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A Review on How Teacher Preparation Programs for General Education Preservice Teachers  
Shape Their Attitudes Towards Inclusive Education

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## ABSTRACT

Since 1975, the Education for All Handicapped Children Act was enacted, the United States public school system and teacher preparation programs have been trying to prepare teachers and preservice teachers to teach in inclusive classrooms. Teacher preparation programs across the country started to include an introductory course on special education as a requirement for general education degree programs. Research in the 90s has shown these semester long introductory courses improved the beliefs and attitudes preservice teachers have towards inclusion and students with disabilities; however, the same research articles that prove the increase in positive attitudes also recommend teacher preparation programs need to integrate special needs topics more into the general education courses. Through the review of eight different research articles, there will be an examination of the different approaches teacher preparation programs have used to help preservice teachers feel prepared to teach in an inclusive classroom. The articles are split amongst three different categorized themes. The first approach was the implementation of an introductory special education course. The second approach was the addition of field experience on top of the semester long introductory special education course. The last approach focused on integrating special education and inclusion topics into the general education courses.

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## **Chapter 1**

### **Introduction**

In 1975, the Education for All Handicapped Children Act was enacted by Congress to “support states and localities in protecting the rights of, meeting the individual needs of, and improving the results for infants, toddlers, children, and youth with disabilities and their families” (U.S. Department of Education, 2024). After the act was passed, the United States educational system slowly started to require public schools to include students with disabilities so they could receive Free Appropriate Public Education (FAPE) in the Least Restrictive Environment (LRE) which began inclusive instructional practices for students within general education classrooms with their non-disabled peers. The act was renamed as the Individuals with Disabilities Education Act (IDEA) in 1990 and revised to provide more educational support for students with disabilities. In twenty-five years post ratification, IDEA went through significant amendments and additional legislation. One significant revision was the inclusion of equity in IDEA in 2016. “The revised regulations help ensure that states meaningfully identify LEAs with significant disproportionality and that states assist LEAs in ensuring that children with disabilities are properly identified for services” (U.S. Department of Education). Additional legislation such as the No Child Left Behind Act, and amendments to IDEA furthered the rights of students with disabilities in the education system.

In 1989, 20.7% of students with disabilities were serviced in the general education classroom for 80% of the school day. However, there was a significant change to services after The Americans with Disabilities Act was passed in July 1990, increasing services to 4,710,000

infants, toddlers, children, and youth with disabilities from birth through age 21 under IDEA, doubling by 2023 (U.S. Department of Education). According to the U.S. Department of Education, “8 million children with disabilities with special education and related services designed to meet their individual needs” are being serviced in the U.S. public school system in the school year of 2022-2023. Additionally, in the same academic year of 2022-23 the statistic adjusted to be “more than 66% of children with disabilities were in the general education for 80% or more of their day” (U.S. Department of Education). With the rise of students with disabilities in the general education classroom, a 2015 declaration from The United Nations Educational, Scientific, and Cultural Organization (UNESCO) served to commit several countries in the establishment of inclusive education for all students by the year 2030.

Inclusion, defined as “students with disabilities (SWDs) receiving some or all their instruction in the general education setting as appropriate to meet students’ academic and social needs. Instruction is provided independently by a general education teacher or in collaboration with a special education teacher or related services provider” (McCray & McHatton, 2011) provided in the article, “‘Less Afraid to Have ‘Them’ in My Classroom’: Understanding Pre-Service General Educators Perceptions about Inclusion” by McCray & McHatton published in *Teacher Education Quarterly*, Edition Fall 2011. With countries around the world advocating for more inclusion in their educational system, there has been research focused on preparing general education teachers to teach in inclusive classrooms. One direction research has been applied in helping prepare general education teachers is through provided teacher preparation programs at universities by educating them on inclusive practices. Studies have found that pre-service teachers are more likely to adopt to a more positive outlook on inclusion and towards students with disabilities if they are taught about these practices during preparation courses (Forlin, et

al.,2009; Harvey, Yssel, Bauserman, & Merbler, 2010). Going into the education system with more positive attitudes “toward inclusion among pre-service general educators appear to be one prerequisite of successful inclusion” (Cook, 2002). Universities took notice of these studies and have implemented more special education courses in their programs or have integrated special education content into general classes. Over the years, research has been conducted on the attitudes of pre-service teachers towards students with special needs, especially by means of data collection in surveys focused on attitude changes of pre-service teachers’ outlook on inclusion.

