

Running head: GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

GENERAL EDUCATION TEACHERS' KNOWLEDGE OF, TRAINING IN, ATTITUDES  
TOWARD, AND SELF-EFFICACY IN IMPLEMENTING INCLUSIVE PRACTICES

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## Abstract

There are approximately 6.6 million students with Individualized Education Plans (IEPs) being educated in the US (USDOE, NCES, 2017). Approximately 95% of, or 6.3 million, students with IEPs are enrolled in at least one general education class, and 62% of, or 4.1 million, students with IEPs are in general education for 80% or more of their school day (USDOE, NCES, 2016). However, general education teachers may not receive training in inclusive practices and special education (Buford & Casey, 2012). Consequently, general education teachers may also have inadequate knowledge about special education laws, negative attitudes toward inclusion, and low self-efficacy around implementing inclusive practices (Avramidis, Bayliss, & Burden, 2000; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser, Zeiger, & Romi, 2011; O'Connor, Yasik, & Horner, 2016; Schimmel & Militello, 2007). The purpose of this study was to examine general education teachers' training in special education and inclusive practices, knowledge of special education laws, attitudes toward inclusion, and self-efficacy in implementing inclusive practices. The author hypothesized that training in inclusive practices and special education, knowledge of special education laws, and attitudes toward inclusion would predict self-efficacy in implementing inclusive practices. General education teachers were anonymously surveyed online about each of these areas. Participants were gathered through opportunity and snowball sampling. The final sample consisted of 93 general education teachers. Data were analyzed using descriptive statistics, linear regression, and multiple regression. Results indicated that only attitudes toward inclusion was a significant predictor for self-efficacy in implementing inclusive practices.

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## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

### **Introduction**

In recent years, there has been a push to include students with disabilities in general education classrooms (Osgood, 2005). Although the push has been largely successful—62% of students with disabilities are in general education classrooms at least 80% of their school day—general education teachers may not be formally trained to effectively instruct students with disabilities (Buford & Casey, 2012; USDOE, NCES, 2016). There are three areas that the author hypothesizes may be negatively affected by this lack of formal training: knowledge about special education law, attitudes towards inclusion, and self-efficacy in implementing inclusive practices. Some research demonstrates that teachers do not have knowledge about special education law (O'Connor et al., 2016; Schimmel & Militello, 2007). More information is still required as it has not yet been thoroughly studied. This study attempts address lack of research around in-service general education teachers' knowledge in special education law by surveying in-service K-12 general education teachers about their knowledge of special education laws.

In addition to research that indicates that some general education teachers do not have much knowledge of special education law, some research has demonstrated that type of training, (e.g. professional development, experiential activities during student teaching, coursework, consultation with a school psychologist) affects both attitudes toward inclusion and self-efficacy in implementing inclusive practices (Buford & Casey, 2012; Frey, 2009). However, the evidence is mixed. Some research has shown that more training in inclusive practices is positively correlated with positive attitudes toward inclusion and increased self-efficacy in implementing inclusive practices (Avramidis et al., 2000; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011). Other research, however, demonstrates that more training in inclusive practices positively correlates with more negative attitudes toward inclusion and reduced self-

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efficacy in implementing inclusive practices (Emam & Mohamed, 2011; Forlin & Chambers, 2011). This study is designed to gather information about in-service general education teachers' training, attitudes toward inclusion, and self-efficacy in implementing inclusive practices.

The relationship between attitudes toward inclusion and self-efficacy in implementing inclusive practices is also mixed. Some research indicates that there is a strong positive correlation between positive attitudes toward inclusion and self-efficacy in implementing inclusive practices (Savolainen, Engelbrecht, Nel, & Malinen, 2012), while another study demonstrated a negative correlation between these two constructs (Sharma, Shaukat, & Furlonger, 2014). Other research, however, suggests that there is not a strong correlation between these attitudes toward inclusion and self-efficacy in implementing inclusive practices (Montgomery & Mirenda, 2014). This study can contribute to the evidence base on the relationship between in-service general education teachers' attitudes toward inclusion and self-efficacy in implementing inclusive practices.

### **Prevalence Rates and Federal Requirements for Inclusive Practices**

Approximately 13% of students in the US are classified as having a disability and are eligible for special education services (USDOE, NCES, 2017). Considering that there are 50.7 million students in US public schools, this means that there are 6.6 million students receiving special education services. These students are protected under the Individuals with Disabilities Education Improvement Act (IDEIA), a federal law that outlines requirements for educating students with disabilities in public schools (2004). This law applies to the education of all students with disabilities in public schools, regardless of whether the students are being educated in special or general education classrooms. Two prominent components of special education are Individualized Education Plans (IEPs) and Least Restrictive Environments (LREs). Both are

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federally mandated practices that must be adhered to in public schools (IDEIA, 2004). An IEP refers to an educational plan that is created for one specific student based on his or her academic abilities and needs. A student's LRE is the educational setting that allows for the most interaction with general education students while providing an appropriate education based on the student's cognitive, academic, social, emotional, and behavioral abilities. A student's LRE may be a general education classroom with accommodations and modifications. Thus, general education teachers require training about IDEIA, IEPs, and LREs.

Students with disabilities that negatively affect their education are eligible for IEPs, which contain information about their special education classifications, background, ability-levels across different domains, any accommodations or modifications the students require, and appropriate classroom settings for the students based on their abilities. It is federal law that all contents of students' IEPs be adhered to by their schools' faculty and staff and that students be educated in their LREs. As a result, 95% of students with IEPs have at least one general education class, and 62% of these students are in general education classrooms at least 80% of the time (USDOE, NCES, 2016). These numbers are likely to continue to grow, as inclusion has only gained in popularity since educating students in their LREs was mandated (McLeskey, Landers, Williamson, & Hoppey, 2012). Despite the high probability that general education teachers will have at least one student with an IEP in their classroom, general education teachers do not always receive formal training about special education laws or how to best educate students with IEPs (O'Connor et al., 2016; Schimmel & Militello, 2007).

### **Inclusive Practices**

Inclusion generally refers to integrating students with IEPs into general education settings for as much time as appropriate, which is determined by those students' individual abilities in

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different areas. There are two primary methods for including students with IEPs in general education settings: mainstreaming or education in inclusion classrooms. Mainstreaming refers to the practice of educating students with IEPs in general education classrooms that have only general education teachers providing instruction. Although these students are attending general education classes, they still have the right to have any accommodations or modifications outlined in their IEPs provided to them. Education in inclusion classrooms includes in-class support from a special education teacher. These classrooms include students with and without IEPs who are co-taught by a special education teacher and a general education teacher. These two models have become much more common than the traditional special education, or resource, classroom, further reflecting the need for general education teachers to have training and knowledge around special education law and inclusive practices (USDOE, NCES, 2016).

### **Benefits of Inclusion**

As the understanding of disabilities and the meaning of an equal education has improved, there has been a push to include students with disabilities in the general education setting as much as possible (Osgood, 2005). Studies have documented that students with disabilities demonstrate greater improvements in their academic achievement as their time in general education increases (Cosier, Causton-Theoharis, & Theoharis, 2013). Some research suggests that the benefits that students with disabilities gain from time spent in general education classes are maintained after the students have left high school; students who are included in general education classes are more likely to pursue higher education, be employed, and live independently post-school than students with disabilities who are not included in general education classes are (Test et al., 2009).

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### **Teacher Knowledge of Special Education Laws and Inclusive Practices**

A primary area that lack of training may affect is knowledge of special education laws, policies, and practices. Current training practices do not require general education teachers to have taken courses on special education or education law in general, which is where they would acquire such knowledge (Gajda, 2008; Wagner, 2008). Knowledge in these areas is essential to providing quality education to all students, regardless of whether they have an IEP. Previous research suggests that teachers do not have knowledge of IDEIA, Section 504, and FERPA policies, all of which are integral to public school system practices (Littleton, 2008; O'Connor et al., 2016; Wagner, 2008). Not only does some research highlight that teachers lack knowledge in the former areas, but they also may not know what inclusion is. One study found that only 21% of teacher respondents were able to correctly define the concept of inclusive education (Unianu, 2012). Considering teachers are perhaps the most important players when it comes to implementing inclusive practices, this finding is rather concerning.

Teachers perceive themselves to be more competent in educating students in inclusive classrooms when they have knowledge about special education laws and policies (Forlin & Chambers, 2011). This perceived competence, or efficacy, around teaching in inclusive classrooms is positively correlated with positive teacher and student outcomes (Dixon, Yssel, McConnell, & Hardin, 2014; Frey, 2009; Kosko & Wilkins, 2009; Symeonidou & Phtiaka, 2009). In summary, some research has shown that teachers do not have adequate knowledge about special education law or inclusive practices; however, the evidence base is not conclusive in regard to variables that may affect teacher knowledge of education law and inclusive practices (Littleton, 2008; Wagner, 2008). More information about general education teachers' knowledge of education law and inclusive practices is required because general education teachers are likely

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to have at least one student with an IEP in their classroom. This study is therefore designed to gather more information on in-service K-12 general education teachers' knowledge of special education law.

### **Teacher Attitudes Toward Inclusion**

Studies of general education teachers' attitudes towards inclusion suggest that they have positive attitudes about including students with disabilities in general education settings (Avramidis et al., 2000; Idol, 2006). However, some studies have found that these attitudes become less positive as the teachers interact more with students with disabilities (Forlin & Chambers, 2011) and decrease even further when students have severe disabilities (Cook, 2001). Conversely, other research suggests that preservice teachers with negative attitudes toward inclusive practices feel more favorably toward inclusion after having interactions with students with disabilities (Melekoglu, 2013). These disparate phenomena may occur because general education teachers have not received the training and support necessary to feel competent providing this instruction, so they are left believing that inclusion is an important aspect of education while not knowing how to make effective inclusion a reality.

Additionally, negative attitudes may stem from lack of understanding as to what differentiated instruction, accommodations, and modifications are intended to accomplish (Moon, Tomlinson, & Callahan, 1995). These practices are meant to provide all students with an appropriate education. Some instructional techniques may work for some students and not others, and educators are expected to adapt instruction to the unique needs of learners when possible (Dixon et al., 2014). However, some teachers may view differentiated instruction as being "unfair," reflecting a belief that students must be treated exactly the same to make education

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equal (Berry, 2008). For teachers with this belief, inclusion classrooms may be viewed as a negative practice that causes disparate treatment of students.

In sum, research suggests that many teachers do have generally positive attitudes toward inclusion. However, the current evidence is unclear as to whether attitudes become more negative or more positive as teachers spend more time instructing students with IEPs. This study is designed to contribute to this evidence base by surveying in-service K-12 general education teachers about their attitudes toward inclusion as well as number of years spent teaching.

### **Teacher Self Efficacy in Implementing Inclusive Practices**

Another possible contributor to whether students with IEPs are receiving effective instruction from general education teachers is the teachers' self-efficacy, which has been operationalized as an individual's perception of his or her own ability to complete a given task under certain circumstances (Bandura, 1982). Teachers may feel less efficacious about their teaching because they may not have been prepared by their training to educate students with disabilities; as a result, teachers may have low levels of self-efficacy, which contributes to the likelihood of them experiencing burnout or disillusionment with teaching (Savolainen et al., 2012; Skaalvik & Skaalvik, 2007; Skaalvik & Skaalvik, 2010; Tillery, Varjas, Meyers, & Collins, 2010). Teacher burnout is documented as problematic and may increase over time (Pas, Bradshaw, & Hershfeldt, 2012).

Previous studies have demonstrated that preservice training in inclusive practices has a positive relationship with the self-efficacy of preservice teachers to educate students with disabilities regardless of whether the training had a field experience component (Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011). This trend could indicate that sufficient preservice teacher training could come in the form of lecture-based classes only. However,

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teachers' attitudes toward educating students with disabilities also tend to become more negative after their first few years of teaching, and teachers tend to have more positive attitudes toward inclusion as they gain experience working with students with disabilities specifically (Emam & Mohamed, 2011; Savolainen et al., 2012).

Taken together, these different trends indicate that measures of preservice teachers' self-efficacy may not reliably predict those same teachers' self-efficacy and attitudes toward inclusion after they have had more exposure to educating students with disabilities. Because of this, differentiating between the type and amount of preservice training received with teachers in the field, and not preservice teachers solely, is essential. Surveying in-service teachers may contribute valuable data regarding predictors of general education teachers' self-efficacy in educating students with disabilities.

