

## **The relationship between teacher knowledge and skills and teacher attitude towards students with disabilities among elementary, middle and high school teachers in rural Texas schools**

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### **ABSTRACT**

State and federal accountability continues to be a major part of public education. The impact that federal legislation has had when working with special needs students adds another facet to public education. Both state and federal accountability play a part in how teachers perceive their attitudes when working with students with disabilities. This quantitative study investigated the relationship between teacher perceived knowledge and attitude towards students with disabilities at elementary, middle, high school and K-12 levels in rural school districts in south Texas. Through the use of the Regular Education Teacher Perceptions Survey (RETPS) instrument, data were collected and analyzed. The survey instrument utilizes a five-point Likert type scale to collect data. Identifying areas of needs through the study may assist school districts in better preparing staff to work with students with special needs. Correlations were computed among all attitudes for knowledge of policies and procedures and knowledge of instructional strategies. Secondary scored significantly less than K-12 on total attitudes.

Keywords: students with disabilities, teacher knowledge, teacher skills, teacher attitude

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## INTRODUCTION

With the changes that have taken place after the implementation of the Individuals with Disabilities Act and the No Child Left Behind Act, increased numbers of students with disabilities are being educated in regular education classes (Alquraini & Gut, 2012) and teachers have found themselves educating students with special needs while simultaneously offering instruction to regular students, something challenging and new for many. Mainstreaming school children with special needs has brought awareness to teacher perceptions towards students with special needs. Regular education teachers now must be prepared to instruct all students even though meeting the needs of special and regular education students may not be an easy task and is dependent on a teacher's perception of their students (Fuchs, 2010).

Additionally, special needs students must meet academic standards as determined through statewide assessments. However, neither mainstreaming nor inclusion, both of which have been proven to be beneficial, can be effective without proper teacher training. School districts must take the time to providing staff development in mainstreaming and inclusion in order to increase teacher and student success. Increasing teacher knowledge in strategies and knowledge of both inclusion and mainstreaming can assist teachers in feeling better prepared to work with students with disabilities.

The effects that No Child Left Behind has had on the education of students with special needs and how they are taught in regular education classes must be studied. This study identified areas in which rural school districts could offer support to regular education teachers in the form of on-going staff development by first determining how teachers' perceptions of students with special needs are affected by their knowledge.

The purpose of this research was to determine the perceptions of teachers towards students with special needs at elementary, middle, high school and K-12 levels in rural school districts in south Texas; looking specifically at their knowledge of and skills in policies and procedures as well as in instructional strategies and how this impacts teachers' attitudes in working with students with disabilities.

## REVIEW OF LITERATURE

According to the United States Department of Education, almost 60% of Special Education students in K-12 go to school and receive 80% their education from general education teachers (US DOE, 2011). Special Education students come with a variety of needs, from learning disabilities in math and/or reading to behavioral issues. However, the various challenges associated with Special Education, from the expense, low expectations to the increased responsibilities and the need for extra time and attentions, can affect how teachers perceive students with disabilities and the preconceived notions that come with these attitudes.

Preparation for teachers of students with special needs is a crucial step in the success of the teacher and education in general. Unfortunately, many educators in mainstream education have no prior training in educating students with special needs (Morrier, Hess, & Heflin, 2011). According to Attwood (2007), teachers must have access to the following in order to work with students with special needs and promote their success: up-to-date training, in-class support, and accompanying resources for students with special needs along with knowledge about the utilization of such tools.

Research has shown that number of years of experience does not matter, but training does (Syriopoulou-Deli, Cassimos, Tripsianis & Polychronopoulou, 2011). Ruble, Usher, and McGrew (2011) determined that better prepared teachers had higher levels of confidence and lower levels of burnout. Similarly, *Syriopoulou-Delli, Cassimos Tripsianis, and Polychronopoulou* (2011) found that teachers with little or no knowledge of Autism perceived these children being very needy to the extent of being mentally challenged.

Research conducted by Strogilos, Nikolaraizi, and Tragoulia (2012) determined that teacher preparation programs needed to be effective and provide evidence-based ways to increase collaborative and co-teaching practices between regular education and Special Education teachers. This same research also determined that mentoring programs for teachers are extremely valuable. These studies indicate that school culture goes a long way in impacting teacher success in the classroom.