### **Purpose**

How do teacher preparation programs at different universities prepare and affect pre-service teachers’ perceptions towards teaching students with all different abilities in their future general education classrooms? “Researchers have concluded that pre-service training may be the optimum time to address educators' concerns and change any negative attitudes about inclusive education... (therefore) knowledge of how to accommodate students with disabilities and fostering positive attitudes when working with these students are necessary for pre-service teachers” (Ajuwon et al, 2012). There is research to support when at least one special education course is required for general education teacher preparation degree, it positively influences pre-service teachers to have a better outlook on inclusion and students with disabilities, as well as their feelings of preparedness to effectively teach a diverse classroom. Much of these studies are focused on surveying the pre-service teachers by gauging their attitudes and beliefs after gaining knowledge on the topic of special education and inclusion. The research on this topic was tied together though pre-service teacher perceptions yet split into different focuses based on the research practices used in cited studies. The studies were distinctively divided by the type of surveys taken from preservice teachers either, taking a single special education course, taking a

special education course with a field experience, or from preservice focused education on the integration of inclusive practices into the general education courses. Throughout this literature review and analysis, the focus will follow the common themes amongst the ten research studies as well as the gaps in the research.

Post research review of the surveys highlighted their themes, the common idea that was highly supported was that teacher preparation courses need to make a more significant change in their programs to help general education teachers not only feel more positively towards those with disabilities, but also increase the felt preparedness to teach those students in the classroom.



## **Chapter 2**

### **Methods**

#### **Data Collection**

The keywords and phrases used to find literature for this review were preservice teacher, inclusion, special education, attitudes, preparedness, and teaching. Every article focuses on the United States public education system and discussed the attitudes of pre-service general education teachers. While some studies included broader information regarding university faculty and preservice special education teachers, the articles had specific data on preservice general education majors, and that was what was used in focus. The key words were used interchangeably with one another in order to keep bias out of the research of articles. The searches included: “pre-service teacher” AND “inclusion”, “special education” “attitudes” OR “feelings”, “perceptions of preparedness” AND “special education”, “teacher preparation” OR “preservice teacher”, “general education preservice teacher” AND “attitudes towards special education”, “inclusion” OR “special education”. Seven of the referenced articles were found through this search process while two others were found in the reference page of the article, “Designing Effective Pre-Service Teacher Training in Inclusive Education: A Narrative Review of the Effects of Duration and Content Delivery Mode on Teachers’ Attitudes Toward Inclusive Education” (Khamzina, Stanczak, Brasselet, et al., 2024). While the article’s search and analysis emphasized studies from around the world, the focus of this paper was on the United States public education system, so articles that were picked from the reference page aligned with the conducted study.

## **Organization of Information**

In this review, the information will be organized by similar themes as those presented in associated references. These themes and patterns were found in the methods and results of the different studies. One of the common themes was the idea that including a special education course in a teacher preparation degree improved preservice general education teachers' outlooks on students with disabilities. Another commonality amongst the articles was the positive effect of adding a special education field experience alongside a special education course. Other articles identified an increase in collaboration between general education teachers and special education teachers by improving their outlooks on inclusion of students with special needs in the classroom. A preservice course or complementary course that provides pre-service educators with tactics to help an inclusive classroom did in fact increase attitudes towards inclusion. While the attitudes that support inclusion correlated to higher performing inclusive classrooms, lack of personal experience in an inclusive classroom setting ahead of entering the workforce was a common note that correlated to less preparedness in the classroom even with pre-service courses.