In summary, teachers who have not been trained in inclusive practices, such as differentiated instruction, may not have high levels of self-efficacy in implementing inclusive practices, which may be related to other negative consequences for both teachers and students (Dixon et al., 2014; Frey, 2009; Kosko & Wilkins, 2009; Symeonidou & Phtiaka, 2009). However, the relationship between training and self-efficacy is not clear. Some evidence suggests that time spent teaching is the most effective method for increasing self-efficacy, which may be discouraging for teachers who want to increase their self-efficacy early on in their careers (Malinen et al., 2013). Other studies indicate that certain types of training, including in-service, are effective in increasing teachers' self-efficacy in implementing inclusive practices (Kosko & Wilkins, 2009). This study is designed both to assess the self-efficacy of in-service K-12 general education teachers in implementing inclusive practices and to examine potential predictors of self-efficacy.

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### **Training in Inclusive Practices**

Research shows that general education teachers who become more familiar with the nuances of educating students with disabilities without accompanying training and support have more negative perceptions both about their own ability to educate students with disabilities and about students with disabilities receiving instruction in general education classrooms (Forlin & Chambers, 2011). Studies related to educating students with disabilities in general education settings date back to the 1980s, as there was an emphasis on increasing inclusive practices (Winzer, 1998). Yet, there is not much clarity as to whether schools, teacher preparatory programs, and governing bodies have adapted their training practices to match the evidence-base on inclusive practices. State-level requirements for attaining and maintaining a teaching certificate indicate that there are not many policies regarding improving general education teachers' knowledge of special education and inclusive practices.

**Attaining a teaching certificate in New Jersey.** Although current requirements for attaining a teaching certificate in New Jersey are quite extensive in regard to content knowledge, there are not any requirements regarding instructional or special education practices. Instead, requirements focus on ensuring that the preservice teachers have a certain number of credits in specific areas, a bachelor's degree, a minimum score on a standardized test, and some supervised teaching experience (N.J.A.C. 6A:9B). There are many requirements, and the process can be lengthy, yet the current certification criteria force the preservice teachers to seek out coursework on special education of their own volition (N.J.A.C. 6A:9B). This is problematic because preservice general education teachers may not realize that knowledge of special education will be useful unless they already know that they may have students with IEPs in their classrooms

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and are familiar with special education practices (Carroll, Forlin, & Jobling, 2003; McCray & McHatton, 2011).

**Maintaining a teaching certificate in New Jersey.** After attaining a teaching certificate, teachers in New Jersey are then required to attend certain professional development (PD) workshops periodically to maintain their certification status (N.J.A.C. 6A:9C-4.4). These mandated PD represent a prime opportunity for the state to standardize teacher training. However, the topics covered by the mandated PD do not align with any special education laws, policies, or practices. The only area related to special education covered annually by these PDs includes Reading Disabilities. Even within the area of Reading Disabilities, the only general education teachers required to attend the PDs are those who are teaching kindergarten through third grade. Additionally, the workshop is centered on screening, intervention, and accommodations for students with reading disabilities specifically, not on the general laws and policies that govern all special education practices (N.J.S.A. 18A:6-130; N.J.S.A. 18A:6-131).

There are two other areas related to special education outlined in New Jersey's Administrative Code for Education: Special Education Training and Intervention and Referral Services (I&RS; N.J.A.C. 6A:9C-4.4). However, there are no explicit guidelines as to who must receive the training outlined in the N.J.A.C., how frequently the training must be provided, and what the training must consist of. This absence of clarity allows for individual schools and districts to handle mandated PD as they see fit. This non-standardization of practice is problematic, as teachers may not receive sufficient training to effectively educate students with IEPs.

In sum, studies document that general education teachers feel more efficacious and have more positive attitudes about inclusive practices when they receive adequate training in areas

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related to special education (Dixon et al., 2014; Frey, 2009; Kosko & Wilkins, 2009; Symeonidou & Phtiaka, 2009). However, current criteria for teacher certification in New Jersey do not require general education teachers to receive any training in areas related to special education or education law in general (Gajda, 2008; N.J.A.C. 6A:9B; Wagner, 2008). This leaves individual school districts and teachers to pursue additional training in special education in order to effectively meet the needs of students included in general education settings. This study is designed to evaluate in-service K-12 general education teachers previous training in special education and inclusive practices.

### **Consequences of Uneven Training**

Uneven training in special education may leave general educators with limited knowledge regarding special education laws and may contribute to negative attitudes toward inclusive education and lower self-efficacy regarding educating students with disabilities. This study is intended to evaluate completed and ongoing teacher training practices (e.g. higher education coursework and professional development), with the hypothesis that more comprehensive training practices will lead to gains in knowledge about special education laws and regulations, positive attitudes toward inclusion, and self-efficacy around teaching students with disabilities in a general education classroom. Fostering general education teachers' development in these areas is important for a few reasons in addition to the ones outlined in previous sections. First, there are legal consequences associated with IEP noncompliance. Second, teachers may not be certain of their role in educating students with disabilities. Third, students' academic outcomes may be negatively affected.

**Legal implications.** Although many teachers report reading IEPs, some studies document that only two-thirds of general education teachers use IEPs to inform their instructional practices,

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while others indicate that they do not find IEPs very useful (Lee-Tarver, 2006; Rotter, 2014).

Teachers are out of compliance with a student's IEP when they do not provide that student with the accommodations and modification outlined in his or her IEP. Although a teacher being personally sued over not complying with an IEP is uncommon, such cases have occurred in the past, and thus lack of training may leave teachers open to legal action over a document that they have not been formally trained about (*Doe v. Withers*, 1993; *Wood v. Strickland*, 1975). More commonly, however, when parents are dissatisfied with their child's education, they do not take legal action against individual teachers; parents typically take action against the school districts (Mead, 2008). Because of this, schools must support and train their teachers in special education, which may protect the school district and the teachers themselves in the event of a lawsuit (Mead, 2008).

**Consequences for students.** The majority of students with disabilities have the ability to meet comparable achievement standards to students without disabilities if provided with the proper accommodations and modifications (Thurlow, Quenemoen, & Lazarus, 2011). However, students with disabilities are likely to lag behind their peers without disabilities in core academic areas (Wagner, Newman, Cameto, & Levine, 2006). A portion of this gap could be contributed to other factors outside of poor IEP development and implementation. Still, this concerning difference between the academic achievement of students with disabilities and those without disabilities could likely be ameliorated to a degree with the implementation of proper accommodations and modifications.

Despite the above concerns, students with disabilities do tend to have better outcomes when placed in general education and inclusion classrooms than students with disabilities who are placed in resource rooms or other more restrictive settings (Frederickson, Simmonds, Evans,

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& Soulsby, 2007; Lindsay, 2007). One study found that students with learning disabilities who were educated in inclusive classrooms attended more days of school and had higher academic achievement than students with learning disabilities who were educated in resource classrooms (Rea, McLaughlin, & Walther-Thomas, 2002). Additionally, inclusion classrooms can provide effective general education curriculum in concordance with individualized instruction (McLeskey & Waldron, 2011). These trends indicate that, despite problems with the model, inclusion classroom models should continue to be refined and improved rather than disbanded. As a result, general education teachers receiving proper preparatory training and support from their schools is essential to supporting positive outcomes for students with disabilities.

### **Summary**

There are many potential consequences for both teachers and students if general education teachers do not receive sufficient training in special education. However, there are still many benefits to inclusive practices (and instructing students with IEPs in their LREs is a federal mandate). Due to these benefits and legal requirements, ongoing research in general education teachers' training, knowledge, attitudes toward inclusion, and self-efficacy in implementing inclusive practices is an important step in determining how to best ensure that general education teachers feel as prepared as possible to instruct students with IEPs.

The evidence base regarding general education teachers' training, knowledge, attitudes toward inclusion, and self-efficacy in implementing inclusive practices is not conclusive. Although there is a comprehensive evidence base in some of these areas, e.g. general education teachers tend to have positive attitudes toward inclusion (Avramidis et al., 2000; Idol, 2006), the evidence base around other areas, e.g. the relationship between teaching experience and attitudes toward inclusion, is either lacking or inconclusive due to contradictory evidence (Cook, 2001;

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Forlin & Chambers, 2011; Melekoglu, 2013). Additionally, many of the studies examining general education teachers' training in inclusive practices, knowledge of education law and inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices surveyed pre-service teachers rather than in-service teachers (Avramidis et al., 2000; Carroll et al., 2003; Forlin & Chambers, 2011; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011; Melekoglu, 2013; McCray & McHatton, 2011; Scheer, Scholz, Rank, & Donie, 2015; Sharma, Loreman, & Forlin, 2012; Wagner, 2008). Some studies indicate that teachers' attitudes toward educating students with disabilities tend to become more negative after their first few years of teaching, and teachers tend to have more positive attitudes toward inclusion as they gain experience working with students with disabilities specifically (Emam & Mohamed, 2011; Savolainen et al., 2012), which contradicts other studies that found that more training in inclusive practices is positively correlated with positive attitudes toward inclusion and increased self-efficacy in implementing inclusive practices when sampling pre-service teachers (Avramidis et al., 2000; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011). Thus, surveying in-service general education teachers' training in inclusive practices, knowledge of education law and inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices could provide valuable information to the evidence base. This study is designed to further examine in-service general education teachers' training, knowledge of special education law and inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices through surveying K-12 general education teachers.

### **Design and Aims**

The current study will survey in-service K-12 general education teachers about their training in special education and inclusive practices, their knowledge of special education law

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and inclusive practices, their attitudes toward inclusion, and their self-efficacy in implementing inclusive practices. The purpose of this study is to determine what training in-service general education teachers are receiving in special education through their preparatory programs and schools (e.g. professional development workshops), what knowledge general education teachers have acquired about special education laws (e.g. IDEA), what general education teachers' attitudes are toward inclusion, and how efficacious general education teachers perceive themselves to be in implementing inclusive practices. Relationships among general education teachers' knowledge of special education laws, attitudes toward inclusion, self-efficacy in implementing inclusive practices, training in inclusive practices, and other demographics will be examined. Although teacher training, knowledge, attitudes toward inclusion, and self-efficacy have been studied previously, the evidence base on the relationships among these factors is not conclusive.

### **Research Questions and Predictions**

**Research question 1: What are general education teachers' knowledge of special education laws and policies?** Research indicates that general education teachers may have limited knowledge regarding special education laws and inclusive practices (O'Connor, Yasik, & Horner, 2016; Schimmel & Militello, 2007). However, there is a lack of research in this area, thus requiring further exploration. As this is an exploratory question, no predictions were made about the results of this question.

**Research question 2: What are general education teachers' perceived levels of self-efficacy in implementing inclusive practices?** Research suggests that general education teachers do not receive preservice or in-service training in special education or inclusive practices (Buford & Casey, 2012; USDOE, NCEES, 2016), and there is a substantial literature

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highlighting that more training in inclusive practices is positively correlated with more positive attitudes toward inclusion and increased self-efficacy in implementing inclusive practices (Avramidis, Bayliss, & Burden, 2000; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser, Zeiger, & Romi, 2011). Other research, however, demonstrates that more training in inclusive practices leads to more negative attitudes toward inclusion and reduced self-efficacy in implementing inclusive practices (Emam & Mohamed, 2011; Forlin & Chambers, 2011). Because of this contradictory evidence base, more information is needed in this area. As this is an exploratory question, no predictions were made about the results of this question.

