check of compliance components.”
		“We have a checklist, and their administrators are supposed to review that. But the

Quantitative Results	Qualitative Findings	Quotes
		administrators are really just looking like, ‘Is that box filled out? Is everything in that section?’ They don’t have the capability to assess for quality [compliance].”

One metropolitan special education administrator shared a unique monitoring system developed by a regional special education administrator. The special education administrators from the nine districts with the region met monthly. Each month a different district would bring IEPs to be monitored by the other administrators. After the monitoring was completed, each administrator would discuss their findings and the rationale for their decision on compliance.

This process built consensus for compliance within the region and removed any monitor bias. As the metropolitan SPED administrator said,

Because it’s a person that’s from the outside, you don’t know, typically those teachers, or the students information that you’re reading...there’s no bias that you say, “hey, well, you know, I really know this person and they meant to say this,” even though it doesn’t say it...

Therefore, the monitoring feedback was believed to be more accurate than an in-house monitoring system.

***RQ 4. How are internal monitoring processes similar or different for special education districts in rural, suburban, and metropolitan areas?***

The quantitative results of the statistically significant difference between rural, suburban, and metropolitan areas were not supported by the study’s qualitative findings. As shown in Table 9 below, the interviewees were knowledgeable on the status of an existing internal monitoring system. This discrepancy may be due to the fact that the majority of the interviewees had worked in special education administration in transition for multiple years. Only one person interviewed was in the first five years of their transition-related career. While all interviewees indicated they had an internal monitoring system of transition IEPs, the differences were (a) the rigor in which IEPs were monitored due to the knowledge of the internal monitors, and (b) the fidelity in which they were the internal monitoring system was implemented.

**Table 9**

*Phase 1 & 2 Integration for Internal Monitoring Systems Rural, Suburban, & Metropolitan LEAs*

<b>Quantitative Results</b>	<b>Qualitative Findings</b>	<b>Quotes</b>
<b>Internal Monitoring System comparison of rural, suburban, and metropolitan</b>  $\chi^2 [4, N=146] = 16.6, p=.002, q=.004$ Cramer’s V: 0.238  Observed/Expected Results 8/3.07 metro uncertain of internal monitoring	100% Metropolitan had internal monitoring system  100% Suburban had internal monitoring system  100% Rural had internal monitoring system	“Basically, if a SPED teacher completes the transition plan in its entirety and by the deadlines, it’s in compliance.” ~ Rural special education administrator  “...just doing a rudimentary check. They are not receiving any

Quantitative Results	Qualitative Findings	Quotes
1/5.48 fewer metropolitan did not have internal monitoring		feedback unless they're missing components. So, they're not getting feedback on quality, it's on presence only.
13/9.59 more rural did not have internal monitoring		And unfortunately, most of the feedback they're getting is 'You're missing signatures from important key players', things like that." ~ Rural special education administrator
1/5.37 fewer rural respondents were uncertain of internal monitoring		

As shown in the Table 9, there are many consistencies within the internal monitoring systems. The majority of LEAs are reporting that internal monitoring systems are in place. The qualitative data suggested that one similarity between rural, suburban, and metropolitan areas was their struggle with both the (a) fidelity of the internal monitoring system, and (b) the utilization of the results of internal monitoring.

**Fidelity of Internal Monitoring System.** The qualitative findings indicated that the fidelity of implementation may be impacted by the internal monitor's Indicator 13 knowledge. Potentially more impactful are the multiple priorities and daily needs of students which make the consistent implementation of an internal monitoring system challenging for special education administrators.

**Internal Monitors' Knowledge of Indicator 13.** The quantitative results indicated that 92% of respondents (n=135) reported they were knowledgeable of Indicator 13 compliance. However, the qualitative interviewees' statements indicated a discrepancy

between the self-reported knowledge and the actual mastery of Indicator 13 compliance requirements of the internal monitors. As previously noted in Table 9, the internal monitors range from special education administrators, to compliance personnel, to secretaries/clerical staff. The monitor's knowledge of Indicator 13 may range from a comprehensive knowledge of compliance requirements to secretaries whose compliance check is only for signatures and that "boxes are checked."

*Inconsistent implementation of the monitoring system.* While the majority of special education administrators indicated Indicator 13 compliance was a priority, the consistent implementation of an internal monitoring system was shown to be difficult during the interviews.

In the following example, the internal monitoring procedure being referred to required that special education teachers submit a draft of a transition IEP four weeks in advance of the case conference. This suburban special education administrator clearly placed the failure of implementing their monitoring system on the special education teachers rather than the internal monitoring process:

That [internal monitoring procedure] only happens when teachers follow the process and the timelines and adhere to them. Because if we're [special education administrator] given the IEP a day before it's supposed to be due, we don't have due diligence or due time...in order to review it appropriately.

Similarly, another interviewee echoed the need to have a transition IEP draft 1 week in advance to monitor the draft for indicator 13 compliance. The interviewee stated,



“...that’s ideally, that doesn’t always happen. Sometimes they’re [special education teachers] working on them the night before, we know that.”

Other special education administrators provided examples of their personal challenges to conduct internal monitoring. For example, when discussing follow-up monitoring at the end of the school year, one special education administrator stated, “but I don’t think I’m going to have time, nor the effort,” to conduct monitoring. This statement implied that the monitoring system was not consistently implemented.

**Dedication to Internal Monitoring.** Although Indicator 13 compliance is mandatory, during interviews there was an underlying tone that special education administrators may question the importance of compliance in supporting students to achieve their postsecondary outcomes. This may best be captured in this statement by a metropolitan special education director,

It saddens me that we have to talk about compliance. Because that’s just ground level. Because we really want to move kids to those post-secondary options. And we’ve got to not only talk about compliance but talk about the importance of this. Getting kids ready for that life after school.

Internal monitoring has been implemented to ensure compliance within most LEAs according to the quantitative results. Multiple interviewees noted that understanding the premise of why transition IEPs are written should be the driving force to improve rather than just being compliant. As one metropolitan special education administrator stated,

This is about being able to write an IEP that will provide better services for our kids so that they're prepared when they graduate...It's really about preparing our kids for whatever they need after they graduate...I was trying to get away from just compliance for compliance's sake.

Writing compliant IEPs is mandated, but a prevailing thought in the qualitative data was that compliance is not the most important part of supporting students to develop and achieve their postsecondary goals. As one metropolitan special education administrator stated,

Does focus [*sic*] on compliance really mean transition is getting done or not getting done? Like our post school outcome data's [*sic*] fantastic. We had a 90% engagement last year. So, part of me feels like I don't give a crap what the paperwork says.

### **Summary**

This chapter has presented the phase 1, quantitative data collection and analysis of 147 online surveys completed by special education administrators and other special education professionals. From these respondents, volunteers for Phase 2 were selected to represent rural, suburban, and metropolitan LEAs. The volunteers completed 30-min interviews conducted via Zoom and transcribed for analysis. The student researcher and a double coder conducted thematic analysis of the qualitative data. Themes that emerged included PD System, Internal Monitoring System for Continuous Improvement, and Challenges in Writing Compliant Transition IEPs. The phase 1 results and phase 2 findings were integrated to provide a holistic response to the 4 research questions.

## CHAPTER V

### DISCUSSION

This chapter summarizes findings and describes implications of the explanatory sequential mixed methods study. Following the study summary, the interpretation of the findings for each research question will be presented along with previous research, recommended research areas, and/or gaps in the current transition literature. The chapter concludes with practical implications, limitations, and recommendations for future research.

#### **Study Summary**

This study was based on the premise that students' postsecondary outcomes would be improved if they are supported and guided by a transition IEP developed in compliance with IDEA requirements. In order to write a compliant transition IEP, the secondary special education teachers must be proficient in understanding the Indicator 13 compliance requirements and how to embed those within an IEP. Researchers have voiced concern over secondary special education teachers lack confidence in transition and lack of knowledge required to write a compliant transition IEP (Doren et al., 2013; Flannery et al., 2015; Morningstar et al., 2018; Morningstar & Benitez, 2013). Therefore, PD has been required to equip special education teachers with the necessary skills for writing compliant transition IEPs.

Within the peer-reviewed literature, there was a paucity of research on the current PD for licensed special education teachers on writing compliant transition IEPs and the existence of internal monitoring systems within LEAs to determine if IEPs were Indicator 13 compliant. Two recommendations from the literature were considered when

developing this study. First, several studies recommended that PD be provided by LEAs (Doren et al., 2013; Lubbers et al., 2008; Morningstar & Benitez, 2013; Simonsen et al., 2018). Second, studies recommended future researchers should identify the most effective means for delivering professional development to secondary special educators (i.e. Doren et al., 2013; Morgan et al., 2014; Morningstar et al., 2008; and Morningstar & Benitez, 2013). This study was also designed to address a gap in the literature on the existence of and process for internal monitoring within LEAs for transition IEPs. Because previous studies have focused on special education teachers as participants (e.g. Lowman, 2016; Lubbers et al., 2008; Morningstar & Benitez, 2013), this study focused on special education administrators as participants because administrators would have a holistic picture of an LEAs' systems for PD and their internal monitoring process. This study's purpose was to determine the current PD practices, internal monitoring processes, and the impact of PD on transition IEP compliance in special education districts across the U.S.

An explanatory sequential mixed methods design was selected to gather both quantitative and qualitative data. This method not only collected quantitative data on the current PD and internal monitoring practices of LEAs in Phase 1, but also assisted the student researcher in understanding the complexities and context of PD and internal monitoring systems through qualitative data in Phase 2 (Creswell, 2014, pp. 10-11). Phase 1 of the explanatory sequential mixed method study involved the collection of 147 online surveys completed by special education administrators from across the U.S. From the quantitative respondents, 15 volunteers were selected equally representing rural, suburban, and metropolitan LEAs for the qualitative interviews in Phase 2. Ultimately, 14 volunteers were interviewed. One final interviewee was never scheduled due to the

COVID-19 pandemic. The volunteers were individually interviewed for 30 min via Zoom.com to provide insight into the PD and internal monitoring systems within their LEAs. The qualitative findings provided context and insight into the quantitative results.

### **Interpretation of Findings & Discussion**

This study's findings contribute to the transition literature by adding to the knowledge of PD for writing compliant transition IEPs. Simonsen et al. (2018) recommended that future research be conducted to determine the amount, type, and provider of PD to licensed special education teachers. In RQ 1, this study provided baseline data for the PD characteristics of (a) PD trainer for writing transition IEPs; (b) PD instructional method; (c) amount of training (hrs) received per academic year; (d) frequency for returning teachers' training in academic years; and (e) combined PD for returning and new teachers.

Lubbers and colleagues (2008) recommended that future research should focus on identifying effective methods for increasing licensed secondary special education teachers' transition knowledge. This study's findings created a baseline of the current PD instructional methods for writing compliant transition IEPs. The amount of transition PD was reported by Morningstar and Benitez (2013) as averaging 28 hrs. Morningstar and Benitez used the broad range options for PD hours in their study which were 0, 1-50 hr, and 50+ hr. The current study had smaller ranges for options of PD hours and specified PD hours for writing transition IEPs and specific hours for PD on indicator 13 compliance. Thus, this study addressed gaps in the literature regarding specific PD hours for writing compliant transition IEPs in RQ 1 and RQ 2.

### *PD Systems*

**RQ 1. What are the characteristics of the professional development being provided to secondary special education teachers on developing compliant transition IEPs?** By comparing the statistically significant quantitative results with the qualitative findings, the student researcher developed a composite description of the current PD for writing compliant transition IEPs. Based on the statistically significant findings, the following composite was developed on PD: The PD occurred each academic year with the PD trainer being the local special education director. The PD was typically between 1-5 hrs and rarely over 6 hrs. The face-to-face training was attended by both new and returning special education teachers. The special education teachers preferred that the training be completed in less than a half-day.

Morningstar and Benitez (2013) recommended a hybrid PD model for writing transition IEPs comprised of self-directed learning, face-to-face instruction, and online modules. In this student researcher's study, the data showed that most LEA's PD was face-to-face instruction. The prevailing preference for face-to-face instruction was echoed by special education administrators who were interviewed. The special education administrators wanted to ensure that the special education teachers engaged with the content and received consistent information. When conducting PD, the special education administrator reported checking for understanding by reading body language and responding to questions that was more easily achieved during face-to-face PD. The administrators' face-to-face preference was supported in the literature. Lowman (2016) found that web-only training was able to convey content, however, it did not have the same long-term impact as face-to-face workshop method.