## Chapter 3 Review of Additional Special Education Course

### Shippen et al. 2005

In 2005, Shippen et al. focused its research on the attitudes and perceptions preservice teachers had towards teaching in an inclusive classroom. The goal was to measure the beliefs preservice teachers bring into the classroom about students with disabilities (SWDs) to improve the teacher preparation program to dispel misconceptions and improve attitudes on SWDs. Shippen et al. based the Preservice Inclusion Survey used in the study from a modified version of the Response to Inclusion Survey (Soodak, Podell, and Lehman, 1998). Both surveys used two dichotomous scales (i.e., hostility/receptivity and anxiety/calmness) to assess the participants viewpoints and attitudes.

The survey was administered to students at three universities across the United States with students from three different majors. Out of 326 undergraduate and graduate preservice participants, 46% were future general educators, and when separating by class ranking, 46% of the participants were undergraduate students ranging from freshman (3%), sophomores (16%), juniors (17%) and seniors (11%), then there were about 3% that did not respond.

These university students were administered the survey on the first day of their introductory special education course and on the last day of the course. By the end of the course, the preservice educators should be able to identify the characteristics and causes of hearing impairments, learning disabilities, intellectual disabilities, behavioral disorders, and physical disabilities. Additionally, university students should know the interventions needed for students with the disabilities listed above.

The data was analyzed using a “test-retest analysis, a content validity analysis, a confirmatory factor analysis and a repeated measures multivariate analysis of variance

(MANOVA)” (Shippen et al., 2005). From this data analysis, Shippen et al. found general educators increased in their receptivity and calmness at the idea of teaching in an inclusive classroom. Comparing the growth in the two dichotomous scales (hostility/receptivity and anxiety/calmness), the data revealed the future general educators had the highest increase in calmness. On the 5-point scale with 1 being negative and 5 being positive, the mean of future general educators’ responses on the anxiety and calmness dichotomy increased from 2.56 to a mean of 3.10 (Shippen et al., 2005). This shows that while future general educators came into the course with the most anxiety working with students with disabilities, the content from this course significantly helped them grow more confident to teach those children. While the future general educators increased on both dichotomous scales, the data revealed the results on hostility/receptivity scale did not increase past a neutral category.

Since the future general educators still had some resistance in their survey responses to teaching in an inclusive classroom, Shippen et al. recommended teaching preservice teachers about co-teaching and collaboration in inclusive classrooms to make them more open to diverse possibilities.

#### **Ajuwon et al. (2012)**

Based off the work of Shippen et al. (2005), Ajuwon et al. conducted a similar study on pre-service teachers’ perceptions of including SWDs in the general education classrooms (2012). Ajuwon et al. (2012) used the modified PSIS (Shippen et al., 2005) to conduct his research on preservice general education teachers at three different universities in the southwestern and midwestern areas of the United States. Shippen et al. (2005) recommended the survey study to be repeated and focused on specific disabilities to see if preservice teachers have different attitudes towards students with different disabilities. In this study, the PSIS was modified to “measure the

degrees of hostility-receptivity and anxiety-calmness of educators toward inclusion of students with Attention Deficit Hyperactivity Disorder (ADHD), autism, learning disabilities, emotional/behavioral disorders, or intellectual disabilities” (Ajuwon et al., 2012). The background of the preservice educators’ experience was another factor considered and analyzed in this study.

Administration of the PSIS survey was similar to that in Shippen et al. survey. In this study, some of the courses from the university were administered online, so there was a mix of online and hard copy surveys being taken. There were 116 future general educator participants, and out of those participants, 90.5% of them were undergraduate students. 42.2% of participants were elementary education majors, 31% were middle level education majors, and 37% of participants identified as studying secondary education.

