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# An Exploratory Survey of Teacher Candidate Knowledge of Special Education

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Emilee Spann

An exploratory survey of teacher candidates' knowledge of special education law

East Tennessee State University

### **Abstract**

The Individuals with Disabilities Education Act (IDEA) has played a critical role in providing educational opportunity to students with disabilities. As the principles of the IDEA are foundational to teaching students with disabilities, it is necessary that both general education and special education teachers have an understanding of special education policy. This study examines teacher candidates' knowledge of special education policy and their attitudes and perceptions of special education. The survey was distributed to teacher candidates in their final year of their teacher preparation program at a public university in the Southeast. Results indicated that teacher candidates in all teaching areas lacked knowledge of special education law. A difference was seen in the knowledge of special education and general education teacher candidates, as special education candidates had significantly higher knowledge. Teacher candidates who had higher perceived levels of knowledge also had higher actual knowledge, and candidates with lower perception also had lower knowledge. Implications of these results for educator preparation programs and current teachers are discussed.

**An exploratory survey of teacher candidates' knowledge of special education law**

In 1975, the Education for All Handicapped Act (EAHCA) was signed into law, the first significant federal initiative to provide an appropriate education to students with disabilities (Katsiyannis, Yell, & Bradley, 2001). The EAHCA established that students with disabilities have the right to a free and appropriate public education and all individualized services that are needed to provide this, that families have procedural safeguards to protect their participation in educational programming, and the ways in which states can receive funding for the education of students with disabilities (EAHCA, 1975). The EAHCA has been updated and amended in the years since its initial passage, and in 1990 the EAHCA became the Individuals with Disabilities Act (IDEA). The IDEA was then reauthorized again as the Individuals with Disabilities Improvement Act of 2004 (IDEIA). In its original form, the main goal of the IDEA in many ways was access to education. Prior to 1975, a large number of students with disabilities were entirely excluded from public school and the passage of the EAHCA established that all students had a right to education. In the subsequent versions of the IDEA, as education has become accessible to students at all ability levels, the focus has shifted to the quality of the education that students with disabilities are receiving.

The IDEIA mandates the provision of education for all students with disabilities through six principles: free and appropriate public education, appropriate evaluation, individual education program, least restrictive environment, parent and student participation in decision making, and procedural safeguard (IDEIA, 2004). The application of each of these principles in the educational experience of students with disabilities is critical in providing an education that is meaningful and beneficial. These principles outline the ways in which teachers, parents, school districts, and students should work together to meet the individualized needs of a student

receiving special education services. Each person who is involved in a student's education should be aware of the ways in which they can best serve the student. For students with disabilities, an adequate understanding of the IDEA and its six principles is necessary in order to effectively meet their educational needs while adhering to the law.

While special education teachers play a significant role in the education of students with disabilities, a large number of students receiving special education services are taught in a general education classroom setting for at least part of the day. Over 60% of students with disabilities spend at least 80% of their time in general education classes (U.S. Dept. of Education, 2019). This means that the responsibility of understanding and implementing special education law falls on both special education and general education teachers.

The primary means by which teachers receive training and instruction on special education law is through their college or university's teacher education program. Many of these programs require only one introductory course on special education for general education teacher candidates. The question, then, is whether teacher candidates across all disciplines enter the workforce with adequate knowledge and preparation to serve the students with disabilities who will be in their classrooms.

### **Literature review**

**Background.** Over the years, there has been much research in the field of special education on a variety of topics. One area which lacks sufficient research, however, is teacher knowledge of special education law. The laws and policies put in place for educating students with disabilities provide an outline of how teachers can ensure that students in special education receive an education that is individualized, meaningful, and appropriate for their needs. Additionally, disputes arising from disagreements between parents and schools concerning

eligibility for and provision of special education services can lead to costly mediation and due process hearings. In the 2017-2018 school year, there were over 11,000 requests for mediation and 18,000 due process complaints filed across the United States, which can require significant time and financial commitment from both families and school to resolve (CADRE, 2019). It is necessary, then, for all teachers who will teach students with disabilities to have an adequate knowledge of the law to know how to provide them with a high-quality educational experience.