This study found that the composite PD description for writing compliant transition IEPs was impacted by the timing of the most recent OSEP report. The quantitative results showed a statistically significant difference in the amount of and type of instruction method used for PD if the LEA's transition IEP compliance report had been sent to OSEP within the last 2-3 years. Rather than preferring less than ½ day of PD, if the LEA reported to OSEP within the last 2-3 years, the teachers preferred multiple days of training and that training be one to one. This student researcher could interpret these findings in two ways, reactive or proactive. A reactive interpretation would indicate that a non-compliant Indicator 13 report was a catalyst for providing additional PD. In turn, the LEA was taking the necessary steps to meet OSEP's Indicator 13 compliance mandate. A reactive interpretation would be the following example: In year 1, the LEA conducted a half-day PD of less than 5 hrs. During that year, the LEA's Indicator 13 report was non-compliant, and the results were forward to OSEP. Based on year 1's noncompliance report, the LEA provides more intensive PD during years 2 and 3 in order to meet compliance as outlined in the state improvement plan. During years 2 and 3, the LEA provides multiple days of training with one-on-one support to the special education teachers to achieve Indicator 13 compliance.

Conversely, a proactive interpretation would be that LEAs were conducting PD in preparation for the upcoming OSEP monitoring. For example: Since the last OSEP report was 2-3 years ago, the LEA began preparing for the next compliance report by conducting additional PD. A proactive LEA conducted multiple days of training, including one to one support, in order to be prepared and confident that their secondary special education teachers were writing compliant transition IEPs. The proactive example

suggests there was a continuous improvement process within LEAs which included an internal monitoring process that identified and addressed the compliance challenges within an LEA prior to monitoring for the OSEP report. This connection was further explored in RQ 3.

**RQ 2. How are professional development opportunities similar or different for special education districts in rural, suburban, and metropolitan areas?** By comparing results of the PD characteristics in rural, suburban, and metropolitan LEAs, this study revealed two statistically significant differences. The findings indicated that (a) the suburban LEA was more likely to have 6-10 hrs of PD than suburban and rural; and (b) the metropolitan LEA was more likely to provide zero hrs of PD on writing compliant transition IEPs than a rural LEA. One might hypothesize that a suburban LEA would have more resources to provide on-site training, training materials, and more qualified personnel to conduct training. Unfortunately, only a preliminary analysis was done prior to formalizing interview questions. Therefore, this quantitative result was not addressed during the qualitative interviews for explanation or clarification. Understanding the rationale for these differences would be an area for future research, especially the preference of metropolitan areas for online PD.

When comparing the PD instructional method being implemented in rural, suburban, and metropolitan areas, the student researcher's anticipated results were based on Berry et al. (2011), a national study to identify the PD needs of rural special educators. Berry et al. highlighted that teacher shortages in rural areas had resulted in districts hiring special education teachers on limited/alternative licensure and/or supporting students with disabilities out of their primary area of expertise. Due to their rural locations, Berry



and colleagues highlighted barriers such as travel distance, childcare, and securing substitutes as the rationale for 76% of participants favoring local PD (Berry et al., 2011, pp. 8-9). Based on Berry et al.'s findings, the student researcher anticipated that rural LEAs' teachers would prefer PD using online instructional methods than nonrural areas. Surprisingly, this was not the case. Metropolitan LEAs' teachers preferred online PD; rural teachers preferred face-to-face PD, and suburban special education administrators were more likely to not to know their teachers' preference.

The qualitative findings of this study revealed that the barriers to PD were the same regardless of the community size. For example, travel time was a barrier discussed by special education administrators in rural, suburban, and metropolitan LEAs. The travel time was a deterrent for attending non-local PD. In rural areas, time was an issue due to travel distance. In suburban and metropolitan LEAs, travel time was related to long commutes due to traffic. Equally challenging to rural, suburban, and metropolitan LEAs was the hiring of secondary special education teachers on limited license with little knowledge of education and instruction much less transition and writing a transition IEP. In conclusion, this research study supported Berry et al.'s findings for the preference for face-to-face PD due to multiple challenges. However, the challenges identified by Berry et al. were universal across rural, suburban, and metropolitan LEAs, not exclusive to rural LEAs.

### ***Internal Monitoring System***

A gap in the literature exists regarding the existence of and process for Indicator 13 internal monitoring systems within LEAs. This study provided a glimpse into the

internal monitoring of transition IEPs for Indicator 13 across the U.S. These results are discussed in RQ 3 and RQ 4.

**RQ 3. In what ways are special education districts conducting internal monitoring to ensure transition IEP compliance?** The quantitative results confirmed the existence of an internal monitoring process in LEAs. The baseline data from this study provided an overview of the internal monitoring process. Special education administrators indicated that they were (a) knowledgeable of Indicator 13 compliance requirements (92%); (b) more to monitor 100% of IEPs; (c) use the state produced internal monitoring tool (73%); (d) more likely to have an internal monitoring system if they had 15+ years of transition experience; and (e) more likely for the special education director or transition coordinator to monitor transition IEPs. Similar to the PD findings in RQ1, the internal monitoring process was impacted by the timeline of the most recent OSEP Indicator 13 report. If the LEA's monitoring report was submitted to OSEP within year 1, the internal monitor was more likely a peer. If the LEA's monitoring report was submitted 2-3 years ago, the assistant special education director was more likely to be the internal monitor.

Why would the internal monitoring process be different depending on whether it was submitted to OSEP within 1 year or 2-3 years? One must question why this difference exists. Returning to the reactive and proactive interpretations from RQ 1, there could be opposite reasons for these results. A reactive interpretation could be that Indicator 13 compliance was not taken seriously by the special education administration and their internal monitoring system had not been created. Instead, peers were monitoring for transition IEPs for Indicator 13 compliance. After a non-compliance report was

submitted to OSEP, for the next 2-3 years, the special education assistance director was responsible for implementing the state improvement plan and meeting compliance requirements. Conversely, the proactive interpretation could be that 2-3 years after the OSEP report, the LEA was preparing for the upcoming OSEP monitoring. The assistant director was made responsible for conducting monitoring and ensuring compliance in years two and three.

One intriguing quantitative finding was that there was no statistical difference between the percentage of IEPs internally monitored and the amount of PD provided within an LEA.

If a continuous improvement feedback loop existed where PD was based on the monitoring data within transition IEPs, one would hypothesize more PD would be offered to special education teachers. Again, there are two possible interpretations, one reactive and one proactive. From a reactive interpretation, perhaps the special education administrator did not prioritize Indicator 13 compliance and had reactive response to a noncompliant OSEP report. A proactive interpretation of the research findings would be (a) due to the extensive PD requirements there was no available time for additional PD; (b) LEAs were already monitoring 100% of transition IEPs; and (c) noncompliance resulted in more one-on-one PD. The lack of a relationship between and LEAs' internal monitoring and PD generates more questions: Is internal monitoring influencing the PD system and impacting an LEAs Indicator 13 compliance? The qualitative data indicated there was minimal feedback to teachers regarding either compliance or non-compliance. Is Indicator 13 compliance a priority within LEAs? Future research is needed to answer

these questions and determine the relationship between internal monitoring and compliance.

**RQ 4. How are internal monitoring processes similar or different for special education districts in rural, suburban, and metropolitan areas?** Although the quantitative analysis of the internal monitoring process found no statistical difference between rural, suburban, and metropolitan areas, the qualitative data identified a similar challenge. The primary challenge was the fidelity in implementing their internal monitoring system which was influenced by (a) the monitor's expertise, and (b) inflexible processes.

The internal monitoring discussed by the interviewees was either the responsibility of a special education administrator or assigned to clerical support staff. The complexity of Indicator 13 compliance has been challenging for licensed special education teachers to understand. Clerical staff would not have the foundational knowledge of special education and transition to effectively monitor for Indicator 13 compliance. Interviewees conveyed that limited feedback was given to teachers regarding compliance. Therefore, secondary special education teachers may have assumed their transition IEPs were compliant, when in actuality the clerical staff provided only cursory review of the IEPs.

Not only was the monitor's knowledge a limitation, but the lack of flexibility of the internal monitoring process was a challenge. The qualitative data showed that secondary special education teachers were not following the protocol of providing transition IEP drafts to the special education administrators in advance. Despite the internal process not working, the interviewees had not re-evaluated their process or

sought teacher input on how to make the process easier for teachers to follow.

### **Limitations**

This study had three primary limitations impacting its generalizability. These limitations were (a) sample size, (b) self-report, (c) response bias and (d) COVID-19 pandemic. Each of these are be addressed below.

The small sample size of rural, suburban, and metropolitan respondents to the quantitative survey impacted the chi-square results. Due to low statistical power of each size community, chi square expected frequencies averaged  $<5$ . To address this concern Cramer's V was calculated to determine the strength of association between the results (Cohen, 2013, pp. 243, 730). Future research with a larger sample size from each size of community is recommended.

The second limitation was the potential for positive skew based on the self-report survey design. That is, survey respondents may have reported characteristics of their transition IEPs to appear more favorable than they really were. Although the survey relied on self-report of special education administrators, researchers have reported that a well-designed survey can provide accurate data. In addition, many educational research findings are based on self-report data collection methods (Boyle et al., 2005; Desimone, 2009).

The third limitation was potential response bias, or the impact of nonresponses from the total population surveyed (Creswell, 2014, p. 162). With an online anonymous survey link and the request to forward the survey to individuals who could provide accurate information from local LEAs, the number of potential responders is unknown

(Privman et al., 2013; Sellers et al., 2019). Therefore, a response rate could not be calculated.

The fourth limitation was the inability to complete interviews with the final interviewee. This resulted in unequal representation from rural, urban, and suburban LEAs. Due to the COVID-19 pandemic, the student researcher respected the situation and did not schedule the interview with the final interviewee.

### **Implications for Practice**

This study's results provide insight into the current practices within LEAs across the U.S. From these results also provide guidance on ways in which LEAs could strengthen their current transition IEP practices. Implications for practice for PD systems and internal monitoring systems are outlined below.

#### ***PD System***

**Knowledge of Indicator 13 Compliance Requirements.** Because local trainers are conducting PD, special education administrators need to ensure the comprehensive knowledge of the trainer for transition and Indicator 13. Not only do they need to know the Indicator 13 content and the complexity of compliance within an entire transition IEP, but the trainer must also understand the premise behind Indicator 13 and be able to convey that during the PD. Indicator 13 is more than “checking a box” and ensuring that an IEP is completed on time. Compliant transition IEPs are written with the intention of adequately preparing students for life after high school.

**Resources.** According to the findings of this study, many local trainers were creating their own PD. This process may be inefficient and unreliable. Utilizing quality resources from reputable sources is essential. Rather than creating their own materials or

doing a random google search, the local trainer could download presentations from NTACT or other reputable sites and customize them for their LEA. With 33% of interviewees either not knowing of or using any resources from NTACT, state departments of education need to increase their information dissemination efforts to LEAs regarding transition.

**PD Design.** Due to the limited time available for transition IEP PD, the PD instructional method may need to be more streamlined. As recommended by Morningstar and Benitez (2013), a hybrid model of PD may be more effective. For example, if a preassessment is conducted online to determine the mastery or challenges of writing compliant transition IEPs, the content could be prioritized to meet the individual teacher's needs. The PD could include a quick video review of topics mastered. More in-depth one on one PD could be provided during a teacher's preparation period in person or via video conference.

### ***Internal Monitoring System***

**Monitors Mastery of Indicator 13 Compliance Requirements.** This study's results indicated that various staff conducted internal monitoring. However, there is no guarantee that those monitors have a mastery of compliance requirements. This student researcher recommends an online assessment be implemented by the state department of education which anyone conducting internal monitoring could complete and ensure their ability to monitor accurately. If the monitor does not pass the assessment with 100% accuracy, links could be provided for additional training on the specific monitoring component they have failed. This would ensure that all monitors are competent and that they are providing accurate information to teachers regarding compliance.

**Continuous Improvement Feedback Loop.** The study's results indicated minimal feedback is given to teachers regarding their transition IEPs compliance on a consistent basis. Large metropolitan areas were even uncertain if they had an internal monitoring process. For proactive continuous improvement of transition IEP compliance, consistent and useable feedback must be given to special education teachers. Data-driven decisions based on internal monitoring must be made when developing future PD on writing transition IEPs.

**Principal/Building Administration Growth.** The qualitative data indicated there is minimal teacher accountability for writing compliant transition IEPs. The interviewees indicated teacher accountability would require their direct supervisor or their building's principal to including Indicator 13 compliance as part of their annual evaluation. Therefore, if teacher accountability is a goal, secondary principals need to be knowledgeable of Indicator 13 compliance and the ramifications of non-compliance within their LEA. Because this topic evolved during the qualitative analysis, principals' knowledge, receptiveness to PD, and understanding of Indicator 13 was not considered in this study design. This student researcher recommends future research on the impact of principal knowledge and involvement in Indicator 13 compliance.