The data analysis included “the effect of various factors on participants’ attitudes toward inclusion (so), a repeated measures multivariate analysis of variance (MANOVA) with time (pre and post) as within-subject factor and six between-subject factors was conducted” (Ajuwon et al., 2012). The six between factors also being analyzed included the prior or lack of prior interaction with PWD, prior or lack of prior training teaching a SWD, the prior or lack of prior experience teaching SWD, prior knowledge of legislation and policies for children with disabilities, and prior or lack of prior confidence teaching a SWD. The six between-subject factors were not performed in the previous study by Shippen et al. (2005).

Like the results from Shippen et al. (2005), the data from the Ajuwon et al. (2012) study “indicated that, after taking their introductory special education course, participants’ attitude toward working with children with disabilities became significantly more positive” in both dichotomous scales (i.e., hostility/receptivity and anxiety/calmness). The factor of prior

interaction with people with disabilities had a significant effect on the attitude changes of participants. “This indicated that overall, the increase in positivity of attitude of participants who had prior interaction with people with disabilities was significantly larger than that of those who had no such interaction” (Ajuwon et al., 2012). These differences occurred in both dichotomous subcategories. Additionally, university students with prior confidence teaching a SWD was seen to lead to a more positive attitude increase at the end of the introductory course.

From this study as well as past studies, there are recommendations for universities to embed coursework on special education into all general education courses as well as provide high quality field experiences in inclusive settings and include meaningful diverse experiences with people with disabilities.

#### **McCray & McHatton (2011)**

In the study done by McCray and McHatton in 2011 looked at the change of perception and attitude general education majors had after taking an introductory course on special education at a university in Southeastern United States. Similar to the course design in the past two studies, the course provided future general educators a wide-ranging introduction to characteristics of different disabilities, their role as a general educator, strategies in teaching students with special needs, and legal policies enacted for people with disabilities. The survey in this study was based of the survey used in McHatton and McCray article where similar research was conducted. Similar to Ajuwon et al., McCray and McHatton wanted to see if preservice teachers differed in their attitudes towards different disabilities. The participants in this study comprised of 77 undergraduate elementary education majors and 38 undergraduate secondary majors who completed the course in the fall of 2006, spring, or summer of 2007.

The survey was distributed to multiple sections that were offered for the course, and the survey was completed on the first and last day of class. When the survey was distributed on the last day of class, five open ended questions were added to gain a better understanding of the knowledge preservice teachers took from this course. The quantitative data was analyzed using “descriptive statistics including frequency of percentages of responses and a repeated-measures ANOVA to determine change from time 1 to time 2, and differences between groups” (McCray & McHatton, 2011). From this data analysis, McCray and McHatton determined there was a positive increase of perceptions towards inclusion after the preservice teachers completed the course. McHatton & McCray (2007) revealed significant differences between the results of secondary education majors and elementary education majors where they found elementary education majors had a more positive perception of SWDs than secondary education majors. In contrast to their past research, in McCray and McHatton (2011) study, the results showed no significant difference between majors,  $F(.009, 114)=.654, p>.05$ .

While the quantitative data showed more positive perceptions towards SWDs, “30.4% either did not agree or were undecided when asked if they believe most SWDs could be educated in the general education classrooms” (McCray & McHatton, 2011). The preservice teachers were most hesitant to include students with intellectual disabilities and multiple disabilities in their classroom; however, majority of participants “agreed that students with learning disabilities (97.3%), hearing impairments (92.1%), and health impairments (90.5%) could be taught in the general education classrooms” (McCray & McHatton, 2011).