Many strategies have been found to be beneficial for students with disabilities from strategies that include visual supports, communication, and behavioral interventions to incorporating technology in everyday instruction. Some strategies for working with children with special needs include allowing students to take notes using a highlighter to identify the main idea and challenging students consistently at their cognitive level during reading; practicing listening skills by frequently checking understanding; allowing students to practice inferential thinking using one logical step at a time; using embedded distractions in order to judge relevancy; having students predict what is next in a story; having students arrange and rearrange story events in sequential order; teaching student to differentiate fact from opinion; and educating students to use resources such as a dictionary or online searches (Silverman & Weinfeld, 2007). Pivotal Response Training (PRT), a behavioral intervention that facilitates generalization and increases spontaneity and motivation while reducing dependency by encouraging appropriate cues and responding to multiple cues, allowing children to choose, taking turns, encouraging risk taking, providing random maintenance tasks, and giving constant reinforcement that is directly related to the child's response, is another example of an effective strategy used to assist special needs children in the classroom (Suhrheinrich, 2011). The Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH Model) and the Social Communication, Emotional Regulation and Transactional Support (SCERTS Model) (Sastry & Aguirre, 2012) have also been proven to be effective strategies for working with students with special needs. Having knowledge of these strategies will impact teacher's perceptions of their attitudes towards students with disabilities.

Educating students with disabilities requires teachers to be prepared. This preparation can take on many forms. An understanding of policies and procedures to ensure that all decisions and actions are done legally and with the best interest of the students in mind may assure that these students are successful. Teacher perceptions of their preparedness to work with students with special needs may impact how successful students will be. The teachers' role in developing a successful inclusion strategy is vital (Lindsey, 2007).

## METHODOLOGY

To meet the purpose of this study, a 5-point Likert-type instrument, The Regular Education Teacher Perceptions Survey (RETPS) was administered to regular education teachers from five small rural school districts in south Texas. The population sample consisted of 53 general educators' responses from a pool of 168 administered surveys. The demographics for this

study ranged in age, years of teaching experience, and type of teacher preparation programs. Since the study targeted rural school districts in south Texas, the ethnicity of the participants was predominantly Hispanic. The districts considered for this study ranged from a total enrollment of 300 to 1200, Pre-K through 12<sup>th</sup> students with a majority of students being described as Hispanic and economically disadvantaged. Once data collection was completed, data were analyzed using SPSS (version 22.0) statistical analysis software. Mean, range scores, and standard deviations were disaggregated. Pearson correlation coefficient data were calculated.

## RESULTS

Table 1 offers a summary of the demographic data that was collected. An interesting finding was that 20.8% of the participants identified themselves as teaching K-12 grade level. Survey questions were grouped into two sub-areas: Knowledge of Policies and Procedures, Knowledge of Instructional Strategies. Questions 1 through 4 and 8 through 12 in the Knowledge section of the survey applied to Knowledge of Policies and Procedures. The remaining part of the survey addressing Attitudes was separated into three sub-areas: Motor/Sensory Disabilities, Cognitive Disabilities, and Emotional Disabilities. This portion of the survey contained 16 questions for determining teacher attitude.

Table 1  
*General Education Teacher Demographics Assessment Data (N=53)*

Characteristic	N	%
Gender		
Male	7	13.2%
Female	46	86.8%
Age		
20-29 years	5	9.4%
30-39 years	17	32.1%
40-49 years	17	32.1%
50-59 years	13	24.5%
Blank	1	1.9%
Major		
Elementary	11	20.8%
Early Childhood	9	17.0%
Secondary	24	45.3%
Special Education	4	7.5%
Blank	5	9.4%
Grade level taught		
Elementary School	17	32.1%
Middle School	8	15.1%
High School	16	30.2%
K-12	11	20.8%
Blank	1	1.9%
Observe in SPED classroom during student teaching		

Yes	14	26.4%
No	35	66.0%
Blank	4	7.5%
District		
Rural	38	71.7%
Suburban	6	12.8%
Urban	3	6.4%
Blank	6	11.3%

Survey questions 1 through 4 and 8 through 12 are in the Knowledge section of the survey. Knowledge of policies and procedures in Special Education law including least restrictive environment, referral procedures, and parental rights were assessed specifically. Question 12 ( $M=2.09$ ,  $SD=.60$ ) yielded a high percentage of “undecided” (22.6%) responses. The statement in item 12 read “I practice the relationship among the multidisciplinary evaluation, selecting instructional activities and evaluating progress.” This question referred to three different activities needed to assist student with disabilities. Participants indicated not being comfortable with a specific part. Question four, ( $M=1.77$ ,  $SD=.47$ ) “I have knowledge of parent’s rights in Special Education,” had the highest percentage between “strongly agree” and “agree” (98.1%). It would appear that regular education teachers feel very comfortable with their knowledge of parental rights and Special Education.

Correlation coefficients were computed between Knowledge of Policy and Procedures and each of the Attitude constructs: Motor Sensory, Cognitive, Emotional, and Total Attitudes. Using the Bonferroni approach to control for Type 1 error across the 4 correlations, a  $p$  value of less than .0125 was required for significance. The results of the correlational analyses presented in Table 2 indicated that 4 out of the 4 correlations were statistically significant and were greater than or equal to .47. In terms of effect size, except for Emotions, which had a moderate effect size, all were considered to have a large effect. In general, the results suggested that those who perceive they have a good knowledge of policy and procedures would also have positive attitudes towards students with learning disabilities in all domains.

