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ASD Program Development in Special Education Teacher Preparation: An Exploratory Study

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ASD PROGRAM DEVELOPMENT IN SPECIAL EDUCATION TEACHER PREPARATION:
AN EXPLORATORY STUDY

by

Christine DeWildt

A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Doctor of Education
Special Education
Western Michigan University
August 2018

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ASD PROGRAM DEVELOPMENT IN SPECIAL EDUCATION TEACHER PREPARATION: AN EXPLORATORY STUDY

Christine DeWildt, Ed.D.

Western Michigan University, 2018

The process of developing a program for an endorsement in a teacher preparation program is complex, with various influences and requirements involved. Regulatory compliance, standards for practice, and university influences are key considerations within program development. Curricular factors and content delivery must also be considered. This study explored the process of program development leading to an endorsement in autism spectrum disorder (ASD) at a university, shedding light on what some of the key aspects to program development entail.

This study explored the complex process of teacher preparation program development in ASD through inquiry rooted in a qualitative approach. At the heart of qualitative study is exploration. As described in Brantlinger, Jimenez, Klingner, Pugach, and Richardson (2005) “qualitative research is a systematic approach to understanding qualities, or the essential nature, of a phenomenon within a particular context” (p.195). This study followed a systematic approach in seeking to understand the multifaceted process of developing a new endorsement area program within teacher preparation. Creswell and Poth (2018) suggest that qualitative study seeks to understand an issue focusing on the “what and how” (p.137). The guiding research question for this study was: What are the procedural and value influences that guide the program development process when creating an ASD endorsement area program?

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Christine DeWildt

TABLE OF CONTENTS

ACKNOWLEDGMENTS	ii
CHAPTER	
I. & II. STUDY INTRODUCTION AND LITERATURE REVIEW	1
Introduction.....	1
Background.....	1
Focus of the Study	3
Regulatory Considerations.....	3
Curricular Content Considerations: Coursework.....	7
Curricular Content Considerations: Field Experiences.....	11
Curricular Delivery Considerations	12
ASD Program Review	14
Study Purpose	18
Research Questions.....	19
Study Significance	20
III. METHODOLOGY	21
Study Design.....	21
Study Design: Personal Background & Reflexivity	22
Population, Sampling, and Participants	24
Population	24

Table of Contents-Continued

CHAPTER

Sampling	25
Participants.....	26
Access and Recruitment.....	27
Data Collection Methods, Procedures, and Instrumentation	28
Data Collection Methods	28
Data Collection Procedures: Artifacts & Interviews	29
Artifacts.....	29
Interviews.....	30
Interview Instrumentation.....	31
Data Analysis.....	34
Type of Data Analysis	34
Steps in Data Analysis	35
Ongoing Data Analysis.....	35
Data Reduction Phase	36
Trustworthiness in Data Collection and Data Analysis	39
IV. RESEARCH FINDINGS.....	41
Results.....	41
Theme One: Standards for Practice	43
Theme Two: Strategies and Keys to Program Approval	47

Table of Contents-Continued

CHAPTER

Theme Three: Balancing Curricular Influences.....	53
V. DISCUSSION AND RECOMMENDATIONS.....	58
Discussion.....	58
Theme One: Standards for Practice	59
Theme Two: Keys and Strategies to Program Approval	61
Theme Three: Balancing Curricular Influences.....	63
Recommendations.....	66
Limitations	69
REFERENCES	70
APPENDICES	
A. Interview Protocol.....	77
B. Photographs of Data Reduction	79
C. HSIRB Approval Not Needed Letter.....	81

CHAPTERS I & II

STUDY INTRODUCTION AND LITERATURE REVIEW

Introduction

Various influences and requirements create a complicated and intricate path program developers must navigate when designing a new endorsement area program. Regulatory compliance, standards for practice, university influences, and curriculum are just a few of the factors program developers must consider. This study followed a qualitative methodology to understand the dynamic and complex process of developing an endorsement area program in special education teacher preparation. The study explored the process of developing a university teacher preparation program for endorsement in the area of Autism Spectrum Disorder (ASD).

Background

Universities across the country are faced with a multitude of influences, requirements, and factors when designing teacher preparation programs. Federal and State requirements, a myriad of accreditation regulations, university requirements, and departmental influences provide a wide view of the factors impacting program development. Furthermore, the program's curriculum, both content and delivery, are also important considerations in new program development. Navigating the winding road of program development in teacher preparation, without extensive literature to guide the way, is daunting. As noted in Brownell, Ross, Colón, and McCallum (2005), extensive research into quality special education teacher preparation

programming is needed. In their study, Brownell et al. reviewed existing literature of special education teacher preparation in hopes of finding exemplary characteristics in comparison to general education teacher preparation programs. Their review of the literature lead to the acknowledgment of a lack of research in the field of special education teacher preparation, as well as numerous recommendations for areas of continued research. More recently, in considering the changing roles of special education teachers in K-12 settings, Shepherd, Fowler, McCormick, and Morgan (2016) suggest the need for continued research relative to the effectiveness of special education teacher preparation programs.

Dukes, Darling, and Doan (2014) also encourage further research into special education teacher preparation programs, as well as a question what components create an evidence-supported program. They suggest a framework for teacher preparation focusing on the areas of professional development and course delivery; field experiences and mentorship; and assessment (Dukes et al., 2014). Deeper exploration of each of these areas, rather than broad review of special education teach preparation, is encouraged.

Publications such as these highlight the need for continued research into special education teacher preparation programs. More specifically within special education teacher preparation, research providing in-depth exploration and insight into the process of aligning the host of regulations and influences on collegiate program development, is needed. Considering the process, not merely the product, is necessary to help advance to existing literature in teacher preparation program development.

For the purposes of this study, ASD program development refers to program(s) within university teacher preparation for teachers seeking State-level endorsement in the area of autism spectrum disorder. In Michigan, such an endorsement can be acquired as an additional

endorsement to a teaching certificate. The Michigan Administrative Rules for Special Education (MARSE) (MDE, 2017b) rule 340.1799 provides definition and requirements of teachers for students with autism spectrum disorder.

Additionally, throughout this study, several terms are used in mention of university faculty or staff. Program developers refer to the faculty, staff, and members of the higher education community working together to create a program. College refers to the discipline-specific college within the larger university. For example, the college of education. The college of education is a discipline within the larger university. Additionally, within a college of education also exists departments. For example, special education is a department within a college of education, within a university.

Focus of the Study

The focus of this study is best built and understood through the framework of two main areas, supported with embedded literature review. The first area centers on regulatory compliance and considerations for teacher preparation programs. The second area surrounds program curriculum, both content and delivery, within a special education teacher preparation program for ASD endorsement.

Regulatory Considerations

Of the many influences on program development, a starting point begins with regulatory compliance. The Council for Exceptional Children provides standards which many teacher preparation programs align to. The CEC special education preparation standards [hereafter

referred to as CEC standards] outline the competencies and skills that special education teachers should have (CEC, 2015). CEC provides specialty set standards for practice in various disability related areas. “Developmental Disabilities and Autism Spectrum Disorders” is one such set of standards CEC provides. Within this set, teacher knowledge and skills relative to working with students with developmental disabilities and ASD are divided throughout seven areas (CEC, 2015). Additionally, CEC standards are also provided within “initial” and “advanced” skill levels. Initial or advanced standards may be used by university teacher preparation programs based on candidate or program need, such as graduate level or prior teaching credentials. Teacher preparation programs may utilize the standards for various purposes, including curriculum alignment and accreditation.

Additionally, the Council for Accreditation of Educator Preparation (CAEP) is a regulatory organization providing accreditation oversight for teacher preparation programs. Within this process, CAEP also requires the “specialty licensure area programs” (CAEP, 2017), such as special education, to align with their Specialized Professional Associations (SPAs) standards, in this case CEC. CAEP works in partnership with CEC for specialty program accreditation, such as in special education. Navigating all of these various standards and regulations requires steady attention to detail and oversight from program developers.

A review of existing research highlights a few attempts at providing insight into how teacher preparation programs are incorporating standards for practice. Sayeski and Higgins (2014) included the incorporation of the CEC standards, as well as program review and redesign, in their article. Sayeski and Higgins provide a comprehensive overview of the process they engaged in when reviewing and redesigning a teacher preparation program. The CEC standards

provided a theoretical framework from which this program analyzed and prioritized the course offerings, coursework, and programmatic requirements (Sayeski and Higgins, 2014).

In another study, Chandler et al. (2012) conducted an analysis of the alignment of CEC standards and the National Association of the Education of Young Children (NAEYC) standards. In this analysis, Chandler et al. (2012) identified areas of overlap of content coverage between the standards for programs for students in early childhood special education. Additionally, Knight and Wadsworth (1998) conducted a national survey of teacher preparation program's incorporation of CEC standards in working with parents within their special education program. Their study highlighted areas in which course alignment with CEC standards was identified (Knight and Wadsworth, 1998). Furthermore, Othman, Kieran, and Anderson (2015) surveyed teachers on their own knowledge and abilities with regard to the CEC specialty set standards. This study examined teacher's self-reported agreement with their personal knowledge, practice, and beliefs. Study findings indicated that participants overall agreed they possess the knowledge, practice, and beliefs outlined in the CEC standards (Othman et al., 2015).

These studies shed light on special education course alignment and teacher knowledge with the CEC standards. The CEC standards play a key role in many special education teacher preparation programs. However, continued research specific to program development in relation to the standards would be beneficial. Moreover, research investigating the use specific to ASD program development would provide additional benefit to the existing literature.

While the incorporation of standards for practice is important for program developers, preparation programs in Michigan must also be compliant with State-level regulations. The Michigan Department of Education (MDE) (MDE, 2017a) has standards and regulations that all teacher preparation programs within the State must adhere to. Michigan follows the Interstate

Teacher Assessment and Support Consortium (InTASC) standards (MDE, 2017a). When developing a new endorsement area teacher preparation program in Michigan, all MDE regulations, in addition to accrediting body regulations, must also be adhered to. Scholarly research is needed relative to state level influence on program development. In actuality, the State plays a critical initial role in the program development process.

This critical role is most obviously apparent in the requirement for the State to approve a university's application for a new program. As such, there are many conditions and necessities within the State application that program developers must complete to submit an application to the State for consideration. Evidence of anticipated student interest, as well as alignment to State regulations, are just a few of the components program developers must ensure are addressed within the program application (MDE, 2017c). Completing all of the necessary application requirements and securing approval from the State is just one of the many pieces to the program development puzzle.

As the funnel of regulatory considerations continues to swirl downward, university level influences and requirements must also be addressed. University level influences and factors can range from procedural to personal. At a pragmatic and procedural level, a requirement for needs analysis, data, and program rationale are anticipated requirements to proposing a new program. Additionally, procedural requirements such as leadership and committee reviews are also expected when recommending a new endorsement area program. Not only must program developers secure approval from State regulatory agencies, university level approval must also be secured. Throughout the university approval process, program developers must evidence and articulate the proposed program's worth and rationale. Data to demonstrate the potential interest is just one means program developers utilize when highlighting the need for the program.

University approval process may also require a significant amount of time, from completing needful evidence, to meetings with various committees for review. Just as the State plays a critical role in program development, so too does the university approval process.