The open-ended questions revealed elementary majors had more of an emotional change because of taking the introduction course while the secondary majors had more of a knowledge and skills change. Even after taking this course, both elementary and secondary education majors

still had questions about collaboration, behavior management, legal issues, interventions, the referral process, and how to support all students (McCray & McHatton, 2011). Looking overall at the responses in the survey, McCray and McHatton saw more affective changes towards inclusion and SWDs rather than a knowledge and skills improvement. Additionally, McCray and McHatton (2011) noticed preservice teachers referred to students in a deficit perspective which can show compliance for inclusion rather than acceptance. Additionally, the preservice teachers were more receptive to students with certain disabilities (i.e., learning disabilities). McCray and McHatton (2011) considered the possibility that a perception change without adequate growth in knowledge and skills would not lead to sustainable changes in behavior.



## Chapter 4 A Review of Special Education Course with Field Experience

### Yellin et al. (2003)

In the 90s, “Askamit (1990) argued that as our school population became more diverse and special needs students were included in the regular classrooms teacher preparation programs would have to change to meet these needs” (Yellin et al., 2003). Since then, universities incorporated a single introductory course on special education for undergraduate general education students. While studies have proven that adding an introductory course to a teacher preparation course does in fact improve the attitudes of preservice teachers towards inclusion, many of these studies also call for more meaningful experiences for preservice teachers with people with disabilities. “The National Council for the Accreditation of Teacher Education (NCATE, 1995)), has long advocated the used of field experiences such as classroom observations, tutoring, student teaching, and internships as an excellent way to prepare pre-service teachers for the rigors of the classroom” (Yellin et al., 2003).

Yellen et al. (2003) conducted a study on three groups of elementary education majors from Oklahoma State University who enrolled in an introductory special education course. One section of the course was taught at an elementary school site while the other two sections had a traditional setting on campus. Surveys were sent out on the first and last day of each section’s class. The study consisted of 55 participants, and the students chosen for the course with the field experience were chosen based off their GPA and an interview. In addition to the on-campus lectures, the university students observed a general education teacher at a local elementary school three days a week. During that observation, they assisted with classroom management, worked with small groups, and tutored students with exceptionalities. “By the end of the

semester, these students had spent an additional 300 hours in the field prior to student teaching” (Yellin et al., 2003).

Data was analyzed using a multivariate analysis of covariance with repeated measures (MANCOVA) where the “students’ pre-test responses were used as a covariate to control for initial group differences in attitudes toward children with disabilities. The three groups served as independent variables and attitudinal change as the repeated measures variable” (Yellin et al., 2003). The findings revealed the preservice teachers from all sections reported having more positive perceptions and attitudes towards students with disabilities in the general education classroom. On a scale from 1 (negative attitude) to 6 (positive attitude), the means from the postsurvey ranged for the whole group from 3.13 to a high of 4.02 (Yellin et al., 2003). When looking at the more specific factors being analyzed, the data showed that ‘Section 1’ which was one of the traditional sections had a ‘significantly higher attitudinal change (Premean = 3.80, Postmean = 4.02) than Section 2 (Premean = 3.95, Postmean = 3.96) or the ExCel Group (the field experience group) (Premean = 3.57, Postmean = 3.60)” (Yellin et al., 2003). They explained that the ExCel or field experience group saw firsthand the challenges and the reality of working in an inclusive classroom through their field experience and it could have made them more cautious and thoughtful in their responses.

From this study, Yellin et al. determined that an introduction course to special education does increase positive attitudes towards including students with disabilities in the general education classroom. This study also revealed that field experience integrated into a semester long course does not increase these attitudes any more than a traditional course. In actuality, the growth in positive attitudes was less than one of the traditional course sections. The recommendation from the authors for teacher preparation programs is to integrate special

education topics and experiences throughout the teacher preparation program (Yellin et al., 2003).

### **Swain et al. (2012)**

The Swain et al., (2012) study investigated how implementation of a 20-hour field experience in addition to a semester long introductory course in special education changed future general educators' perceptions and attitudes towards inclusion and SWDs. To determine the change of the preservice teachers' beliefs and attitudes, Swain et al. used a modified version of the Attitude Toward Inclusion Instrument survey (Yates, 1995).