Table 2  
*Correlation: Knowledge of Policy and Procedures (N=53)*

	Knowledge of Policies and Procedures
Attitudes- Motor sensory	.60**
Attitudes-Cognitive	.56**
Attitudes-Emotional	.47**
Total Attitudes	.56**

\*\*Pearson Correlation is significant at the less than .001 level 2 tailed

Teacher’s knowledge of instructional strategies and attitude towards students with disabilities was addressed with questions 5 through 7 and questions 13 through 17 of the knowledge part of the survey. The question with the highest percentage of agreeable responses was question five ( $M=1.66$ ,  $SD=.52$ ), “I understand typical child development,” with 98.1%. Teachers may have considered previous training in education when answering this question. While the lowest rating question was question seven ( $M=2.02$ ,  $SD=.64$ ), “I have knowledge regarding various disabling conditions,” with 79.2%. This could be considered an area of

concern.

Correlation coefficients were computed between Knowledge of Instructional Strategies and each of the Attitude constructs: Motor Sensory, Cognitive, Emotional, and Total Attitudes. Using the Bonferroni approach to control for Type 1 error across the 4 correlations, a *p* value of less than .0125 was required for significance. The results of the correlational analyses presented in Table 3 indicated that 4 out of the 4 correlations were statistically significant and were greater than or equal to .467. In terms of effect size, Cognitive and Emotional had a moderate effect size, and Motor Sensory and Total Attitudes had a large effect. In general the results suggest that those who perceive they have a good knowledge of instructional strategies will also have positive attitudes towards students with learning disabilities in all domains.

Table 3

*Correlation: Knowledge of Instructional Strategies (N=53)*

	Knowledge of Instructional Strategies
Attitudes- Motor sensory	.9**
Attitudes-Cognitive	.47**
Attitudes-Emotional	.48**
Total Attitudes	.53**

\*\*Pearson Correlation is significant at the less than .01 level 2 tailed

Comparing knowledge of instructional strategies with attitude toward students with disabilities indicated that regular education teachers perceive themselves to be very knowledgeable about instructional strategies. Teachers did, however, feel that they lacked knowledge regarding various disabling conditions. These results were similar to research conducted by Downing and Eichinger. They determined that classroom teachers of students with sensory impairments were usually not experienced with learners having these types of deficits and were unfamiliar with the strategies needed to compensate for sensory losses (Downing and Eichinger, 2011).

## CONCLUSIONS AND RECOMMENDATIONS

The relationship between teacher skill level with policies and procedures and attitude toward students with disabilities was addressed. It was determined that regular education teachers felt comfortable about most survey questions addressing skill level with policies and procedures; however, regular education teachers felt uncomfortable with their participation in the Individual Educational Plans (IEP) process. The IEP can be considered a “universal tool” for educators in recording and tracking student goals and objectives that are specific to student needs (Ruble, McGrew, Dalrymple, & Lee Ann, 2010). Teachers must feel comfortable in order for students to be successful in the IEP process. Teachers must know what is needed in the plan and then incorporate the plan into their daily planning. Past research has found that teachers are not necessarily included in the designing of the IEP (Prunty, 2011). Research has identified that 91% of mainstream classroom teachers provide relevant background information to inform the IEP process, 95% attend IEP meetings, 80% receive a copy of the IEP and 40% are involved in writing the IEP with the Resource Teacher/Learning Support Teacher (Prunty, 2011). Teachers indicated that being able to monitor students with disabilities and their interactions toward students without disabilities was an area in which they were comfortable.

Special Education legislation changed how students with disabilities are educated. Regular education teachers must meet the new regulations and demonstrate their knowledge about and skill level with both policies and procedures and instructional strategies. Results of this study indicated that regular education teachers perceived themselves as knowledgeable regarding Special Education policies and procedures and perceived themselves as knowledgeable in instructional strategies when working with students with all types of disabilities whether motor sensory, cognitive, or emotional disabilities. Participants also perceived themselves as having a positive attitude towards students with disabilities. Teachers felt comfortable having students with disabilities alongside regular education students and felt able to accommodate students with special needs in their classrooms. Results did determine that regular education teachers found themselves uncomfortable with the designing of IEPs.

In summary, examining the attitudes of teachers towards students with disabilities through their perceptions of knowledge of policies and procedures and instructional strategies found that there was a positive correlation among them. Data indicated that in a majority of areas, teachers perceived themselves as having a positive attitude towards students with disabilities. Concerns that were identified may be addressed through staff development; these include IEP implementation and development.

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