The right to a quality education for all students, regardless of disability, is something that was only established in the United States in the latter half of the 20<sup>th</sup> century. Prior to the passage of the Education for All Handicapped Children Act in 1975, the opportunities for children with disabilities to receive an education were incredibly limited. Despite the fact that compulsory education was mandatory across all states by 1918, children with disabilities were often not allowed to attend public schools (Yell, Rodgers, & Rodgers, 1998). The exclusion of children with disabilities was upheld through the early part of the 20<sup>th</sup> century through various court cases and statutes across states (Yell, et al., 1998).

A turning point in the fight for education for students with disabilities came in 1954 with the *Brown v. Board of Education* court case. *Brown* (1954) established that equal protection under the law, guaranteed by the 14<sup>th</sup> amendment, extended to the education of all citizens, including those with disabilities. This case provided the precedence upon which later court cases and legislative initiatives addressing special education were based (Yell, et al., 1998). Two such court cases occurred in 1972, *PARC v. Commonwealth of Pennsylvania* and *Mills v. Board of Education*, and the rulings established that students with disabilities did have a right to education (Yell & Katsiyannis, 2001). These landmark cases paved the way for the development of

legislation that would outline a federal expectation for the quality and means of education that should be provided, namely the Education of All Handicapped Children Act (1975).

Since then, access to education for students with disabilities has expanded dramatically, and subsequent reauthorizations of the EAHCA continued to expand upon this progress. Across these updates to the legislation, the six principles, which create the foundation of special education, have remained consistent. It is vital, then, to understand what these principles are and what their implementation looks like in classrooms and schools.

The first principle of the IDEA is “free and appropriate public education” (FAPE). A FAPE is an education that is provided at no cost to families and provides specialized instruction, support, and/or services to support the specific needs a student with a disability (Katsiyannis, et al., 2001). Students who are eligible for special education services must be provided with those services, regardless of the severity of student’s disability. Students from birth to 21 who are suspected of having a disability must be identified, located, and evaluated. In order to fulfill this mandate, states must implement a child find system, which includes a plan for activities and resources that will identify students with disabilities for evaluation (Yell, 2016). The responsibility of identifying students who may have a disability falls on schools, not parents, which is why child find systems are in place to ensure that no students who are in need of special education services are missed. The FAPE principle also encompasses the idea of “zero reject,” which requires that all students who have a disability be identified and evaluated, so that the necessary special education services can be established to provide students with a FAPE. This provision of services ensures that students with disabilities to receive a free and appropriate public education.

When students are evaluated to determine eligibility for special education, the IDEA outlines expectations for the evaluation process. This is the “protection in evaluation” principle and is in place so that the assessment procedure for placement in special education is reliable and accurate (Katsiyannis, et al., 2001). The decision about special education eligibility cannot be made on the basis of only one test; a multidisciplinary team should use a variety of methods to gather information about the student and cannot use a single assessment as the only indicator of special education eligibility (Yell, 2016). Assessments should be free from racial and cultural bias and should be administered in the student’s native language (IDEIA, 2004). A parent, teacher, or other school personnel can request a referral for special education, but parental consent must be obtained prior to beginning to evaluate a student. Once parental consent has been given, schools must complete the evaluation within 60 days (IDEIA, 2004). These standards for the process of evaluation ensure that the resulting decision is fair and accurate, leading to special education services that effectively provide students with a free and appropriate public education.

The primary means by which schools are able to determine what is needed to provide special education students with a FAPE is through the development of an individualized education program (IEP), the next IDEA principle. A student’s IEP should be the basis for the services and instruction that the student will receive. IEPs should be developed by an IEP team that consists of a special education teacher, a general education teacher, a local educational agency representative, such as a principal, a person who is able to interpret the results of evaluations, the student when appropriate, and other relevant personnel, such as related service providers (Yell, 2016).



According to the IDEIA (2004), an IEP contains many sections which elucidate the educational plan for students with disabilities, including: an explanation of the student's present levels of academic achievement and functional performance, a statement of measurable annual goals, a description of how the student's progress towards these goals will be assessed and of the special education services which will allow the student to reach their goals, and statements that clarify the modifications, accommodations, related services, and other provisions which are necessary to provide students with disabilities with a FAPE. IEPs should also include goals and services related to a student's transition from school to post-secondary living, employments, and living if the student is 16 years old or older. The IDEIA (2004), defines a free and appropriate education as one in which services, "are provided in conformity with the individualized education program." It is critical, then, to develop an IEP that clearly outlines the goals, services, accommodations and modifications, and other individualized information that will provide a student with an opportunity for a quality education.