The total participants for the study ended up being 777 students with most participants being either elementary or secondary education majors. The survey was administered online during the first two weeks and last two weeks of the semester. After taking the second survey at the end of the year, students were asked to reflect on any changes in their beliefs and attitudes towards inclusion compared to their beliefs at the beginning of the semester. Students were allowed to read back on their survey responses from the first two weeks.

Like the findings in Yellin et al., the data results revealed a significant positive attitude shift in pre-service teachers towards inclusion. For example, in the survey, responses to Item 3 (given the current structure of the classroom, it is feasible to teach students with disabilities, students who are gifted, and students without disabilities in the same class with minor changes within the classroom) increased more positive responses. The open-ended question answered in the post-course survey also gave great insight into the change of beliefs for the preservice educators. Many teachers commented that they learned how accommodations are more feasible to implement than previously considered, and that inclusion improves socialization and peer

relationships for all students in the classroom. Their responses shared examples from their field experience where they had these new insights into inclusion.

While Swain et al. (2012) did not compare his experimental group to a control group, his analysis of the responses to the open-ended question not only changed the attitudes and perceptions preservice teachers had towards SWDs, but the results showed preservice teachers felt more confident in their knowledge and skills to teach in an inclusive classroom (Swain et al., 2012). The researchers believe including the field experience provides preservice teachers with a more realistic perspective on inclusive practices and allows them to see how the information they learn in school is implemented in a real classroom (Swain et al. 2012).

## **Chapter 5 A Review of Special Education Integrated in General Education Courses**

### **Lombardi & Hunka (2001)**

Lombardi and Hunka (2001) conducted this study on the five-year education program at West Virginia University where special education topics are integrated into the program and its learning outcomes. In the study, 72 out of the 83 participants declared an elementary or secondary education. The survey was based on the preservice teacher's perception of the learning outcomes they have obtained through the program as well as faculties' perception of how well they taught the learning outcomes in their courses. In the teacher program at West Virginia University, preservice teachers were expected to learn 10 specific special education learning outcomes and 28 competencies throughout their program (Lombardi & Hunka, 2001). To assess participants off of this standard, the survey consisted of quantitative questions, open-ended questions, and phone interviews were conducted with six of the participants.

The results were compared amongst class rankings (second, third-, and fourth-year students), and the data revealed the fourth- and third-year students felt they acquired more learning outcomes than second year students. Out of all class groups, fourth year students were most likely to label themselves as competent and confident in their abilities to teach students with special needs in their future classroom. Third year students were most likely to consider themselves competent and not confident while second year students were most likely to feel they are neither competent nor confident. The results from the comments section of the student questionnaire revealed students from all class rankings believe more classes on special education are needed in the program. According to 25% of the third-year students and 15% of the fourth-year students, the exposure of working in a classroom with SWDs was significant in obtaining the special education learning outcomes and competencies.

From the data, Lombardi, and Hunka (2001) determined the program still needs improvement based off the 25% of fourth year students neither feeling confident nor competent in their abilities to work with SWDs. Overall, there is a positive growth in students obtaining the learning outcomes and competencies from their second year in the program to the fourth year thus showing that the integration of special education topics in general education courses improves preservice teachers' knowledge and confidence in teaching these students in their future classrooms.

### **Brown et al. (2008)**

In this study, Brown et al. (2008) observed how teaching preservice teachers how to adapt assessment for students with learning disabilities in a general education assessment course would influence the preservice teachers' perception of preparedness to work with students with learning disabilities. Participants for this study attended a regional university in Pennsylvania and completed the integrated course in the fall of 2006. This study at 208 participants, and 62.1% of all participants were elementary and secondary education majors. To assess knowledge attained from the course and changes in attitude towards students with learning disabilities, the survey used open ended responses and dichotomous formats (i.e., agree/disagree). The survey was administered on the first and last day of the course.