Additionally, value influences and personal input from faculty and staff in regards to a new program also occur within university, college, and/or departmental levels. This is a very delicate, and potentially personal, facet of program development. From philosophical views, to organization and time management, value influences can come in many shapes and forms. Additionally, leadership, from within the development team, as well as from administration, is critical to progress. How does the proposed program, and all the work involved in developing it, continue through approval processes? Moreover, who ultimately makes the decision to move a program forward?

A tremendous amount of leadership and diplomacy is required when developing a program in teacher preparation. As noted in Little, Sobel, McCray, and Wang (2015), communication and collaboration, as well as a shared vision, is critical to special education teacher preparation program redesign. As well, deficits in administrative support or leadership can also inhibit redesign efforts in special education teacher preparation (Little et al., 2015). These regulatory and values influences must be considered, and further investigated, for their impact on program development.

Curricular Content Considerations: Coursework

An additional consideration teacher preparation programs must contemplate includes the curriculum, including content and delivery, within the program. While accrediting body and regulatory agencies have influence on curriculum, much decision making must also occur by

program developers to determine the content within the new program. In considering curriculum for ASD programs, a multitude of information regarding Evidence Based Practices (EBPs) and curricular resources for students with ASD is easily accessible. Several national clearinghouses publish information about evidence supported practices in ASD. For example, the National Council for Professional Development in Autism Spectrum Disorders (NCPD), in conjunction with other partners, has published 27 Evidence-Based practices for students with ASD (NCPD, n.d.). Resources such as the What Works Clearinghouse (<https://ies.ed.gov/ncee/wwc/FWW>) and the Iris Center (<https://iris.peabody.vanderbilt.edu>) also provide a plethora of information about EBPs and/or learning resources for students with ASD.

The importance of preservice teacher training on EBPs for students with ASD is highlighted throughout scholarly literature. As described in Hall (2015), teacher preparation programs should be teaching preservice teachers in the usage of EBPs for students with ASD. Moreover, Hall states “Designing university special education preparation programs focused on developing the skills needed for sustained use of evidence-based strategies for individuals with ASD (e.g., practicing specific skills to fluency) would be a model that maximizes the established system of pre-service training for teachers” (Hall, 2015, p. 29). Hall is encouraging the training of EBPs to be embedded within program design. Furthermore, Donaldson (2015) also suggests the importance of training preservice teachers on EPBs.

To that end, in a survey of higher education special education teacher preparation programs outlined by Barnhill, Sumutka, Polloway, and Lee (2013), the authors note an increase in the incorporation of evidence-based practices within ASD teacher preparation programs. This is in comparison to a previous study done by Barnhill, Polloway, and Sumutka (2011), in which the authors commented that it was unclear whether content was selected based on evidence-

based decision making upon review of surveys conducted on higher education teacher preparation programs.

Additionally, in Scheeler, Bruno, Grubb, and Seavey (2009), the long-term usage and generalization of evidence-based teaching practices by special education teachers was reviewed. Within this article, the authors outline experiments following preservice, and in-service special education teachers applying the skills learned within their teacher preparation program (Scheeler et al., 2009). The results indicate positive utilization of evidence-based practices when deliberate efforts to ensure generalization of the skills are made (Scheeler et al., 2009).

Shepherd et al. (2016) make several suggestions for teacher preparation programs, some of which include the training on evidence-based practices and “high leverage practice” (p.90) within special education, in light of the various regulatory changes in K-12 special education. The Council for Exceptional Children (CEC) and Collaboration for Effective Educator Development, Accountability and Reform (CEEDAR) center (<http://ceedar.education.ufl.edu>) have developed a set of High Leverage Practices for Special Education (HLPSEs) (McLeskey et al., 2017). The HLPSEs provide a specialized view of the skills that special education teachers should possess. The HLPSEs are organized around “four aspects of practice” in collaboration, assessment, social/emotional/behavioral practices, and instruction (CEC, 2017, <http://www.pubs.cec.sped.org/p6255/>).

As stated by Sayeski (2018) “the HLPs serve as a road map for those engaged in teacher preparation and professional development” (p.169). Within this article, scholarly literature supporting the four various aspects of practice outlined in the high leverage practices are provided. As mentioned throughout the article, the HLPSEs require repeated opportunities for practice during the teacher preparation. Additionally, as stated in *TEACHING Exceptional*

Children, the HLPSEs are intended to help inform teacher preparation programs, but are still evolving (*TEACHING Exceptional Children*, 2018). Given the recent publication of the high leverage practices in special education, research specific to these practices, as well as teacher preparation training on them, is needed. Furthermore, inquiry related to the application of these practices from an ASD specific focus, will assist in future program development efforts by providing further the research pool in ASD program development.

High leverage and evidence-based practices are just one component of the landscape of K-12 education for students with ASD that teacher preparation programs must consider. Another interesting area of research involves the review of K-12 outcomes for students with ASD. In a study conducted by Ivey in 2007, 15 special education teachers working with students with ASD were questioned about their expectations of student outcomes. Within this study, various aspects addressing quality of life were considered (Ivey, 2007). The article highlights the impactful role teachers can have on the expectations of their students (Ivey, 2007). Additionally, in their review of teacher preparation research, Cochran-Smith et al. (2015) found a need for additional research connecting student learning and K-12 outcomes.

Somewhat related, teacher self-perceptions and knowledge specific to working with students with ASD has also been investigated. Sanz-Cervera, Fernández-Andrés, Pastor-Cerezuela and Tárraga-Mínguez, (2017) studied preservice teacher knowledge and misconceptions about working with students with ASD. In this study, students in their first year of a teacher preparation program completed surveys about their knowledge of ASD (Sanz-Cervera et al., 2017). This study also included students in their fourth year of the teacher preparation program. Results indicted fourth year special education preservice teacher candidates had increased knowledge about ASD, in comparison to candidates in other

disciplines, such as general education or early childhood (Sanz-Cervera et al., 2017). Their study highlights the importance of including preservice teacher self-monitoring and reflection about their own understandings of working as an ASD teacher. Moreover, studies such as this bring into question what influence student existing knowledge base, perceptions, and abilities have on program development when considering the curriculum provided within teacher preparation programs.

Curricular Content Considerations: Field Experiences

An additional aspect of curriculum provided within teacher preparation programs for needful consideration by program developers is field experience. Anderson and Stillman (2013) focused their literature review on the impact student teaching has on teacher candidates and K-12 students. Throughout their article, the authors use the phrase “cloudy view” to describe the impact student teaching has had on the teaching skills and performance of teacher candidates (Anderson and Stillman, 2013). The need for continued study to ascertain the true impact of student teaching on actual teaching practices is highlighted in this article.

Likewise, Nagro and deBettencourt (2017) remark on the inconsistency within the literature about field experiences in teacher preparation programs. Nagro and deBettencourt conducted a literature review, focusing on 36 publications including field experiences in special education teacher preparation. Within these publications, teacher preparation programs following traditional, alternative, and distance education programs were included. The authors found a lack of uniformity with outlining special education field experience, and propose five recommendations for special education teacher programs when designing field experiences to

allow for an analysis of effectiveness. Two examples of the recommendations include providing ongoing feedback and identifying teaching practices (Nagro and deBettencourt, 2017).

While there is a lack of research to indicate the precise impact student teaching and various field experiences may have on the teacher candidate, the need to include field experiences within teacher preparation remains. As such, program developers must consider how and where these clinical field experiences fit into the curriculum content offered by the program. With this responsibility, much thought must also be given to the K-12 location of student field experiences, including the availability of such programs. Additionally, the need for a master teacher as mentor to a teacher candidate completing a field experience must also be considered. In Michigan, these seemingly simple considerations are of key importance when completing the State application for a new program. Program developers must identify and outline clinical field experience hours, access to local K-12 sites, and supervision of field experiences, among other considerations.

Curricular Delivery Considerations

While much contemplation surrounds the curriculum content, such as evidence-based practices or field experiences, within a new program, considerable thought must also be given to the delivery of such content. In considering where curriculum delivery fits into the program development puzzle, much research does exist about course design and content delivery methods to help guide the way. The topic of instructional delivery and course design has been studied at length. One such example, with specific attention to special education programs, comes from Kennedy, Alves, and Rodgers (2015). Kennedy et al. (2015) caution that preservice teachers can

become overwhelmed within traditional preservice preparation programs and encourage the utilization of diversified program delivery, including the usage of podcasts and other alternatives to lecture-based course design, with preservice special education teachers.

Yang and Yu (2015) also encourage the utilization of alternative training techniques, such as online learning modules, in teacher training. As well, in a follow-up survey to previous research of higher education institutions offering teacher preparation programs in ASD, Barnell et al. (2013) found an increase in the number of programs indicating courses offered online. Given the encouragement to include variety within curricular delivery, including online or hybrid options, program developers must consider these options when designing a new program.

Vernon-Dotson, Floyd, Dukes, and Darling (2013) conducted a literature review of special education teacher preparation course offerings. In their review, they sought to review scholarly or peer-reviewed work comparing face-to-face course delivery with online or distance education in special education teacher preparation. Their review, following a qualitative methodology, lead to the determination of various codes, and thus themes, from the reviewed literature. Logistics were identified as one theme from their review. More specifically, the convenience or flexibility of online or distance education was found as reoccurring in their review (Vernon-Dotson et al., 2013). While this is an important consideration for potential candidates, the authors also caution that teacher preparation programs must not jeopardize quality of the content for convenience. In conjunction with quality, instructional methods, including opportunities for instructor feedback and collaboration within coursework was also noted. Regardless of the method of delivery, program developers must consider what opportunities for sustained feedback and quality instruction exist when designing their courses.

Interestingly, Vernon-Dotson et al. also recommend further study of the coursework offered in online or hybrid formats, as many of the findings within their review were introductory in nature. This recommendation adds an element of contemplation when considering the research support for the type of classes (e.g. methods or introductory) when designing a new program (Vernon-Dotson et al., 2013). While their review indicates both face-to-face delivery and non-traditional delivery, such as online or hybrid, may be effective for training special education teachers, the call for continued research into the selection of such delivery methods is stated.

Clearly, there is literary support to alternatives to traditional programming in special education teacher preparation, but there is also a need to continue investigating various components of non-traditional course delivery. Thus, how does this exiting research influence program developers? Further exploration into what influences course delivery decision making in the development process is needed. Ultimately, how are those decisions to offer courses online versus face-to-face made? A deeper understanding of this step in designing the program would be of value to the field of special education teacher preparation research.

ASD Program Review

In considering program delivery from a macro level perspective, when reviewing ASD teacher preparation programs on a State and National level, a wide continuum exists in terms of program delivery options. Nationally, special education teacher preparation programs vary considerably. Dukes et al. (2014) paint a picture of the wide continuum available nationally of teacher preparation in special education. This variation has also been noted in Vernon-Dotson et al. (2013) and Barnhill et al. (2011). One possible rationale for the National variation in program

delivery and design is perhaps due to differences in each state's endorsement or licensure programs.

In Michigan, a consistency among reviewed programs offering an ASD endorsement is the alignment to the State of Michigan requirements for teachers of students with ASD.

While there are a host of program choices across the State, many reviewed programs suggested an alignment to Michigan regulations. This may be stated in various forms, including referencing Michigan Department of Education regulations, or the Michigan Test for Teacher Certification (MTTC). The MTTC is a requirement for teacher candidates seeking licensure.

