

SPECIAL EDUCATORS' PERCEPTIONS OF THEIR USE OF EVIDENCE-BASED  
PRACTICES

by

Mary Guckert  
A Thesis  
Submitted to the  
Graduate Faculty  
of  
George Mason University  
in Partial Fulfillment of  
The Requirements for the Degree  
of  
Master of Science  
Educational Psychology

Committee:

Mary A. Mastropieri Chair

Layne Kalbfleisch

Frederick K. K. K. K. Program Coordinator

Martin Ford Dean, College of Education  
and Human Development

Date: July 15, 2010

Summer Semester 2010  
George Mason University  
Fairfax, VA

Special Educator's Perceptions of their Use of Evidence-Based Practices

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at George Mason University

By

Mary Guckert  
Bachelor of Individualized Study  
George Mason University, 2007

Chair: Professor Margo A. Mastropieri  
College of Education and Human Development

Summer Semester 2010  
George Mason University  
Fairfax, VA

Copyright: 2010 by Mary Guckert  
All Rights Reserved

## DEDICATION

This is dedicated to my loving and supportive husband, Curtis Guckert and my children, Ashley, Samantha, Autumn and Blake, who inspired me to reach for the stars.

## ACKNOWLEDGEMENTS

The demands of pursuing my Masters degree in Educational Psychology while balancing family, personal and professional responsibilities could not have been met without the dedicated support of the many caring people in my life. I would like to recognize and extend my sincere appreciation to all who provided encouragement, patience and wisdom during my journey.

Choosing the thesis option was a challenge as it was a new option in the Educational Psychology Masters program. I was motivated to choose this option because I knew it would offer me an in depth understanding of the research process. I believe this experience offered me the opportunity to acquire an in depth knowledge of research that coursework alone could not have accomplished. The work involved in this research study also gave me the opportunity develop a better understanding of what is entailed in the professor role outside of the classroom.

To my thesis advisor, Dr. Margo Mastropieri, thank you for helping me to see my potential as a researcher and for your encouragement and expert advice during this process. Your dedication in guiding me and responding to my numerous questions during this process was encouraging. Thank you for taking the time to help me develop my research skills and for giving me many other opportunities to visualize future educational and professional goals. To the professors who served on my thesis committee, Dr. Tom Scruggs and Dr. Layne Kalbfleisch, thank you for your time and advice in this process. You inspired me to continue my journey into the PhD in Education program.

To the teachers that participated in this study, thank you for your time and devotion to the special education classroom.

Thank you to my husband, Curtis for your ongoing patience, support, and understanding during this journey. You were always there for me in so many ways and I appreciate it greatly. Your constant encouragement and belief in my ability was something I could always depend on throughout this challenge. To my children, Ashley, Samantha, Autumn and Blake, I hope that my academic journey has inspired you to recognize that you are capable of achieving all your future goals. You have been my strength and motivation to persevere and never give up.

## TABLE OF CONTENTS

	Page
List of Tables .....	vii
List of Figures.....	viii
Abstract .....	ix
1. Introduction .....	1
Introduction .....	1
Background: Evidence-Based Practices .....	2
Significance .....	4
Research Questions .....	6
Definitions .....	6
2. Review of the Literature .....	8
Search Procedures .....	8
Research to Practice Gap .....	9
Teachers' Perceptions of Evidence-Based Practices .....	9
Rationale .....	16
3. Methods .....	17
Research Design .....	17
Participants .....	18
Data Collection and Data Sources .....	24
Pilot Data .....	27
Issues of Validity .....	28
4. Data Analysis .....	31
Data Analysis .....	31
Results.....	34
Levels of Awareness Across Highly Educated Special Educators .....	34
Awareness Levels and Personalization of Research .....	46
5. Discussion.....	69
Overview .....	69
Discussion.....	70
Summary.....	78
Limitations.....	79
Implications for Professional Development .....	80
Implications for Future Research.....	81
Appendix A.....	83
Appendix B .....	85