For this study, there was a control group and an experimental group where the experimental group had the added information about how to adapt assessment for students with learning disabilities infused into the curriculum. In the survey, preservice teachers were asked to provide definitions of learning disabilities and intellectual disabilities (referred to as mental retardation in the article). When comparing the answers of the control groups and the treatment group, 84% of the participants correctly defined 'mental retardation' while only 47% of the

control group participants correctly defined it. For the definition of ‘learning disabilities’, 93% of the participants from the experimental group defined it correctly while only 38% of the control group correctly defined it. The pretest data revealed the treatment group, nor the control group had prior instruction on these terms before completing the course. In confidence and attitude, the treatment group had significant more confidence meeting the needs of students with learning disabilities and adapting assessment to those needs compared to the control group.

All in all, the integration of adapting assessment for students with learning disabilities proved to increase preservice teachers’ confidence, knowledge, and positive attitude surrounding inclusion of students with learning disabilities (Brown et al., 2008). Additionally, Brown et al. discussed how the knowledge attained from this treatment group was evident in their abilities to generate a large number of “appropriate interventions directed at the construction and administration of traditional tests targeted at specific types of learning disabilities” (2008).

## Chapter 6 Discussion

Shippen et al. (2005) and Ajuwon et al., (2012) were two studies where the results proved the implementation of a special education class produced more positive perceptions on inclusion and students with disabilities; however, Ajuwon et al. (2012) discussed how preservice teachers with prior experience working with students with disabilities had a higher post-test results on both dichotomous scales. Both Ajuwon et al. (2012) and Shippen et al. (2005) advocated for more field experiences and genuine interactions for preservice teachers with people with disabilities. Swain et al. revealed that including a field experience in addition to an introductory course on special education increases positive attitudes and makes preservice teachers more confident on their abilities to teach in the classroom (2012). In addition to increasing preservice educators', Swain et al. discusses how the field experience showed the reality of inclusion which will help preservice teachers be more prepared to work in an inclusive classroom in the future.

The reality that comes with a field experience was also present in the study done by Yellin et al. (2003). The results revealed how students from the treatment group increased less than one of the control groups in their positive perceptions on inclusion. As mentioned earlier, Yellin et al. explains the reason for the slight increase was the reality of working in an inclusive classroom (2003). Similar to other classrooms, the inclusive classrooms the students worked in had its own challenges, and while those challenges are unknown, having a more realistic perspective is better than having idealistic perspective (Swain et al., 2012).

These articles also discussed the need for more knowledge and skill development in special education by preservice teachers. McCray and McHatton (2011) discussed how their survey showed the growth in affective categories (i.e., empathy, patience, and understanding), but did not see much growth in knowledge and skills. In order to for preservice teachers to go out



into the field and practice the beliefs they were taught in their future classroom, these articles called for more knowledge on how to implement inclusive practices, and how to build an environment that is adaptable to all needs. Swain et al. found the participants in their study had a strong knowledge and skillset after completing the field experience along with the introductory course (2012). Many of the teachers from this study mentioned that the experiences in the field helped them grow their knowledge and skills to become more confident in their abilities in an inclusive classroom; however, the results from Yellin et al. (2003) had different results. While the field experience gave preservice teachers a more realistic view of inclusion, the researchers noticed the language used in the open-ended questions caused concern for deficit perspectives on students with disabilities (Yellin et al., 2003). Additionally, ‘othering’ language was used in many of the responses from the preservice teachers in the treatment group. Yellin et al. discussed how these responses revealed that even with a course and field experience on special education, preservice teachers still did not understand what inclusion was supposed to be and their perspective could lead to a limiting environment.