A key element of FAPE is the setting in which students are educated. It is a mandated that students be educated in the least restrictive environment (LRE), meaning that students should with disabilities should be educated in settings with their peers without disabilities as much as is appropriate, which is deemed by the IEP team (Osborne & Dimattia, 1994). The expectation of LRE also allows for a continuum of placements for students, so that students may be educated in separate placements if it is determined that it is necessary to meet a student's needs (McLeskey, Landers, Williamson, & Hoppey, 2012). In determining the appropriate placement for a student with a disability, IEP teams should consider the setting, with necessary supplementary aids and services, in which the student can effectively be provided with a FAPE (McLeskey, et al., 2012). Furthermore, legislation emphasizes the importance of considering

general education classrooms in placement decisions, stating, “special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily” (IDEIA, 2004). Placement decisions for a student with a disability are made by members of an IEP team, meaning that all members should have an understanding of what constitutes the LRE according to federal legislation.

The next principle of the IDEA is procedural due process. This refers to the safeguards that have been put in place throughout the IDEA to ensure that students with disabilities do indeed receive the services which create a free and appropriate public education. The safeguards protect students and parents and ensure that parents have the opportunity to be involved in their student’s educational decisions at every point in the process of special education (Katsiyannis, et al., 2001). The IDEA also outlines the right of both parents and schools to request a due process hearing if there is a disagreement regarding FAPE or other matters of a student’s special education services, as well as measures for mediation and dispute resolution that can be used prior to going forward with a due process hearing (Katsiyannis, et al., 2001). The IDEA requires that parents be provided with a copy of their procedural and due process rights when their student’s annual IEP meeting is held, when their student is initially evaluated, the first time they file a due process complaint, and when parents request a copy (IDEIA, 2004). This document should be provided in the parents’ native language and should be written in a way that is easily understood (IDEIA, 2004).

The final principle to examine is parental participation. Special education legislation emphasizes parental involvement throughout the special education process with goals of parents

having an active and valuable role in their child's education and developing a collaborative relationship between families and schools (Yell, 2016). Parental participation is mandated in the processes of evaluation, placement, and IEP development. Parents are included as members of the IEP team and parental consent is required for evaluation and implementation of special education services (IDEIA, 2004). Parents should also receive reports of their student's progress in the classroom, as frequently as parents of students without disabilities receive them (Katsiyannis, et al., 2001). As parental involvement is an integral component of student success throughout school, this principle is important in providing students with disabilities with a high-quality educational experience.

By analyzing the IDEA through each of these six principles, an understanding of what is necessary for teachers in providing students with disabilities with an education that is meaningful and beneficial for them can be established. The IDEA underscores that students with disabilities are entitled to a free and appropriate public education, and that such an education is individualized based on the needs of the student and family. The IDEA uses procedural safeguards to ensure that schools do what is needed to provide students with a FAPE. So, if teachers and schools are tasked with providing the students with disabilities in their classrooms with a FAPE, it is paramount that teachers hold a knowledge of the legislative requirements for doing so. Furthermore, this responsibility falls not only on special education teachers, but on all teachers who have students with disabilities in their classrooms. Since the initial passage of the EAHCA in 1975, special education placements have trended increasingly towards inclusion in general education settings for students with disabilities (National Center for Educational Statistics, 2019). As many students receiving special education services spend a majority of their

time in general education classrooms, it is critical that their teachers have a knowledge of special education.

The inclusion of students with disabilities in the general education classroom has consistently increased in the years since LRE was initially mandated in the EAHCA of 1975. According to the National Center for Education Statistics (2019), the percentage of students spending 80% or more of their day in a general education classroom increased from 32% in 1989 to 63.4% in 2017. Additionally, McLeskey, et al. (2012) noted that although a higher rate of increased general education placement occurred for students with high incidence disabilities such as learning disabilities (LD) and speech-language impairment (SLI), students with intellectual disabilities (ID) and emotional-behavioral disabilities (EBD) also experienced a substantial growth in general education placements. Morningstar, Kurth, and Johnson (2017) examined trends in placements of students with significant disabilities (autism, intellectual disability, multiple disabilities, and deaf-blindness) from 2000-2014 and found that the increase in time spent in a general education setting was less than that for other disabilities, but growth was still present. Specifically, they found that the number of students with autism (ASD) spending 40% or more of their day in a general education classroom increased from 40% in 2000 to 59% in 2014. As of 2015, 62% of all students with disabilities spent 80% or more of their day in a general education classroom (U.S. Dept. of Education, 2019). Based on this, the necessity of an accurate understanding of special education law is needed for both general education and special teachers, as students with disabilities are present in all academic settings.