In review of a sampling of existing ASD endorsement area programs in Michigan, there are a variety of choices available for teacher candidates seeking an ASD endorsement. For example, a candidate seeking to find a fully online program can find such programs available. One example comes from a public institution serving approximately 19,000 students geographically located on the east side of the state. Options for teachers with an existing elementary or secondary teaching certificate to add an ASD endorsement to their credentials through mixed delivery methods (e.g. face-to-face and online courses) are also available. One such example is offered at a large, public university serving approximately 23,00 students located within the southwestern area of Michigan. Additionally, candidates choosing to pursue a Master's degree as a part of their endorsement program may also find such programs available. One such example is provided from another large, public university with approximately 50,000 students centrally located in the state. Interested candidates must weigh these various options, as well as personal and professional needs, when deciding on a school's program. Moreover, given the competitive need across higher education to maintain or boost enrollment, teacher

preparation programs must also weigh these content and delivery options when developing a new program.

Furthermore, teacher critical shortage areas may also impact program development and design. A critical shortage means that there are not enough elementary or secondary teachers within a specific grade, subject, or discipline (U.S. Department of Education, 2016). In Michigan, all categories of special education teachers are currently listed as a critical shortage (MDE, 2018). Autism falls under this critical shortage area. Many times, as is the case in Michigan, teachers may be working within these critical shortage areas without proper certification. In these instances, teachers may be working under a “temporary approval”, while securing the required endorsement or credentials (MDE, 2017d). Requirements for temporary approval, as well as timelines for attainment of the required credentials, are outlined by the Michigan Department of Education.

Given such complexities, and the diverse needs of candidates within teacher preparation, the need for alternative routes to teacher certification exist. In many of the alternative routes to teacher preparation, the teacher candidates are active teachers within the K-12 teaching field. According to Wasburn-Moses and Rosenberg (2008), alternative programs might be designed for non-teaching certified, but practicing candidates. Programs may be shorter and utilize approaches such as distance education. Nationally, the options are again varied, with considerable difference between states. As such, the need for research providing support and guidance into this is warranted. Wasburn-Moses and Rosenberg provide recommendations for alternative special education teacher programs within their 2008 article. Among several recommendations for alternative route programs, Wasburn-Moses and Rosenberg suggest building in opportunities for collaboration, student initiated topics, and content aligned to CEC

standards. The importance of strong mentor teachers for field experiences, as well as training of mentor teachers is also recommended (Wasburn-Moses and Rosenberg, 2008).

In contrast to alternative models for teacher preparation, traditional models have also been reviewed in the literature. Anderson, Smith, Olsen, and Algozzine (2015) explored the benefits of a teacher preparation program in which candidates receive dual endorsement preparation in general education and special education through full-time degree seeking programs. Research indicated positive results from K-12 principals regarding teachers trained within a dual endorsed program. This model is similar to many offerings within special education teacher preparation in Michigan. In narrowing the focus solely to ASD endorsement, reviewed programs required a Michigan elementary or secondary teacher certificate as prerequisite.

Program designs vary widely, and can range from a traditional model, to various alternative models. Certainly, considerable thoughtfulness and deliberation must be given to curriculum delivery and content when designing a new program. Thus, the central need to explore and understand the varied factors impacting program development remains of critical importance.

While there are a host of recommendations about what to include in an ASD teacher preparation program, little research exists about the process of developing such a robust and empirically supported program. How do program developers navigate all these varied influences, and stay the course toward building a new endorsement area program? The field of special education teacher preparation needs in-depth exploration, which ideally will lead to guidance and informed practice, of the process of program development.

Study Purpose

This study investigated the process of program development for ASD endorsement through a qualitative methodology. Utilizing a qualitative methodology of inquiry and exploration is one way to better understand the complex and multi-faceted process of program development. Focusing on the process, not relying only on the product, provided a unique lens to investigate and better understand special education teacher preparation program development. More specifically, focusing on ASD program development provides even greater specificity to the study. Seeking to understand this intricate process of program development provided the inspiration and lens for this study.

As discussed in Brantlinger, Jimenez, Klingner, Pugach and Richardson (2005), qualitative study can make significant impact on informing practice within the field of special education. Brantlinger et al. (2005) highlight several historical qualitative studies that have informed future research and practice. With strong qualitative design, an awareness and enlightening of unique topics within special education can ensue (Brantlinger et al., 2005). This study, focused on the unique topic of ASD program development, hoped to expand the existing qualitative research in special education teacher preparation.

A teacher preparation program developing an ASD endorsement area program provided the primary case for this study. The opportunity to engage in a case study analysis affords numerous opportunities for rich exploration and understanding of this issue. In turn, this study hoped to expand the research base surrounding the process of program development.

Research Questions

Creswell and Poth (2018) suggest that qualitative study seeks to understand an issue focusing on the “what and how” (p.137). As recommended by Creswell and Poth (2018), this study sought to gain an understanding of how an ASD program is developed. Asking open-ended questions are one way in which researchers can explore an issue in this regard. Additionally, this study followed a qualitative approach with one “central question” (Creswell and Poth, 2018, p.137), followed by several sub-questions.

The guiding research question of the study was: What are the procedural and value influences that guide the program development process when creating an ASD endorsement area program?

The following sub-questions helped delve into the researchable problem:

- What requirements from accrediting bodies must the university abide by?
- What requirements from State or Federal regulations must the university abide by?
- What university level requirements must be abided?
- What departmental or college level influences contribute to the development of new programs?
- What curriculum (content and delivery) influences contribute to new program development?
- What organizational and procedural strategies are used by program developers throughout the program development process?

Study Significance

This study may benefit the greater knowledge base surrounding program development in special education teacher preparation programs. As mentioned, there is an abundance within the literature recommending the incorporation of EBPs or alternatives to traditional instructional delivery in special education teacher preparation. Additionally, regulations and compliance are non-negotiable components within program development. Yet, how do teacher preparation programs navigate all these various recommendations and requirements when designing a program? This study hoped to provide insight and guidance into that process.

Additionally, this study may enrich the existing research base specific to ASD program development. A review of literature suggests an ongoing need for continued research specific to ASD teacher preparation program development. While many of the insights and findings from this study may not be exclusive to ASD, this study may add to the existing knowledge base within ASD teacher preparation.

Finally, this study may also benefit future research by providing a platform from which further investigation may ensue. Brantlinger et al. (2005) mention the potential qualitative study has to lead to future research. Again, as noted throughout the literature, continued research is needed into special education teacher preparation. This recommendation is made throughout much of the reviewed literature on teacher preparation. Thus, findings from this qualitative study may lead to further inquiry in the field of ASD and special education teacher preparation.

CHAPTER III

METHODOLOGY

Study Design

A single case study design was utilized in this study. As described by Creswell and Poth (2018), a single case study seeks to understand a bounded system. From Creswell and Poth “Examples of case study are an individual, a community, a decision process, or an event “(p. 97). This statement supports the chosen methodology because the process of developing a teacher preparation program was the unit of analysis within this study. Furthermore, Yin (as cited in Creswell & Poth, 2018) describes case study research to include the real-world study of organizations. This study sought to understand the process of teacher preparation in a real-world context within a university currently involved in program development. Stake (1995) suggests that in a single instrumental case study, researchers focus on a single case to illustrate an issue. Studying a single case may lead to general insight or comprehension of an issue (Creswell, Hanson, Clark, & Morales, 2007). Intensive study of this single, bounded case provided insight and awareness of a variety of factors and aspects within the process of special education program development. This study sought to understand and explore the process through the use of multiple forms of data, including interview and artifact collection.

The philosophical underpinnings of this study design are most rooted in a naturalist, constructivist philosophy. As described in Rubin and Rubin (2012) naturalist qualitative research hopes to describe the circumstances being studied, rather than test a hypothesis or predict an outcome. Also, in his 1995 book, Stake provides an example of qualitative case study

questions, describing them as “without expectation of causal explanation” (p. 38). Rubin and Rubin suggest that naturalist-constructivist research may try to explain how a variety of factors influence a situation. As further described by the authors, naturalist qualitative research is also “evaluated for its richness, vividness, and accuracy in describing complex situations” (p.6). The complex process of program development was explored in this study, in the hopes of finding illuminated awareness, understanding, and explanation of this occurrence. Further supported by constructionist philosophy, this study was interested in a contextual understanding of this issue (Creswell & Poth, 2018). The issue in this study was the process of program development, rather than the actual end product (i.e. a program). The understanding derived out of exploring the process aspect of special education teacher preparation, not solely the end product, was sought. This study’s research intention to shed light on varying factors within the process of program development is supported by these philosophical ideas.

Study Design: Personal Background & Reflexivity

As noted in Brantlinger et al. (2005), “qualitative studies typically include an emic (insider to the phenomenon) in contrast to quantitative studies’ etic (outsider) perspective” (p.199). An emic perspective within this study design assisted in authentically collecting and representing the data. Within this study design, I had a unique opportunity to explore this topic through an emic perspective given my personal and professional roles. Personally, as the student researcher, I had a vested interest in the completion of this study. My personal, scholarly role as the researcher provided motivation, direction, and leadership to this study. Separate from my scholarly role as the researcher, I also have professional connections to the study. Professionally, I work within the department (i.e. special education) for which the new ASD

program is being developed. I have professional affiliations to the program development, program developers, the department, the college, and the university within this study. As such, I had the invaluable opportunity to study the process of program development from an insider, or emic, perspective.

Demonstrating reflexivity and building trustworthiness was important due to my varied connections throughout the study. As described in Creswell and Poth (2018), reflexivity is demonstrated in how a researcher “positions themselves” in the study (p.44). This involves conveying any background, experiences, and influences on the study. One way that I began demonstrating reflexivity was with bracketing. As described by Tufford and Newman (2010) bracketing involves activities of acknowledging and setting aside preconceived thoughts, ideas, or experiences that may impact or bias the study. Bracketing provided an outlet for me to identify and acknowledge my own feelings, decisions, and rationale for the study. Bracketing may occur in the form of notes, journaling, or memoing (Tufford & Newman, 2010).

Additionally, as described by Moustakas (as cited in Creswell and Poth, 2018) writing an epoche allows the researcher to identify and acknowledge the varying personal influences that might be brought to the study. Writing an epoche, much like initial bracketing via note-taking or journaling, allows the researcher to reflect on how their own experience may impact the study. Initially, self-reflecting on my decision to pursue this line of inquiry was important when developing the study proposal and chosen methodology. The act of self-reflection continued on an ongoing basis, to ensure my own personal thoughts, feelings, or actions were not adversely impacting or biasing this study. As also outlined by Tufford and Newman, bracketing can occur at any stage throughout the study. This process of note taking and setting aside personal

assumptions, as well as reflecting on my own actions, aided in demonstrating reflexivity and building trustworthiness throughout the study.

Ensuring trustworthiness and elimination of any personal or professional bias based on my experience and professional roles was ongoing. However, my experiences and professional roles also afforded a myriad of positive elements to this study design. As a former K-12 public school special education teacher and administrator, I have vast prior knowledge and experiences of the K-12 teaching field. Moreover, I have knowledge and experience in working with students with ASD, as well as teachers for students with ASD. These varied experiences provide insight and contextual understanding of the needs teachers have when entering the K-12 ASD teaching field.

This background knowledge and experience affords me the ability to extend and apply this in higher education and teacher preparation programs. My professional roles in higher education provide a preliminary understanding of the structure of university endorsement area programs. This afforded me with a context from which digging deeper to understand the process of program development yielded richer analysis and insight. Overwhelmingly, this study required a thoughtful approach to ensuring transparency and trustworthiness, while also maximizing the unique opportunity I had to engage in this study.