### **Recommendations for Future Research**

Due to the limited availability of PD time within LEAs, the student researcher believes it is a priority to identify efficient and effective methods of PD. The first recommendation is related to PD on writing compliant transition IEPs. A randomized control trial (RCT) study with a pre- and post- analysis is also recommended for a follow-up study. An RCT would be conducted to determine if the PD model(s) has/have a



significant impact on writing compliant transition IEPs. The PD intervention would include the same content with a change in delivery: a control group would be provided no additional intervention from their regular PD; one intervention group would receive all the same content in a face-to-face PD; and the other intervention group would receive face-to-face PD on only the areas for which they were deficient in the pre-assessment. Study participants should include a diverse demographic of secondary special education teachers who also represent rural, suburban, and metropolitan school districts. The study design should reduce threats to validity by randomly selecting transition IEPs for pre- and post-test analysis and have multiple post-test data over the course of an academic year to see if the information provided in the training was retained and used over time.

The second recommendation is a cross-sectional survey study of secondary principals to determine (a) their understanding of transition IEPs and Indicator 13 compliance, (b) the importance of understanding transition IEPs and Indicator 13 compliance, and (c) their utilization of individual teacher compliance on annual teacher evaluations. This study would provide a gap in the research of principals involvement with transition IEPs and their view of teachers' writing complaint transition IEPs.

The final recommendation focuses on internal monitoring. Because this is the first research study that has targeted internal monitoring within LEAs, this student researcher recommends future research to understand the quality of internal monitoring. A comparative qualitative case study examining rural, suburban, and metropolitan LEA's internal monitoring process would provide a deeper understanding of internal monitoring. A qualitative study would provide an in-depth understanding of the internal monitoring process in rural, suburban, and metropolitan LEAs (Creswell & Poth, 2018, p. 101). The

data collection would include multiple sources such as monitoring schedules, monitoring protocol, monitoring forms, IEP formats, LEA compliance reports, interviews with special education administrators, secondary special education teachers, monitors, and secondary principals (Creswell & Poth, 2018, p. 105).

### **Conclusion**

This explanatory sequential mixed methods study provided both statistically significant results and qualitative insight into the current practices of PD for writing compliant transition IEPs and the internal monitoring processes for Indicator 13 compliance among survey respondents. This research contributes to the literature by adding to the knowledge of PD currently being provided and the extent to which there were differences or similarities in rural, suburban, and metropolitan LEAs. This study has shown that LEAs are challenged to provide PD to special education teachers and are utilizing internal staff and developing their own materials for PD. This study also addressed a gap in the literature regarding internal monitoring practices of Indicator 13 compliance. Overwhelming, internal monitoring was being conducted with LEAs. The competence of monitors and the accuracy of internal monitoring remains unknown. In conclusion, this study has shown that there are more similarities than differences between rural, suburban, and metropolitan communities PD and internal monitoring. The challenges of providing effective PD and meeting Indicator 13 compliance are universal regardless of rural, suburban, and metropolitan LEAs.

## REFERENCES

- Benjamini, Y., & Hochberg, Y. (1995). Controlling the false discovery rate: a practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society: series B (Methodological)*, 57(1), 289-300.
- Benitez, D. T., Morningstar, M. E., & Frey, B. B. (2009). A multistate survey of special education teachers' perceptions of their transition competencies. *Career development for exceptional individuals*, 32(1), 6-16.
- Berry, A. B., Petrin, R. A., Gravelle, M. L., & Farmer, T. W. (2011). Issues in special education teacher recruitment, retention, and professional development: Considerations in supporting rural teachers. *Rural Special Education Quarterly*, 30(4), 3-11.
- Boyle, B., Lamprianou, I., & Boyle, T. (2005). A longitudinal study of teacher change: What makes professional development effective? Report of the second year of the study. *School Effectiveness and School Improvement*, 16(1), 1-27.
- Bureau of Labor Statistics (BLS), U.S. Department of Labor. (2018, June 21). Persons with disabilities: labor force characteristics-2017.  
<https://www.bls.gov/news.release/disabl.nr0.htm>
- Cameron, R. (2009). A sequential mixed model research design: Design, analytical and display issues. *International Journal of Multiple Research Approaches*, 3(2), 140-152.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage publications.

- Cohen, B. H. (2013). *Explaining Psychological Statistics*. John Wiley & Sons.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches, 4<sup>th</sup> Edition*. Sage Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research*. Sage publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational researcher, 38*(3), 181-199.
- Doren, B., Flannery, K. B., Lombardi, A. R., & Kato, M. M. (2013). The impact of professional development and student and teacher characteristics on the quality of postsecondary goals. *Remedial and Special Education, 34*(4), 215-224.
- Fan, W., & Yan, Z. (2010). Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior, 26*(2), 132-139.
- Flannery, K. B., Lombardi, A., & Kato, M. M. (2015). The impact of professional development on the quality of the transition components of IEPs. *Career Development and Transition for Exceptional Individuals, 38*(1), 14-24.
- Fowler, C., Holzberg, D., MaGee, C., Lombardi, A., & Test, D. (n.d.) Post-secondary education and training preparation toolkit. National Technical Assistance Center for Transition.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). Collecting research data with questionnaires and interviews. *Educational research: An introduction, 227-261*.

- Glossary of Education Reform. (2019). Professional development.  
<https://www.edglossary.org/professional-development/>
- Gravetter, F.J. & Wallnau, L.B. (2014). *Essentials of Statistics for the Behavioral Sciences, 8<sup>th</sup> Edition*. Wadsworth, Cengage Learning.
- Health Resources and Services Administration. (2019). Defining rural population.  
<https://www.hrsa.gov/rural-health/about-us/definition/index.html>
- Holzberg, D. G., Clark, K. A., & Morningstar, M. E. (2018). Transition-focused professional development: An annotated bibliography of essential elements and features of professional development. *Career Development and Transition for Exceptional Individuals, 41*(1), 50-55.
- Huck, S.W. (2004). *Reading statistics and research 4<sup>th</sup> edition*. Boston: Pearson Education Inc. Indiana University. (2018).  
<https://instrc.indiana.edu/pdf/resources/TIEPRubric2018-19.pdf>
- Individuals with Disabilities Education Improvement Act (IDEA). (2004). 34 CFR 300.43
- Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field methods, 18*(1), 3-20.
- Kotrlik, J. W., Williams, H. A., & Jabor, M. K. (2011). Reporting and Interpreting Effect Size in Quantitative Agricultural Education Research. *Journal of Agricultural Education, 52*(1), 132-142.
- Lowman, J. J. (2016). A comparison of three professional development mechanisms for improving the quality of standards-based IEP objectives. *Communication Disorders Quarterly, 37*(4), 211-224.

The jamovi project (2020). *jamovi* (Version 1.2) [Computer Software].

<https://www.jamovi.org>

Johnson, R. B., & Christensen, L. (2019). *Educational research: Quantitative, qualitative, and mixed approaches*. SAGE Publications.

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., ... & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *PLoS medicine*, *6*(7), e1000100.

Lubbers, J. H., Repetto, J. B., & McGorray, S. P. (2008). Perceptions of transition barriers, practices, and solutions in Florida. *Remedial and Special Education*, *29*(5), 280-292.

Maheady, L., Magiera, K., & Simmons, R. (2016). Building and sustaining school-university partnerships in rural settings: One approach for improving special education service delivery. *Rural Special Education Quarterly*, *35*(2), 33-40.

Martin, J. E., Marshall, L. H., Maxson, L. M., & Jerman, P. (1996). Self-directed IEP. *Sopris West*.

Mazzotti, V. L., Rowe, D. A., Sinclair, J., Poppen, M., Woods, W. E., & Shearer, M. L. (2016). Predictors of post-school success: A systematic review of NLTS2 secondary analyses. *Career Development and Transition for Exceptional Individuals*, *39*(4), 196-215.

Mazzotti, V. L., Rowe, D. A., Simonsen, M., Boaz, B., & VanAvery, C. (2018). Steps for implementing a state-level professional development plan for secondary

transition. *Career Development and Transition for Exceptional Individuals*, 41(1), 56-62.

Merriam-Webster Dictionary. (2019). Secondary school.

<https://www.merriam-webster.com/dictionary/secondary%20school>

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.

Morey, A. I., Bezuk, N., & Chiero, R. (1997). Preservice teacher preparation in the United States. *Peabody Journal of Education*, 72(1), 4-24.

Morgan, R. L., Callow-Heusser, C. A., Horrocks, E. L., Hoffmann, A. N., & Kupferman, S. (2014). Identifying transition teacher competencies through literature review and surveys of experts and practitioners. *Career Development and Transition for Exceptional Individuals*, 37(3), 149-160.

Morningstar, M. E., & Benitez, D. T. (2013). Teacher training matters: The results of a multistate survey of secondary special educators regarding transition from school to adulthood. *Teacher Education and Special Education*, 36(1), 51-64.

Morningstar, M. E., Hirano, K. A., Roberts-Dahm, L. D., Teo, N., & Kleinhammer-Tramill, P. J. (2018). Examining the status of transition-focused content within educator preparation programs. *Career Development and Transition for Exceptional Individuals*, 41(1), 4-15.

Morningstar, M. E., Kim, K.-H., & Clark, G. M. (2008). Evaluating a transition personnel preparation program: identifying transition competencies of practitioners. *Teacher Education and Special Education*, 31(1), 47-58.

National Center on Educational Statistics. (2019). Digest of education statistics.

[https://nces.ed.gov/programs/digest/d17/tables/dt17\\_214.10.asp?current=yes](https://nces.ed.gov/programs/digest/d17/tables/dt17_214.10.asp?current=yes).

National Technical Assistance Center. (2012). NSTTAC indicator 13 checklist: Form B (enhanced for professional development)

[https://transitionta.org/sites/default/files/transitionplanning/NSTTAC\\_ChecklistFormB.pdf](https://transitionta.org/sites/default/files/transitionplanning/NSTTAC_ChecklistFormB.pdf).

Newman, L., Wagner, M., Knokey, A. M., Marder, C., Nagle, K., Shaver, D., & Wei, X. (2011). The post-high school outcomes of young adults with disabilities up to 8 years after high school: a report from the national longitudinal transition study-2 (NLTS2). NCSER 2011-3005. *National Center for Special Education Research*.

Office of Disability Employment Policy, U.S. Department of Labor. (2018). Youth employment rate.

<https://www.dol.gov/odep/categories/youth/youthemployment.htm>

Office of Special Education Programs, U.S. Department of Education. (2019a). 2017 Part B FFY 2015 SPP/APR indicator analysis booklet.

<https://osep.grads360.org/services/PDCService.svc/GetPDCDocumentFile?fileId=28034>

Office of Special Education Programs. (2019b). Retrieved May 1, 2020, from

<https://www2.ed.gov/programs/rsa-ntact/funding.html>.

PACER Center. (2019). A guide to the individualized education program.

<https://www.pacer.org/parent/guide-to-iep/content-of-iep.asp>

Patton, M. Q. (2015). *Qualitative research and methods: Integrating theory and practice*. Thousand Oaks, CA: SAGE Publications.

Privman, R., Hiltz, S. R., & Wang, Y. (2013). In-group (us) versus out-group (them)



- dynamics and effectiveness in partially distributed teams. *IEEE Transactions on Professional Communication*, 56(1), 33-49.
- Rea, L. M., & Parker, R. A. (2005). *Designing and conducting survey research: A comprehensive guide*. Jossey-Bass.
- Saleh, A., & Bista, K. (2017). Examining factors impacting online survey response rates in educational research: Perceptions of graduate students. *Journal of MultiDisciplinary Evaluation*, 13(29), 63-74.
- Schelly, C. L., Davies, P. L., & Spooner, C. L. (2011). Student perceptions of faculty implementation of Universal Design for Learning. *Journal of postsecondary education and disability*, 24(1), 17-30.
- Sellers, T. P., Valentino, A. L., Landon, T. J., & Aiello, S. (2019). Board Certified Behavior Analysts' Supervisory Practices of Trainees: Survey Results and Recommendations. *Behavior Analysis in Practice*, 12(3), 536-546.
- Shaw, R. A. (2011). Employing universal design for instruction. *New Directions for Student Services*, 2011(134), 21-33.
- Simonsen, M. L., Novak, J. A., & Mazzotti, V. L. (2018). Status of credentialing structures related to secondary transition: A state-level policy analysis. *Career Development and Transition for Exceptional Individuals*, 41(1), 27-38.
- Sinclair, M., O'Toole, J., Malawaraarachchi, M., & Leder, K. (2012). Comparison of response rates and cost-effectiveness for a community-based survey: postal, internet and telephone modes with generic or personalized recruitment approaches. *BMC Medical Research Methodology*, 12(1), 132.
- Subedi, D. (2016). Explanatory sequential mixed method design as the third research

community of knowledge claim. *Am J Educ Res*, 4(7), 570-577.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research:*

*Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Sage publications.

Test, D. W., Mazzotti, V. L., Mustian, A. L., Fowler, C. H., Kortering, L., & Kohler, P.