**Previous studies.** Current research on the knowledge that teachers hold of special education policy shows that there is a lack of knowledge of special education law overall in teachers and teacher candidates (Brookshire & Klotz, 2002; Dretchen-Serpiglia & Kaufman,

2016; Hopps, 2002; Sanders, 2011; Sanders, 2013; Tilson & Scott, 2011; Wasburn-Moses, 2008).

In studies involving current teachers, results show an overall lack of special education knowledge, but a difference in knowledge between general education and special education teachers is apparent as well (Brookshire & Klotz, 2002; Dretchen-Serpiglia & Kaufman, 2016; Hopps, 2002; Sanders, 2013; Tilson & Scott, 2011). Brookshire and Klotz (2002) surveyed 300 general education and special education teachers to determine their knowledge of the IDEA and their perception of their own knowledge. They found that general education teachers had less knowledge of IDEA than special education teachers. Additionally, they found no relationship between participants perceived and actual knowledge (Brookshire & Klotz, 2002). Hopps (2002) surveyed 451 general education and special education teachers in rural and urban settings across multiple states in the Southeast to compare knowledge levels across these groups. They found that rural and urban special education teachers had more knowledge than their general education counterparts (Hopps, 2002). Sanders (2013) conducted a survey of 111 teachers in Missouri and found that both general education and special education teachers lacked knowledge of special education law. They did, however, find that special education teachers had a more accurate knowledge overall than general education teachers. Dretchen-Serapiglia (2016) surveyed 207 teachers and found that special education teachers held a more accurate knowledge than general education teachers, as well as elementary teachers in comparison with high school teachers. Additionally, O'Connor, Yasik, and Horner (2016) conducted a mixed-methods study of teacher knowledge of special education law and results indicated a lack of knowledge of the IDEA.

Several studies have also examined the perception that teachers have of their own special education knowledge (Brookshire & Klotz, 2002; Sanders, 2011; Sanders, 2013; Tilson, 2011). A higher level of perceived knowledge does not correlate with an actual knowledge of special

education (Brookshire & Klotz, 2002; Sanders, 2011; Sanders, 2013). Sanders (2013) found that those with higher perceived knowledge and training had higher accuracy in their knowledge than teachers who did not perceive their knowledge as adequate. Despite having a higher knowledge level, teachers who perceived that they had sufficient knowledge still showed a lack of adequate knowledge (Sanders, 2013). Tilson (2011) surveyed 301 general education teachers in a rural county in Northeast Tennessee to determine their self-reported perception of their knowledge special education policies and procedures and found that teachers generally did not have a high level of confidence in their knowledge.

Studies involving teacher candidates reflected that both general education and special education teacher candidates lack adequate knowledge of special education law (Wasburn-Moses, 2008; Sanders, 2011). Sanders (2011) surveyed 111 teacher candidates in a state university in the southern mid-west and found that participants lacked knowledge of special education, with no significant difference in knowledge between general education and special education teacher candidates. Wasburn-Moses (2008) conducted a qualitative study of 194 special education teacher candidates in Texas which asked special education teacher candidates to respond a vignette describing a scenario involving a student with a disability, with the purpose of assessing whether participants had an understanding of special education and instructional strategies that reflected the policy changes of the IDEIA of 2004 and the No Child Left Behind Act of 2001. Results showed that teacher candidates did not demonstrate an understanding that aligned with expectations of special education policy (Wasburn-Moses, 2008).

Current research consistently shows a lack of special education knowledge, but studies have primarily focused on current teachers, with fewer examining teacher candidates. This is significant because further examination of teacher candidates before they begin teaching is

necessary to determine how much knowledge is gained solely through special education courses at colleges and universities. By looking at teacher candidates specifically, it can be determined what specific areas are lacking in teacher preparation programs and where coursework should be adapted or changed. The Sanders (2011) study was conducted with all teacher candidates enrolled in education courses at a state university in the southern mid-west, meaning that participants in the study were at varying points in their coursework and may or may not have taken all necessary special education courses at the time of completing the survey. With the Wasburn-Moses (2008) study, it focused only on special education teacher candidates, so a comparison to general education teacher candidates was not possible. The purpose of the current study is to expand the research on teacher candidate knowledge of special education. This study seeks to examine the knowledge of teacher candidates in their final year in the teacher preparation program, to ensure that they have completed all relevant special education courses at the time of completing the survey. Furthermore, this study seeks to compare knowledge between general education and special education teacher candidates, as well as their perceived and actual knowledge.