Population, Sampling, and Participants

Population

A university teacher preparation program provided the primary source, or setting, for this case study. The university is a large, public university with approximately 25,000 students in

undergraduate and graduate programs. The study centered on the process of developing a new program within the college of education, special education teacher preparation program, at this university. Within this university, the special education department is developing an ASD endorsement area program. Because the program development work was ongoing at the time of the study, this provided a timely opportunity to study the process of program development.

Sampling

I selected participants using a purposive, criterion sampling approach. As described in Creswell and Poth (2018), criterion sampling requires the identification of inclusionary and exclusionary conditions. Inclusionary criteria for interview participants were as follows: current or past professional experience in higher education teacher preparation programs, current or past professional experience in program development, professional knowledge of special education, professional knowledge of Autism Spectrum Disorder. Exclusionary criteria were as follows: no experience in higher education teacher preparation programs, no experience in program development, minimal and/or limited special education knowledge, and minimal and/or limited knowledge of autism spectrum disorder.

I also utilized “snowball” sampling within the identification and selection of participants. As described by Creswell and Poth (2018), snowball sampling is often used with criterion sampling. Within this approach, potential participants may be referred from other participants. This approach allowed for access to participants that I may not have considered or had access to otherwise. In two instances, recommendations from participants yielded new interview participants.

Participants

The participants of this study were program developers, special education department members, and university level (non-college of education) faculty working in higher education settings. In developing the study, I proposed a potential need for five to ten participant interviews. In total, six participants engaged in interviews, five participants in face-to-face meetings and one participant via phone. Six interview participants proved more than sufficient in the goal of reaching data saturation. All interview participants met the inclusionary criteria of the study and were currently working in a higher education setting. Five of the participants were special education faculty. One of the participants was a psychology department faculty member. No other demographic data was collected on participants as it was not pertinent to the line of inquiry, unit of analysis, and guiding research questions.

Additionally, participants outside of the university of focus were sought to add to the external validity of the study. I conducted one interview with a special education faculty member from another large, public university offering special education teacher preparation programs in Michigan.

Eight potential participants were sought to participate in this study. Of the eight, six participants engaged in interviews. The two other potential participants did not reply to my inquiries to participate. In both instances, I sent email inquiries to the potential participants, however I did not receive responses. Out of respect and courtesy to these individuals, I did not further pursue their participation.

Access and Recruitment

A formal Human Subjects Institutional Review Board (HSIRB) proposal and application was submitted to the Western Michigan University Institutional Review Board (WMU IRB). Following review, the WMU IRB determined that approval to conduct this study was not required because the scope of work did not meet the Federal definition of human subject. Additionally, the university developing the ASD teacher preparation program used as a source for this study did not require an additional formal IRB review due to the WMU IRB determination that the study did not require human subject approval.

A key tenant of the HSIRB process is to ensure no harm or wrong-doing to human subjects. Within this study design, the unit of analysis was of the process of program development, not the persons or subjects within the program. Additionally, there was no manipulation of variables or experimental components in which human subjects might be caused undue harm or wrong-doing. Please see appendix C for formal documentation from the HSIRB review.

As mentioned in Creswell and Poth “case study researchers study current, real-life cases that are in progress so that they gather accurate information not lost by time” (p.97). Studying this process while potential participants were in progress of developing an ASD program was a unique and timely opportunity. Access to participants began with gatekeeper consent. As described by Lavrakas (2008), a gatekeeper manages or has control over access to potential participants. Building trust and rapport, having clear organization of any participant requirements, providing detail on all aspects of the study design, as well as answering gatekeeper questions can also assist in securing access. To secure access and build transparency, I met with

the department chair within the chosen case-study university. During this meeting, I also talked about purpose of the study, the findings of the WMU HSIRB review, and the interview protocol that would be used. The department chair was supportive and encouraging of the study, as well as for recruitment of potential participants and data collection to begin. Following this gatekeeper consent, recruitment of potential participants began. Ensuring participants were aware of the voluntary nature of this study, their ability to withdraw at any point, and the confidential nature of their participation, was communicated throughout the study.

Data Collection Methods, Procedures, and Instrumentation

Data Collection Methods

In keeping with qualitative case study design, multiple forms of data collection were utilized. Securing multiple forms of data supported the construct validity within this design because it afforded the opportunity to triangulate the data. Triangulating data allows the researcher to compare sources of data. In turn, this comparison adds to the validity of findings and the researcher's interpretation of the data. As discussed in Creswell and Poth (2018), triangulating allows for multiple perspectives within the data. Interviews and artifact collection were the primary sources of data for this study. Artifacts include mixed media resources such as online resources and publications, public documents, infographics, and field notes.

Following data collection opportunities, materials were saved electronically. Sources of data were entered into an electronic data collection inventory. This data collection inventory was utilized throughout the study, and assisted with developing a data log trail. To create a data log trail, I entered activities and notes related to data collection and analysis in an electronic

document. As described by Creswell and Poth (2018) an audit trail can assist in helping to document the steps being taken to reach findings.

Data Collection Procedures: Artifacts & Interviews

Artifacts

Artifacts were collected primarily from public, online sources. One example of an online source utilized within this study was the Michigan Department of Education (MDE) (<https://www.michigan.gov/mde/>). A variety of artifacts relative to Michigan requirements of higher education institutions and teacher preparation are available for public view on the MDE website. From this source, I was able to secure pertinent information to this study, such as the required hours for teacher preparation programs. For example, an application that all programs need to make to MDE, the “Office of Professional Preparation Services Preparation Program Application” (MDE, 2017a), is also provided through the Michigan Department of Education. Not only is this application document a requirement that all new programs in Michigan must complete, it is also an invaluable piece of data for this study. Additionally, the Michigan Administrative Rules for Special Education (MARSE) is another pertinent piece of data provided from the MDE. All Michigan teacher preparation programs in ASD must align to the rules and regulations for special education teachers outlined in the MARSE. Securing various artifacts, important to the technical and regulatory aspect of program development, proved critical during data analysis.

Data on various ASD special education teacher preparation programs offered within Michigan and nationally was another data source retrieved online. This type of data was collected using the Internet and online review of published information. Search engines such as Google (www.google.com) afforded ease of finding a variety of programs throughout the State and country. Data were collected via a word document table for ease of review and comparison.

Additional miscellaneous artifacts, such as a procedural flow chart for university committee review, was secured online and stored electronically. Any document, infographic, website, or other artifact that appeared to have relevance of potential benefit to the study during analysis, was stored electronically. If retrieved in hard copy, the documents were scanned and stored electronically.

Interviews

As described in DiCicco-Bloom and Crabtree (2006) qualitative research interviews are commonly used for gathering data. As eloquently stated in their 2006 article, they provide guidance on the qualitative interview in which the interviewee is “more a participant in meaning making than a conduit from which information is retrieved” (p.314). In keeping with this philosophy, interviews were sought to help make meaning of the process of program development. An interview protocol (appendix A) was developed and utilized throughout the study to collect interview data. DiCicco-Bloom and Crabtree also encourage the use of one guiding question, followed by multiple specific questions when conducting in-person interviews.

Interview Instrumentation

The instrumentation used for the interview data collection was an open-ended, semi-structured interview protocol. Please see appendix A for the interview protocol. The interview protocol was an original creation, developed for this study. In keeping with qualitative design, the interview protocol features open-ended questions to help delve into the researchable problem. Utilizing open-ended questions allowed the participants to freely share their opinions without having a right or wrong answer. This format of questioning forces the researcher to be authentic to the participants, and the data they provide, due to the open-ended nature of questioning.

The interview questions on the protocol were used to explore the process of program development. The study sought to understand the various procedural and value influences that guide the program development process when creating an ASD endorsement area program. The following sub-questions were utilized on the interview protocol to assist in further delving into the researchable problem:

1. What requirements from accrediting bodies must the university abide by?
2. What requirements from State or Federal regulations must the university abide by?
3. What university level requirements must be abided?
4. What departmental or college level influences contribute to the development of new programs?
5. What curriculum (content and delivery) influences contribute to new program development?
6. What organizational and procedural strategies are used by program developers throughout the program development process?

7. Is there anything else that you would like to share?

Additionally, DiCicco-Bloom and Crabtree attest that “Questions that are not effective at eliciting the necessary information can be dropped and new ones added” (p.316). While I continued to utilize the same protocol and questions throughout the study, at times, questions may have been blended into one another as the conversation unfolded. For example, in one interview, the interviewee provided an answer to sub-question question #3 regarding university level requirements when technically responding to sub-question #2 about State and Federal requirements. In this example, the question regarding university level requirements was not dropped for ineffectiveness, rather as a pragmatic response to the information already provided.

Seeking to collect this interview data in the most natural setting was a priority. Face-to-face interviews were held in a private space, such as an office or conference room. The one phone interview was held at a time of the participant’s convenience, in a distraction-free setting. Availability and scheduling conflicts were the main challenges when attempting to secure and schedule interviews.

Advanced organization of materials and use of open-ended questions guided my interaction during interviews. Having prepared the interview protocol electronically allowed ease of duplication and use. Additionally, I was also prepared with hard copies of the documents. The hard-copy document also provided participants something to follow along to as we moved through the interview protocol. Participant comments and notes were extensively captured within the electronic interview protocol throughout each interview.

All interviews were recorded via cell phone or laptop device. The laptop was used to audio record the one phone interview conducted. All other interviews were recorded using the researcher’s cell phone. In one instance, the interview audio recording was accidentally and

unknowingly deleted following the completion of the interview. The interview was later rerecorded at the participant's convenience, and the audio was successfully saved and transcribed. Interview recordings, interview notes, and protocols were electronically saved and stored in a secure online file.

After each interview, the field notes and interview protocols were reviewed. Any pertinent memoing of the notes or interview protocol also occurred. Additionally, audio recordings were listened to multiple times to further acclimate myself with the data. Following audio review, interviews were transcribed into a word document. Transcription required acute attention to detail and focus. Each audio recorded interview was transcribed individually, on different occasions. The length of time for transcription varied based on the length of each interview. Interviews ranged in time from approximately 9 minutes to approximately 28 minutes. The time to transcribe each interview ranged from approximately 2 hours to approximately 6 hours each. This was done using repeated listening to the recording and typing the audio data as stated. During transcription, the recordings were played, paused to allow typing of the audio, and so forth throughout the entirety of the interview.

While the process of transcription was incredibly time consuming, it afforded a deep immersion into the data. Challenges of back and forth exchanges between the interviewer (i.e. myself) and interviewee (i.e. participant), while aiding to the flow of conversation in the actual interview, proved time consuming to accurately represent in the transcription. On the contrary, the natural flow of conversation added to rapport, as well as candid and relaxed sharing of information from the participants. The following section will describe the steps taken within data analysis.