**Research question/prediction 3: Do knowledge of special education law, type of training in inclusive practices, or attitudes toward inclusion predict teacher self-efficacy?**

Some research suggests that more training in inclusive practices is positively correlated with positive attitudes toward inclusion and increased self-efficacy in implementing inclusive practices (Avramidis et al., 2000; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011). Other research indicates that there is also a positive correlation between positive attitudes toward inclusion and higher self-efficacy in implementing inclusive practices (Savolainen et al., 2012). However, some research suggests that there is a negative correlation between attitudes toward inclusion and self-efficacy in implementing inclusive practices (Sharma et al., 2014). There is some additional research that indicates that there is not a correlation between the two factors (Montgomery & Miranda, 2014); however, Montgomery and Miranda (2014) only inquired about students with developmental disabilities, not students with disabilities in general. The current study's researcher is thus giving more consideration to the results of Savolainen et al.'s (2012) study when making predictions because their study more closely resembles the current one. There are no published studies known to the author that address the

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relationship between general education teachers' knowledge of special education law and attitudes toward inclusion. However, the author hypothesized that knowledge of special education law and inclusive practices would be positively correlated with amount of formal training, as knowledge of special education law and inclusive practices is often a foundational component of special education training (Smith & Tyler, 2010). Additionally, the results of a study conducted by Forlin & Chambers (2011) indicated that teachers perceive themselves as more competent in implementing inclusive practices when they have knowledge about special education laws and inclusive practices. Given the results of the studies discussed above, it was predicted that *knowledge, amount of formal training, and attitudes toward inclusion would predict self-efficacy.*

**Research question/prediction 4. Does the amount of required PD on special education attended have a moderating effect on teacher self-efficacy in implementing inclusive practices or attitudes toward inclusion?** Required PD in special education can be operationalized as the system valuing training in special education, as it can be inferred that a system that did not value training in special education would not require it. Systems-level advocacy for positive attitudes toward inclusion and support for implementing inclusive practices can be highly beneficial for teachers (Avramidis et al., 2000; Idol 2006). Due to this potential confound, it was predicted that *amount of required school- and district-level PD on special education attended would have a moderating effect on attitudes toward inclusion and self-efficacy, as required PD on special education and inclusive practices reflects the school and/or district valuing inclusion.*

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### **Method**

#### **Participants**

Participants for this study were general education teachers. A total of 93 valid surveys were obtained. Inclusion criteria for participants consisted of two inclusion criteria: (1) certification by a state agency to educate as a teacher and (2) current employment as a general education teacher. Based on the demographics of teachers in New Jersey and in the US as a whole, respondents were expected to primarily be employed in public schools, female, and European American (US DOE, NCES, SASS, 2013; US DOE, NCES, 2013). The demographics of the participants in the study reflected these expectations. See Table 1 for information about respondents' demographic characteristics. Exclusion criteria for participants consisted of one exclusion criterion: (1) certification by a state agency to educate as a special education teacher. The purpose of the study was to examine general education teachers' knowledge of, training in, attitudes toward, and self-efficacy in implementing inclusive practices. Special education teachers, even if currently working as general education teachers, have different training from general education teachers (N.J.A.C. 6A:9B-11.4), and were expected to skew any results. Participants who indicated that they are dual-certified in both general and special education were eliminated from all analyses; however, they were still eligible to enter their email addresses to enter the raffle, as all survey completers were able to do so.

The recruitment strategies used were opportunity and snowball sampling (Given, 2008; Goodman, 1961). For this study, general education teachers from the researcher's personal network who met the inclusion criteria were contacted electronically in writing and invited to participate. The general education teachers from the researcher's personal network who were contacted were predominantly employed in public schools, female, and European American,

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reflecting national and New Jersey demographics for teachers (USDOE, NCES, 2013; USDOE NCES, SASS, 2013). This means that any responses from participants from the researcher's personal network were also anonymous. Participants were requested to forward the electronic survey to other certified general educators they know. This method of recruitment allows groups who may have otherwise been overlooked to participate in the study, making the sample more inclusive (Sadler, Lee, Lim, Fullerton, 2010). A power analysis was conducted using GPower Version 3.1, which determined that 76 participants was a sufficient sample size to detect medium effects in a multiple regression with up to three predictor variables. Previous studies with similar methodology have demonstrated that training, attitudes, and self-efficacy have medium effect sizes (Alaverdyan, 2018; Scheer et al., 2015). Thus, a 76-participant threshold was considered adequate to perform the proposed analyses.

The final sample size of respondents ( $N = 93$ ) reflects similar sample sizes obtained in previous studies using snowball sampling with teachers, which ranged from 25-95 participants (Cassady, 2011; Eslami & Fatahi, 2008; Jepson & Forrest, 2006).

### **Procedures**

Approval for this study was obtained from the Institutional Review Board (IRB) at Rutgers, the State University of New Jersey prior to any data collection. After IRB approval was obtained, data were collected via an anonymous online survey. Participants accessed the survey via a link to Qualtrics (Qualtrics, Provo, UT). Participants' responses to the survey were anonymous, and informed consent was obtained prior to survey administration. See Appendix A for the consent form that was used. The participants for this study were selected through opportunity and snowball sampling (Given, 2008; Goodman, 1961). General education teachers from the researcher's personal network who met inclusion criteria were contacted electronically

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in writing and invited to participate in the study. The initial sample of teachers contacted were sent two follow-up emails, one sent two weeks after the initial contact was made and one sent four weeks after the initial contact was made. See Appendix B for the initial and follow-up email scripts. All participants were asked to send an anonymous link to the survey via email to other general education teachers they knew. See Appendix C for survey instructions. Participants had the opportunity to be entered into a drawing for one of 20 \$5 electronic Amazon gift cards if they chose to provide their email addresses at the end of the survey. Email addresses were not linked to any survey responses in order to maintain participants' anonymity. Responses were kept anonymous by redirecting survey completers to a second anonymous Qualtrics survey, in which they entered only their email addresses. Email addresses only indicated that those participants completed the survey; it was purposefully not possible to link email addresses to specific responses. Gift card winners were randomly selected using IBM SPSS Statistics Version 24, and gift cards were sent electronically to respondents' email addresses directly through Amazon, which enforced a 500-character (including spaces) limit. As a result, a more succinct version of the other contact scripts was used to inform gift card winners that they had won the raffle. See Appendix D for a copy of the message sent with the electronic Amazon gift cards to raffle winners.

### **Survey Instrument**

The survey was intended to measure teacher training practices, knowledge of special education laws and inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices.

The survey used in the current study combined three measures and demographic questions. The first measure focused on attitudes toward inclusion. The second measure focused

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on teacher efficacy around inclusive practices. The third measure focused on knowledge about special education laws and policies. The remaining questions focused on formal training in special education law and inclusive practices and other demographic questions. The first three measures (attitudes, efficacy, and knowledge) were administered to participants in a random order to prevent scale order bias, while training and demographic items were always administered last.

**Attitudes Toward Inclusion Scale** (McHatton & McCray, 2011) has been administered to preservice teachers in prior research and consists of 12 Likert-type items. Each item is a positively-worded statement related to the acceptability and feasibility of inclusive practices. There are five possible responses to each item: Strongly Disagree, Disagree, Undecided, Agree, and Strongly Agree. There are nine other Likert-type items that pertain to whether students with certain disability classifications (e.g. hearing impairments, learning disabilities, mental impairments) can be educated in general education classrooms. The possible responses to these items are the same as those of the first 12 items: Strongly Disagree, Disagree, Undecided, Agree, and Strongly Agree. The scale had internal consistency reliability of 0.91 at three different time points and with two different samples, as measured by Chronbach's alpha (McHatton & McCray, 2007; McHatton & McCray, 2011). Prior research also documents that the scale has high content validity (McHatton & McCray, 2007; McHatton & McCray, 2011). Internal consistency reliability was replicated in the current study, and The Attitudes Toward Inclusion scale had high internal consistency ( $\alpha = 0.88$ ), comparable to Chronbach's alpha measured in previous research.

**Teacher Efficacy for Inclusive Practices Scale** (TEIP; Sharma et al., 2012) assesses teachers' self-efficacy in educating students with disabilities. This scale consists of 18 Likert-type items that form three subscales (Sharma et al., 2012). The three subscales on the TEIP scale

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are Efficacy to Use Inclusive Instruction, Efficacy in Collaboration, and Efficacy in Managing Behavior; each subscale is made up of six items (Sharma et al., 2012). Items were presented in the form of positively-worded statements about efficacy, and respondents chose one of six response options: Strongly Disagree, Disagree, Disagree Somewhat, Agree Somewhat, Agree, and Strongly Agree. Chronbach's alphas ranged from 0.84-0.91 for the total scale and 0.64-0.97 for each of the subscales (Sharma et al., 2012). The TEIP has high content validity supported by literature reviews and experts (Sharma et al., 2012).

Internal consistency reliability for the TEIP overall scale and subscales was replicated in the current study. The TEIP overall scale had high internal consistency within the ranges found in previous research ( $\alpha = 0.87$ ). Relative to the overall TEIP scale, the TEIP subscales had lower reliability ( $\alpha = 0.71$  for Efficacy to Use Inclusive Instructions;  $\alpha = 0.73$  for Efficacy in Collaboration;  $\alpha = 0.74$  for Efficacy in Managing Behavior). Although these alpha coefficients are still acceptable, they were lower than that of the TEIP overall scale, thus only scores on the TEIP overall scale were used for inferential analyses.

**Knowledge Scale** (O'Connor et al., 2016) has been administered to kindergarten through eighth grade teachers in a previous study and consists of 18 items designed to measure teachers' knowledge of special education laws and inclusive practices. Each of the 18 items consist of a statement about laws and policies related to special education; survey participants are asked to designate each statement as true or false. The knowledge questions appear to have content validity (O'Connor et al., 2016). Scores for the knowledge scale were based on the percentage of items correctly identified as true or false. The scale may be further broken down into different types of knowledge (i.e. IDEIA, Section 504, and FERPA) to assign scores for more than one area. There were ten statements related to IDEIA, seven statements related to Section 504, and

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one statement related to FERPA. This measure was selected to provide a more objective view of teachers' knowledge than items about perceived knowledge would provide, e.g. Likert-type agreement items for statements such as "I am familiar with the regulations outlined in FERPA." A potential downside to this "quiz-like" scale is that participants may feel as though they are being tested rather than asked about their experience as a teacher. However, most participants (approximately 75%) in the original study completed all items on the scale as well as the additional qualitative questions (O'Connor et al., 2016). This high completion rate indicates that the survey items may not be perceived as objectionable by the participants. The majority of participants in the current study (83%) also completed the full knowledge scale, suggesting that these participants were similarly amenable to the "quiz-like" nature of the scale.

**Teacher Demographics.** Respondents were asked to indicate their formal training in special education and inclusive practices. Training was assessed using ten questions related to amount and type of training. Items addressed training received through required coursework and professional development and through additional voluntary mediums, such as reading journal articles or consulting with other professionals. See Appendix E for specific questions. The training scale appears to have content validity (Buford & Casey, 2012; Emam & Mohamed, 2011; Forlin & Chambers, 2011; Tillery et al., 2010). Participants were also asked to provide demographic information related to ethnicity, gender, years teaching, setting, grade level, subject specialty, and location. See Appendix F for specific questions.

### **Data Preparation**

Data were analyzed using IBM SPSS Statistics Version 24. The number of survey responses initially recorded in Qualtrics was 180. However, there were 66 incomplete entries, defined as entries for which no responses were provided past agreement to take part in the survey

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and/or for which the completion time was recorded as fewer than 35 seconds, which was the estimated length of time it would take to click through the survey. An additional 21 responses were excluded because the respondent held a certification to teach special education.

Missing value analysis revealed missing data ranged from 9.7% to 32%, depending on the variable. Forty-seven cases were missing some of their data. Forty-two percent of cases with any missing data were missing between 1.6% to 15.9% of data. For these cases, data appeared to be missing at random. However, 57% of cases were missing between 42.9% to 81% of their data. These data appeared to be missing due to a respondent beginning the survey and not completing it. Cases were only included in research question analyses if they had fully completed at least one of either the knowledge of special education law, attitudes toward inclusion, or self-efficacy in implementing inclusive practices scales. Because these scales were always presented first in the survey in a random order, there was an even distribution of respondents who completed only one of either the knowledge of special education law, attitudes toward inclusion, or self-efficacy in implementing inclusive practices scales. Data were then screened for outlier values using boxplots. Variables with scale means that fell more than two standard deviations from the mean were excluded from analyses.

### **Analyses**

**Analysis plan for research question 1 (What are general education teachers' knowledge of special education laws and policies?).** Percentage of statements correctly identified as true or false was calculated for the total sample. Higher percentages of correctly identified statements were operationalized as more knowledge of special education laws and inclusive practices.

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**Analysis plan for research question 2 (What are general education teachers' perceived levels of self-efficacy in implementing inclusive practices).** Descriptive statistics (e.g. frequency of response type and overall mean) were calculated for the Teacher Efficacy for Inclusive Practices (TEIP) Scale to determine general education teachers' self-efficacy in implementing inclusive practices. Means were computed for the overall scale and for the individual subscales (Efficacy to Use Inclusive Instruction, Efficacy in Collaboration, and Efficacy in Managing Behavior).

**Analysis plan for research question 3 (Do knowledge, type of formal training, and attitudes toward inclusion predict self-efficacy?).** Linear regression analyses were conducted to determine whether participants' knowledge, formal training, and attitudes toward inclusion predicted self-efficacy. For these analyses, the predictor variables were the knowledge (percentage of statements correctly identified as true or false), formal training (type of training completed, e.g. coursework, PD, consultation), and attitudes toward inclusion scales (mean for the first 12 statements). The knowledge and attitudes toward inclusion scales were continuous (due to using means rather than type of response). The individual training variables were also each continuous. Each predictor variable was evaluated as an individual predictor, not as components of a three-predictor model. The criterion variable was responses to the overall TEIP scale (mean for all 18 items). The criterion variable was continuous. In other words, eight total linear regression analyses were conducted with the above predictor and criterion variables.