	Page
Appendix C .....	86
Appendix D .....	91
Appendix E .....	92
Appendix F .....	93
Appendix G .....	94
Appendix H .....	95
Appendix I .....	96
List of References.....	97

LIST OF TABLES

Table	Page
Demographic Data .....	19
Teacher Interview Schedule .....	26
Data Reduction for Use of Research.....	36
Data Reduction for Sources and Practices within the Levels of Awareness .....	47



## LIST OF FIGURES

Figure	Page
Conceptual Framework of Teachers use and Perception of Research .....	72
Conceptual Framework for Personalization of Research .....	73

## ABSTRACT

### SPECIAL EDUCATORS' PERCEPTIONS OF THEIR USE OF EVIDENCE-BASED PRACTICES

Mary Guckert, MS

George Mason University, 2010

Thesis Chair: Dr. Margo A. Mastropieri

Current federal regulations require the use of evidence-based practices to meet the diverse needs of students in the special education classroom. Evidence-based practices are proven to help students with special needs experience academic success. Recent studies reveal the research-to-practice gap still exists. This qualitative research study examined practicing special education teachers' perceptions and use of evidence-based practices. Ten special education teachers were interviewed to explore this phenomenon. Major themes emerged from the analysis of the data sources that revealed all teachers believed that they were using evidence-based practices; however, awareness levels varied and affected their personalization of research. Awareness levels of credible evidence-based practices ranged from high, medium and low. Sources of evidence are varied greatly from university coursework, research articles, co-workers' ideas, and self-generated ideas. Personalization of evidence-based practices consisted of teachers

adapting and modifying practices to meet their own needs, rather than relying on fidelity of treatment measures. Implications for the special education classroom are discussed.

## **CHAPTER 1. INTRODUCTION**

### **Introduction**

Influences on special education such as the standards-based movement, federally mandated state proficiency testing, inclusion, and research proving students with disabilities are capable of higher academic achievement have inspired the movement to improve educational and learning outcomes of special education students (Cook, Landrum, & Tankersley, 2009). In an effort to improve special education, the federal government authorized The No Child Left Behind Act (NCLB) which required the use of evidence-based practices (EBPs) to meet the needs of students with disabilities (Burns & Ysseldyke, 2009). Current traditional teacher preparation programs are also proven effective for endorsing research-based practices and effective teaching skills (Nougaret, Scruggs, & Mastropieri, 2005). In addition, proven evidence of success in research shows that students receiving special education have positive academic outcomes (Burns & Ysseldyke, 2009). However, the current research on special education teachers' use of evidence-based practice reveals contradictory results. Although Burns and Ysseldyke (2009) recent survey reveals special education teachers' use of evidence based practice, some of the practices teachers reported regularly using were least effective in the classroom. Other studies have shown special education teachers felt pessimistic about research-based practices and did not feel obligated to use them in their classrooms (Boardman, Arguelles, Vaughn, Hughes, & Klinger, 2005).

## **Background: Evidence-Based Practices**

Evidence-based practices are critical in the education of children with disabilities. Proven evidence of success in research shows that students receiving special education can perform academically with specifically designed instructional strategies. Therefore, “research should be the foundation from which teaching and learning practices are developed and improved” (Burns & Ysseldyke, 2009, p.3). The federal government made evidence based-practices readily accessible for teachers, parents, and administrators on a federal government website called the What Works Clearinghouse developed by the Institute of Education Sciences (IES) (see <http://www.whatworks.ed.gov>) (Burns & Ysseldyke, 2009). Currently, the Office of Planning, Evaluation & Policy Development (OPEPD) of the U.S. Department of Education has also created a Doing What Works (DWW) website providing an online library of resources for evidence-based practices (U. S. Department of Education, 2009).