Data Analysis

Type of Data Analysis

The primary type of data analysis used was inductive analysis, using a constant comparative approach. Inductive analysis allows for meaning to emerge from the data (Creswell & Poth, 2018). The constant comparative approach requires ongoing analysis and reflection about the data. A recursive pattern of analysis, during which I continually collected and analyzed data, was employed until data saturation was achieved. Saturation was apparent when no new information or ideas emerged from interviews, artifacts, and notes. As described by Fusch and Ness (2015), data saturation may be indicated by no new data or no new themes. Further described in Fusch and Ness there is not a “one-size-fits-all” method to securing data saturation (p.1409). However, the authors do suggest data should be robust in quality and quantity. Fusch and Ness also suggest triangulation as a means to help reach data saturation. While the conversations during interviews were interesting and enriching to the overall topic of study, very consistent information was being shared toward the end of my series of interviews. As well, using an example of artifact collection, the search of various ASD programs online was interesting, but met saturation when no new ideas or information was emerging. As the researcher, reflecting on the need to continue collecting data was thoughtful and done with much deliberation. Upon review and consideration of all the existing data, as well as notes and memos, saturation was confidently achieved.

Steps in Data Analysis

In keeping with the constant comparative approach, data analysis occurred on an ongoing basis. Recursively, upon each data collection opportunity, data was reviewed. I did not use a qualitative analysis software or other data analysis program in this study. Therefore, all analysis was done by the researcher utilizing traditional qualitative methodology. To provide greater clarity to the steps I underwent in analyzing the data, *Ongoing Data Analysis* and *Data Reduction Phase* will outline the steps taken throughout the study to reduce and analyze the data.

Ongoing Data Analysis

Data analysis began as each piece of data was retrieved. Specific to interview data, analysis began after each interview. Upon completion of each interview, field notes and interview protocols were reviewed. Additionally, audio recordings were listened to multiple times to further acclimate myself with the data. Following audio review, the recordings were transcribed into typed format. Agar (as cited in Creswell and Poth, 2018) suggests “read the transcripts in their entirety several times. Immerse yourself in the details, trying to get a sense of the interview as a whole before breaking it into parts” p.187. I read the transcripts several times, and then began the process of note-taking and memoing about the transcript. As described by Birks, Chapman, and Francis (2008), memoing allows the researcher to contemplate their own thoughts about the data. Written memos were utilized to capture notes, ideas, or trends within the interview data. I made several efforts at reading the interview data and transcripts in order to assist with memoing and capturing emergent ideas. Following this, I began to highlight codes within the transcripts. The process of coding, as described by Saldana (2008) requires multiple

attempts to highlight salient points and details within the data. Multiple attempts of coding were required. After the initial coding process, I would continue to review the codes, memos, and transcript as emergent ideas begin to develop. Eventually, in-vivo codes were lifted from the transcripts following review (Creswell & Poth, 2018). The coding process, and constant comparative method of going back and forth within the data, resulted in emergent ideas beginning to generate tentative themes.

Codes for the one interview in which audio transcription was not initially available due to deletion of initial audio were captured through the analysis of extensive notes and comments documented during the initial interview. Member-checking was also utilized to follow-up on the comments and ensure accuracy of the captured notes. These codes were utilized until rerecording of the audio was achieved, and subsequent transcription occurred. The final audio transcription provided rich quotations, supporting all of the extensive interview notes and existing codes, and were used in reporting of findings.

Data Reduction Phase

The phase of data reduction was marked most notably by conducting a visual review and analysis of all the interview data codes. Still utilizing inductive analysis, these steps of analysis might also be described as following a “template approach” (DiCicco-Bloom & Crabtree, 2006, p.40). Within this approach, main themes from the data are eventually developed by sorting the codes into separate categories for analysis. This phase of analysis required several steps. The first step required printing and assembly of codes in hard-copy. The second step involved visually representing the codes in hard-copy on a large wall for visual analysis. The third step began the process of within-participant analysis of the codes. The fourth step involved analysis

of codes across participants. The fifth step began the process of categorizing and further reducing the data into emergent themes. Following this step, further reduction occurred by comparing the emergent ideas with other sources of data, thus triangulating to ensure accuracy.

Explanation of Reduction Phase. I had to first immerse myself in all of the codes from interview data. To do this, I printed the coded data in hard-copy, including the highlighted areas of transcribed text. These codes were highlighted in yellow. Following this, I ensured that each numbered line of highlighted data had the coordinating participant symbol (i.e.: A, B, C, E, F). This was done by hand to ensure each numbered line of text was labeled. Labeling allowed me to ensure accurate awareness of the participant that provided each code of data, once I began categorizing the codes. Once labeled, I cut the labeled, highlighted codes from each transcript into strips. While this step of the analysis is laborious and time intensive, it allows for hands-on review and analysis of the data. This resulted in a total of 111 strips of coded data. Once I had all of the coded data strips prepared, a large wall in a secure room was used to organize the data strips according to interview participant (#1A- #6 F) for further analysis. Please see appendix B for images of this stage of data analysis.

At this point, I began to analyze the coded strips of data within participant. This phase of analysis involved finding emergent themes in the coded strips of data. Emergent ideas within each participant interview data began to develop as I reviewed the codes and moved the coded strips of data into like groupings of comments. As DiCicco-Bloom and Crabtree (2006) describe, utilizing codes and organizing the codes into categories is a commonly used approach in qualitative analysis. In this fashion, codes were sorted and then considered based on their content. I attempted to form intermittent groupings, still within each participant data, of the

coded strips of data as themes emerged. Temporary labels using sticky notes helped to manage and organize these evolving themes. Coded data that didn't immediately strike me with meaning or commonality with other codes were left without being moved on the wall. Repeated visual analysis and review of the coded strips occurred at this stage.

At this juncture, I began to look across participants to identify emergent themes and ideas across the participant interviews. After multiple reviews and consideration, I started to see commonalities among the temporary categories I had created within each data set. Over time, and after many repetitions of reviewing the coded data strips, initial categories began to emerge.

Next, I began to move the coded strips of data from individual data sets, based on emergent themes, into larger groupings of emergent categories represented throughout the data. Coded strips of data were moved from within the initial participant categories, as cross-participant themes emerged. During this phase of data reduction, 10 temporary themes within the interview data were formed.

From these 10 initial themes, I continued to review the data. I reviewed the coded strips within the initial themes, reflecting on the content within these themes. At this stage, much introspection, thoughtfulness, and contemplation of the emergent themes occurred. Further data reduction occurred by comparing other sources of data to these temporary themes and data points.

Following continued analysis, five themes evolved. From these five themes, further reduction resulted in three main themes. These three main themes provide the overarching main findings from this study.

In summary, within-participant and across-participant analysis of the 111 initial coded strips of data resulted in 10 temporary themes. Continued analysis resulted in further narrowing

of these 10 themes into five themes of main ideas. Finally, further data reduction yielded three main themes representing the overarching data. Multiple forms of data, or triangulation, supports the accuracy and validity of this analysis.

Trustworthiness in Data Collection and Data Analysis

Fossey, Harvey, McDermott, and Davidson (2002) discuss that in order to ensure trustworthiness in qualitative study, researchers need to ensure they are upholding high ethical standards. Fossey et al. (2002) state the importance of researchers collecting accurate data from participants, and genuinely representing that information. Additionally, Fossey et al. (2002) underscore the need for “transparency” within all aspects of data collection and analysis (p.723). As an ethical practitioner, I sought to uphold high levels of transparency, thoughtfulness, and integrity throughout data collection and analysis.

Trustworthiness began during data collection initially by building rapport with participants. Rapport is an important component in becoming familiar with the participants, as well as gaining trust and confidence with them as the researcher. I supported this by being non-judgmental, friendly, and engaging while collecting data. Additionally, I utilized an open-ended interview protocol, in which there was no right or wrong answer to a question. Moreover, the questions were about the process of teacher preparation as the unit of analysis, not personal information.

Memoing was also used to add in building trustworthiness throughout data collection and analysis. The act of writing memos provides a mechanism for reflection, thoughts, or ideas while reviewing the data (Tufford & Newman, 2010). These memos are an important component of maintaining integrity and transparency during data collection and analysis.

Through memoing, I was able to capture my own personal thoughts as I was reviewing the data. Moreover, the process of memoing helps uncover additional information or ideas that might need further follow-up or investigation. This leads into another key component of trustworthiness in qualitative analysis, member-checking (Creswell & Poth, 2018).

Member-checking affords the opportunity to reconnect with participants while analyzing the data. This could be utilized as emergent themes arise, or if questions about the data arise throughout any of the data analysis phases. Allowing the participants to provide additional feedback or clarification assists in providing authentic analysis of the data (Creswell & Poth, 2018). I utilized member-checking to follow-up on interview notes, as well as when I began the process of creating the hard-copies of data codes for visual analysis. Member-checking allowed me to follow-up with study participants to ensure I had accurately represented the participants' thoughts.

In addition to member-checking, triangulation of data (Creswell & Poth, 2018) ensures that analysis is authentic, robust, and valid. Utilizing a triangulation helps to build trustworthiness within analysis, as it forced me to consider and extend the data beyond just a single point of data. Comparing the data allowed for greater clarity in accurately analyzing the data, to represent the overall study findings. For example, data from online review of other university preparation programs afforded an opportunity to compare some of the interview data comments about program content. This was especially interesting when considering the delivery methods for endorsement area programs and the alignment to regulatory standards.

CHAPTER IV

RESEARCH FINDINGS

Results

In qualitative methodology, data are reduced to illuminate main ideas, or themes, uncovered through the study. Transferability, rather than generalizability, is the priority within qualitative study. As noted by DiCicco-Bloom and Crabtree (2006), transferability may occur through rich contextual description of the themes uncovered within the study. Thus, applicability of findings to other settings, situations, or cases may be possible through detailed description of themes. This qualitative study sought to explore and better understand the complex process of developing a new program within teacher preparation. Within this exploration, and through extensive data analysis, several main ideas emerged that shed light on this multi-faceted process. Data reduction into themes that are easily understood and organized was prioritized.

As described in the data analysis, 111 coded strips of data were analyzed. 10 temporary categories of main ideas were created following within-participant and across-participant analysis. These 10 temporary themes were as follows: Standards, Committee Review, Curriculum, Delivery, Philosophical Values, Needs/Rationale, Past Program Development Experiences, Strategies/Helpful to Program Development Process, Layered/Complicated, and Miscellaneous. After further analysis and data reduction, five categories evolved that encompassed these larger ideas. The five categories were as follows: Standards, Philosophical/Practice Values, Research, Program Approval, and Miscellaneous. However, after continued review, the temporary categories of Research and Philosophical/Practice Values were

interconnected and representative of comments surrounding both program content and delivery. Whether related to course content, course delivery, or field experiences, they may influence program development. Thus, after much time and consideration of the comments within these initial categories, these two areas were combined together into an overarching theme of influence on program curriculum.

As a result, the study findings are represented in three main themes. Standards for Practice; Helpful Strategies and Keys to Program Approval; and Balancing Curricular Influences emerged as three primary themes as a result of the data reduction process. These three areas represent varied components within the program development process. Throughout the remainder of this section, each primary theme is highlighted, with descriptive overview of the findings for ease of review. The primary themes are also depicted in a visual format. Please see Table 1.

Table 1

Visual representation of main themes

<i>Theme One</i>	<i>Theme Two</i>	<i>Theme Three</i>
Standards for Practice	Strategies & Keys to Program Approval	Balancing Curricular Influences
<i>Supporting areas of data:</i>	<i>Supporting areas of data:</i>	<i>Supporting areas of data:</i>
CEC Standards State level requirements	Team Communication Organization Need “jumping hoops” layered/complicated	Program content Program delivery Research Practices Views Rapport

Theme One: Standards for Practice

The theme of standards for practice began to emerge early on within the data analysis. During both within-participant and across-participant analysis, it was immediately clear that this

overarching theme was sticking out from the data. There were numerous comments related to the Council for Exceptional Children (CEC) special education preparation standards [here after referred to as CEC standards]. Additionally, there were numerous comments related to aligning regulatory standards from the State of Michigan to new program content.