**Research questions.** This study seeks to answer 3 research questions:

1. Do teacher candidates have an accurate knowledge of special education law?
2. Is there a discrepancy in the special education knowledge of teacher candidates across four groupings of education majors (special education, early childhood education, elementary education, and other)?
3. Is there a discrepancy between teacher candidates' perceived and actual knowledge of special education law?

## Methods

**Participants.** Participants were education majors at a public university in the Southeast. Eligibility was determined based on their enrollment in the Residency 1 course in the teacher preparation program, which is the course taken in the first semester of teacher candidates' final year in their program. This qualification was used in order to ensure that participants were education majors and had progressed far enough in their program of study to have already completed the special education coursework required for their program before taking the survey. There were a total of 178 students enrolled in Residency 1 in the semester that this survey was distributed. There were 66 elementary education majors, 35 early childhood majors, 12 special education majors, and 65 other education majors e.g. secondary, physical education, fine arts. A list of these students was provided through the field placement office of the college of education. A total of 55 responses were analyzed, yielding a return rate of 31%. Teacher candidates from both general education and special education programs were surveyed and participants teaching areas included special education, early childhood, elementary, English/language arts, social studies, math, fine arts, science, physical education, and foreign language.

For the purposes of analysis, participants were grouped as special education, early childhood, elementary, and all other education majors. There were 8 special education participants, 10 early childhood participants, 18 elementary participants, and 19 other education participants. Concerning their intended teaching area, 16.7% of participants reported early childhood, 33.3% reported elementary education, 13.3% reported special education, and 36.7% reported other areas (English/language arts, social studies, math, fine arts, science, physical education, and foreign language). Participants also reported the area they will be certified to teach: 50.9% of participants indicated that they will be certified in either early childhood or



elementary education, 13.3% will be certified in special, and 35.8% in other areas. Sixty-four percent of participants plan to teach at the early childhood or elementary level, 8.5% of participants plan to teach middle school, and 26.7% plan to teach at the secondary level. Regarding the community type in which participants intend to teach, 61% of participants indicated a preference for either rural or suburban communities and 38.3% of participants were uncertain. No participants reported an urban setting as their intended community type. A majority of participants indicated that they had completed 2 or fewer special education courses (74.6%) and 2 or fewer special education-related professional development activities (69.5%). The majority of participants were white (96.7%) and female (83.3%).

**Survey instrument.** This study is a replication of a previous survey conducted by Sanders (2011, 2013). The survey instrument used in this study was developed by Sanders, which includes 4 questions addressing perception and attitudes regarding special education and 24-questions measuring knowledge of special education law (Sanders, 2013). The survey was an online survey created through Qualtrics and distributed to teacher candidates via the field placement office of their college of education. After the initial email asking participants to complete the survey was sent, subsequent emails were sent from the field placement office after one week and two weeks. Participants who completed the survey had the opportunity to enter a drawing for an incentive of an Amazon e-gift card in order to increase response rates.

This survey was designed to measure the knowledge of special education law held by general education and special education teacher candidates. The survey also measured participants' attitudes and perceptions of special education and was created to compare the differences in knowledge between special education and general education teacher candidates, as well as examine the relationship between attitudes and perceptions and actual knowledge. The

survey included 24 questions to measure knowledge of special education law, with four questions addressing each of the six IDEA principles. Participants were asked to rate the accuracy of the 24 IDEA knowledge questions on a five point Likert scale: 1- yes, it is accurate, 2- it is probably accurate, 3- uncertain, 4- it is probably not accurate, 5- no, it is not accurate. It also included two questions about teacher candidate's perception of their knowledge of special education and two questions regarding teacher candidate attitude towards inclusion. The four questions addressing attitude and perception were measured on a five-point Likert scale 1- strongly agree, 2- agree, 3- uncertain, 4- disagree, 5- strongly disagree. The survey also included questions regarding descriptive characteristics: subject/age intended to teach, professional development, level of education, gender, and race/ethnicity.