**Analysis plan for research question 4 (Does the amount of required PD (at both school- and district-level) on special education attended have a moderating effect on self-efficacy?).** Analyses for this question consisted of two separate parts. The first step was to determine whether schools and/or school districts were requiring general education teachers to

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attend PD in special education. To this end, average amount of school- and district-level required PD attended was calculated for the entire sample. An average greater than 2.0 was operationalized as general education teachers attending required PD in special education.

If there was an even enough distribution of participants who had attended school- or district-level required PD on special education and participants who had not attended such PD, the second step for this research question's analyses was to conduct additional multiple regression analyses using amount of required school- and district-level PD as potential moderators for all analyses proposed for Research Question 3. In other words, all analyses proposed in the previous question would be conducted twice more using two additional predictor variables each time. The two sets of additional analyses would have each included two more predictor variables to determine whether required PD had a moderating effect self-efficacy in implementing inclusive practices. The four additional predictor variables would have been: (1) the amount of required school-level PD attended, (2) the interaction between the initial predictor variable used for that model and amount of required school-level PD attended, (3) the amount of required district-level PD attended, and (4) the interaction between the initial predictor variable used for that model and amount of required district-level PD attended. Before creating the interaction variable, standardized  $z$  scores would be calculated for each of the variables used in the interaction terms.

**Additional exploratory analyses.** Linear and multiple regression analyses were conducted to examine whether participants' demographic variables predicted self-efficacy or attitudes toward inclusion. For these analyses, the predictor variables included gender (i.e. Male or Female), ethnicity (i.e. Black/African American, Hispanic/Latinx, White/European American, or Biracial or Multiracial), degree type (i.e. BA/BS, MA/MS/EdM, or PhD/EdD), and years of

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teaching experience. Gender, ethnicity, and degree type were each categorical and were recoded into dichotomous variables before any regression analyses were conducted. For the race/ethnicity model, identification as White/ European American was used as the constant due to most participants identifying as White/ European American. Thus, all results in this model were comparisons between respondents who identified as White/European American and respondents who identified as another race/ethnicity. For the highest degree held model, the Bachelor's degree was used as the constant due to it being a prerequisite for other degree types. Thus, all results in this model were comparisons between respondents who held a Bachelor's degree and respondents who held a Master's or Doctorate. Years of teaching experience was continuous. The criterion variables were responses to the overall TEIP scale (mean for all 18 items) and the overall attitudes toward inclusion scale (mean for the first 12 statements). The criterion variables were continuous and were analyzed as individual criterions. In other words, eight total linear and multiple regression analyses were conducted with the above predictor and criterion variables.

### **Results**

#### **Demographics**

Table 1 summarizes the frequencies for gender, racial/ethnic identity, type of school employed in, type of teaching certification held, grade level taught, and highest degree held endorsed by respondents who completed the demographics questions. The sample was 75% female and 84% European American/White. Seventy-six percent of respondents were employed in public schools. Participants were primarily certified to teach in either elementary education (54%) or secondary education (51%). An additional 12% of respondents were certified to teach in early childhood education. Because some participants were certified to teach in more than one area, percentages did not add up to 100%. Thirty-five percent of respondents taught grade levels

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7-12, 30% taught grade levels 6-8, 16% taught grade levels 3-5, and 19% taught pre-kindergarten through third grade. Fifty-one percent of respondents had earned a Bachelor's degree as their highest degree, 45% had earned a Master's degree, and 4% had earned a Doctorate degree.

Participants had a mean of 11.11 years of teaching experience ( $SD = 8.69$ ; Range = 1 - 35).

Table 2 summarizes the frequencies for the states that participants were currently employed in as well as additional states participants were certified to work in. Sixty-six percent of participants were employed in New Jersey, and 17% of participants were certified to teach in more than one state.

### **Training in Special Education and Inclusive Practices**

Table 3 summarizes the means, standard deviations, and ranges for the training variables. On average, participants completed 5.38 years of post-secondary education ( $SD = 1.46$ ; Range = 3 - 10), completed 1.89 special education courses ( $SD = 2.17$ ; Range = 0 - 15), and had 2.24 experiential activities with students with IEPs ( $SD = 1.78$ ; Range = 0 - 5). Participants attended, on average, 2.5 school-level PDs on special education ( $SD = 3.32$ ; Range = 0 - 20) and 1.72 district-level PDs related to special education ( $SD = 3.07$ ; Range = 0 - 20). Twenty-two percent of participants attended no PDs on special education, 24% attended no school-level PDs on special education, and 46% had attended no district-level PDs on special education. Likewise, 30% of participants had not completed any special education courses, and 24% of respondents had not had any experiential activities with students with IEPs. See Table 4 for specific *ns* and additional frequencies for training variables.

Table 5 summarizes the response frequencies for the additional methods used by respondents for learning about special education and inclusive practices. When asked about which additional methods participants used to learn about special education and inclusive

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practices, consultation with a special education teacher ( $n = 72$ ; Percentage of Sample = 87%) was endorsed most frequently. Other methods included seeking resources on websites ( $n = 52$ ; Percentage of Sample = 63%), consulting with general education teachers ( $n = 46$ ; Percentage of Sample = 55%), and consulting with a school social worker or Learning Disabilities Teacher-Consultant ( $n = 47$ ; Percentage of Sample = 57%). Forty-one percent of respondents used consultation with a school psychologist to learn about special education and inclusive practices ( $n = 34$ ).

### **Attitudes Toward Inclusion**

Means were calculated for the Attitudes Toward Inclusion scale. Means were used rather than sums because information on cut-off scores or average sums was not available. Participants had the option of selecting “Strongly Disagree,” “Disagree,” “Undecided,” “Agree,” or “Strongly Agree.” For all calculations, “Strongly Disagree” equated to a one, and “Strongly Agree” equated to a five. Forty-six percent of participants who completed the Attitudes Toward Inclusion scale ( $n = 93$ ) selected Agree or Strongly Agree for all items ( $M = 4.10$ ;  $SD = 0.54$ ; Range = 2.67 - 5). Table 6 summarizes the frequencies for respondents who endorsed Agree or Strongly Agree to the nine Likert-type items that pertain to whether students with certain disability classifications can be educated in general education classrooms. When asked about students with specific disabilities, 94% of respondents endorsed Agree or Strongly Agree for including students with physical disabilities in general education settings ( $n = 87$ ). Ninety percent of respondents agreed with including students with learning disabilities in general education settings ( $n = 84$ ). The majority of respondents also agreed with including students with other disability types in general education settings; the only exception was including students

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with behavioral disabilities in the general education setting, for which 39% of respondents ( $n = 36$ ) agreed. See Table 6 for response frequencies for additional types of disabilities.

### **Knowledge of Special Education Laws and Policies**

The Knowledge scale consisted of 18 statements about special education law that respondents were asked to identify as true or false. Percentages of statements correctly identified as true or false were calculated for the sample. Respondents who completed the Knowledge scale ( $n = 77$ ) correctly identified 64% of statements on average ( $SD = 9.26$ ; Range = 44 - 89%).

Table 7 summarizes the frequencies for the number of statements respondents correctly identified as true or false. The mode ( $n = 19$ ) for number of statements correctly identified as true or false by respondents was 12, or 67% of statements correctly identified as true or false. See Table 7 for additional response frequencies.

Percentages of statements correctly identified as true or false were also calculated based on which law the statement was related to (i.e. IDEIA, Section 504, FERPA). When presented with statements about IDEIA, respondents correctly identified a mean of 66% of statements as true or false ( $SD = 12.05$ ; Range = 40 - 80%). When presented with statements about Section 504, participants correctly identified a mean of 67% of statements as true or false ( $SD = 15.89$ ; Range = 29 - 100%). When presented with the statement about FERPA, 14% of respondents correctly identified the statement as true or false.

### **Self-Efficacy in Implementing Inclusive Practices**

Means were calculated for the overall TEIP scale and each of the TEIP subscales. As with the Attitudes Toward Inclusion scale, means were used rather than sums because information on cut-off scores or average sums was not available. Participants had the option of selecting “Strongly Disagree,” “Disagree,” “Disagree Somewhat,” “Undecided,” “Agree

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Somewhat,” “Agree,” or “Strongly Agree.” For all calculations, “Strongly Disagree” equated to a one, and “Strongly Agree” equated to a six. Respondents had a mean score of 4.87 on the TEIP overall scale ( $SD = 0.50$ ; Range = 3.33 - 6), indicating that, on average, respondents “Agree” with perceiving themselves as efficacious in implementing inclusive practices. Participants had a mean score of 5.11 for efficacy in using inclusive instructions ( $SD = 0.47$ ; Range = 3.67 - 6), indicating that, on average, respondents “Agree” with perceiving themselves as efficacious in using inclusive instructions. Respondents had a mean score of 4.76 for efficacy in collaboration ( $SD = 0.64$ ; Range = 3.17 - 6), indicating that, on average, respondents “Agree” with perceiving themselves as efficacious in collaboration. Participants had a mean score of 4.72 for efficacy in managing behavior ( $SD = 0.65$ ; Range = 3.17 - 6), indicating that, on average, respondents “Agree” with perceiving themselves as efficacious in managing behavior.

### **Predictors of Self-Efficacy in Implementing Inclusive Practices**

It was predicted that knowledge of special education law, attitudes toward inclusion, and training in inclusive practices would be significant predictors for self-efficacy in implementing inclusive practices. As part of some preliminary analyses, correlation analyses were conducted for each of the above variables. Table 8 summarizes the correlation analyses conducted for the TEIP, Knowledge, and Attitudes Toward Inclusion scales. The only significant correlation was between the TEIP and Attitudes Toward Inclusion scales ( $r = 0.33$ ;  $p = 0.002$ ). Table 9 summarizes the  $r$ s and  $p$ -values for the correlations between each of the types of training and the TEIP scale. None of the correlations summarized in Table 9 were statistically significant. Table 10 summarizes the  $r$ s and  $p$ -values for the correlations between each of the types of training and the Attitudes Toward Inclusion scale. The only significant correlation outlined in Table 10 was

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the correlation between the Attitudes Toward Inclusion scale and use of consultation with another general education teacher ( $r = -0.23$ ;  $p = 0.04$ ).

Regression analyses determined that only the score on the Attitudes Toward Inclusion scale was a significant predictor for the score on the TEIP scale (adj.  $R^2 = 0.12$ ;  $F(1, 82) = 10.86$ ;  $p = 0.001$ ). Years of college completed, knowledge of special education law, and training in inclusive practices (i.e., coursework, experiential activities, and PD) were not significant predictors for the score on the TEIP scale. See Table 11 for a summary of the results of each of the regression analyses conducted using knowledge of special education law, training in inclusive practices, and attitudes toward inclusion as individual predictors for self-efficacy in implementing inclusive practices.

### **School- and District-Required PD**

Research question 4 predicted that amount of required school- or district-level PD would have a moderating effect on the predictive relationships between knowledge of special education law, attitudes toward inclusion, training in inclusive practices, and self-efficacy in implementing inclusive practices. However, analyses for this question were contingent on many participants attending more than two required school- or district-level PD; descriptive statistics on participants' amount of required PD attended showed that participants did not attend more than one required PD on average. Sixty-three percent of participants attended one or fewer school-level required PDs ( $M = 1.81$ ;  $SD = 2.47$ ; Range = 0 - 13), and 74% of participants attended one or fewer district-level required PDs ( $M = 1.23$ ;  $SD = 2.10$ ; Range = 0 - 13). Despite the distribution being skewed towards respondents attending fewer than two PDs, the proposed analyses for research question/prediction 4 were still conducted as exploratory analyses. The school-level PD attended, district-level PD attended, and total PD attended variables were

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excluded from these additional analyses due to multicollinearity. See Table 12 for a summary of the correlation analyses conducted for the PD variables, which demonstrated that each of the PD variables were significantly correlated with one another.

Table 13 outlines five different models. Each model has three predictor variables. The first predictor variable included was either knowledge of special education law, attitudes toward inclusion, or training in inclusive practices. The second predictor variable included in each model was always amount of required school-level PD attended. The third predictor variable included in each model was then the interaction between the first predictor variable and amount of required school-level PD attended. Results of the multiple regression analyses outlined in Table 13 indicated that there was not a moderating effect of required school-level PD on the predictive relationship between knowledge of special education law, attitudes toward inclusion, and training in inclusive practices on self-efficacy in implementing inclusive practices. Table 14 also outlines five different models. Each model again has three predictor variables. The first predictor variable included was either knowledge of special education law, attitudes toward inclusion, or training in inclusive practices. The second predictor variable included in each model was always amount of required district-level PD attended. The third predictor variable included in each model was then the interaction between the first predictor variable and amount of required district-level PD attended. Results of the multiple regression analyses outlined in Table 15 indicated that there was not a moderating effect of required district-level PD on the predictive relationship between knowledge of special education law, attitudes toward inclusion, and training in inclusive practices on self-efficacy in implementing inclusive practices.