Most specifically, this study findings indicate that the CEC standards are an overarching set of standards program developers must consider in the process of program development. Multiple data points attest to the utilization of the CEC standards for guidance on the components within the ASD program. The CEC standards are being utilized in the development of the nut & bolts of ASD endorsement area programs. A few participant comments below provide an example of this:

When talking about any new program, I think the university needs to abide by whatever the standards are for that accrediting body. So, for example, CEC, Council for Exceptional Children, they would have their baseline standards for this is what a special education teacher needs, then there would be additional standards for that specific endorsement, ASD (Participant A)

“You take the competencies that they list and you try to match courses to the competencies that the accrediting bodies list” (Participant F)

Another participant shared:

A big component of this is looking at the organizations that provide skills and knowledge requirements, so our accrediting body, the Council for Exceptional Children, we certainly would be developing our program based around that and making sure we have the resources and faculty qualified to teach in those programs (Participant C)

The standards for practice appear to permeate all areas, such as accreditation reporting to developing courses to be offered in the program. The findings indicate that the CEC standards are used to help develop the curriculum within the program.

“Council for Exceptional Children’s standards, their both initial and advanced standards, and there’s standards specific to autism spectrum disorder. So, we really use both sets of standards, most heavily the ASD standards in terms of ensuring what is in the course content” (Participant D)

“If they have certain competencies listed that teacher candidates must meet then a program developer looks at those competencies and tries to figure out what courses they will design that will meet those competencies” (Participant F)

Additionally, a few comments were shared about the connection between the CEC standards and the accreditation process. For example, participant E shared:

“The state of Michigan has contracted with CAEP for program approval, CAEP relies on the SPA standards and approval process for all programs that have SPAs, and that is where CEC comes in”

“For special education, the way that we get seen as meeting the requirements for CAEP is by meeting the CEC SPA standards” (Participant E)

Additional standards for practice of importance come from State regulations. Data indicate that the Michigan Administrative Rules for Special Education (MARSE) are also used to guide program developers in ensuring the minimum requirements are met during program development. For example, developers may use the State regulations to ensure the program has the required hours, experiences, and content coverage. As described below, alignment to State regulations must also be considered:

“the State has requirements that all teachers need to know and therefore all programs must have” (Participant C)

“the requirements set forth in MARSE, the Michigan Administrative rules for special education, so there are two different sections of that that are requirements for teachers that we have to meet” (Participant E)

The alignment of a new program to the state rules and regulations also yielded a few comments surrounding federal regulations, as described below:

“We dictate a process based on what the state and federal government says we should do when we are developing curriculum” (Participant B)

“Make sure that we are training our teachers in the requirements that are set forth in the Michigan Administrative Rules for Special Education. Which then also align with IDEA” (Participant E)

In summary, the CEC standards, as well as State of Michigan regulations, were the two most frequently mentioned standards for practice within this theme of findings. The following participant comments powerfully synthesize these two most prominent findings, CEC standards and State of Michigan regulations, within this theme:

“That’s really what we look for, we would look at the CEC competencies, we would look at what the state of Michigan says for the rules and regulations regarding programs for teacher preparation in ASD, and we would look at that federally as well” (Participant C)

“take the MDE standards for autism teachers, as well as the CEC standards for initial, advanced, and the autism specialty set, and I just align them into all of the courses... So that is in terms of content to make sure we are covering all the standards” (Participant D)

Theme Two: Strategies and Keys to Program Approval

The second theme of findings from this study surrounds the approval process a new program must complete. In Michigan, program developers must submit the program to the Michigan Department of Education for approval, as well as successfully secure university approval. As described in multiple interview data points, the university approval process is multi-layered. A few short, but impactful, phrases provide an orientation to this university approval aspect of the program development process.

“It’s very complicated” (Participant B)

“There are many, many layers” (Participant E)

Additionally, another participant shared:

“because you want the courses to obviously be approved, so you jump thru these hoops, even though most university committees have no idea what it is you are doing” (Participant F).

Throughout what some described as complicated or “hoop-jumping”, many procedural steps and varying elements are involved within this university approval phase of program development. A few participants described this university approval phase, in examples provided below:

You definitely need to go through the college curriculum committee, then the university curriculum committee, then it needs to be approved by faculty salary and budget to make sure there is money at the university to pay for everything that this will entail, as well as benefit analysis, will there be students to pay for it, through enrollment, etc. then the university senate must approve the program (Participant A)

They are looking more at whether or not there is an interest, whether or not this will generate funds for the university, whether we have courses required that they would see as a well-rounded program, and whether or not we are requesting faculty, it’s so much about budget, but do we have faculty with expertise, could we get faculty with expertise from other places in the university, like for us the

psychology department, do we have courses that we need to create that another unit or college might have already created, so those components (Participant C)

Another participant shared the following:

“They aren’t as concerned at all with the content in your courses, and those kinds of things, but pay attention to how many credit hours are in the program, and those kinds of things, whether or not you have followed the guidelines for the syllabus of record, guidelines for how many hours a field experience can be related to how many credits the course is” (Participant E)

Participant F stated: *“you have to push these courses thru certain committees, then you are going to have to prepare your new courses based on the requirements that the, for instance the curriculum committee at the college level has and then at the university level”*

As a result of the varied requirements within the process of securing program approval, many ideas emerged to assist in navigating these steps of securing university and State approval, within the process of program development. Key specific findings within this category include: teamwork, communication, organization, and demonstrating a strong program need.

Teamwork was one key finding in the interview data that program developers must consider. As noted by one participant:

“You have to have a good team who is willing to put the work in because it is a lot of work” (Participant E)

The need for a strong team, with complementary strengths and areas of expertise, emerged as important in navigating the program approval process. Utilizing the strengths of colleagues on the team allows for the delineation of tasks and responsibilities within this approval component of program development. The following participant comments highlight this aspect of a team:

“you need to have somebody heading up the development who actually is really an expert in that area and at least has a pretty good idea of what competencies teachers need to have to serve the designated population” (Participant F)

“You need to have a really good team in place, you need to have people with complimentary expertise” (Participant E)

“starting with the training of the person developing it, so my background... working with kids with autism would be what I bring” (Participant B)

Additionally, communication was represented within the data as helpful when working toward program approval. Communication comes in many forms. One example involves ensuring communication with stakeholders and supervisors about the plans, intention, and activities of the program developers. One participant shared:

“it’s nice to keep people, other people in your college and even other colleges that this will impact in the loop and up to date on what things are going on. And where you are in the process” (Participant E)

This aides in being transparent with members of the department for which the program is being developed. As well, communicating with leadership and supervisors was stressed as a key to ensuring approval will be supported.

As noted by one participant *“You can’t get very far into it without knowing you have your unit head and dean’s support.”* In another comment sharing, *“if you had faculty or a dean who said no, it would certainly stop there”* (Participant E)

Additionally, when considering the proposed program moving through approval channels with the State and university, advanced communication with representatives within those entities is also recommended. As described by one participant:

“Pre-conversations with people at the next level so that you can share the direct information with them...it was definitely informal, but reach out and explain anything or give a little bit of information about the field” (Participant B)

Notifying representatives involved in various levels of the approval process is a practical finding. This level of communication from the developers to these various stakeholders may be helpful in advocating for the program, providing background information about ASD, or troubleshooting potential questions.

“giving that picture to the reviewers who are going to have no idea about autism and those pieces can be very helpful” (Participant B)

Perhaps in tandem with strong communication as a helpful key to program approval, organization was also a finding within this theme. Having a clear system of organization in place was represented within the data multiple times. As one participant shared, this may take the form of a data management system for tracking student performance on course assessments to be used during ongoing program approval.

“within the timeframe from when we submit for final approval, we have to start collecting our data, in terms of what key assessment do we have in our program that the students will complete that we evaluate” (Participant D). In another comment sharing: *“for data collection purposes... I can log in and input all the scores of the students into the system, and it’s got all the different rubrics to the key assessments, so it will analyze the data for us”* (Participant D).

The use of data information portals or shared technology drives (such as google docs) (www.google.com) was also mentioned as helpful to maintaining team-member organization. As described by one participant:

“Google docs is great for collaborating because everyone is in such a time crunch and it is hard to get people together in person” (Participant E)

Organization is also needed for the team to maintain an ongoing awareness and pulse of the needful tasks when working on, and submitting, the program to the approval entities (i.e. State or university). A few participants shared the following:

“I think one thing is developing timelines for yourself and getting material written”
(Participant B)

“we started meeting and started parceling out who might do what, so one of us was looking at what CEC said teacher programs needed, and another one of us was looking at making sure we had the federal and state requirements ready, and a couple were looking at existing programs and what that looked like” (Participant C)

Additionally, a few participants included comments about reviewing other teacher preparation programs as an organizational technique:

when we first starting looking at it, we were just looking at programs for ASD, and what did they contain, and how did they offer those programs. So, we not only looked at the CEC knowledge and skills, and what the state and feds required, we also looked at what existing programs had, and what we saw as strengths and deficits areas, and we tried to look at what programs were highly attended and what ones were less attended and what those programs looked like
(Participant C)

“in terms of organization, looking at other universities, looking at best practices, and pulling those altogether” (Participant A)

Finally, demonstrating a clear need for the program was another finding in keys to program approval. This is apparent in interview transcripts, as well as artifacts such the MDE Application for New Programs document. Not only do program developers need to evidence the

need for the program within their university approval process, the State also requires evidence of the need for the program.

A needs analysis is one way to secure data to demonstrate the need for the program. Survey of potential students may also yield preliminary interest in the program to support need. As stated by one participant:

“I would say what would happen first is a needs assessment in that college or program, is that something that we need, and if so, why”. (Participant A)

Another participant also shared: *“If the faculty in the department where the program is coming out of see an unmet need and want to do something about that”.* (Participant E)

Furthermore, the K-12 teaching field may also provide an additional source of need, as explained in the following comments:

“the need in the field, for instance, in this particular case where you are talking about an ASD program, we know that the need in the field is pretty large and that there are a number of classrooms that are staffed by teachers that are not necessarily endorsed in the area of autism” (Participant F)

“It is seeming that most of the teachers who are interested are currently on an approval, most are on an approval, they might have had LD or CI, but got hired as AI” (Participant D)

“you will have some really good statistics about the need for teachers, so it is reasonable, but I know, everyone knows someone w/autism, but I don’t think everyone always know the range from Asperger’s to classic autism, and so on” (Participant B)

Finally, offering a historical perspective on the K-12 field supporting a need in teacher preparation, Participant F shared:

Some of these teachers through experience have learned a lot, so it’s a mistake to think that only teachers who have a specific endorsement are really only qualified

to teach because historically we've had to, we've developed some of these new disability areas, and we really haven't had people endorsed. I mean you can go way back to the area of learning disabilities, where we used to staff those rooms with teachers who were endorsed in the area of, back then, mentally impaired and emotionally impaired, and we didn't really have anyone endorsed or certified in the area of learning disability. So, I think the same is true for Autism.