## Chapter 7

### Limitations of the Study

This study had potential limitations that could potentially affect the scope in which the information could be applied or related, specifically regarding the theoretical, methodological, and analytical collection of data. The research related limitations that affected data procurement were most affected by the lack of relevant data with heavy research in recent years. Recent information applicable to the topic was especially hard to come by as the focus of preservice teachers' attitudes and preparedness between university education and general classroom application is not a widely surveyed topic. While the sample size was decent, a scope of limitations that may have been affected was due to a lack of diverse participation from many universities and grade level public schools, increasingly more so across different states, and districts. Another substantial limitation of the study is due to the timeline in which much of the legislation and public sentiment pushing change in public institutions, the change over time has been rapid and highly implemented, and as such many of the support structures and research information pertinent to this topic are very new and have little corroborated and repeated data sets. Finally, the last limitation of the study was related to self-reported data, as these compiled studies all had volunteers answering surveys.

The implication of the related limitations is most transmutable to the point of how to best use the data. The information collected from the research is highly pertinent to university courses, preservice teachers, and coursework, and speaks to greater need of resources and reliable data regarding inclusion coursework and experience before entering the classroom. This also means how best to apply the data to make future decisions harder to use in specific capacity, but more relevant to a greater body of preservice teachers in higher education simultaneously.

### **Alternative Approaches for Future Studies**

In future related studies, the largest impact of accurate data and its application would be to have more specific, diverse, and widespread studies covering the topics of preservice preparedness/knowledge, inclusion perceptions, and attitudes. By systematically doing studies on each of these topics, individually, and then repeating the research methods across different districts, states, and diverse schools, more applicable and greater understanding of the data would provide means to make more specific and effective conclusions. The most significant change to apply to study directly correlating to this topic would be to implement a chronologically based, change over time study that last multiple semesters with the same students. This study would measure the effect that an entire program had on preservice teacher perceptions of preparedness and inclusion attitudes by means of disability exposure, courses that promote and teach inclusion, and multiple field experiences ranging from general classroom to special education classroom experiences. The results of a broad, in depth, and highly diverse statistical analysis on this basis would carryover a valuable amount of information that could be referenced and applied at multiple levels of academia, depending of overall student success, from the individual and an outside administrator.

## **Chapter 8**

### **Conclusion**

With each approach discussed in this review, there is a necessity to research a different approach and see if it can be better. Research all in all is investigating the multiple routes one can take in a certain field of study. While these approaches to educating preservice teachers on inclusive practices are comparable to one another, they can also be combined. A standalone course combined with a 20-hour field experience was completed in Swain et al. (2011) and was proved to produce positive results; however, Yellin et al. (2003) discussed how the knowledge and skills needed to teach in an inclusive classroom cannot be taught in one semester alone. Teacher preparation programs should continuously find ways to improve and update their programs to prepare preservice teachers for the type of environments they will see as educators. Inclusion was included back in 1975 with the Education for All Handicapped Children Act, and the conversation on better preparing preservice teachers for the reality of inclusive classrooms is still a discussion.

While these articles focused on how to prepare preservice teachers for inclusive classrooms, there is also the discussion of preparing the United States public school system to better support students with disabilities and their teachers in the classroom. In 2023, the challenges of finding teachers to hire for the 2023-2024 school year was reported by 86% of U.S. K-12 public schools (National Center for Education Statistics). 53% public schools reported being understaffed in the last academic school year, and about 47% felt understaffed for the upcoming school year. “Among public schools employing these positions, the top two most prevalent teaching positions that needed to be filled entering the 2023-24 were general elementary teachers (71 percent) and special education teachers (70 percent)” (National Center

for Education Statistics). Swain et al. (2012) and Yellin et al. (2003) discussed the reality of inclusion helping teachers see more of the practical implementation of the theories and strategies they were learning in school. If these studies were conducted in the 2023-2024 school year, what would the reality be? As the U.S. public school system continues to advocate and move forward towards more inclusive classrooms, how are the schools adapting and supporting the teachers who are willing to integrate students with disabilities into their classrooms?

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