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### **Demographic Characteristics as Predictors for Self-Efficacy in Implementing Inclusive Practices and Attitudes Toward Inclusion**

Additional exploratory regression analyses that used demographic characteristics as predictors for self-efficacy in implementing inclusive practices revealed no significant predictive relationships. Table 15 summarizes the results of the linear regression analyses conducted for years of teaching experience and gender as well as the multiple regression analyses conducted for race/ethnicity and highest degree held. The gender, race/ethnicity, and highest degree models contain variables that were recoded into dichotomous values to allow for comparison analyses. Years of teaching experience, gender, racial/ethnic identity, and highest degree held were not significant predictors for the score on the TEIP scale. Table 16 summarizes the results of the regression analyses that used demographic characteristics as predictors and the Attitudes Toward Inclusion scale as the criterion variable. Years of teaching experience, gender, racial/ethnic identity, and highest degree held were also not significant predictors for the score on the Attitudes Toward Inclusion scale.

### **Discussion**

The purpose of this study was to determine what training in-service general education teachers were receiving in special education through their preparatory programs and schools (e.g. special education coursework and professional development workshops), what knowledge general education teachers had acquired about special education laws (e.g. IDEIA), what general education teachers' attitudes were toward inclusion, and how efficacious general education teachers perceived themselves to be in implementing inclusive practices. An additional purpose of the study was to determine predictors of efficacy in implementing inclusive practices and attitudes toward inclusion. Predictors were determined using linear and multiple regression.

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Finally, the study examined potential moderators on the relationships between predictor and criterion variables.

### **Knowledge**

Results from research question 1 indicated that general education teachers are somewhat familiar with special education laws, as indicated by respondents' mean of 64% of statements about special education laws correctly identified as true or false. These results coincide with the findings of O'Connor (2016), who developed the questionnaire and whose sample had a mean of 66% of statements correctly identified as true or false ( $SD = 10.22$ ). Some researchers have previously hypothesized that explicit knowledge of education law is necessary for students to receive the appropriate services that they are eligible for (Littleton, 2008; O'Connor et al., 2016; Schimmel & Militello, 2007). However, there may not actually be much practical applicability of this knowledge: knowledge of special education law did not predict self-efficacy in implementing inclusive practices in the current study. Instead, special education law was not significantly correlated with training in inclusive practices, attitudes toward inclusion, or self-efficacy in implementing inclusive practices.

One potential reason for general education teachers' level of knowledge of special education law ( $M = 64%$ ;  $SD = 9.26$ ; Range = 44 - 89%) could be their relatively small amount of training in inclusive and special education. Thirty percent of the respondents in the current sample had received no coursework in special education, and 28% had enrolled in only one course on special education during their pre-service training. Twenty-four percent of participants had received no in-service training in special education, and 31% had attended one training at their school. Limited pre-service and in-service training in the current sample suggests general education teachers have very few opportunities to learn about special education law. Once in the

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field, general education teachers may then rely on special education teachers, school psychologists, school social workers, Learning Disabilities Teacher-Consultants, and other specialists to adhere to special education law (Bessette, 2008; Magiera & Zigmond, 2005). However, this approach may allow for some students who may be eligible for IEPs to be overlooked by school staff, as general education teachers are the educators who spend the most time with students who do not yet have IEPs or other accommodations, such as a 504 plan. In other words, general education teachers may not know IEP criteria or the process for obtaining a 504 plan and may not refer students who are eligible for an evaluation because they do not realize that the students are eligible. Future research should obtain qualitative data about how general education teachers view their role in adhering to special education law and whether they believe that special education law is useful to them in the classroom.

### **Efficacy in Implementing Inclusive Practices**

Results from research question 2 indicated that general education teachers perceive themselves as efficacious in implementing inclusive practices, especially in the area of providing inclusive instructions (e.g. differentiating instructing for students with different learning styles and needs). Findings from the current study are similar to prior studies using the TEIP scale, which also found general education teachers to have mean scores on the TEIP ranging from 4.53-4.74 (Forlin & Sin, 2010; Montgomery & Mirenda, 2014; Savolainen et al., 2012; Shaikat, Sharma, & Furlonger, 2013).

These results may indicate that, although general education teachers do not have very high levels of knowledge of special education law or training in inclusive practices, they may have access to additional supports and resources that contribute to their relatively high levels of self-efficacy. One possible support particularly salient to the current study may be personal

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experiences with students with IEPs and people with disabilities in general, as New Jersey has the fourth highest percentage of students served under IDEA in the nation (USDOE, NCES, 2015). It is possible that general education teachers in New Jersey have a relatively higher likelihood of knowing someone with a disability. This could make implementing inclusive practices more meaningful for general education teachers in New Jersey, where 66% of the respondents in the current sample were employed, as people generally feel more passionately about areas that personally affect them (Berg, Dutton, & Wrzesniewski, 2013; Vallerand, 2012). Future research should gather qualitative data about the reasons behind general education teachers' attitudes toward inclusion, whether positive or negative.

### **Predictors of Efficacy in Implementing Inclusive Practices**

In the current study, only general education teachers' attitudes toward inclusion significantly predicted their self-efficacy in implementing inclusive practices, as measured by the TEIP scale. Thus, research question/prediction 3, which hypothesized that knowledge of special education law, training in inclusive practices, and attitudes toward inclusion would each be predictors of self-efficacy in implementing inclusive practices, was only partially supported by the results of the current study.

**Knowledge.** Results indicated that knowledge was not a significant predictor of self-efficacy in implementing inclusive practices. According to a power analysis conducted to GPower Version 3.1, the sample was sufficiently large enough to detect a medium effect size if one existed, indicating that these results are likely not due to a Type II error. Rather, knowledge may have a small effect size, or no effect size at all, in regard to its predictive relationship with self-efficacy in implementing inclusive practices. As alluded to previously, these findings indicate that general education teachers' knowledge of special education laws may not matter

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from a practical standpoint. The lack of statistical significance may also explain the researcher's difficulty in finding published journal articles on the topic of general education teachers' knowledge of special education laws: publication bias toward studies with statistically significant findings may have prevented other researchers' studies on general education teachers' knowledge of special education laws and self-efficacy in implementing inclusive practices from being published and disseminated (Ferguson & Heene, 2012; Rothstein, Sutton, & Borenstein, 2005).

A noteworthy consideration is that differentiated instruction and other inclusive practices, when delivered effectively, provide students with appropriate education without a formal document, such as IEP or 504 plan, outlining specific accommodations and modifications (Dixon et al., 2014; Lawrence-Brown, 2004; Subban, 2006). General education teachers may be providing the same instruction that an IEP would mandate without identifying that a student is legally eligible for an IEP (Dee, 2011). Although there is a potential for such practice to become problematic if such a student enters a classroom in which he or she is not being provided with an appropriate education, the general education teacher providing differentiated instruction is already practicing much of what an IEP would dictate. Future research should inquire about what instructional differentiation, accommodations, and modifications general education teachers frequently provide to students regardless of whether those students have IEPs.

An alternative explanation for the lack of a statistically significant relationship between knowledge of special education law and self-efficacy in implementing inclusive practices is that general education teachers are not aware that they are not providing appropriate education to each of their students because they are unaware of the legal rights of their students. Thus, they may view themselves as *efficacious* despite not being *effective* in their instruction. Sharma and

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Sokal (2016), for example, surveyed and observed five classroom teachers and found few statistically significant relationships among participants' attitudes toward inclusion, concerns about inclusion, perceived self-efficacy in implementing inclusive practices, and behavior in the classroom. Statistical significance may not have been reached simply due to their small sample size, or there may not be a relationship between teachers' reported attitudes and self-efficacy and their actual teaching practices. Regardless, future research should gather more information about general education teachers' effectiveness in implementing inclusive practices through methods such as classroom observations, administrator interviews, and student reports.

**Training.** Results indicated that none of the training variables included in the regression analyses were significant predictors for self-efficacy in implementing inclusive practices. This finding is inconsistent with some prior research demonstrating significant relationships between training and both attitudes toward inclusion and self-efficacy in implementing inclusive practices (Avramidis et al., 2000; Emam & Mohamed, 2011; Forlin & Chambers, 2011; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011). However, prior research was mixed in terms of whether the relationships were positive (Avramidis et al., 2000; Lancaster & Bain, 2007; Lancaster & Bain, 2010; Leyser et al., 2011) or negative (Emam & Mohamed, 2011; Forlin & Chambers, 2011). This conflicting evidence base indicates that there may be another confound influencing the results, such as geographical location, whether the teachers are pre- or in-service, type of training received, or type of disability trained about, e.g. behavioral disability vs. hearing impairment. Future research should gather more specific information about training type, length, intensity, perceived quality, etc. prior to conducting any analyses on the relationships between training in inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices.

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*Consultation.* Although correlation analyses were not formally a component of research question 3, they were conducted as part of a set of preliminary analyses completed to determine whether a linear regression model was appropriate for the data. Overall the results of the correlation analyses coincided with the results of the regression analyses; that is, the majority of the correlations were not significant. However, attitudes toward inclusion and self-efficacy in implementing inclusive practices were significantly positively correlated. This is consistent with some previous research that also found positive relationships between attitudes toward inclusion and self-efficacy in implementing inclusive practices (Savolainen et al., 2012). Attitudes toward inclusion and use of consultation with another general education teacher, however, were significantly negatively correlated. This indicates that use of consultation with another general education teacher as an additional method to learn about inclusive practices and special education was related to having less positive attitudes toward inclusion. This finding is of practical interest, as attitudes toward inclusion predicted self-efficacy in implementing inclusive practices.

One interpretation of the significant negative correlation between attitudes toward inclusion and use of consultation with another general education teacher is that general education teachers may have loose definitions of consultation. For example, if a general education teacher is having a difficult time with a student with an IEP, he or she may seek consultation from another general education teacher for advice and feedback, which coincides with most consultation models, or he or she may go to another general education teacher to discuss his or her difficulties without a problem-solving mindset (Cappella et al., 2012; Tyler & Fine, 1974). The second interaction could prompt the other general education teacher to also voice his or her difficulties with his or her own student with an IEP, again without a problem-solving mindset.

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The end result of such an interaction may be both teachers having a more negative view of including students with IEPs in the general education setting.

One possible implication drawn from the negative correlation between attitudes toward inclusion and use of consultation with another general education teacher is that teacher preparation programs and schools should be providing general education teachers with more training and guidance in effective consultation. This recommendation has been made previously (Gravois, Knotek, & Babinski, 2002; Meyers, 2002) and is also supported by some prior research, which found that teachers who received training and participated in consultation were able to implement classroom interventions for their students with specific learning needs or IEPs with greater fidelity (Noell et al., 2000; Sterling-Turner, Watson, & Moore, 2002).

**Attitudes toward inclusion.** Results indicated that attitudes toward inclusion was a significant predictor with medium effect size ( $f^2 = 0.12$ ) for self-efficacy in implementing inclusive practices (Cohen, 1992). These results corroborate findings of some previous research, which indicated that there was a positive correlation between attitudes toward inclusion and self-efficacy in implementing inclusive practices (Savolainen et al., 2012). However, the results of the current study contradict the findings of another study, which found that there was not a significant relationship between attitudes toward inclusion and self-efficacy in implementing inclusive practices.

The contradictory evidence base around the relationship between attitudes toward inclusion and self-efficacy in implementing inclusive practices may be due to how the individual studies defined inclusion. For example, Montgomery and Mirenda (2014) focused on the inclusion of students with developmental disabilities, while Savolainen et al. (2012) addressed inclusion of students with disabilities more generally. The current study also did not focus on the

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inclusion of students with a specific type of disability, which can influence teachers' attitudes toward inclusion (Cook, 2001), and the results of this study are more similar to the results of Savolainen et al.'s (2012) results. Future research should address how types of disability may affect the relationship between attitudes toward inclusion and self-efficacy in implementing inclusive practices, as teachers may have different attitudes toward inclusion based on the type of disability a student has (Cook, 2001). For example, teachers may feel strongly that students with multiple disabilities should be included in the general education setting, which is supported by results from the current study, as 51% of respondents indicated that they do believe that students with multiple disabilities should be included in general education settings. However, those same teachers may not perceive themselves as efficacious in actually implementing inclusive practices with students with more intensive educational needs. This could explain some of the contradictory findings as well as provide educators with more information for targeted special education training based on disability type or educational need.