(2009). Evidence-based secondary transition predictors for improving postschool outcomes for students with disabilities. *Career Development for Exceptional Individuals*, 32(3), 160-181.

Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage publications.

## Appendices

## Appendix A. PILOT STUDY FINDINGS

**2 - What is the size of the community where your secondary school is located?**

#	Answer	%	Count
1	Urban Population (larger than 50,000 residents)	38.89%	7
2	Suburban Population (between 10,000-50,000 residents)	38.89%	7
3	Rural Population (less than 10,000 residents)	22.22%	4
	Total	100%	18

**3 - What is the size of your local education agency (LEA)?**

#	Answer	%	Count
1	65,000+ students	5.88%	1
2	30,000 - 64,999 students	5.88%	1
3	5,000 - 29,999 students	29.41%	5
4	1,000 - 4,999 students	29.41%	5
5	Less than 1,000 students	29.41%	5
	Total	100%	17

**4 - What is your role in the LEA?**

#	Answer	%	Count
1	Special education director	58.82%	10
2	Assistant special education director	11.76%	2
3	Transition coordinator/Secondary services coordinator	11.76%	2
4	Special education department chair in secondary school	0.00%	0
5	Special education teacher in secondary school	17.65%	3
	Total	100%	17

**5 - What is your education level?**

#	Answer	%	Count
1	PhD/EdS/EdD	11.76%	2
2	Masters	70.59%	12
3	Bachelors	17.65%	3
	Total	100%	17

**6 - How many years' experience do you have in education?**

#	Answer	%	Count
1	15+ years	52.94%	9
2	10-15 years	23.53%	4
3	5-10 years	17.65%	3
4	2-5 years	5.88%	1
5	1 year or less	0.00%	0
	Total	100%	17

**7 - How many years' experience do you have in secondary transition?**

#	Answer	%	Count
1	15+ years	23.53%	4
2	10-14 years	11.76%	2
3	5-9 years	11.76%	2
4	2-4 years	35.29%	6
5	1 year or less	17.65%	3
	Total	100%	17

**8 - When was the last time your LEA's compliance for Indicator 13 was reported to the U.S. Department of Education?**

#	Answer	%	Count
1	4-5 years ago	5.88%	1
2	2-3 years ago	11.76%	2
3	1 year ago	64.71%	11
4	Uncertain	17.65%	3
	Total	100%	17

**9 - When did your returning secondary special education teachers most recently receive training on transition IEPs?**

#	Answer	%	Count
1	Once in the last 5 years	0.00%	0
2	Once in the last 3 years	5.88%	1
3	Once in the last year	17.65%	3
4	Yearly training	64.71%	11
5	No	11.76%	2
	Total	100%	17

**10 - Do your new teachers receive the same training on transition IEPs?**

#	Answer	%	Count
1	Yes	64.71%	11
2	No	17.65%	3
3	Uncertain	17.65%	3
	Total	100%	17

**11 - When did your returning secondary special education teachers most recently receive training on Indicator 13 compliance requirements?**

#	Answer	%	Count
1	Once in the last 5 years	0.00%	0
2	Once in the last 3 years	5.88%	1
3	Once in the last year	35.29%	6
4	Yearly training	58.82%	10
5	No	0.00%	0
	Total	100%	17

**12 - Do new teachers receive the same training on Indicator 13 compliance?**

#	Answer	%	Count
1	Yes	70.59%	12
2	No	11.76%	2
3	Uncertain	17.65%	3
	Total	100%	17

**13 - Who provides your Indicator 13 compliance training? Please check all that apply.**

#	Answer	%	Count
1	Developed locally	37.93%	11
2	Utah State Board of Education	27.59%	8
3	Utah Professional Development Network	20.69%	6
4	Utah Parent Resource Center	0.00%	0
5	National Technical Assistance Center on Transition	3.45%	1
6	Other (please provide)	10.34%	3
	Total	100%	29

**14 - What resources do you use when developing local training? (Please check all that apply.)**

#	Answer	%	Count
1	Utah State Board of Education	40.91%	9
2	Utah Professional Development Network	13.64%	3
3	Utah Parent Resource Center	13.64%	3



4	National Technical Assistance Center on Transition	18.18%	4
5	PACER Center	0.00%	0
6	Transition IEP Tool by Ed O'Leary	0.00%	0
7	Other (please provide)	13.64%	3
	Total	100%	22

### 15 - What training format do your LEA's teachers prefer?

#	Answer	%	Count
1	Workshop setting (face to face)	75.00%	12
2	One-on-one technical assistance	6.25%	1
3	Online training (nonsynchronous-recorded at your own pace)	6.25%	1
4	Online training (synchronous - live training with others)	0.00%	0
5	College course	0.00%	0
6	Other (please provide)	0.00%	0
7	Uncertain	12.50%	2
	Total	100%	16

### 16 - What length of training do your LEA's teachers prefer?

#	Answer	%	Count
1	Semester	0.00%	0
2	Multiple days	12.50%	2
3	Single day	37.50%	6
4	Less than half-day	43.75%	7
5	Online at their own pace (nonsynchronysis)	0.00%	0
6	Uncertain	6.25%	1
	Total	100%	16

**17 - Does your LEA have an internal monitoring strategy for Indicator 13 compliance?**

#	Answer	%	Count
1	Yes	68.75%	11
2	No	6.25%	1
3	Uncertain	25.00%	4
	Total	100%	16

**18 - What monitoring tool does your LEA use for compliance?**

#	Answer	%	Count
1	NSTTAC Indicator 13 Checklist	9.09%	1
2	Utah State Board of Education checklist	72.73%	8
3	Other	18.18%	2
4	Uncertain	0.00%	0
	Total	100%	11

**19 - Who conducts your LEA's internal monitoring for Indicator 13 compliance? Please check all that apply.**

#	Answer	%	Count
1	Special education director	33.33%	6
2	Assistant special education director	0.00%	0
3	Transition coordinator/Secondary services coordinator	27.78%	5
4	Special education department chair in secondary school	0.00%	0
5	Teachers/peer monitoring	11.11%	2
6	Self-monitoring	16.67%	3

7	Contracted staff	0.00%	0
8	Other (please provide)	11.11%	2
	Total	100%	18

**20 - What percentage of transition IEPs are monitored internally each year?**

#	Answer	%	Count
1	100%	27.27%	3
2	75%	18.18%	2
3	50%	0.00%	0
4	25%	36.36%	4
5	Less than 25%	18.18%	2
	Total	100%	11

**21 - In your view, what are your LEA's strengths for the transition components of the IEP? Please check all that apply.**

#	Answer	%	Count
1	Inviting student to transition IEP meeting	15.71%	11
2	Conducting age appropriate transition assessment	17.14%	12
3	Postsecondary goals for employment, education/training, and independent living	14.29%	10
4	Transition services and activities	11.43%	8
5	Annual goal(s) supporting transition services and activities	12.86%	9
6	Inviting adult agency who may fund transition services to transition IEP	5.71%	4
7	Listing course of study	10.00%	7
8	Listing diploma/certification	12.86%	9
9	Uncertain	0.00%	0
	Total	100%	70

**22 - In your view, what are your LEA's challenges for the transition components of the IEP? Please check all that apply.**

#	Answer	%	Count
1	Inviting student to transition IEP meeting	5.13%	2
2	Conducting age appropriate transition assessment	10.26%	4
3	Postsecondary goals for employment, education/training, and independent living	12.82%	5
4	Transition services and activities	15.38%	6
5	Annual goal(s) supporting transition services and activities	15.38%	6
6	Inviting adult agency who may fund transition services to transition IEP	17.95%	7
7	Listing course of study	12.82%	5
8	Listing diploma/certification	5.13%	2
9	Uncertain	5.13%	2
	Total	100%	39

**23 - How has Indicator 13 compliance training impacted your LEA's compliance?**

#	Answer	%	Count
1	Increase compliance	87.50%	14
2	Unchanged	6.25%	1
3	Decreased compliance	0.00%	0
4	Uncertain/no data	6.25%	1
	Total	100%	16

## Appendix B. LETTER OF INFORMATION REQUIRED BY INSTITUTIONAL REVIEW BOARD



Page 1 of 3  
Protocol # 10777  
IRB Approval Date: 11/25/19  
Consent Document Expires: 11/25/22

v.9

Letter of Information

### National Survey of Professional Development on Writing Compliant Transition Individualized Education Programs (IEPs)

#### Introduction

You are invited to participate in a research study conducted by Dr. Bob Morgan and Dr. Michelle Lizotte, professors in the Department of Special Education and Rehabilitation at Utah State University, and Faith Thomas, a doctoral student in Department of Special Education and Rehabilitation. The purpose of this research is to determine the current professional development practices, the internal monitoring processes, and the impact of professional development on transition IEP compliance in special education districts in the United States. Your participation is entirely voluntary.

This form includes detailed information on the research to help you decide whether to participate. Please read it carefully and ask any questions you have before you agree to participate.

#### Procedures

Your participation will involve completing a 30 question online survey which will take 10 minutes or less. In order to prevent a duplication of responses from a school district/local education agency, you will be asked to specify your state and the name of your school district. After duplications are randomly removed from the database, the name of the school district will be removed from analysis. At the end of the survey, if you are willing to discuss the survey results with the researcher, you will be asked to provide your contact information for a 30-minute follow-up interview. All interview responses will be compiled and remain independent from your online survey results. We anticipate that 660 people will participate in the online survey and 15 will complete an interview as part of 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 and loss of confidentiality, the discomfort answering some questions and the loss of time required to complete the online survey (10 minutes) and if you volunteer for the follow-up interview (30 minutes). In order to minimize those risks and discomforts, the researchers will provide a secure online form and will not collect any identifying information regarding your name, IP address, or location of IP address on the online survey. The information requested of your school district's name/local education agency's name and state will be used to randomly remove duplicate responses from your district. After removing duplicates, the identifying information will be removed and destroyed from analysis. The information collected on this survey and follow-up interviews will be reported in "aggregate form" (i.e., individual responses will not be identifiable). If you have a bad research-related experience, please contact the principal investigator of this study right away at 435-797-3251 or bob.morgan@usu.edu.

#### Benefits

Although you will not directly benefit from this study, it has been designed to learn more about professional development of special educators in writing transition IEPs and meeting Indicator 13 compliance.

#### Compensation

For your participation in this research study, you may submit your email for a raffle of ten \$100 Amazon gift card. Participants are not required to complete the survey to be eligible for gift card raffle. The opportunity to receive a

gift card will be presented at the end of the online Qualtrics survey to those participants who complete the survey. If you would like to be included in the gift card raffle for participating, you will be required to provide the researchers with your email address. This is optional and you are NOT required to provide an email address. Email addresses will not be included in any form of data analysis and will only be used for the purposes of compensation.

### 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. However, if you volunteer for the follow-up interview, it may be possible for someone to recognize your particular response.

We will collect your information through Qualtrics and audio recordings of interviews. Online activities always carry a risk of a data breach, but we will use systems and processes that minimize breach opportunities. This data will be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage system and interview field notes, audio recordings, and audio transcriptions will be in a locked drawer in a restricted-access office and/or stored in the restricted-access folder on Box.com. We will ask for your district's name and state in order to remove any duplicates of survey responses. Once the survey has closed, duplicates will be removed within 14 days and the identifying information will be separated from analysis. All research data and this form will be kept for three years after the study is complete, and then it will be destroyed.

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.

### Voluntary Participation & Withdrawal

Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by closing your browser window. If you choose to withdraw after we have already collected information about you, we will not be able to exclude the data you have contributed, as this survey is completely anonymous.

### 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 Dr. Bob Morgan, Co-Principal Investigator, at 435-797-3251 or [bob.morgan@usu.edu](mailto:bob.morgan@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](mailto:irb@usu.edu)

---

Dr. Bob Morgan  
Co-Principal Investigator  
(435) 797-3251; [bob.morgan@usu.edu](mailto:bob.morgan@usu.edu)

---

Dr. Michelle McKnight-Lizotte  
Co-Principal Investigator  
(435)797-8639; [michelle.lizotte@usu.edu](mailto:michelle.lizotte@usu.edu)

---

Faith Thomas  
Doctoral Student Researcher  
(812)521-0052; [mfaithomas@aggiemail.usu.edu](mailto:mfaithomas@aggiemail.usu.edu)



Page 3 of 3  
Protocol # 10777  
IRB Approval Date: 11/25/19  
Consent Document Expires: 11/25/22

v.9

### **Informed Consent**

By continuing on to the survey, you agree to participate in this study and indicate that you are 18 years of age or older. 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.