**Data Analysis.** Data from the survey was imported from Qualtrics to SPSS for analysis. Frequencies and measures of central tendency were used to analyze descriptive characteristics for the attitude and perception questions. Means and frequencies for each of the four questions addressing attitudes and perceptions towards their knowledge and ability when dealing with disabilities in the classroom. These data suggested that, in general, students were uncertain or only somewhat agreed with the disability statements.

In response to the statement, "I am excited to have students with disabilities in my classroom," a majority of participants either somewhat agreed or were uncertain (57.7%), while 32.2% strongly agreed ( $M = 1.98$ ). In general, participants somewhat agreed or were uncertain (59.4%) about the statement, "I believe that I will have the skills to teach most students with disabilities in the inclusion setting when I graduate," while only 23.7% strongly agreed ( $M = 2.31$ ). Roughly half of participants somewhat agreed or were uncertain (50.9%) about the statement, "I believe I have sufficient knowledge of special education policies and procedures as

mandated by the Individuals with Disabilities Education Act (IDEA),” and only 23.7% strongly agreed ( $M = 2.47$ ). Finally, participants responded to the statement, “I believe that I have received adequate training on IDEA through coursework in my teacher education program.”

Only 16.9% of participants strongly agreed, and 42.4% somewhat agreed or were uncertain ( $M = 2.9$ ).

A five-point Likert scale used for the 24 IDEA knowledge questions was collapsed into a dichotomous scale (i.e., true and false) for analysis. Answers of “yes, it is accurate”, and “it is probably accurate” were scored as true and answers of “uncertain,” “it is probably not accurate”, and “no”, it is not accurate were scored as false. After collapsing the scale, means for each of the six IDEA principles and overall average scores were conducted as well. An ANOVA was run to compare knowledge and perception scores across teaching areas. Comparisons were analyzed between groups for each of the six IDEA principles and for overall IDEA knowledge, and perception of knowledge. Based on this data, scores were analyzed to determine statistically significant differences in knowledge and perception between special education and other teaching areas.

## Results

**Research question 1.** Do teacher candidates have an accurate knowledge of special education law?

The first research question addressed overall knowledge of teacher candidates across all teaching areas. Table 1 presents the mean accuracy and standard deviation on the 24 IDEA knowledge questions by IDEA principle. Overall, average accuracy for teacher candidates was low ( $M = 53.36$ ,  $SD = 12.03$ ), with the lowest accuracy on questions about non-discriminatory evaluation ( $M = 44.30$ ,  $SD = 22.67$ ) and the highest accuracy on questions concerning

Individualized Education Programs ( $M = 60.78$ ,  $SD = 16.30$ ). Based on these results, teacher candidates overall did not demonstrate accurate knowledge of special education law.

**Table 1:** Mean and standard deviation by IDEA principle

Principle	M	SD
FAPE	57.46	21.11
Non-discriminatory evaluation	44.30	22.67
LRE	52.16	18.31
Parental Participation	47.41	18.55
IEP	60.78	16.30
Due Process	57.76	20.52
Overall average	53.36	12.03

**Research question 2:** Is there a discrepancy in the special education knowledge of teacher candidates across four groupings of education majors (special education, early childhood education, elementary education, and other)?

In order to determine differences between general education and special education participants, an ANOVA was run to compare accuracy of teacher candidates across four groupings: elementary, early childhood, special education, and all other education majors. Table 2 presents results for each IDEA principle, overall average, and perception across each grouping. Results were analyzed to determine statistically significant differences between the special education group and each of the other groups. A significant difference in scores for overall average on all IDEA knowledge questions were found between special education and all general education majors ( $F(3,49) = 7.135$ ,  $p = .000$ ,  $\eta^2 = .304$ ) with SPED ( $M = 68.75$ ,  $SD = 6.68$ )

scoring higher than Early Childhood ( $M = 54.17$ ,  $SD = 11.11$ ), Elementary ( $M = 50.93$ ,  $SD = 8.03$ ), or other education majors ( $M = 48.53$ ,  $SD = 13.66$ ).

Comparisons for each of the six IDEA principles were also analyzed and significant differences were found for non-discriminatory evaluation ( $F(3,49) = 6.95$ ,  $p = .001$ ,  $\eta^2 = .298$ ), Individualized Education Programs ( $F(3,50) = 3.99$ ,  $p = .013$ ,  $\eta^2 = .193$ ), and procedural due process ( $F(3,50) = 4.03$ ,  $p = .012$ ,  $\eta^2 = .195$ ).