**Demographic characteristics as predictors for self-efficacy in implementing inclusive practices or attitudes toward inclusion.** The results of the additional proposed analyses indicated that no demographic characteristics significantly predicted general education teachers' self-efficacy in implementing inclusive practices. Similarly, results indicated that no demographics characteristics significantly predict general education teachers' attitudes toward inclusion. Future research may benefit from looking into other demographic and cultural characteristics that may affect general education teachers' self-efficacy in implementing inclusive practices.

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### **School- and District-Level Required PD**

Findings from research question 4 indicate that school- and district-level required PD do not have a moderating effect on the predictive relationships between knowledge of special education law, training in inclusive practices, and attitudes toward inclusion on self-efficacy in implementing inclusive practices. Although the models with school- and district-level PD as potential moderators that included attitudes toward inclusion remained statistically significant, the adjusted  $R^2$ s for the models with school- and district-level PD included were lower (adj.  $R^2 = 0.10$  and adj.  $R^2 = 0.07$ , respectively) than the model with attitudes toward inclusion as a single predictor (adj.  $R^2 = 0.12$ ), indicating that the significance could be contributed to attitudes toward inclusion only, rather than to any moderating effects. Similarly, none of the models that included knowledge of special education law or training in inclusive practices with school- or district-level PD as potential moderators had significant predictive relationships.

### **Implications**

An additional implication to those discussed in previous sections may be to encourage school psychologists to provide more consultation to the general education teachers in instructing students with IEPs, as only 41% of respondents in the current sample used consultation with a school psychologist as a means of learning about inclusive education. Conversely, 87% of the sample used consultation with a special education teacher as a means of learning about inclusive education. Part of this may be due to generally having more access to other teachers and to school psychologists often being split between buildings in a district (Gonzalez, Nelson, Gutkin, & Shwery, 2004); however, general education teachers may also not be aware that school psychologists can be a resource (Johnston, 1990). School psychologists should also be encouraged to bridge this gap by making themselves more accessible when possible. School

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psychologists should also ask teachers about how effective they feel consultation is and what barriers exist from using school psychologists as consultants.

In addition to increasing their presence consultatively, school psychologists are also in an excellent position to help general education teachers solidify their knowledge of special education law. As some of the most primary gatekeepers to special education, school psychologists should be knowledgeable about special education law (Jacob, Decker, & Lugg, 2016) and well-positioned to support teacher training and professional development in special education law. School psychologists may also help bolster the teachers they work with by making summary sheets about prominent special education laws available to teachers and other relevant stakeholders.

Finally, findings from the current study suggest general education teachers have positive attitudes toward inclusion and high levels of self-efficacy in implementing inclusive practices *despite* not having comparable levels of knowledge of special education law and training in inclusive practices. One possible explanation for this is that general education teachers are finding ways to compensate for their lack of formal training through other means, such as informal or “on-the-job” training. However, beyond gathering information about the other factors that may have contributed to teachers’ attitudes and perceived self-efficacy, policymakers, researchers, administrators, and other school personnel, should also be finding effective methods for supporting general education teachers as they instruct their classrooms of diverse learners.

### **Limitations**

One limitation of the current study is its lack of a social desirability scale. Teachers may feel pressured to present a positive perception of including students with disabilities in the

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general education setting. Although the survey addresses this potential confound by being anonymous, future surveys around this area should include a social desirability scale. An additional—and significant—limitation to this survey is that it is mono-method and mono-informant. As mentioned previously, future research may incorporate data gathered from administrators or classroom observations to formulate a more detailed conceptualization of general education teachers' knowledge, perceptions of inclusion, and efficacy in implementing inclusive practices.

Although the study had enough power to detect medium effects for each of the primary research questions, there may not have been enough power to detect medium effects for some of the exploratory regressions due to their use of dummy coding and the smaller sample sizes for some of the demographic questions; for example, the regression analyses with ethnicity as a predictor used four predictors and would have required a sample of 85 to detect a medium effect with 80% power according to GPower Version 3.1, and there were only 72 recorded responses about participants' race/ethnicity identification. Future research in the area of in-service general education teachers' knowledge of special education law, training in inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices would benefit from larger samples with more representation from teachers from states other than New Jersey, as the current sample was primarily from New Jersey (66%).

An additional limitation of the study was its lack of qualitative data. General education teachers' knowledge of special education law, training in inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices are likely more nuanced than a strictly qualitative study can capture. Future research may gain a better understanding of these

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four areas by asking general education teachers open-ended questions about their experience with inclusive practices.

A final potential limitation of the study was the use of opportunity and snowball sampling. However, even though this sampling method may have limited the rigor of the study, it increased the feasibility of conducting the study. Additionally, surveys distributed to a set population, e.g. teachers in a school, typically have response rates of only about 33% (Nulty, 2008). Considering the similar documented difficulties receiving permission from school administrators to participate in research, letters of cooperation may not have provided a more diverse sample either, as we may have only been able to sample a few school districts (Bartlett et al., 2017; Mokher & Pearson, 2017). Snowball sampling allowed for a larger and more diverse sample, including teachers from Florida, New Jersey, Pennsylvania, South Carolina, and more. See Table 2 for information on respondents' current states of employment and on the additional states respondents were certified to teach in.

### **Conclusion**

Overall, general education teachers have some familiarity with special education laws, some training in special education and inclusive practices, positive attitudes toward inclusion, and moderate to high levels of self-efficacy in implementing inclusive practices. Only research question/prediction 3 had any support from the results of the study, as only attitudes toward inclusion significantly predicted self-efficacy in implementing inclusive practices. All other hypotheses were rejected. Despite this, the results of the study are promising in that general education teachers do generally have positive attitudes toward inclusion and perceive themselves as efficacious in implementing inclusive practices. These findings indicate that there may be some other factors not included in the current study that positively affect general education

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teachers' experiences with inclusive practices, such as cultural perceptions, informal "on-the-job" training, or personal experiences. Future research may benefit from inquiring about other possible predictors. Additionally, future research may benefit from looking into interventions and supports for maintaining or increasing general education teachers' knowledge of special education law, training in inclusive practices, attitudes toward inclusion, and self-efficacy in implementing inclusive practices.

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## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 1

*Demographic Characteristics*

Variable	<i>n</i>	% of Sample
<b>Gender</b>		
Female	55	75
Male	16	22
Non-binary	1	1
<b>Race/ethnicity</b>		
Biracial or Multiracial	3	4
Black or African American	2	3
Hispanic or Latinx	5	7
Native American or American Indian	1	1
White or European American	61	84
<b>School Type</b>		
Charter	15	18
Private (non-religious)	1	1
Private (religious)	2	3
Public	57	76
<b>Certification Type</b>		
Early childhood education	10	12
Elementary education	45	54
Secondary education	42	51
<b>Grade Level</b>		
Pre-Kindergarten through 3	14	19
3-5	12	16
6-8	22	30
7-12	26	35
<b>Degree Type</b>		
Bachelors	38	51
Masters	24	45
Doctorate	3	4
<b>Total</b>	<b>72-75</b>	

*Note.* Percentages were calculated using only the number of respondents providing demographic information for that question. Nineteen percent to 23% of respondents, depending on the variable, from the entire sample ( $N = 93$ ) were missing demographics data. As a result, the total  $n$  is presented as a range because some variables had more missing data than others. The  $n$ s listed for Certification Type reflect the number of items endorsed, rather than the number of respondents, as respondents were able to endorse multiple certification types.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 2  
*States of Employment*

Variable	<i>n</i>	% of Sample
State of Current Employment		
California	1	1
Colorado	1	1
Florida	2	2
Indiana	2	2
Iowa	1	1
Maryland	1	1
Massachusetts	1	1
Michigan	1	1
New Jersey	55	66
North Carolina	1	1
Ohio	1	1
Pennsylvania	2	2
South Carolina	2	2
Tennessee	1	1
Texas	1	1
Virginia	1	1
Wisconsin	1	1
Additional State(s) Certified to Teach In		
California	2	2
Delaware	1	1
Florida	3	4
New Jersey	3	4
Pennsylvania	6	7
South Carolina	1	1
Total	75	

*Note.* Percentages were calculated using only the number of respondents who provided demographic information. Nineteen percent of respondents from the entire sample ( $N = 93$ ) did not endorse which state they currently worked in. Total  $n$  listed in the table is for the current state of employment; only 13 respondents were certified to work in additional states. Percentages for additional states certified to work in do not add up to 100 as respondents were able to endorse multiple states.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 3

*Means, Standard Deviations, and Ranges for Training Variables*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Range
Years of college completed	76	5.38	1.46	3-10
Years of teaching experience	74	11.11	8.69	1-35
Number of special education courses completed	74	1.89	2.17	0-15
Number of experiential activities with students with IEPs	70	2.24	1.78	0-5
Number of school-level special education PDs	72	2.50	3.32	0-20
Number of required school-level special education PDs	72	1.81	2.47	0-13
Number of district-level special education PDs	74	1.72	3.07	0-20
Number of required district-level special education PDs	73	1.23	2.10	0-13

*Note.* Training questions were asked as part of the demographic section of the survey.

Table 4

*Frequencies for Training Variables*

Variable	<i>n</i>	% of Sample
Number of special education courses completed		
0	22	30
1	21	28
2	16	22
3	14	19
15	1	1
Number of experiential activities with students with IEPs		
0	17	24
1	9	13
2	15	21
3	10	14
4	7	10
5	12	17
Number of school-level special education PDs		
0	17	24
1	22	31
2	10	14
3	3	4
4	7	10
5	5	7
6	7	10
20	1	1
Number of required school-level special education PDs		
0	25	35
1	20	28
2	8	11
3	7	10
4	5	7
5	3	4
6	4	6

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 4 continued

Number of district-level special education PDs		
0	34	46
1	16	22
2	7	10
3	5	7
4	4	5
5	3	4
6	3	4
13	1	1
20	1	1
Number of required district-level special education PDs		
0	39	53
1	15	21
2	5	7
3	6	8
4	3	4
5	2	3
6	2	3
13	1	1

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*Note.* Percentages were calculated using only the number of respondents who provided demographic information. Twenty-three percent of respondents from the entire sample ( $N = 93$ ) did not endorse how many special education courses they completed, how many experiential activities with students with IEPs they had, or how many PDs on special education they attended.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 5

*Additional Learning Methods Used*

Variable	<i>n</i>	% of Sample
Learning Method		
Consultation with a special education teacher	72	87
Websites	52	63
Consultation with another member of the Child Study Team	47	57
Consultation with another general education teacher	46	55
Consultation with an administrator	36	43
Consultation with a school psychologist	34	41
Books	32	39
Journal articles	29	35
Other – “Parent”	1	1
Total	83	

*Note.* Respondents were asked to indicate whether they had used any methods in addition to their coursework and PD to learn about special education. Respondents were also able to enter their own text response. Only one respondent did so and wrote “Parent.” The *ns* above indicate the number of respondents who used the listed learning method. The total *n* reported reflects the number of respondents, not the number of endorsed options. Percentages were calculated using only the number of respondents who provided demographic information. Percentages do not add up to 100 as respondents were able to endorse multiple certification types.

Table 6

*Frequencies for Agreement with Including Students with Different Disability Types*

Disability Type	<i>n</i>	% of Sample
Physical Disabilities	87	94
Learning Disabilities	84	90
Health Impairments	81	87
Visual Impairments	79	85
Hearing Impairments	78	84
Communication Disorders	64	69
Mental Impairment (Cognitive Disabilities/Developmental Delay)	51	55
Multi-Disabilities	47	51
Behavioral Disorders	36	39

*Note.* Percentages were calculated using only the number of respondents who provided demographic information. Percentages do not add up to 100 as respondents were asked to provide a response for each disability type. The *ns* listed are for the number of respondents who selected “Agree” or “Strongly Agree” about whether students with different disability types should be included in general education settings on a Likert-type scale with the options of “Strongly Disagree,” “Disagree,” “Undecided,” “Agree,” and “Strongly Agree.”

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 7

*Frequencies for Number of Statements Correctly Identified*

Number of Statements Correctly Identified as True or False	<i>n</i>	% of Sample
8 of 18 Statements (44%)	3	4
9 of 18 Statements (50%)	6	8
10 of 18 Statements (56%)	14	18
11 of 18 Statements (61%)	16	21
12 of 18 Statements (67%)	19	25
13 of 18 Statements (72%)	9	12
14 of 18 Statements (78%)	9	12
16 of 18 Statements (89%)	1	1

*Note.* Respondents were asked to determine if 18 statements related to special education law were true or false. The *ns* reported indicate the number of respondents who correctly identified each number of statements. No respondents correctly identified fewer than eight statements and no respondents correctly identified more than 18 statements.