Appendix C. INDICATOR 13 CHECKLIST

1

**NSTTAC Indicator 13 Checklist: Form B (Enhanced for Professional Development)**

Percent of youth with IEPs aged 16 and above with an IEP that includes appropriate measurable postsecondary goals that are annually updated and based upon an age appropriate transition assessment, transition services, including courses of study, that will reasonably enable the student to meet those postsecondary goals, and annual IEP goals related to the student's transition services needs. There also must be evidence that the student was invited to the IEP Team meeting where transition services are to be discussed and evidence that, if appropriate, a representative of any participating agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority. (20 U.S.C. 1416(a)(3)(B))

Questions	Postsecondary Goals			
	Training	Education	Employment	Independent Living skills
1. Is there an appropriate measurable postsecondary goal or goals in this area?	Y N	Y N	Y N	Y N NA
Can the goal(s) be counted? Will the goal(s) occur <i>after</i> the student graduates from school? Based on the information available about this student, does (do) the postsecondary goal(s) seem appropriate for this student? • If <i>yes</i> to all three guiding questions above, then circle Y OR if a postsecondary goal(s) is (are) <i>not</i> stated, circle N				
2. Is (are) the postsecondary goal(s) updated annually?	Y N	Y N	Y N	Y N NA
Was (were) the postsecondary goal(s) addressed/ updated in conjunction with the development of the current IEP? • If <i>yes</i> , then circle Y OR if the postsecondary goal(s) was (were) <i>not</i> updated with the current IEP, circle N				
3. Is there evidence that the measurable postsecondary goal(s) were based on age appropriate transition assessment?	Y N	Y N	Y N	Y N
Is the use of transition assessment(s) for the postsecondary goal(s) mentioned in the IEP or evident in the student's file? • If <i>yes</i> , then circle Y OR if <i>no</i> , then circle N				
4. Are there transition services in the IEP that will reasonably enable the student to meet his or her postsecondary goal(s)?	Y N	Y N	Y N	Y N
Is a type of <i>instruction, related service, community experience, or development of employment and other post-school adult living objectives, and if appropriate, acquisition of daily living skills, and provision of a functional vocational evaluation</i> listed in association with meeting the post-secondary goal(s)? • If <i>yes</i> , then circle Y OR if <i>no</i> , then circle N				
5. Do the transition services include courses of study that will reasonably enable the student to meet his or her postsecondary goal(s)?	Y N	Y N	Y N	Y N
Do the transition services include courses of study that align with the student's postsecondary goal(s)? • If <i>yes</i> , then circle Y OR if <i>no</i> , then circle N				
6. Is (are) there annual IEP goal(s) related to the student's transition services needs?	Y N	Y N	Y N	Y N
Is (are) an annual goal(s) included in the IEP that is/are related to the student's transition services needs? • If <i>yes</i> , then circle Y OR if <i>no</i> , then circle N				
7. Is there evidence that the student was invited to the IEP Team meeting where transition services were discussed?	Y N	Y N	Y N	Y N
For the current year, is there documented evidence in the IEP or cumulative folder that the student was invited to attend the IEP Team meeting? • If <i>yes</i> , then circle Y OR if <i>no</i> , then circle N				
8. If appropriate, is there evidence that a representative of any participating agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority?	Y N NA	Y N NA	Y N NA	Y N NA
For the current year, is there evidence in the IEP that representatives of any of the following agencies/services were invited to participate in the IEP development including but not limited to: <i>postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living or community participation</i> for this post-secondary goal? Was consent obtained from the parent (or student, for a student the age of majority)? • If <i>yes</i> to both, then circle Y • If <i>no</i> invitation is evident and a participating agency is likely to be responsible for providing or paying for transition services and there was consent to invite them to the IEP meeting, then circle N • If it is too early to determine if the student will need outside agency involvement, or no agency is likely to provide or pay for transition services, circle NA • If parent or individual student consent (when appropriate) was <i>not</i> provided, circle NA				
<b>Does the IEP meet the requirements of Indicator 13? (Circle one)</b>  <b>Yes</b> (all Ys or NAs for each item [1-8] on the checklist included in the IEP are circled) or <b>No</b> (one or more Ns circled)				

## Appendix D. MARKETING EMAIL CONTENT

Hello,

We would like to learn about transition IEP training in your local special education districts.

We are conducting a national study to determine the current professional development practices, the internal monitoring processes, and the impact of professional development on transition IEP compliance in special education districts.

We are asking for your help by sharing our survey with local special education directors, assistant special education directors, transition coordinators and/or secondary special education department chairs. This survey takes only 10 minutes to complete at [https://usu.co1.qualtrics.com/jfe/form/SV\\_eyub9KTQu6wL629](https://usu.co1.qualtrics.com/jfe/form/SV_eyub9KTQu6wL629).

All respondents will remain anonymous. Respondents may volunteer to be randomly selected to receive one of ten \$100 gift cards.

For more information contact Faith Thomas, Doctoral Student at Utah State University at [mfthomas@aggiemail.usu.edu](mailto:mfthomas@aggiemail.usu.edu). If you have questions or concerns about this study please contact [Bob.Morgan@usu.edu](mailto:Bob.Morgan@usu.edu). (USU IRB protocol #10777)

## Appendix E. SEMI-STRUCTURED INTERVIEW FORM

Respondent's Name	Job Title	Phone Number	Email Contact
Interview Date		Transcription sent	
Time/Time zone		Confirmation received	

Greeting: Thank you so much for taking the time out of your day to speak with me. As I mentioned, this is a research study I am doing for my dissertation. There is a gap in our knowledge of how school districts are training their teachers on writing transition IEPs and meeting Indicator 13 compliance. Your insight into the survey's findings is crucial to understanding what is happening in school districts.

1. Tell me a little bit about your district. (Community population & District population)
2. The online survey results showed that districts typically offer the same professional development to returning teachers and new teachers. Why has that training strategy worked? What are the benefits of that format?
3. What resources do you prefer using in your professional development trainings on writing transition IEPs? How are those resources different from what you use in Indicator 13 training or is Indicator 13 training embedded in writing transition IEP training?
4. The online survey results showed that your size districts typically do have internal IEP monitoring procedures. Would you tell me a little bit about how you conduct internal transition IEP monitoring? (Monitoring forms used, the percentage of IEPs monitored, feedback on compliance to teachers)
5. In what ways do you think that professional development has impacted Indicator 13 compliance in your district?
6. Is there anything else that you would like to tell me about professional development for writing transition IEPs and/or Indicator 13 that I have not asked about?

Closing: Thank you so much for your time today. I will be transcribing this audio and sending it to you in an email to verify its accuracy. If there is anything you would like to add to your responses at that time, please add to your written response and return to me. Again, thank you so much!

## Appendix F SEMI-STRUCTURED INTERVIEW NOTES

Respondent's Name	Job Title	Phone Number	Email Contact
Interview Date		Transcription sent	
Time/Time zone		Confirmation received	

Tell me a little bit about your district. (Community population & District population)	
The online survey results showed that your size districts typically offer differ the same professional development to returning teachers and new teachers. Why has that training strategy worked? What are the benefits of that format?	
What resources do you prefer using in your professional development trainings on writing transition IEPs? How are those resources different from what you use in Indicator 13 training?	
The online survey results showed that your size districts typically do have internal IEP monitoring procedures. Would you tell me a little bit about how you conduct internal transition IEP monitoring? (Monitoring forms used, the percentage of IEPs monitored, feedback on compliance to teachers)	
In what ways do you think that professional development has impacted Indicator 13 compliance in your district?	

## Appendix G. QUALITATIVE CODEBOOK

### Dependent Variable Definitions

PD characteristics was defined by the following specific qualities of the PD for writing compliant transition IEPs: (a) trainer for Indicator 13; (b) trainer for writing transition IEPs; (c) instructional method of training; (d) amount of training (hours) received per academic year; (e) frequency for returning teachers training in academic years; and (f) combined training of returning and new teachers.

The dependent variable of internal monitoring was defined by five monitoring characteristics including (a) knowledge of Indicator 13 compliance requirements; (b) existence of an internal monitoring process; (c) percentage of transition IEPs monitored in an LEA; (d) monitoring tool used by LEA; and (e) staff title who completes internal monitoring.

### Code Descriptions

1. Professional Development Systems: Training of staff on writing transition IEPs and Indicator 13 compliance
  - a. SPED Teacher PD: PD provided to teachers directly responsible for writing transition IEPs and/or providing transition education and services  
Examples: content format, frequency, trainer
  - b. Other capacity building (e.g., train the trainer)
  - c. Writing transition IEPs: alignment, SMART goals
2. Internal IEP Monitoring Systems: What is the LEA's current monitoring system to ensure compliance with federal/state requirements?
  - a. Continuous improvement – plan, implement, evaluation  
Examples: monitoring forms used; percentage of IEPs monitored; who conducts IEP reviews
  - b. Continuous improvement – utilize results for teacher accountability  
Examples:
    - Accountability of teachers for non-compliant IEPs
    - Feedback to teachers on ways to improve, or if they are doing well, to continue their current practices
    - Use of results by school district
3. Challenges to writing compliant transition IEPs: teacher turnover, hours available, union
4. Other Themes (parking lot - not related to variables)

## Appendix H. DOUBLE CODER'S QUALIFICATIONS

**JEANNE A. NOVAK, PH.D., CESP  
VITA****CURRICULUM**

Professor, Special  
Education Bowling  
Green State University  
1001 E. Wooster St., 413 Education  
Building Bowling Green, OH  
43403-4005 [jnovak@bgsu.edu](mailto:jnovak@bgsu.edu)  
+1.419.372.6826

**EDUCATION**

2002	Ph.D.	Special Education	Indiana University, Bloomington (IUB) 1993
		Criminal Justice	B.A. Psychology & Ohio Northern University

**ACADEMIC POSITIONS**

## Teaching Positions

2003-present Faculty Member, *Special Education*  
Bowling Green State University  
(BGSU) *Assistant Professor*, 2003-  
2010  
*Associate Professor*, 2010-2018  
*Professor*, 2018-present

1998-2002 *Instructor, Special Education*  
IUB and Indiana University-Purdue University at

## Indianapolis (IUPUI) Administrative Positions

2003-present *Coordinator, Secondary Transition Program*, BGSU

**RESEARCH INTERESTS**

My research focuses on the preparation of youth with disabilities to pursue and

achieve their postsecondary goals. In support of this research agenda, I have pursued two interrelated lines of inquiry: (a) preparation of secondary special educators and employment support professionals and (b) employment access and inclusion.

### **FUNDED RESEARCH AND PROJECTS**

1. Novak, J. (2019). *Fulbright Research Award, U.S. Scholars Grant Program*. Application selected by the J. William Fulbright Foreign Scholarship Board, Bureau of Educational and Cultural Affairs, U.S. Department of State. Awarded \$17,130 (plus housing stipend provided by the Slovenian government) to conduct research at the University Ljubljana, Slovenia, Spring Semester 2020.
2. Novak, J. (2018). *Clark Inclusive Scholars Program, BGSU Firelands College*. Primary proposal author in collaboration with Andy Kurtz, Kate Dailey, and Diane Witt. Funded by the Clark Family Foundation for \$658,755, 2019-2023.
3. Novak, J. (2006-2009). *Enhanced academic achievement and transition outcomes through technology* (ED H327A050103). Subcontract through The Ohio State University. Principal Investigator: Dr. Margo Izzo, Nisonger Center, OSU. A multi-site, randomized controlled trial investigating the effectiveness of the EnvisionIT web-based educational curriculum.

### **EDITORSHIP OF JOURNALS**

1. Vostal, B., Bostic, J., Horner, C.G., Lavery, M.R., Novak, J., & Patterson, N.C. (Editors) (2019 - present). *Mid-Western Educational Researcher*.
2. Novak, J., Mank, D., & Rogan, P. (Guest Editors). (2011). Supported employment and social relationships in the workplace [Special Issue]. *Journal of Vocational Rehabilitation, 35*(3).

### **SELECTED REFERRED PUBLICATIONS**

1. Williamson, R. L., Smith, C., Novak, J., Hunter, W., Reeves, K., Jasper, A., & Casey, L. (2018). Re-examining evidence-based practice in special education: A discussion. *Journal of International Special Needs Education, 21*(2), 54-65.  
<https://doi.org/10.9782/17-00022>
2. Yu, M., Novak, J., Lavery, M., Vostal, B. & Matuga, J. (2018). Predicting college completion among students with learning disabilities. *Career Development and Transition for Exceptional Individuals, 41*(4), 234-244.
3. Simonsen, M., Novak, J., & Mazzotti, V. (2018). Status of credentialing structures

related to secondary transition: A state-level policy analysis. *Career Development and Transition for Exceptional Individuals (CDTEI)*, 41, 27-38.