In order to identify the specific areas in which there were difference between the four groupings, results were analyzed using post hoc comparisons. Special education participants ( $M = 71.88$ ,  $SD = 16.02$ ) scored significantly higher than all three other groupings (early childhood:  $M = 45.00$ ,  $SD = 10.54$ , elementary:  $M = 43.06$ ,  $SD = 20.66$ , all other education majors:  $M = 33.82$ ,  $SD = 23.29$ ) in non-discriminatory evaluation.

The special education group ( $M = 75$ ,  $SD = .00$ ) demonstrated significantly higher knowledge than both the elementary ( $M = 52.78$ ,  $SD = 16.91$ ) and other teaching areas ( $M = 61.11$ ,  $SD = 15.39$ ) groupings for question related to IEPs. No difference was found between special education and early childhood ( $M = 62.50$ ,  $SD = 17.68$ ).

For questions concerning procedural due process, there was a significant difference between special education ( $M = 75$ ,  $SD = 18.9$ ) and the other teaching areas group ( $M = 47.22$ ,  $SD = 18.96$ ). No differences were found between SPED and Early Childhood ( $M = 57.50$ ,  $SD = 16.87$ ) nor Elementary ( $M = 61.11$ ,  $SD = 21.39$ ).

There was a significant difference between special education ( $M = 1.28$ ,  $SD = .43$ ) and the other teaching area groups (early childhood:  $M = 2.45$ ,  $SD = .64$ , elementary:  $M = 2.75$ ,  $SD = .61$ , all other education majors:  $M = 2.53$ ,  $SD = 1.1$ ) for the questions regarding attitudes and perception.

**Table 2:** ANOVA statistics by IDEA principle and perception

Variable	Early Childhood		Elementary		Special Education		All Other Education Majors		ANOVA		
	M	SD	M	SD	M	SD	M	SD	<i>F</i>	<i>df</i>	$\eta^2$
FAPE	60.00	24.15	51.39	20.06	75.00	13.36	55.88	20.78	2.59	3, 49	.137
Non-Discriminatory Evaluation	45.00	10.54	43.06	20.66	71.88	16.02	33.82	23.29	6.95**	3, 49	.298
IEP	62.50	17.68	52.78	16.91	75.00	0.00	61.11	15.39	3.99*	3, 50	.193
LRE	55.00	15.81	47.22	18.96	62.50	13.36	50.00	21.00	1.42	3, 50	.078
Procedural Due Process	57.50	16.87	61.11	21.39	75.00	18.90	47.22	18.96	4.03*	3, 50	.195
Parental participation	45.00	19.72	50.00	19.17	53.13	8.84	43.06	22.37	.691	3, 50	.040
Overall average	54.17	11.11	50.93	8.03	68.75	6.68	48.53	13.66	7.135**	3, 50	.304
Perception	2.45	.64	2.75	.61	1.28	.43	2.53	1.10	6.41**	3, 51	.274

Note. \* $p < .05$ . \*\* $p < .01$

**Research question 3:** Is there a discrepancy between teacher candidates' perceived and actual knowledge of special education law?

Composite scores for perception were reported on a scale from 1.0 – 4.0, with a lower value indicating a higher perception of knowledge. A z test for comparison of means was used to examine the differences between candidates' perceived and actual knowledge of special education law. No differences were found between the two variables ( $z$  critical = 1.96). This suggests that the knowledge scores were not high ( $M = 53.36$ ,  $SD = 12.03$ ). However, candidates seemed unsure of their abilities and also had a low perception ( $M = 2.42$ ,  $SD = .93$ ) of their knowledge.

### Discussion

The results of this survey, overall, suggest that all participating teacher candidates lacked knowledge of special education law. This is concerning, as the IDEA ensures both access to and quality of education for students with disabilities, and a knowledge of the law is necessary to accurately and effectively implement what is required of teachers in the law. Additionally, as the number of students in general education classes continues to increase, the need for both general education and special education teachers to have this knowledge also grows. The findings from this survey are in line with previous studies examining special education law for both teachers and teacher candidates, which indicate that participants lack knowledge of special education law (Brookshire & Klotz, 2002; Dretchen-Serpiglia & Kaufman, 2016; Hopps, 2002; Sanders, 2011; Sanders, 2013; Tilson & Scott, 2011; Wasburn-Moses, 2008). This study found that while there was a lack of knowledge for both general education and special education teacher candidates, special education participants did score significantly higher than their general education counterparts. This finding conflicts with a previous survey of teacher candidates, which found that there was no significant difference in the knowledge of special education and general education participants (Sanders, 2011). A possible explanation for this is that Sanders (2011) surveyed participants from all years of their programs of study, while the current study only surveyed participants in their final year of their educator preparation program, ensuring that they would have taken most of their special education coursework at the time of completing the survey. It is possible that the lack of knowledge indicated in the prior study could have been a result of not having yet taken the courses that would have provided students with that knowledge.