Theme Three: Balancing Curricular Influences

The final theme from this study highlights the various impacts that exist on the curriculum of a new teacher preparation program. Content, delivery, and field experiences all impact the curriculum within a program. Moreover, the findings specifically focus on the balancing act that program developers must do to determine the curriculum in the new program. As stated by one participant:

"There really is a lot there, you have to kind of balance that. The research stuff, the accreditation standards, what they are going to be tested on for the MTTC, and then our own experiences and knowing what we know students need to be able to do when they leave us"

(Participant E)

Several data points indicate references to research supported practices within the inclusion of course content. A few participant examples are provided as follows:

"the NPDC, National professional development center on autism has developed the 27 evidence based practices. That has been out 10 – 12 years, and I still think of that as relatively new to the field of autism and I think it is just delightful that we have a resource like that to focus on"

(Participant B)

"there's a large emphasis on applied behavior analysis, which is really the case I think for any program that is going to be autism related, just the huge effect that applied behavior

analysis has had on autism treatment, so we also see, you know, an emphasis on applied behavior analysis in our autism program” (Participant D)

“So, there are also several internet modules that have come out for autism, so there is the AIM autism internet modules, and there’s one out in California... but they provide some really good opportunities to get some training and they have video of some interventions, and then have multiple choice questions to assess after the modules” (Participant B) Further sharing in another comment: *“So, some you may embed into classes or some you could use as prerequisite to classes.” (Participant B)*

As well, mention of current practices, particularly related to field experiences, are also evident in the data in this finding. One participant shared the following comment related to the field component requirements within ASD teacher preparation:

“It’s the opportunity for practice. Guided practice I would say. Not just practicing, you don’t just put a teacher necessarily, let’s say in this case a classroom serving students with autism, without providing a master teacher to work with them side by side for an extended period of time” (Participant F)

When considering the delivery modes for coursework, data indicated that there is a mix of offerings in online, hybrid, or traditional formats. What stakeholders want or need (i.e. potential students) may influence content delivery methods. This sentiment is shared in the following interview examples:

If we are talking about a graduate program, especially, we have a lot people going into teaching or wanting to add endorsements or additional credentials onto their existing endorsements, and they have full time jobs, and they’re looking at traveling at night or coming from different parts of the state, places in the state or out of the state, so to have a program that is all online or mostly online, or online slash hybrid, would be I think, very palatable for some of our non-traditional students. (Participant C)

“I think we have to make sure we know, if we have determined what content, knowledge and skills our students need to leave us with, then we have to look more individually at the content, knowledge and skills and determine individually what the best way is to teach that” (Participant E).

“it might be nice to have another class online for the flexibility, but I think in person is helpful, I think the students actually appreciate the in-person more too” (Participant D)

“This is a really interesting and tricky area, because I think we are responding to what our consumers want, then maybe always doing things in the best way for learning. Which I completely understand why we are making those decisions” (Participant B)

Participant B further stated: *“There are some really good things about it, but I think we are sometimes just deciding based on that we can get more students in if distance learning because you can be up in traverse city or wherever and still be in your class. So, I’m not sure we are always creating it for the purpose we are supposed to be creating it”*

“probably the best way we are going to attract students to our program is to have it online so that they can be wherever they are and take it from there” (Participant C)

The findings indicate a need for much contemplation from program developers about the mode in which the content is delivered. As further described by a participant:

“one of the mistakes that people make about online or hybrid is that you are delivering something different, like the content being delivered is something different, but the content is the same, it’s just the method of delivery is different” (Participant E)

“Experience tells me that what you teach in a hybrid, or online, or face to face program gets lost unless it’s practiced in the field” (Participant F)

Content and delivery mode may be influenced by what research suggests. However, determining which mode of delivery, content, and field experiences are best for the program requires program developers to thoughtfully weigh and balance many factors. One participant provided this example:

I think everything is sort of that big circle... you are going to look at the CEC standards, the CAEP standards, State of Michigan standards, ok, that is what they are saying from an accreditation perspective needs to be included. I think also there needs to be the theoretical at looking at the research. What does the research say needs to be imperative for future teachers of that program, I'm looking specifically at ASD, so future teachers of ASD in districts, what do teachers perceive or supervisors perceive as a need, what do districts perceived as being a need within that. Find the balance between the accreditation requirements, the research data, and the practical pieces, then pulling together a practical program that meets all of those (Participant A).

Certainly, within finding this balance to curricular factors, views may differ when collaborating with a team to develop a new program. As one participant described:

"I think there are huge differences in philosophy that highly influence the way said programs are being developed. I don't know that I've seen that specifically with Autism, but I believe there are many people that come into a university as academics, who come in and have a kind of disposition for looking at things a certain way" (Participant B).

Finally, within this theme, the act of building rapport with colleagues, by seeking to understand the various perspectives and weighing the differing options, may assist program developers in the event of conflicting views. As described by one participant:

"the best strategy would be to develop rapport with the individual and have some honest conversations, and you know really hash it out and talk thru the differences in philosophy" (Participant B).

In summary, the findings of this study highlight varying aspects and considerations within the program development process. The main themes of standards for practice, keys to

program approval, and balancing curricular influences provide areas for continued discussion and contemplation. The next section discusses implications of these findings for other program developers, practitioners, and researchers within the field of special education teacher preparation.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

Discussion

The results of this study focused on the process of program development. Focusing on the process, rather than the end product, provides a unique perspective of the complicated process of Autism Spectrum Disorder (ASD) program development in special education teacher preparation. These findings, in keeping with the qualitative study principle of transferability, may be relevant to other program developers within the field of special education teacher preparation. As noted in Rubin and Rubin, qualitative study is focused more on “its ability to discover new themes and new explanations than on its generalizability” (p.6). This study explored the process of program development using the lens of ASD, however the findings are not exclusive to only ASD program development. In many instances, the study findings may be of benefit and application across all sectors of special education teacher preparation. Shepherd, Fowler, McCormick, and Morgan (2016) suggest the need for continued research relative to the effectiveness of special education teacher preparation programs. Given the ongoing demand for special education teacher preparation research, the following discussion and recommendations may inspire continued inquiry or have relevancy to ASD, and the field of special education preparation as a whole.

The final emerged themes of Standards for Practice, Keys and Strategies to Program Approval, and Balancing Curricular Influences will provide an organizational framework for this discussion.

Theme One: Standards for Practice

Standards for practice are the necessary guiding force behind a great deal of what is offered within a teacher preparation program. Standards of prominence within the existing literature, as well as the findings of this study, are the Council for Exceptional Children (CEC) special education preparation standards [here after referred to as CEC standards]. The CEC standards are utilized within teacher preparation programs for various purposes, including purposes such as compliance and the determination of course content. For example, from a compliance perspective, universities may use these standards to develop course assessments, which in turn provide data on student performance within the program. Further connected to compliance, this data may be utilized for a variety of purposes, including program accreditation.

However a teacher preparation program may use the CEC standards within their program, when developing an ASD teacher preparation program, they serve as a critical resource for program developers. As noted by Sayeksi and Higgins (2014) the CEC standards provided a theoretical framework from which a teacher preparation program analyzed and prioritized their course offerings, coursework, and programmatic requirements during a program redesign. Scholarly inquiry has also been conducted surrounding the alignment of the CEC standards to specific course offerings, such as in Knight and Wadsworth (1998) national survey of teacher preparation programs. Additionally, as noted in Othman et al. (2015) a survey of working special education teachers found that they believed they possessed the skills outlined in the CEC Teacher standards. This sample of the literature highlight the importance, as well as the wide breadth of purposes, that the CEC teacher preparation standards play within special education teacher preparation.

This study adds to the existing literature base in supporting the use of the CEC standards for practice within ASD teacher preparation. As indicated through this study's findings, the CEC standards are used to guide the development of the course content being offered with the program. As noted in their 2014 article, Dukes et al. suggest a framework for teacher preparation focusing on the areas of professional development and course delivery; field experiences and mentorship; and assessment. The CEC standards may provide a guiding set of standards program developers might use to begin such work. The CEC standards provide a structure for program developers to align to when planning and devising a program.

The findings of this study also support the need for ongoing scholarly inquiry related to embedding the CEC standards in new program development. Clearly, the standards are being used, in varying capacities, within special education teacher preparation. However, more scholarly inquiry is needed in this area to continue to advance the existing knowledge base surrounding new program development and the CEC standards. As indicated through this study's findings, program developers rely heavily on the CEC standards as a framework when building various aspects of the new program. If starting the process of ASD program development from the very beginning, the CEC standards in Autism and Developmental Disabilities would be one of the key pieces of information to begin with. In essence, these standards serve as a building block for program developers to use.

The importance of the CEC standards within program development are a prominent finding of this study. However, the alignment to State regulations is also significant within this theme of study findings. All new programs must align to the State regulatory requirements. Within the program application process to the Michigan Department of Education, evidence must be present within the application that required experiences, such as clinical experiences and

clock hours for coursework, are included. (MDE, 2017). Additionally, the Michigan Administrative Rules for Special Education were also repeated within the findings.

Standards for practice have far reaching impacts within special education teacher preparation. Thus, the impact is far reaching on program developers within special education teacher preparation. Developers must consider alignment to the CEC standards, as well as State and Federal rules and regulations, when designing new programs. As indicated by the findings of this study, program developers rely heavily on the CEC standards, Michigan Administrative Rules for Special Education, and the guidelines for teacher preparation programs in Michigan from the Michigan Department of Education.

Theme Two: Keys and Strategies to Program Approval

The second overall theme of findings from this study yielded very practical ideas and strategies that may be useful to future program developers. At a pragmatic level, developers must ensure that the proposed program work through the required approval systems in place. Approval from the State, as well as university, must be secured. To achieve this, this study uncovered several strategies that may help program developers along this part of the process.

One key finding to program approval was utilizing active and ongoing communication; ongoing communication with leadership, as well as all relevant stakeholders, such as faculty within the program, can be helpful within this step of the process. Little et al. (2015) attest to the need for strong communication, leadership, and administrative support in program development. This study's findings corroborate Little et al.'s recommendations. Additionally, a complimentary team, utilizing the strengths and expertise of the team members was an additional key to program approval.

Another key idea represented throughout the data within this theme is demonstrating the need for the program. This is apparent in interview transcripts, as well as artifacts such as the “Preparation Program Application” from MDE (MDE, 2017). The K-12 teaching field may dictate one source of need for a program. An example of the field dictating a need comes from the Teacher Critical Shortage list. As previously mentioned, ASD currently falls under the critical shortage list in Michigan, (MDE, 2018). Program developers may use this type of data to support their need rationale during State and university level approvals. Additionally, students, or potential students, may also indicate a need for a program. A needs analysis is one of the required components within the university program approval process. The study findings suggest the priority that program developers must place on demonstrating and evidencing a need for the new program.

This study’s findings expand the existing special education teacher preparation literature base in this area. Throughout scholarly literature, much is published about what to include in a program or how to deliver a teacher preparation program. Shepherd et al. (2016) is one example of scholarly work making recommendations for what to include in special education teacher preparation. In their 2016 article, recommendations such as including high leverage practices are suggested. Dukes et al. (2014) also suggest a framework for what to include in a special education program. Yet, many publications stop short on providing recommendations or strategies to achieve an exemplary program. While an assortment of recommendations may be found on what to include, little guidance exists on how to do this. This theme of findings from this study expand the literature base in providing a small snippet of keys and strategies focused on how to navigate the process of program development.