4. Novak, J. (2017). Making the cut when applying for jobs online. *Journal of Vocational Rehabilitation*, 46(3), 293-299.
5. Novak, J. (2015). Raising expectations for U.S. youth with disabilities: Federal disability policy advances integrated employment. *Center for Educational Policy Studies (CEPS) Journal*, 51(1), 91-110. Available at <https://ojs.cepsj.si/index.php/cepsj/article/view/156>
6. Schaaf, M., Williamson, R., & Novak, J. (2015). Are Midwestern school administrators prepared to provide leadership in special education? *Mid-Western Educational Researcher*, 27(2), 172-182.
7. Novak, J., Parent-Johnson, W., Owens, L. A., & Keul, P. (2014). National certification initiative for employment support professionals: Promoting quality integrated employment services. *Journal of Vocational Rehabilitation*, 40, 99-107.
8. Cimera, R. E., Burgess, S., Novak, J., & Avellone, L. (2014). Too disabled to work: A crossroad once thought passed. *Research and Practice for Persons with Severe Disabilities*, 39(3), 240-248.
9. Novak, J., Mank, D., & Rogan, P. (Guest Editors). (2011). Supported employment and social relationships in the workplace [Special Issue]. *Journal of Vocational Rehabilitation*, 35(3).
10. Novak, J., Feyes, K., Christensen, K. (2011). Application of intergroup contact theory to the integrated workplace: Setting the stage for inclusion. *Journal of Vocational Rehabilitation*, 35(3), 211-226.
11. Izzo, M., Yurick, A., Nagaraja, H., & Novak, J. (2010). Effects of a 21<sup>st</sup> century curriculum on students' information technology and transition skills. *Career Development for Exceptional Individuals*, 33(2), 95-105.
12. Novak, J., & Rogan, P. (2010). Social integration in employment settings: Application of intergroup contact theory. *Intellectual and Developmental Disabilities*, 48, 31-51.
13. Novak, J. (2010). Learning through service: A course designed to positively influence students' disability-related attitudes. *Journal of Education for Teaching*, 36, 121-123.
14. Novak, J., Murray, M., Scheuermann, A., & Curran, E. (2009). Enhancing the



preparation of special educators through service learning: Evidence from two preservice courses. *International Journal of Special Education*, 24(1), 32-44.

15. Izzo, M., Murray, A., & Novak, J. (2008). The faculty perspective on Universal Design for Learning. *Journal of Postsecondary Education and Disability*, 21(2), 60-72.
16. Banks, B. R., Novak, J., Mank, D. M., & Grossi, T. (2007). Disclosure of a psychiatric disability in employment: An exploratory study. *International Journal of Psychosocial Rehabilitation*, 11(1), 69-84.

### **SELECTED PRESENTATIONS**

1. Novak, J., and Simonsen, M. (2017, October). *Do states require direct-service transition professionals to have specialized knowledge and skills? Examining Policy Changes Over Time and Future Directions*. CEC Division on Career Development and Transition (DCDT) Annual Conference, Milwaukee, WI.
2. Williamson, R., Hunter, W., Jasper, A., Novak, J., & Smith, C. (2017, April). *Re-examining evidence-based practice: Implication of changing EBP standards on teacher practice*. Council for Exceptional Children Convention and Expo, Boston, MA.
3. Novak, J. (2016, June). *Making the cut when applying for a job online: Job seekers with intellectual and developmental disabilities*. 27th Annual Conference of APSE: The Network on Employment, Cincinnati, OH.
4. Simonsen, M., Mazzotti, V., Novak, J., & Morningstar, M. (2015, November). *The status of personnel preparation and certification in transition*. CEC Division on Career Development and Transition (DCDT) Annual Conference.
5. Novak, J. (October 22, 2014). *Good practices of including people with disabilities on the market*. Invited keynote at the 5<sup>th</sup> Days of Social Economy International Conference, Ljubljana, Slovenia.
6. Novak, J. [panelist] (October 22, 2014). *Employment roundtable: From inclusion to employment*. 5<sup>th</sup> Days of Social Economy International Conference, Ljubljana, Slovenia.
7. Novak, J., & Owens, L. (October 1, 2014). *Training teachers for transition*. Invited national webinar for the Partnerships in Employment (PIE) Training and Technical Assistance at the University of Massachusetts, Boston.
8. Perry, A., & Novak, J. (2013, June). *Campus Works: A school-university partnership*

*that promotes transition through integrated employment.* 24th Annual Conference of APSE: The Network on Employment, Indianapolis, IN.

9. Novak, J., Perry, A., & Ellenberger, E. (2012, November). *Campus Works: A university- school partnership that prepares special educators through service learning.* Teacher Educator Division (TED) 2012 Annual Conference, Grand Rapids, MI.
10. Novak, J., & Murray, M. (2011, November). *Enhancing the preparation of special educators through service learning.* International Association for Research on Service-Learning and Community Engagement, Chicago, IL.
11. Novak, J. & Murray, M. (October 31, 2010). *Service opens the door to learning for preservice special educators.* International Center for Service-Learning in Teacher Education (ICSLTE), Indianapolis, IN.
12. Novak, J. (June 30, 2009). *A campus-based career exploration program creates a win-win partnership.* 20<sup>th</sup> Annual Conference of APSE: The Network on Employment, Milwaukee, WI.
13. Novak, J., Perry, A., & Ahern, K. (July 11, 2008). *Campus Works!: A career exploration program that provides authentic learning experiences for secondary and postsecondary students.* 19<sup>th</sup> Annual Conference of APSE: The Network on Employment, Louisville, KY.
14. Izzo, M., Novak, J., Lamb, P. (April 5, 2008). *Experimental analysis of a curricular intervention on student achievement and transition outcomes.* Council for Exceptional Children Conference, Boston, MA.

## **COURSES TAUGHT**

---

### Undergraduate

Teaching Students with Exceptionalities  
 Exceptionalities Introduction to Rehabilitation  
 School to Adult Life  
 Special Education Field Experience  
 and Careers Transition for Students with Special Needs  
 and Transition Supported Employment  
 Educators Research Methods in Special Education

### Graduate

Teaching Students with  
 Counseling Transition from  
 Competitive Employment, College,  
 Adolescent Development  
 Student Teaching for Special  
 Comprehensive Examination  
 Interagency Collaboration for

Transition Statistics in  
Education  
Human Services and Systems Change

---

## **CURRICULUM DEVELOPMENT**

---

### Courses Developed

Review for Comprehensive Examination  
Certificate

Transition from School to Adult Life  
Certificate

Competitive Employment, College,  
Secondary and Careers

Transition Assessment and Instructional  
Strategies (co-developed)

Research Methods in Special Education  
with Autism  
(co-developed)

Internship in Transition to Work  
Endorsement

Interagency Collaboration for Transition

### Programs Developed

Inclusive Postsecondary Education

Secondary Transition Graduate

M.Ed. in Special Education with  
Transition Specialization

Graduate K-12 Special Education  
Programs  
(reapplication)

M.Ed. in Special Education

Specialization (co-developed)

Transition-to-Work

## **SELECTED SERVICE**

1. BGSU Faculty Senate, 2017-present
2. Graduate Council, Spring 2014, 2017-present
3. Committee on Academic Affairs, 2018-present
4. Teacher Education Leadership Council, 2013-2014, 2017-present
5. Online and Summer Academic Programs (OSAP) Strategic Planning Group, 2020-present
6. Faculty Mentor, School of Counseling and Special Education, 2010-present
7. 12 Search Committees (5 faculty positions, 7 administrator positions)
8. College Tenure and Promotion Review Council, 2013-2016
9. Developmental Disabilities Program Coordinator, 2003-2014
10. BGSU Human Subjects Review Board, 2009-2013

### Professional

1. Editorial Review Board Membership
  - *American Journal on Intellectual and Developmental Disabilities*, 2017-present
  - *Career Development and Transition for Exceptional Individuals (CDTEI)*, 2019-present
  - *Journal of Vocational Rehabilitation*, 2002-2013
2. Ohio Statewide Consortium (OSC) for Inclusive Postsecondary Programs, Postsecondary Advisory Council, 2018-present
3. Research Committee Member, National Association for Persons Supporting Employment First (APSE), 2013-present
4. Research Committee Member, National CEC Division of Career Development and Transition (DCDT), 2014-2017
5. Board Member, Ohio Association for Persons Supporting Employment First (APSE), 2003-2017
6. Ohio Department of Education State Work Group on Secondary Transition Services: Improving Postsecondary Outcomes for Students with Disabilities, 2007-2009

## **SELECTED HONORS AND AWARDS**

*2019 Award for Dean's Special Recognition*, BGSU Firelands College, for exceptionally meritorious contributions in support of the College mission (development of the Clark Inclusive Scholars Program).

## Appendix I. AUDITOR QUALIFICATIONS

### Curriculum Vitae

Mary F. Held  
 Indiana University  
 Indiana Institute on Disability and Community  
*Indiana's University Center for Excellence*  
 Bloomington, Indiana 47408-2696  
[maheld@indiana.edu](mailto:maheld@indiana.edu)

### Education

- 2008 Ph.D. in Curriculum and Instruction, Indiana University, Bloomington, Indiana.  
 Indiana University, Bloomington, IN. Ph.D., Curriculum and Instruction  
 Research Interests: Self-determination, Curriculum Development, Teacher  
 Education
- 1993 Syracuse University, Syracuse, N.Y., M.S.  
 Rehabilitation Counseling  
 Research Interests: Transition, Supported Employment, Service Coordination,  
 Systems Change.
- 1989 Syracuse University, Syracuse, N.Y., B.S.  
 Special Education  
 Summa Cum Laude

### Certifications

Teaching Certificate in Special Education, K-12  
 Certified Rehabilitation Counselor

### Professional Experience

**Research Associate:** Indiana University, Indiana Institute on Disability and Community  
 – Center on Community Living and Careers. June 2002 – Present.

Coordinate Projects with Indiana Department of Education, and Vocational  
 Rehabilitation to enhance staff competencies. Provide technical assistance and  
 consultation to school districts. Coach teachers on writing quality transition IEP's.  
 Develop online training courses for Vocational Rehabilitation Leadership Academy.  
 Coordinate logistics and training for vocational rehabilitation events. Administer sub-  
 contracts. Produce training videos.

**Graduate Assistant:** Indiana University, School of Education, Leadership Training Program in Special Education. August 1995 - 2008.

Work on various grant-funded research projects at the Indiana Institute on Disability and Community, a University Affiliated Program (UAP) directed by Dr. Patricia Rogan. Research focus related to transition, self-determination, and conversion from facility-based to community-based employment services; supervision of practicum and student teachers; Teach undergraduate and graduate courses at Indiana University Bloomington and Indiana University Purdue University Indianapolis.

**Team Coordinator:** Enable, UCPA Affiliate, Syracuse, N.Y. September 1994 - August, 1995

Developed, implemented, and monitored a school-to-work supported employment services emphasis on person centered transition planning, case management and family support. Supervised two employment consultants, and university practicum students. Developed and implemented vocational counseling services program through Medicaid clinic. Developed and facilitated a parent and student advisory board and support group

**Employment Consultant & Service Coordinator:** Enable, UCPA Affiliate, Syracuse, N.Y. September 1993 - August 1994

Worked with high school students with disabilities seeking individualized supported employment in community settings. Provided case management/service coordination for high school students and adults with developmental disabilities.

**Employment Consultant:** Pioneer Agency Inc., Syracuse, N.Y. June 1991 - September 1993

Responsible for coordinating school-to-work supported employment services. Provided consultation to school districts regarding "best practices" in transition.

**Teacher:** Syracuse City School District, Syracuse, N.Y. August 1984 - January 1985

Participant in the "Potential Teacher Program". Worked toward becoming certified in teaching while functioning as a floating substitute at all levels within the school district.

**Teaching Assistant:** Syracuse City School District, Syracuse, N.Y. October 1983-June 1984

Worked as teaching assistant in a community-based classroom for 12 students with high support needs at the middle school level.