Previous studies have also examined the relationship between teacher and teacher candidate perceived and actual knowledge of special education law. The current study indicates that there is a relationship between perceived and actual knowledge, as teachers who had lower perceived levels of knowledge also had lower actual levels of knowledge and vice versa. This conflicts with studies showing that teachers and teacher candidates misperceived their knowledge, believing that their knowledge level was higher than it actually was (Brookshire & Klotz, 2002; Sanders, 2011). It supports, however, the findings from Sanders (2013), which indicated that higher perceived knowledge was related to higher knowledge of the IDEA. Furthermore, Sanders (2013), emphasizes that this relationship may be misleading, as even those with higher perceived knowledge did not have accurate knowledge, indicating that although higher perception may be connected to higher knowledge, it does not necessarily reflect adequate knowledge of the law. This is also supported by the results of the current study, as special education teacher candidates did have perceived and actual knowledge scores that were higher than their general education counterparts, but still averaged only 68% accuracy on knowledge questions.

**Limitations.** Some limitations were present in this study. First, the small sample size limits opportunities to draw generalizable conclusions from the results of the study. The participants of the study were from a single public university, located in the Southeast and the survey yielded a small *n*. Therefore, conclusions drawn from the results should not be assumed to be true from other institutions or geographic regions. Additionally, the analysis of this survey collapsed the results of the 24 IDEA knowledge questions into true and false, while the perception questions were examined on a 5-point Likert scale. The use of two different survey scales was a limitation, as it impacted the ability to accurately examine the relationship between



perception and knowledge. Although this study replicated the survey instrument created by Sanders (2011; 2013), it would be beneficial to examine the reliability and validity of the instrument to determine if any changes should be made to questions in further studies.

**Future research.** This study indicates opportunities for future research.

First, there is a need for studies in other geographic regions, as well as with larger sample sizes. Research that examines the results various types of universities e.g. large, small, regional, state, or private would be beneficial. As this study took place at a public university in the Southeast, studies conducted at universities of varying location and type would create a more complete picture of the overall knowledge level held by teacher candidates. Second, research that samples both teachers and teacher candidates is needed, to examine what knowledge teachers have and may gain once they enter the classroom. An examination of what specific factors correlate with higher knowledge of special education law would also be beneficial (e.g. coursework, professional development, years of teaching experience). Third, professional development and other opportunities for continued education for teachers once they begin their careers is needed to fill in possible gaps that may exist for current teachers and to allow teachers to stay up-to-date on the knowledge they do have. Research that examines teachers' knowledge of special education law before and after professional development and training is needed in order to determine what steps should be taken to increase teachers' knowledge of the law.

**Implications.** This study indicates that teacher candidates across all certification areas do not have adequate knowledge of special education law. An examination of current programs of studies is needed to determine what is being taught and what may be missing. For example, at the institution where this study was conducted, general education teacher candidates are required to take one course on special education during their educational experience. This course serves

as an introduction to and survey of everything teacher candidates may need to know about special education including, history, disability characteristics, instructional strategies, legislation, and more. It is logical, then, to presume that instructors may be unable to cover all that a pre-service teacher would need to know about each of these topics, including adequate coverage of special education law, over the course of a single semester. Special education teacher candidates, however, take many more courses about special education content and still demonstrated a lack of knowledge. Special education preparation programs should consider a comprehensive review of their program of studies to examine what is being taught and the effectiveness of these courses as well as opportunities to embed additional content on special education law. It is possible that the lack of knowledge seen in this study could be connected to a lack of opportunity to apply knowledge in any real-world contexts during field placement and student teaching. It could be beneficial for instructors to explore the possibility of embedding opportunities for application of knowledge while teacher candidates as they are student teaching. A restructuring to better address needed content, as well as to collaborate across general education and special education throughout programs of study may support teacher candidates in all content areas to be better prepared as they enter the classroom.

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