Table 8

*Correlations Between TEIP, Knowledge, and Attitudes Toward Inclusion Scales*

Variable	<i>r</i> with Knowledge	<i>p</i>	<i>r</i> with Attitudes Toward Inclusion	<i>p</i>
1. TEIP	0.07	0.55	0.33	0.002
2. Knowledge	-	-	-0.03	0.83
3. Attitudes Toward Inclusion			-	-

Table 9

*Correlations Between TEIP and Types of Training*

Variable	<i>r</i> with TEIP	<i>p</i>
Years of teaching experience	0.04	0.71
Years of college completed	0.14	0.22
Number of special education courses completed	0.02	0.86
Number of experiential activities with students with IEPs	0.15	0.21
Number of school-level PD attended	0.14	0.25
Number of required school-level PD attended	-0.09	0.48
Number of district-level PD attended	0.21	0.07
Number of required district-level PD attended	-0.06	0.61
Total number of PD attended	0.17	0.14
Additional learning method used		
Journal articles	-0.10	0.33
Books	0.03	0.78
Websites	0.02	0.83
Consultation with another general education teacher	0.09	0.42
Consultation with a special education teacher	-0.05	0.65
Consultation with a school psychologist	0.01	0.92
Consultation with another member of the Child Study Team	0.16	0.13
Consultation with an administrator	-0.01	0.92

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 10

*Correlations Between Attitudes Toward Inclusion and Types of Training*

Variable	<i>r</i> with Attitudes Toward Inclusion	<i>p</i>
Years of teaching experience	-0.02	0.89
Years of college completed	0.11	0.37
Number of special education courses completed	0.08	0.48
Number of experiential activities with students with IEPs	0.21	0.08
Number of school-level PD attended	0.06	0.64
Number of required school-level PD attended	0.12	0.30
Number of district-level PD attended	0.11	0.36
Number of required district-level PD attended	0.08	0.53
Total number of PD attended	0.08	0.48
Additional learning method used		
Journal articles	-0.003	0.98
Books	0.02	0.85
Websites	-0.08	0.43
Consultation with another general education teacher	-0.23	0.03
Consultation with a special education teacher	-0.20	0.05
Consultation with a school psychologist	-0.01	0.89
Consultation with another member of the Child Study Team	0.06	0.58
Consultation with an administrator	-0.11	0.30

Table 11

*Regressions for Knowledge, Attitudes Toward Inclusion, and Training as Predictors of TEIP*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>F</i>	<i>df</i>	<i>p</i>	adj. <i>R</i> <sup>2</sup>
Knowledge	0.21	0.54	0.05	0.39	0.16	1, 75	0.70	-0.01
Attitudes Toward Inclusion	0.30	0.09	0.34	3.30	10.86	1, 82	0.001	0.12
Years of college completed	0.05	0.04	0.16	1.37	1.87	1, 74	0.18	0.01
Number of special education courses completed	0.01	0.03	0.04	0.31	0.10	1, 72	0.76	-0.01
Number of experiential activities with students with IEPs	0.05	0.03	0.18	1.47	2.15	1, 68	0.15	0.02
Number of school-level PDs	0.02	0.02	0.15	1.28	1.63	1, 70	0.21	0.01
Number of district-level PDs	0.03	0.02	0.22	1.87	3.50	1, 72	0.07	0.03
Number of total PDs	0.01	0.01	0.18	1.58	2.48	1, 72	0.12	0.02

*Note.* Each of the variables were used as individual predictors for the TEIP scale.



## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 13

*Regressions for Knowledge, Attitudes Toward Inclusion, and Training as Predictors of TEIP with School-Level Required PD Attended as a Moderator*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>F</i>	<i>df</i>	<i>p</i>	adj. <i>R</i> <sup>2</sup>
Knowledge					0.35	3, 61	0.79	-0.03
Knowledge	0.32	0.71	0.06	0.45			0.65	
School-level required PD	-0.02	0.03	-0.12	-0.77			0.44	
Interaction Term	-0.01	0.05	-0.03	-0.23			0.82	
Attitudes Toward Inclusion					3.64	3, 67	0.02	0.10
Attitudes Toward Inclusion	0.32	0.10	0.37	3.21			0.002	
School-level required PD	-0.03	0.03	-0.14	-1.04			0.30	
Interaction Term	0.01	0.05	0.02	0.18			0.86	
Years of college completed					0.71	3, 67	0.55	-0.01
Years of college	0.04	0.04	0.14	1.16			0.25	
School-level required PD	-0.02	0.02	-0.08	-0.69			0.49	
Interaction Term	0.03	0.06	0.07	0.54			0.59	
Number of special education courses completed					0.30	3, 66	0.83	0.01
Number of special education courses	0.01	0.03	0.03	0.16			0.87	
School-level required PD	-0.02	0.02	-0.11	-0.88			0.38	
Interaction Term	0.03	0.08	0.06	0.37			0.71	
Number of experiential activities with students with IEPs					1.41	3, 62	0.25	0.02
Number of experiential activities	0.06	0.03	0.23	1.69			0.10	
School-level required PD	-0.03	0.03	-0.17	-1.03			0.31	
Interaction Term	-0.04	0.09	-0.06	-0.39			0.70	

*Note.* Each of the five separate models consists of three predictor variables: one training variable, number of school-level required PD attended, and the interaction between the training variable and the number of school-level required PD attended.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 14

*Regressions for Knowledge, Attitudes Toward Inclusion, and Training as Predictors of TEIP with District-Level Required PD Attended as a Moderator*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>F</i>	<i>df</i>	<i>p</i>	adj. <i>R</i> <sup>2</sup>
Knowledge					0.27	3, 62	0.85	-0.04
Knowledge	0.39	0.73	0.07	0.54			0.59	
District-level required PD	-0.01	0.03	-0.05	-0.30			0.76	
Interaction Term	0.01	0.05	0.03	0.21			0.83	
Attitudes Toward Inclusion					2.71	3, 68	0.05	0.07
Attitudes Toward Inclusion	0.29	0.10	0.32	2.77			0.007	
District-level required PD	-0.02	0.03	-0.10	-0.75			0.46	
Interaction Term	0.01	0.05	0.04	0.28			0.78	
Years of college completed					0.83	3, 68	0.48	-0.01
Years of college	0.05	0.04	0.14	1.20			0.23	
District-level required PD	0.00	0.03	-0.001	-0.01			1.00	
Interaction Term	0.06	0.06	0.13	1.00			0.32	
Number of special education courses completed					0.14	3, 67	0.93	-0.04
Number of special education courses	0.01	0.04	0.03	0.18			0.86	
District-level required PD	-0.02	0.03	-0.09	-0.63			0.53	
Interaction Term	0.02	0.07	0.04	0.21			0.84	
Number of experiential activities with students with IEPs					1.19	3, 63	0.32	0.01
Number of experiential activities	0.06	0.04	0.22	1.65			0.10	
District-level required PD	-0.03	0.04	-0.16	-0.91			0.37	
Interaction Term	-0.02	0.08	-0.04	-0.26			0.80	

*Note.* Each of the five separate models consists of three predictor variables: one training variable, number of district-level required PD attended, and the interaction between the training variable and the number of district-level required PD attended.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 15

*Regressions for Demographic Variables as Predictors of TEIP*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>F</i>	<i>df</i>	<i>p</i>	adj. <i>R</i> <sup>2</sup>
Years of teaching experience	0.002	0.006	0.04	0.36	0.13	1, 72	0.72	-0.01
Gender					0.23	1, 70	0.64	-0.01
Female (Constant)							0.64	
Male	-0.06	0.13	-0.06	-0.47			0.64	
Race/ethnicity					1.85	4, 69	0.13	0.04
White or European American (Constant)							0.34	
Biracial or Multiracial	0.26	0.27	0.11	0.95			0.96	
Black or African American	-0.02	0.33	-0.01	-0.06			0.26	
Hispanic or Latinx	-0.24	0.21	-0.13	-1.13				
Highest degree earned					0.22	2, 73	0.81	-0.02
Bachelors (Constant)							0.59	
Masters	0.06	0.11	0.06	0.54			0.64	
Doctorate	0.13	0.28	0.06	0.47				

*Note.* The regression analysis for gender was essentially a linear, rather than a multiple, regression due to recoding male and female into dichotomous variables. The values are reported in a format more typical for multiple regression reporting for clarity. The one participant who identified as Native American or American Indian was excluded from the race/ethnicity analysis.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

Table 16

*Regressions for Demographic Variables as Predictors of Attitudes Toward Inclusion*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>F</i>	<i>df</i>	<i>p</i>	adj. <i>R</i> <sup>2</sup>
Years of teaching experience	-0.001	0.007	-0.02	-0.14	0.02	1, 72	0.89	-0.01
Gender					0.03	1, 70	0.85	-0.01
Female (Constant)								
Male	-0.03	0.15	-0.02	-0.19			0.85	
Race/ethnicity	0.09				0.89	4, 69	0.47	-0.01
White or European American (Constant)								
Biracial or Multiracial	0.12	0.32	0.04	0.38			0.71	
Black or African American	-0.53	0.38	-0.16	-1.39			0.17	
Hispanic or Latinx	0.11	0.25	0.05	0.44			0.67	
Highest degree earned					0.28	2, 73	0.75	-0.02
Bachelors (Constant)								
Masters	-0.04	0.13	-0.04	-0.30			0.77	
Doctorate	0.20	0.32	0.07	0.63			0.53	

*Note.* The regression analysis for gender was essentially a linear, rather than a multiple, regression due to recoding male and female into dichotomous variables. The values are reported in a format more typical for multiple regression reporting for clarity. The one participant who identified as Native American or American Indian was excluded from the race/ethnicity analysis.

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

## Appendices

## Appendix A

**Informed Consent****CONSENT TO TAKE PART IN A RESEARCH STUDY**

**TITLE OF STUDY:** General Education Teachers' Knowledge of, Training in, Attitudes Toward, and Self-Efficacy in Implementing Inclusive Practices

**Principal Investigator:** Emily Morgan, PsyM

This consent form is part of an informed consent process for a research study, and it will provide information that will help you decide whether you want to take part in this study. It is your choice to take part or not. After all of your questions have been answered, and you wish to take part in the research study, you will be asked to agree to this consent form. You may print a copy of the consent form to keep. Your alternative to taking part in the research is not to take part in it.

**Who is conducting this research study and what is it about?**

You are invited to participate in a research study being conducted by Emily Morgan, who is a student in the Graduate School of Applied and Professional Psychology Department at Rutgers under the supervision of Elisa Shernoff, Ph.D. The purpose of this research is to examine K-12 general education teachers' knowledge of, training in, attitudes toward, and self-efficacy in implementing inclusive practices.

**What will I be asked to do if I take part?**

The study procedures include completing a survey that asks participants to respond to a series of statements about inclusive practices and education law. Afterwards, you will provide some background/demographic information about yourself. The survey is estimated to take approximately 10 minutes to complete. We anticipate recruiting 130 general education teachers to participate in this study.

**How will information about me be kept private or confidential?**

This research is anonymous. All efforts will be made to keep your responses confidential, but total confidentiality cannot be guaranteed. We will use Qualtrics to collect and forward your anonymous responses to us. We will not receive any information that can identify you or other subjects. We will download your responses to a secure file that requires a password to access. Only study staff will have access to the password. Responses will be deleted from the file by January 2020, after analysis is complete and study findings are published as part of a dissertation. At the end of the survey, you will be provided with an opportunity to enter your email address if you would like to be entered into a drawing for one of 20 \$5 electronic gift cards. You do not have to provide your email address in order to complete the survey. Your email address, if you choose to provide it for the purpose of the gift card drawing, will appear only on a list of participants and will not be linked to the code number that is assigned to you or to your responses on the survey. Your email address will only be used for the electronic gift card drawing, and will be destroyed after the electronic gift cards have been sent to drawing winners.

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There will be no way to link your responses back to you. Therefore, data collection is anonymous.

### **What are the risks and/or discomforts I might experience if I take part in the study?**

There are no foreseeable risks to participation in this study. You may also skip questions or withdraw from the study altogether. If you decide to quit at any time before you have finished the survey, your answers will NOT be recorded.