### **Teaching**

Assistive Technology in Special Education- Summer 2017

Assistive Technology in Special Education- Summer 2016

Transition Across the Lifespan- Spring 2015  
 Assistive Technology in Special Education- Summer 2015  
 Transition Across the Lifespan- Spring 2014  
 Assistive Technology in Special Education- Summer 2014  
 Transition Across the Lifespan- Spring 2013  
 Assistive Technology in Special Education- Summer 2013  
 Transition Across the Lifespan- Spring 2012  
 Assistive Technology in Special Education- Summer 2012  
 Transition Across the Lifespan- Spring 2011  
 Assistive Technology in Special Education- Summer 2011  
 Transition Across the Lifespan- Spring 2010  
 Transition Across the Lifespan- Spring 2007  
 Transition Across the Lifespan – Spring 2005  
 Teaching Exceptional Learners – Elementary, Spring 2004  
 Transition Across the Lifespan – Spring, 2003  
 Introduction to Exceptional Children – Elementary, Spring 2002  
 Introduction to Exceptional Children – Secondary, Spring 2002  
 Assessment and Instruction – Spring, 2002  
 2 Sections of Methods of Teaching Students with Special Needs – Fall, 2001  
 Introduction to Exceptional Children – Fall, 2001  
 Diagnosis and Assessment of Individuals with Disabilities, Fall 2000  
 Individualizing Instruction, Spring 2000  
 Assessment and Instruction, Spring 2000  
 Assessment and Instruction Field Placement, Spring 2000  
 Assessment and Individualized Instruction in Reading and Math, Summer I. 1998  
 Assessment and Individualized Instruction in Reading and Math, Summer I. 1997  
 Introduction to Special Education, Summer II. 1996

Co-Taught Courses:

Schools, Society, & Exceptionality Fall 1998  
 Schools, Society, & Exceptionality Spring, 1997  
 Teaching Methods for Students with Special Needs Spring 1998  
 Teaching Methods for Students with Special Needs Fall 1997  
 Curriculum and Instruction for Students with Severe Disabilities, Fall, 1996  
 Person Centered Planning, Fall, 1995

Guest Lectures:

Transition Across the Lifespan, Spring, 2004. Topic: Infusing self-determination into the general education curriculum.  
 Introduction to Special Education, Fall 1999, Topic: Disability and Advocacy  
 Introduction to Mental Retardation, Spring 1999, Topic: Self-determination  
 Assessment and Individualized Instruction in Reading and Math, Topic: Portfolio Assessment, Spring, 1999  
 Curriculum and Instruction for Students with Severe Disabilities, Fall 1998, Topic: Self-determination

Educational Psychology for Elementary Teachers, Topic: Assumptions about Disability, Spring 98

Educational Psychology for Secondary Teachers, Topic: Assumptions about Disability, Fall 1997

Survey of Behavior Disorders, Topic: Alternative Assessment, Fall, 1996

## **Service**

Member Advisory Board, Center for Youth and Adults with Chronic Conditions- 2010 – Present

Core Member State Team Indiana Deaf and Hard of Hearing Transition Alliance- 2013 – Present

Member IIDC E-Learning Committee- 2017 - Present

Coordinator, INTrain and sub-committees. June 2001 – 2008

Board Secretary, Family Service Association/Mental Health Alliance. January 2005 – 2008

Board Member, Abilities Unlimited, January 1998-2001

Member, Community Committee for Accessibility, Bloomington, IN., 1996-1998.

Member, Family and Individual Resource Support Team, Indiana Institute on Disability and Community, Bloomington, IN., 1996-2001.

## **Publications**

### **Chapters**

Held, M., Rogan, P., & Fisher M. (2010). *Student involvement in meeting preparations*. In Colleen Thomas & Paul Wehman Eds. *Getting the Most Out of IEP's: An Educator's Guide to the Student-Directed Approach* (pp. 79-91). Baltimore: Paul H. Brookes Publishing.

Held, M., Rogan, P., & Fisher M. (2010). *Student involvement in the IEP meeting*. In Colleen Thoma & Paul Wehman Eds. *Getting the Most out of IEP's: An Educator's Guide to the Student-Directed Approach* (pp. 79-91). Baltimore: Paul H. Brookes Publishing

Thoma, C., & Held, M. (2002). Measuring what's important: Using alternative assessments. In C.L. Sax & C.A. Thoma, *Transition assessment: Wise practices for quality lives*. (pp. 71-86). Baltimore: Paul H. Brookes Publishing.



Rogan, P., Luecking, R., & Held, M. (2001). Career development: Helping youth with mild cognitive limitations achieve successful careers. In A. J. Tymchuk, K. C. Lakin & R. Luckasson (Eds.), *The forgotten generation: The status and challenges of adults with mild disabilities* (pp. 119-140). Baltimore: Paul H. Brookes Publishing

### **Refereed Journal Articles**

Lawrence, C. & Held, M. (2017). A State Report: Indiana's Deaf and Hard of Hearing Transition Alliance Rocks! Odyssey: New Directions in Deaf Education.

Held, M., Thoma, C., & Thomas, K. (2004). The John Jones show: How one teacher facilitated self-determined transition planning for a young man with Autism. *Focus on Autism and Other Developmental Disabilities*. 19, 3, 177-188.

Thoma, C., Held, M., & Saddler, S. (2002). Transition assessment practices in Nevada and Arizona: Are they tied to best practices? *Focus on Autism and Other Developmental Disabilities*. 17, 4, 242-250.

Rogan, P. & Held, M. (2000). Paraprofessionals in job coach roles. *JASH*, 24, 4, 273-280.

### **Monographs, Technical Reports, and Newsletters**

Cox, M. & Held, M. (2018). VR and Schools FAQ's for Teachers (Revised). Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community Living and Careers.

Cox, M. & Held, M. (2018). VR and school's information about student referrals (revised). Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community and Careers.

Cox, M. & Held, M. (2018). VR and schools student facts (revised). Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community Living and Careers.

Rogan, P., Held, M., & Rinne, S. (2001). A national study of conversion from segregated to community-based employment services: *Summary report. Job training & placement report*, 25, 6, 1-3

Rogan, P., & Held, M. (1999). National efforts to promote conversion: Day programs to supported employment. *TASH Newsletter*, 25, 5/6, 23-25.

Thoma, C., & Held, M. (1999). Self-determination and the transition assessment process: A collaborative model. *Nevada Access*, Spring, 6-7.

- Thoma, C., Held, M., & Butler, F. (1998). Planning transitions that prepare students for a technologically advanced world. *INAPSE Newsletter*, 4, 3, 2-3.
- Rogan, P., Held, M. & Rinne, S. (1998). A national study of conversion from facility-based to community-based employment services. Indiana University: Institute on Disability and Community.
- Held, M. F. (1998). Don't ask why: Ask why not! *IN-APSE Newsletter*, 4, 1, 2-3.
- Held, M., & Osborn, K. (1998). Unifying school-to-work and transition: The times they are a-changing. *Indiana UAP Voice*, 2, 2, 1-7.
- Rogan, P. Rinne, S. & Held, M. (1997). Conversion from facility-based to community-based employment supports: Preliminary results of a national study. *TASH Newsletter*, 23, 6-7, 9-10.
- Rogan, P., Rinne, S. & Held, M. (1997). Conversion in progress: Preliminary results of a national study. In J. Dean, & A. Cioffi (Eds.), *National Forum on Changeover to Supported Employment: Summary of Proceedings*. Eugene, OR: University of Oregon

### **Other Publications**

- Held, M. (2008). *Infusing self-determination into the curriculum for young adults with significant disabilities: A teacher's journey*. (Doctoral Dissertation) Indiana University – Bloomington.

### Videos

- Held, M. [Producer] & Clark, S. [Writer]. (2018). *Career Counseling an Individual with No Work History*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Updike, J. [Writer]. (2018). *Using Ethical Principles in Counseling*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Clark, S. [Writer]. (2018). *Counseling: Getting the Employment Specialist on Board*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)

- Held, M. [Producer] & Higley, A. [Writer]. (2017). *Home Modification*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Higley, A. [Writer]. (2017). *Vehicle Modification*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Higley, M. [Writer]. (2017). *Vocational Rehabilitation Success Story*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Stafford, R. [Writer]. (2017). *Vocational Rehabilitation Team Meeting*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Tijerina, J. [Writer]. (2016). *Workplace Analysis*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Tijerina, J. [Writer]. (2016). *Workplace Culture Comparison*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Stafford R [Writer]. (2015). *Vocational Rehabilitation Family Involvement*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held M. [Producer] & Stafford R. [Writer]. (2015). *Vocational Rehabilitation Informed Choice & Provider Selection* [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held M. [Producer] & Stafford R. [Writer]. (2015). *Vocational Rehabilitation Informed Choice & Goal Setting*. [Video file] (Available from Center on Community Living and Careers, Indiana Institute on Disability and Community, 1905 N. Range Road, Bloomington, IN 47408)
- Held, M. [Producer] & Higley, A. [Writer]. (2015). *Working with Indiana Vocational Rehabilitation Services*. [Video file]. Available from <https://www.youtube.com/channel/UCtf4TPTqrX0Bl6zTde-652w>

- Held, M. [Producer]. & Stafford, R. [Writer]. (2015). *Vocational Rehabilitation Transition Intake Interview*. [Video file]. Available from [https://www.youtube.com/playlist?list=PLrbAiaHoPwqV-QeVgc\\_ctKDJdfT65I4W](https://www.youtube.com/playlist?list=PLrbAiaHoPwqV-QeVgc_ctKDJdfT65I4W)
- Held, M. [Producer]. & Lott, B. (Writer). (2015). *Working with Benefits*. [Video file]. Available <https://www.youtube.com/playlist?list=PLrbAiaHoPwqWsc0vF-EiaPEvkRYoOv5W>
- Held, M. [Producer] & Higley, A. [Writer]. (2014). *Diploma versus certificate*. [Video file]. Available from <https://instrc.indiana.edu/>
- Held, M. [Producer] & Higley, A. [Writer]. (2014). *Transition success story Natalie*. [Video file]. Available from <https://instrc.indiana.edu/>
- Held, M. [Producer] & Higley, A. [Writer]. (2014). *Transition success story Dallas*. [Video file]. Available from <https://instrc.indiana.edu/>
- Held, M. [Producer] & Higley, A. [Writer]. (2014). *Transition success story Linzy*. [Video file]. Available from <https://instrc.indiana.edu/>

#### Online Training Modules

- Abramenko.; Clarks.; Held, M.; Stafford R.; Updike, J. (2018). Case and caseload management. [Distance learning module]. Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community Living and Careers.
- Abramenko, V.; Clark, S.; Held, M.; Stafford R.; Updike, J., (2018). Consumer Benefits. [Distance learning module]. Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community Living and Careers.
- Azziz, R., Abramenka, V., Clark, S., Held, M., Stafford, R. & Updike, J. (2018). Culturally Proficient Vocational Rehabilitation Counseling.
- Abramenka, V.; Clark, S.; Held, M.; Stafford R.; Updike, J. (2018). Case and caseload management. [Distance learning module]. Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community Living and Careers.
- Abramenka, V.; Clark, S.; Held, M.; Stafford R.; Updike, J. (2018). Case and caseload management. [Distance learning module]. Bloomington, IN: Indiana University, Indiana Institute on Disability and Community, Center on Community Living and Careers.
- Abramenka, V.; Clark, S.; Held, M.; Stafford, R; & Updike, J. (2018). Psychosocial and cultural aspects of disability. [Distance learning module]. Bloomington, IN: Indiana

University, Indiana Institute on Disability and Community, Center on Community Living and Careers.

Held, M.; Stafford R.; Updike, J., & Abramanka, V. (2017). Orientation. [online training]. Vocational Rehabilitation Leadership Academy. Center on Community Living and Careers, Indiana University: Bloomington, IN

Held, M. Grossi, T., Schmalzried, J. (2015). *Transition IEP : A self-guided tutorial on what you need to know to write quality compliant transition IEP's*, Revised . Bloomington: Center on Community Living and Careers, Indiana Institute On Disability and Community, Indiana University. Retrieved <https://connect.iu.edu/transitionIEP12/>

Held, M. Grossi, T., & Dawalt, L. (2015). *Transition assessment module: An Overview*, Revised. Bloomington: Center on Community Living and Careers, Indiana Institute On Disability and Community, Indiana University. Retrieved <https://connect.iu.edu/transitionassessment>

Held, M. & Tijerina J. (2013). *Beyond an apple a day: Teaching students with disabilities to manage their own health and wellness*. Bloomington: Center on Community Living and Careers, Indiana Institute On Disability and Community, Indiana University. Retrieved <https://connect.iu.edu/beyondanapple>

Held, M. George, J. (2012). *Peer Mentoring Learning Together*. Bloomington: Center on Community Living and Careers, Indiana Institute On Disability and Community, Indiana University. Retrieved [http://www.iidc.indiana.edu/index.php?pageId=9&mode=mod\\_order&action=shop&todo=display\\_prod&prod\\_id=179](http://www.iidc.indiana.edu/index.php?pageId=9&mode=mod_order&action=shop&todo=display_prod&prod_id=179)

### **Presentations (selected)**

Held, M. & Ritz, W. (February, 2018). *"I got this!" Using technology to transform student-led IEP's*. Presentation at the Indiana ICASE Conference, Indianapolis, IN.

Held, M. (November, 2017). *Expanded CORE curriculum: Teaching self-determination skills*. Presentation at the Indiana Promoting Achievement for Students with Sensory Loss Conference. Indianapolis, IN.

Tijerina, J. & Held, M. (November, 2017). *Creating a bridge to success: Building apps into workplace supports*. Presentation at the Indiana APSE Conference, Indianapolis, IN.

Tijerina, J. Held, M. (June, 2017). *There's an app for everyone*. Presentation at the Statewide Service Coordinators Conference. Tinley Park, Illinois.

Tijerina, J. & Held, M. (June 2017). *Successful Employment at your fingertips: supporting skills for work*. Presentation at National APSE Conference. Portland, OR.