Theme Three: Balancing Curricular Influences

Perhaps best conceptualized as a balancing teeter-totter on a playground, the curricular impact on program development requires a steady balancing force. Research, current practice, and differing philosophical perspectives may require thoughtful consideration by program developers to ensure synchronization. As uncovered within this study, often a balance must be struck between these complimentary, or conflicting, impact on curriculum. Responding to the demands of consumers (i.e. potential students) and requirements for supported clinical field experiences requires careful planning and contemplation by program developers. The findings of this study illuminated the need for thoughtful consideration of evidence-based practices, research, and current practices when developing the curriculum to be offered within a new teacher preparation program.

The call to include evidence-based practices is noted throughout scholarly literature in teacher preparation. Hall (2015) encourages all ASD teacher preparation programs to include the teaching of evidence-based practices for students with ASD. Barnhill et al. (2013) also recommend the incorporation of evidence-based practices within ASD teacher preparation programs, and found an increase in the number of teacher preparation programs teaching evidence-based practices when comparing a previous survey of teacher preparation programs. Teacher preparation programs must respond to this need for evidence-based practices by thoughtfully considering what practices will be taught within their programs. For example, of the 27 evidence-based practices provided by the National Council for Professional Development in Autism Spectrum Disorders (NCPD, n.d.), program developers must determine which practices teacher candidates will need to know. Moreover, topics such as applied behavior analysis, as noted in interview findings, or inter-disciplinary collaboration with other

departments such as psychology may also impact the content being offered within an ASD teacher preparation program. In turn, such topics may impact the selection of evidence-based and research supported practices, as well as the expectations for teacher candidates, within the ASD preparation program.

In conjunction with including research and evidence-based practices, program developers must also consider how to thoughtfully include field requirements as a component of the programs' curriculum. As Anderson and Stillman (2013) attest, the scholarly literature on the benefits of field experience in teacher preparation is varied and hard to ascertain. However, the requirements still exist to include field experience within the preparation program. In Michigan, per MARSE R 340.1782, teacher candidates seeking an endorsement in any area of special education must engage in at least 8 weeks of directed student teaching, and not less than 180 hours of practicum in the area of endorsement (MDE, 2015). MARSE R340.1799 states 30 semester or equivalent hours of coursework must address assessment, teaching, and modifying instruction for students with ASD (MDE, 2015). Thus, the field requirements must be thoughtfully balanced with the opportunities to learn and acquire the knowledge and skills needed through coursework.

Acknowledging the need for both coursework and field experience, program developers must also determine which delivery method will best include those requirements, as well as meet the needs of all stakeholders. Vernon-Dotson et al. (2013) suggest a need for further study of online and hybrid course offerings in special education teacher preparation, but found the flexibility of online education as a reoccurring finding within their literature review. Yang and Yu (2015) also encourage the utilization of alternative training techniques, such as podcasts and online learning modules, in preparation programs.

The call to investigate and explore different delivery modes within teacher preparation is supported by the findings of this study. The findings of this study support the need to continue to investigate course delivery options being utilized within special education teacher preparation programs. As indicated in interview data, participants offered different details on the decision to offer programs in online, hybrid, or face-to-face format. Data from interviews was varied on this topic. Comments suggesting that it might be nice to offer additional online courses, were countered by other comments suggesting courses might be offered online for the sake of enrollment or consumer interest (i.e. potential students). This thread of inquiry would need further investigation to draw definitive findings about how those decisions are made. However, what could be extrapolated from these findings is the potential for conflicting viewpoints that might arise among colleagues and program developers when determining curriculum for a new program.

To that end, of note within this theme of study findings is the need for rapport and collaboration in navigating curricular decisions. Program developers can easily be saturated with information on what to include in programs, how to deliver their programs, and various other curricular decisions that go into developing a new program. However, building rapport is one way program developers may sift through all the varying viewpoints and recommended practices, in order to successfully compose a new teacher preparation program. This finding extends to the literature base in shedding light on the need for rapport, fostered through teamwork and collaboration, to assist in this component of program development.

Recommendations

An exciting and stimulating part of qualitative research is the potential it has to foster new ideas and inquisitive thinking (Brantlinger et al., 2005). The exploration of ideas, issues, and phenomenon in a qualitative manner can ignite and uncover areas of understanding within the issue being studied. As such, this study has fostered several new ideas and potential lines of future inquiry. In conclusion to this study, these ideas are represented in five recommendations relative to future inquiry and practice.

The first recommendation centers on the use of the CEC special education preparation standards. As previously mentioned, this theme was dominant and apparent throughout this study's findings. The host of purposes for use of the CEC standards are numerous. However, from a practitioner perspective, these standards would be invaluable to new program developers working within higher education institutions. Teacher preparation program developers should utilize and familiarize themselves with these standards, as they provide a practical structure for building the content within the program.

Additionally, another recommendation is for further study of the CEC standards within special education teacher preparation. From a scholarly perspective, it would behoove the field of teacher preparation to research the use of the standards within ASD teacher preparation programs. This line of inquiry could surround how teacher preparation programs are using the standards, to what extent they are assessing students in relation to these standards, and what benefit they find. Additionally, it would be advantageous for program developers using the standards to report or publish on how they have used them throughout the process. The possibilities for exploration of the use of CEC standards in higher education are many. It is recommended that continued research surrounding these standards ensue.

The second recommendation surrounds the High Leverage Practices in Special Education. As noted in the literature review, the special education high leverage practices are relatively new in publication. As such, they are still evolving (*TEACHING Exceptional Children*, 2018). However, as Sayeski (2018) attests, they may provide a guide or direction for teacher preparation programs to use. The HLPSEs may be a valuable resource in the future for program developers. Perhaps in conjunction with standards for practice, such as the CEC standards, as well as evidence-based practices in ASD, the special education high leverage practices may serve as an additional resource for program developers.

A third recommendation is for continued research into how special education teacher preparation programs are deciding on course delivery modes within their programs. A review of existing programs at State and National level indicate a wide continuum of available program options. Within that continuum, fully online programs are available, as well as more traditional, face-to-face delivery programs. Research supports varied options within teacher preparation (Kennedy et al., 2015). Thus, it would benefit the field of teacher preparation program development to further investigate how the decisions are made to offer a program in online, hybrid, or traditional modes. Additionally, inquiry related to why those decisions are made would also be of added value to the field of special education teacher preparation research.

Continued exploration and investigation of the strategies and techniques being used by program developers in special education teacher preparation is the fourth area of recommendation. Findings of this study uncovered several strategies and keys to program approval. These strategies, such as strong communication and organization, are practical, real-world tips that future program developers may be able to utilize. For example, the importance of maintaining a clear system of organization for program data, as well as time management and

delineation of roles and responsibilities are critical parts of organization. These findings may help other program developers as they begin to plan for all the work required during the initial stages of program development. As such, continued exploration of what teacher preparation programs are doing to help manage all the needful duties and requirements within the process of teacher preparation would add tangible, practical guidance to program developers.

Finally, from a macro perspective when considering program development in special education teacher preparation as a whole, continued investigation is needed on the process of program development. Utilizing case-study format, this research study sought to explore this process component, accessing a university currently undergoing program development. The findings add to, and advance, the existing research base in ASD teacher preparation. However, continued research is needed focused on this process part of program development. Often, literature has focused on the end product, by describing proposed frameworks for an effective teacher preparation program or certain aspects of a program, such as content or field experience. However, the journey to the end product of a new program is winding, with many steps, requirements, and factors along the way. This study sheds light on that process, yet continued research within this focus would be indispensable to the field of special education teacher preparation.

Limitations

The findings of this study lead to meaningful, transferable main themes. This study used six participants within a single case study design. Future research with additional universities, perhaps in a multiple-case design, may cast a wider net and provide different perspectives to enhance the literature. Additionally, the focus on ASD teacher preparation guided the inclusionary criteria for this study. Future research including a broader scope of participants in teacher preparation or university program development may also expand the perspectives and literature on the process of program development within special education teacher preparation.

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APPENDIX A

Interview Protocol

Interview Protocol

Date:

Participant name:

Email address:

Role:

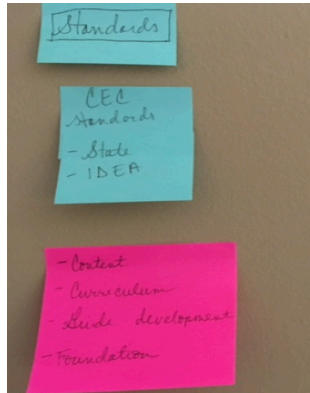
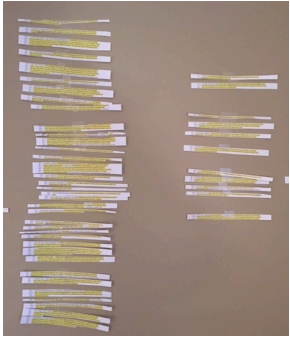
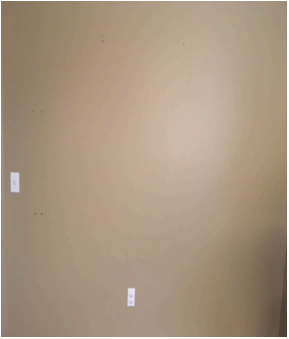
This study will seek to understand the various procedural and value influences that guide the program development process when creating an ASD endorsement area program.

Question	Response	Notes & Probes
What requirements must the university abide by from accrediting bodies?		
What requirements must the university abide by from State or Federal regulations?		
What university level requirements must be followed?		
What departmental or college level influences contribute to the development of new programs?		
What curriculum (content & delivery) influences contribute to new program development?		
What organizational and procedural strategies are used by program developers (you) throughout the program development process?		
Is there anything else that you would like to share?		

Thank you for taking the time to meet with me today. If you would like to share any additional information or thoughts after today, please do not hesitate to contact me via email or phone. Again, thank you very much for choosing to participate in this study.

APPENDIX B

Photographs of Data Reduction



APPENDIX C

HSIRB Approval Not Needed Letter

WESTERN MICHIGAN UNIVERSITY



Institutional Review Board
FWA00007042
IRB00000254

Date: November 22, 2017

To: Shaila Rao, Principal Investigator
Christine DeWildt, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: Approval not needed for HSIRB Project Number 17-11-18

This letter will serve as confirmation that your project titled "ASD program Development in Special Education Teacher Preparation: An Exploratory Study" has been reviewed by the Western Michigan University Institutional Review Board (WMU IRB). Based on that review, the WMU IRB has determined that approval is not required for you to conduct this project because you are not collecting personal identifiable (private) information about individual and your scope of work does not meet the Federal definition of human subject.

45 CFR 46.102 (f) Human Subject

(f) *Human subject* means a living individual **about whom** an investigator (whether professional or student) conducting research obtains

- (1) Data through intervention or interaction with the individual, or
- (2) Identifiable private information.

Intervention includes both physical procedures by which data are gathered (for example, venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes. *Interaction* includes communication or interpersonal contact between investigator and subject. *Private information* includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may readily be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.

"About whom" – a human subject research project requires the data received from the living individual to be about the person.

Thank you for your concerns about protecting the rights and welfare of human subjects.

A copy of your protocol and a copy of this letter will be maintained in the **HSIRB files**.

Office of the Vice President for Research
Research Compliance Office
Western Michigan University, Kalamazoo, MI 49008-5456
PHONE: (269) 387-8293 FAX: (269) 387-8276
WEBSITE: wmich.edu/research/compliance/hsirb

CAMPUS SITE: 251 W. Walwood Hall