### **Are there any benefits to me if I choose to take part in this study?**

There are no direct benefits or guaranteed compensation for completing the survey. If you choose to provide your email address at the end of the study, you will be entered into a drawing for one of 20 \$5 electronic Amazon gift cards. The study may also give you an opportunity to reflect on your training in and experiences with inclusive practices. Additionally, you will contribute to the scientific research on general education teachers' training in and experiences with inclusive practices.

### **Will I be paid to take part in this study?**

You will not be paid to take part in this study.

### **What will happen to information I provide in the research after the study is over?**

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. The information collected about you for this research will not be used by or distributed to investigators for other research. If you would like to know the results of this survey, please contact Emily Morgan, and you will be informed of them when results are available.

### **What will happen if I do not want to take part or decide later not to stay in the study?**

Your participation is voluntary. If you choose to take part now, you may change your mind and withdraw at any time during the study procedures without any penalty to you. If you do not click on the 'submit' button after completing the form, your responses will not be recorded. You may also choose to skip any questions that you do not wish to answer. However, once you click the 'submit' button at the end of the form, your responses cannot be withdrawn as we will not know which ones are yours.

### **Who can I call if I have questions?**

If you have questions about taking part in this study, you can contact the Principal Investigator, Emily Morgan, at 856-208-7245 or at [emily.morgan@rutgers.edu](mailto:emily.morgan@rutgers.edu). You can also contact my faculty advisor, Dr. Elisa Shernoff, at [ess91@gsapp.rutgers.edu](mailto:ess91@gsapp.rutgers.edu) or at 848-445-3902.

If you have questions about your rights as a research subject, you can call the IRB Director at: New Brunswick/Piscataway ArtSci IRB, 832-235-2866.

Please print out this consent form if you would like a copy of it for your files.

If you do not wish to take part in the research, close this website address. If you wish take part in the research, follow the directions below:

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By beginning this research, I acknowledge that I am 18 years of age or older and have read and understand the information. I agree to take part in the research, with the knowledge that I am free to withdraw my participation in the research without penalty.

Click on the “I Agree” button to confirm your agreement to take part in the research.

- I agree
- I disagree

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

## Appendix B

**Initial Email Script for Contacting Participants**

Hello [participant's name],

I'm currently working on my dissertation, titled, "General Education Teachers' Knowledge of, Training in, Attitudes Toward, and Self-Efficacy in Implementing Inclusive Practices," as a student at the Graduate School of Applied and Professional Psychology Department at Rutgers under the supervision of Elisa Shernoff, Ph.D. The purpose of the study is to better understand general education teachers' knowledge of, training in, attitudes toward, and self-efficacy in implementing inclusive practices, such as differentiated instruction. Requirements for participating in the study are: (1) certification by a state agency to educate as a teacher and (2) current employment as a general education teacher. As a general education teacher, you can provide valuable information about your own experiences in these areas. We anticipate recruiting 130 general education teachers to participate in this study. A link is provided here for you to access a survey that will take about 10 minutes.

Follow this link to the survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

[https://rutgers.ca1.qualtrics.com/jfe/form/SV\\_8d196e2p1ot1lk1](https://rutgers.ca1.qualtrics.com/jfe/form/SV_8d196e2p1ot1lk1)

As a gesture of appreciation for your time to complete this survey, you may click a separate link to enter your email address to be entered into a drawing for one of 20 \$5 electronic Amazon gift cards.

Your responses will be submitted to a confidential, encrypted online database, and your email address will not in any way be associated with your responses or any of the findings. All information received will be incorporated into group data. If possible, please submit your responses within 7 days of receiving this email.

If you have any questions or would like a summary of the results of this research at no cost, please feel free to contact me, Emily Morgan. I can be reached at 856-208-7245 or at emily.morgan@rutgers.edu. You can also contact my faculty advisor, Dr. Elisa Shernoff, at [ess91@gsapp.rutgers.edu](mailto:ess91@gsapp.rutgers.edu) or at 848-445-3902. If you choose not to participate, you may disregard this email. Please also consider forwarding the survey link to any general education teachers you know who meet the study requirements and who may be interested in completing the survey. I greatly appreciate your time and cooperation and look forward to receiving your response.

All the best,

Emily

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

**Two-Week Follow-Up Email Script for Contacting Participants**

Hello [participant's name],

This is a follow-up email regarding my dissertation on general education teachers' knowledge of, training in, attitudes toward, and self-efficacy in implementing inclusive practices, such as differentiated instruction. If you have completed the survey already, thank you so much! You may either forward this email to other general education teachers who you think may be interested in completing the survey or disregard it. Gift card winners will be notified by email after all responses have been recorded, in approximately 4-6 weeks. If you have not completed the survey yet and would like to do so, you can use the link below or copy and paste the URL below to be directed to the survey. Requirements for participating in the study are: (1) certification by a state agency to educate as a teacher and (2) current employment as a general education teacher. As a general education teacher, you can provide valuable information about your own experience with implementing inclusive practices. We anticipate recruiting 130 general education teachers to participate in this study. The survey should take about 10 minutes.

Follow this link to the survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

[https://rutgers.ca1.qualtrics.com/jfe/form/SV\\_8dl96e2p1ot1lk1](https://rutgers.ca1.qualtrics.com/jfe/form/SV_8dl96e2p1ot1lk1)

Thank you for your time and cooperation!

All the best,

Emily

**Four-Week Follow-Up Email Script for Contacting Participants**

Hello [participant's name],

This is the final follow-up email regarding my dissertation on general education teachers' knowledge of, training in, attitudes toward, and self-efficacy in implementing inclusive practices, such as differentiated instruction. If you have completed the survey already, thank you so much! You may either forward this email to other general education teachers who you think may be interested in completing the survey or disregard it. Gift card winners will be notified by email after all responses have been recorded, in approximately 2-4 weeks. If you have not completed the survey yet and would like to do so, you can use the link below or copy and paste the URL below to be directed to the survey. Requirements for participating in the study are: (1) certification by a state agency to educate as a teacher and (2) current employment as a general education teacher. As a general education teacher, you can provide valuable information about your own experience with implementing inclusive practices. We anticipate recruiting 130 general education teachers to participate in this study. The survey should take about 10 minutes.

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Follow this link to the survey:

[Take the Survey](https://rutgers.ca1.qualtrics.com/jfe/form/SV_8d196e2p1ot1lk1)

Or copy and paste the URL below into your internet browser:

[https://rutgers.ca1.qualtrics.com/jfe/form/SV\\_8d196e2p1ot1lk1](https://rutgers.ca1.qualtrics.com/jfe/form/SV_8d196e2p1ot1lk1)

Thank you for your time and cooperation!

All the best,

Emily

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

## Appendix C

**Survey Instructions**

Welcome to the survey! Data from this survey will be used as part of a dissertation researching K-12 general education teachers' knowledge of, training in, attitudes toward, and self-efficacy in implementing inclusive practices.

Participation in the survey is completely voluntary, and all responses are anonymous. Completion of the survey should take approximately 10 minutes. You may skip questions or withdraw from the study altogether with no consequence. If you decide to quit at any time before you have finished the survey, your answers will NOT be recorded.

As a thank you for your time, there will be an opportunity at the end of the survey for you to provide your email address to be entered into a raffle for one of 20 \$5 Amazon electronic gift cards.

We also ask that you forward the link to the survey to any general education teachers you know who may be interested in completing the study. The link for the survey is:

[https://rutgers.ca1.qualtrics.com/jfe/form/SV\\_8d196e2p1ot1k1](https://rutgers.ca1.qualtrics.com/jfe/form/SV_8d196e2p1ot1k1)

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

## Appendix D

Hello, Thank you for your participation in my dissertation survey at Rutgers under the supervision of Elisa Shernoff, Ph.D. You were randomly selected as a winner for one of 20 \$5 electronic Amazon gift cards! If you have any questions, please contact me, Emily Morgan. I can be reached at 856-208-7245 or at [emily.morgan@rutgers.edu](mailto:emily.morgan@rutgers.edu). You can also contact my faculty advisor, Dr. Elisa Shernoff, at [ess91@gsapp.rutgers.edu](mailto:ess91@gsapp.rutgers.edu) or at 848-445-3902. Thank you again for your participation! Best, Emily

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

## Appendix E

**Training Questions:**

1. How many years of college have you completed?
  - a. Less than 3
  - b. 3
  - c. 4
  - d. 5
  - e. 6
  - f. 7
  - g. More than 7
    - i. Please specify:
2. What is the highest degree you hold?
  - a. High school diploma or GED
  - b. Associate
  - c. BA/BS
  - d. MA/MS/EdM
  - e. PhD/EdD
  - f. Other
    - i. Please specify:
3. What teaching areas are you certified in?
  - a. Early childhood education
  - b. Elementary education
  - c. Secondary education
  - d. Special education
  - e. Other
    - i. Please specify:
4. How many special education courses have you taken through a college or university?
  - a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5
  - g. More than 5
    - i. Please specify:
5. How many experiential training activities with students with IEPs (e.g. student teaching, working with students with IEPs during an extracurricular activity) have you completed?
  - a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5
  - g. More than 5

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- i. Please specify:
6. How many school-level professional development workshops on special education have you attended?
- a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5
  - g. 6
  - h. More than 6
- i. Please specify:
7. How many of the school-level professional development workshops on special education you attended were required?
- a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5
  - g. 6
  - h. More than 6
- i. Please specify:
8. How many district-level professional development workshops on special education have you attended?
- a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5
  - g. 6
  - h. More than 6
- i. Please specify:
9. How many of the district-level professional development workshops on special education you attended were required?
- a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. 4
  - f. 5
  - g. 6
  - h. More than 6
- i. Please specify:

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10. Please select any additional methods you have used to learn about special education practices:
- a. Journal articles
  - b. Books
  - c. Websites
  - d. Consultation with another general education teacher
  - e. Consultation with a special education teacher
  - f. Consultation with a school psychologist
  - g. Consultation with another member of the Child Study Team (i.e. school social worker or learning disabilities teacher consultant)
  - h. Consultation with an administrator

Other \_\_\_\_\_

## GENERAL EDUCATION TEACHERS AND INCLUSIVE PRACTICES

## Appendix F

**Demographic Questions:**

- Please specify your ethnicity:
  - Asian
  - Black or African American
  - Hispanic or Latinx
  - Native American or American Indian
  - White or European American
  - Biracial or Multiracial
  - Other \_\_\_\_\_
- Please specify your gender:
  - Male
  - Female
  - Non-binary
  - Agender
  - Other \_\_\_\_\_
- How many years have you been teaching?
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - More than 10. Please specify: \_\_\_\_\_
- What type of school do you work in?
  - Charter
  - Private (non-religious)
  - Private (religious)
  - Public
  - Other
    - Please specify:
  - I do not work in a school
    - If endorsed: What type of setting do you work in?
      - Childcare center
      - Tutoring center
      - Learning academy
      - Other

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- Please specify:
- What grade level do you teach?
  - Pre-K through 3
  - 3-5
  - 6-8
  - 7-12
- What subject(s) do you teach?
  - English
  - Math
  - Science
  - Social Studies
  - Elementary
  - Other:
    - Please specify:
- Are you certified to teach in any other subjects or grade levels?
  - If yes: Please indicate all subjects and grade levels you are certified to teach in.
  - Pre-K through 3
  - 3-5
  - 6-8
  - 7-12
  - English
  - Math
  - Science
  - Social Studies
  - Elementary
  - Other:
    - Please specify:
- What state do you teach in?
  - Displays drop down menu with each of the 50 states
- Are you certified to teach in any other states?
  - If yes: Please indicate each of the states you are certified to teach in.
    - Displays multiple choices with each of the 50 states. More than one state can be selected
- Would you like to provide your email address to be entered into a drawing for one of 20 \$5 electronic Amazon gift cards? Your email address will not be associated with your survey responses
  - If yes: Redirects to a second survey using an anonymous link, located at [https://rutgers.ca1.qualtrics.com/jfe/form/SV\\_5jXeHXzJ2xdnEWx](https://rutgers.ca1.qualtrics.com/jfe/form/SV_5jXeHXzJ2xdnEWx). The only item on this survey is:
    - Please enter your email address into the box below. Your email address will only be used as an entry for the \$5 Amazon gift card drawing
  - If no: Survey ends

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- Survey ending message: We thank you for your time spent taking this survey. Your response has been recorded. Please considering forwarding the survey to any other general education teachers you know who may be interested in completing the survey. The link for the survey is: [https://rutgers.ca1.qualtrics.com/jfe/form/SV\\_8dI96e2p1ot1lk1](https://rutgers.ca1.qualtrics.com/jfe/form/SV_8dI96e2p1ot1lk1)