Tijerina, J. Held, M. (June, 2016). *There's an app for everyone*. Presentation at the APSE National Conference, Cincinnati, Ohio.

Held, M. & Schmalzried (November, 2015) *Lessons from the field: Teaching self-determination across Indiana*. Poster Session at the DCDT National Conference.

Held, M. (June 2015). *Tackling transition*. Presentation at the Indiana Deaf Educators Conference. Indianapolis, IN.

Held, M. (June, 2014). *This is the life: Facilitating quality transitions*. Presentation at the Indiana Deaf Educators and Educational Interpreters Conference. Indianapolis, IN.

### **Professional Affiliations**

Member, Association of Community Rehabilitation Educators, 2016 – present.

Member, Association of Persons in Supported Employment, 1996-present.

Member, Council for Exceptional Children, 1996-present.

Member, TASH, 1996-present

## Appendix J. DISSERTATION STUDY TIMELINE

Date Initiated	Dissertation Activity	Recipient - Collaborator	Date Completed
10/28/19	Proposal to Committee	Committee	10/28/19
10/28/19	Email to committee to meet individually	Committee	10/30/19
11/11/19	Proposal meeting	Committee	11/11/19
11/18/19	Proposal edits completed	Dr. Morgan	
11/18/19	IRB process initiated	Dr. Morgan	
	IRB process	Dr. Morgan	
11/25/19	submit to IRB	Dr. Morgan	11/26/19
1/10/20	Survey distribution (10-day deadline)	Dr. Fowler	1/10/20
1/17/20	7-day reminder	Dr. Fowler	1/17/20
1/24/20	Final email reminder	Dr. Fowler	1/24/20
1/27/20	IRB amendment process	Dr. Morgan	
2/12/20	Amendment submitted & accepted	Dr. Morgan & Dr. Lizotte	2/12/20
2/12/20	Email Recruitment #2		2/27/20
2/21/20	Preliminary data for interviews		2/23/20
	Close survey		2/28/20
2/28/20	Survey analysis		
2/21/20	Identify interviews (15)		2/24/20
2/27/20	Qualitative interviews		
3/3/20	Randomized gift card volunteers, purchased and emailed amazon ecards		3/3/20
3/5/20	Transcribe Interviews	Staff	
3/9/20	Confirm transcripts		
4/27/20	Double Coding	Dr. Jeanne Novak	
5/9/20	Confirm Disputed Themes	Dr. Mary Held	
April - May	Data Analysis & Integrating of Results		
6/8/20	Draft of Dissertation	Dr. Morgan	
6/12/20	Dissertation to Committee Members		
6/26/20	Defend Dissertation	Committee	
7/10/20	Edits completed		
8/1/20	Submit article to DCDT	Dr. Morgan	

## Curriculum Vitae

**Faith Thomas**

Doctoral Candidate

Department of Special Education and Rehabilitation  
 Emma Eccles Jones College of Education and Human Services  
 Utah State University  
 2865 Old Main Hill  
 Logan, UT 84322-2865  
 Mfthomas67@gmail.com

**Education**

- Anticipated 6/2020      Ph.D. Disability Disciplines  
 Department of Special Education and Rehabilitation  
 Utah State University, Logan, Utah  
 Advisor: Dr. Robert Morgan  
 Dissertation: National Survey of Professional Development in  
 Transition and IEP Development For Secondary Special Education  
 Teachers
- 1998                      Masters in Special Education, Transition  
 Indiana University, Indianapolis, Indiana  
 Advisor: Dr. Pat Rogan  
 Thesis: Thomas, M.F. (1998). The Impact of Inclusionary Service  
 Learning on Secondary Students with Disabilities. Indianapolis:  
 Indiana University-Indianapolis.
- 1991                      B.S. Public Affairs, Indiana University, Bloomington, Indiana

**Refereed Publications**

- Thomas, F. & Morgan, R. (In press). Evidence-based job retention interventions for  
 people with disabilities: A narrative literature review. *Journal of Vocational  
 Rehabilitation*.
- Grossi, T., Thomas, F., & Held, M. (2019). Making a collective impact: A school-to-  
 work collaborative model. *Journal of Vocational Rehabilitation*
- Whicker, J.J., Thomas, F., Currier Kipping, K.R., Jones, K.T., Smith, B.K., & Munoz, K.  
 (2019). Vocational Rehabilitation: Educational audiologists' knowledge, attitudes,  
 and referral practice patterns. *Journal of Educational, Pediatric, and  
 (Re)habilitative Audiology*, 24, 1-8.
- Riesen, T., Thomas, F., & Currier- Kipping, K. (2019). Work-based learning: Ensuring  
 compliance with the Fair Labor Standards Act. *Rehabilitation Research, Policy, and  
 Education*, 33(02).



Grossi, T., & Thomas, F. (2017). Working with schools: What employment providers need to know for collaboration. *Journal of Vocational Rehabilitation*, 46(3), 355-359.

### Non-Refereed Publications

Thomas, M. F. (March, 2016). Self-determination outcomes: one student's story [video file]. Retrieved from <https://www.youtube.com/watch?v=ovPMS9BVqhE>.

Thomas, M.F. (March, 2016). Indiana school-to-work collaborative: working together to improve transition outcomes [video file].  
<https://www.youtube.com/watch?v=PPviHu5IT4Q>.

Thomas, M.F. (February, 2016). Ensuring a smooth transition to college for students with disabilities [webinar].  
<https://connect.iu.edu/p8ati06vv6l/?launcher=false&fcsContent=true&pbMode=normal>.

Thomas, M.F. (April, 2016). Using authentic assessment for age appropriate transition assessments [video file]. Retrieved from <https://connect.iu.edu/aatransition/>.

Thomas, F., Grossi, T. & Gilbride, M. (2006). A roadmap to an employment agency. Bloomington: Indiana University.

Thomas, F., Grossi, T., & Schaaf, L. (2006). Vocational rehabilitation services: building effective transition partnerships. Bloomington: Indiana University.

Thomas, F., Grossi, T., & Schaaf, L. (2003). Statewide community transition council directory. Bloomington: Indiana University.

Thomas, F. & Grossi, T. (2001). WorkOne centers + school collaboration = success. Bloomington: Indiana University.

Grossi, T., Schaaf, L., Steigerwald, M. & Thomas, F. (2001). Moving on: Transition from high school to adult life. Bloomington: Indiana University.

### Courses Taught

EDUC K441	Transition across the lifespan	Indiana University	Spring 2020
EDUC K4000	Introduction to special education	Utah State	Fall 2019
EDUC K4000	Introduction to special education	Utah State	Spring 2019
EDUC K541	Transition across the lifespan	Indiana University	Spring 2003

### Invited Guest Lectures

REH6130	Counseling Skills	Dr. Michelle Lizotte/USU	Asking Questions
EDUC4000	Introduction to Special Ed.	Kimberly Snow/USU	Secondary Transition
	Employment	Dr. Tim Riesen/USU	Child Labor Laws
	Doctoral Counseling	Indiana University	Secondary Transition

EDUC K441 Transition across the lifespan Dr. George Van Horn/IU Transition  
 EDUC K441 Transition across the lifespan Hershel Willey/IU Person-centered Planning

### **Supervisor/Mentoring**

REH 6130 Counseling Skills: Supervised 12 graduate rehabilitation students 2019

First Year Teacher Mentor Bartholomew Consolidated School Corp. 2010

### **Grant Writing**

Educational Technology, Media and Materials for Individuals with Disabilities –  
 Stepping-up Technology Implementation Grant (CFDA No. 84.327S) for \$500,000.  
 Contributed to grant submitted with Dr. Matthew Klare, Dr. Catherine Fowler and Dr.  
 Valerie Mazzotti at University North Carolina – Charlotte

### **National Presentations**

Reisen, T. & Thomas, Faith. (October, 2018). *Work-based learning experiences for students with disabilities: Ensuring alignment with the Fair Labor Standards Act* [Conference session]. National Division of Career Development and Transition Conference. Cedar Rapids, Iowa.

Thomas, F. & Grossi, T. (June, 2018). *Imagination vs. reality: Indiana school-to-work collaborative* [Conference session]. National APSE Conference. Orlando, Florida.

Grossi, T. & Thomas, F. (June, 2016). *Working with schools: Improving employment outcomes for youth* [Preconference 3 hr session]. National APSE Pre-conference. Cincinnati, Ohio.

Grossi, T. & Thomas, F. (June, 2016). *Working with schools: What providers need to know to improve school outcomes* [Conference session]. National APSE Conference. Cincinnati, Ohio.

Grossi, T., Thomas, F., Held, M., & Schmalzried, J. (November, 2014). *Indiana cadre of transition leaders* [Conference session]. National Division of Career Development and Transition National Conference. Cleveland, Ohio.

Thomas, F., Russ, S., & Austin, M. (June, 2007). *There's a new game in town* [Conference session]. National APSE Conference, Louisville, Kentucky.

Thomas, F. & Engle, M. (June, 2006). *Miracle or myth: Transition fair* [Conference session]. National APSE Conference. Boston, Massachusetts.

Grossi, T., Schaaf, L., Patterson D., & Thomas, F. (July, 2002). *Building the transition road* [Conference session]. National Autism Conference. Indianapolis, Indiana.

### **State Presentations**

Grossi, T. and Thomas, F. (December, 2015). *Working with schools: What providers*

*need to know to improve school outcomes* [Conference session]. Indiana APSE Conference. Indianapolis, Indiana.

Thomas, F. and Tijerina, J. (November, 2014). *Get off the bench and get in the game: Social inclusion in the workplace* [Conference session]. Indiana APSE Conference. Indianapolis, Indiana.

Thomas, F. and Tijerina, J. (December, 2013). *iStay: Job Retention for the 21<sup>st</sup> Century* [Conference session]. Indiana APSE Conference. Indianapolis, Indiana.

Thomas, F. and Hobbs, A. (August, 2008). *Transition councils: Sink or swim* [Conference session]. Indiana Transition Conference, Indianapolis, Indiana.

Thomas, F. (December, 2007). *Transition collaboration* [Conference session]. INAPSE Conference, Indianapolis, Indiana.

Thomas, F., and Austin, M. (December, 2006). *There's a New Game in Town: Collaborative Transition in Columbus* [Conference session]. INAPSE Conference, Indianapolis, Indiana.

### **Professional Experience**

2012 - 2018                      Project Coordinator, Center on Community Living & Careers  
Indiana Institute on Disability and Community, Indiana University  
Bloomington, Indiana

- Coordinated Indiana School-to-Work Collaborative Research Project funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR)
- Supported employment providers on evidence-based practices for providing transition age youth job placement services
- Conducted group and individual training on Transition IEP development and implementation funded by the Indiana Department of Education
- Provided technical assistance to secondary special educators across Indiana on evidence-based practices
- Developed and disseminate resources to transition stakeholders based on grants' goals and objectives
- Facilitated and support regional Cadre of Transition Leaders to identify needed resources
- Co-chaired annual statewide transition conference

2007 -2012                      Transition Coordinator, Bartholomew Consolidated School Corp.  
Columbus, Indiana

- Identified, established, and maintained linkages with community agencies to meet the post-secondary needs of students
- Facilitated referrals to adult agencies (both disability related and generic services); participated in annual projections meetings with VRS to discuss referrals; collected

referral information for VRS counselors; monitored application process and students' enrollment into VRS

- Developed and supervised contract staff with community rehabilitation providers for community-based employment for transition students
- Lead interagency transition meetings and organized annual transition event attended by 200 students
- Facilitated person-centered planning meetings for transition students with high support needs

1999-2007      Project Coordinator, Center on Community Living & Careers  
Indiana Institute on Disability and Community, Indiana University  
Bloomington, Indiana

- Coordinated activities and communication on contract with Indiana Vocational Rehabilitation Services
- Provided technical assistance on transition issues to agencies and schools regarding VRS school-to-work policies and procedures
- Facilitated and/or Conducted transition trainings on promising transition practices for VRS Counselors, school personnel, and family advocacy organizations
- Consultation to Vocational Rehabilitation staff on transition and school-VRS relationships
- Conducted state trainings on Vocational Rehabilitation transition policy to VRS staff and transition stakeholders

#### **Memberships & Awards**

APSE: Association of People Supporting Employment First	1999-Current
Utah APSE (Chapter in development)	2018-Current
Arc of Bartholomew County Board	2012-2014
The President's Award, Arc of Bartholomew County	2011
The Arc	2007-2014
Indiana Chapter of APSE (INAPSE)	1999-2017
Indiana APSE State Board	2000-2003; 2004- 2010
Indiana APSE Board President	2005 & 2006
Indiana APSE Conference Chair	2001 & 2002
The Rebecca McDonald Award, National APSE	2006
The Rebecca McDonald Award, Indiana APSE	2005