An evidence-based practice (EBP) is one that is supported by empirical research and professional wisdom (Burns & Ysseldyke, 2009). More specifically, “the Department of Education’s Institute for Education Sciences has stated that the randomized control trial (RCT) is critical to establishing evidence of an instructional technique’s effectiveness (Council for Exceptional Children (CEC), 2009). This is when effectiveness of the strategy is measured by the random assignment of students to a control or intervention group (CEC, 2009). Although researchers agree the RCT is a credible measure, many assert that other methods should also be considered in the research for students with disabilities (CEC, 2009). Some researchers have criticized the

What Works Clearinghouse standards as putting too much emphasis on randomized controlled trials, which can be too complicated to replicate in the school setting (Cook et al., 2009).

Due of the complexity of working with individuals with disabilities, other types of research can also provide valuable information such as experimental, single or group design research (CEC, 2009). Correlational research can also be valuable to special education research because of it's capability to reveal associations between two factors, including grades and attendance (CEC, 2009). In addition, qualitative research can describe phenomena and reveal valuable research through interviews, observation and content analysis (CEC, 2009).

Cook et al. (2009) analyzed the criteria for determining evidence-based practices in special education and proposed refined quality indicators (QIs; i.e., features present in high-quality research studies) and standards for evidence-based practices. The Division for Research of the Council for Exceptional Children initially proposed QI's for four research designs: group experimental, correlational, qualitative, and group experimental/quasi experimental research. Cook et al. (2009) compared these initially proposed guidelines for special education with other systems for determining what works in clinical psychology, school psychology, and general education. As a result of an over 400 hour review, they found the "first large-scale application of the Quality Indicators (QI's) and the standards for EBP's in special education" (Cook et al., p. 380). They suggest that EBP's should always be used in correlation with professional wisdom in order to truly benefit the outcome of students with disabilities. Cook et al. (2009) also

advised, “although we recognize the dangers of overemphasizing EBP’s in a field premised on individualized instruction, we believe that special educators would be remiss if they did not make every effort to prioritize practices shown by our best research to result in meaningful improvements in student outcomes” ( p. 381).

While the field has not come to terms with criteria for acceptable research methods, Doug Fuchs, professor at Vanderbilt University, points out that due to the 20-30 years in special education research, teachers can rely on a solid empirically supported series of instructional strategies (CEC, 2009). Council for Exceptional Children’s (CEC) Division for LD and DR provides EBP’s through current *Practice Alerts*, a part of their website that teachers can access to find out more about EBP’s, their usability and how to implement them into practice (see [www.TeachingLD.org](http://www.TeachingLD.org)) (CEC, 2009). In addition, CEC points out that special education teachers value, seek and use EBP’s to improve their students’ success in the classroom (CEC, 2009). However, Cook et al. (2009) argue that many special education teachers currently use teaching practices that have minor effects on student outcomes while disregarding the use of evidence-based practices.

### **Significance**

Recent studies reveal that the research-to-practice gap still exists in the special education classroom (Landrum & Tankersley, 2004). Although special education teachers play an important role in providing an appropriate education for students with disabilities, research suggests that students participating in the special education classroom across the nation are at risk of not receiving effective evidence-based instruction. There are many reasons found in research as to why teachers disregard the

use of evidence-based practice. CEC (2009) notes that special education teachers find difficulty in accessing EBP's due to time constraints, budget cuts that prevent professional development training, and the difficulty to translate research to practice (CEC, 2009).

The current research on teachers' perceptions and use of evidence-based practices conveys that problems still exist in the special education classroom. Research shows that teachers' lack of knowledge and trust of evidence-based practices still exist. As many studies revealed, teachers feel the translation of research into practice is problematic, often too time consuming, and complicated. Therefore, it is important to understand what changes teachers' attitudes about implementing and continuing to use new practices.

Research on teachers' efficacy beliefs have been linked to the implementation and use of new practices and positive academic outcomes. This relationship also informs the use and sustainability of research-based practices. Teachers having a greater sense of efficacy are found more likely to adopt new practices (Gersten, Chard, & Baker, 2000). Teacher efficacy refers to a teacher's belief about the ability to affect student learning and performance in the classroom (Alderman, 2008). The teacher efficacy construct was developed from Bandura's self-efficacy construct. As Bandura proposed, a person's self efficacy beliefs are the main component of behavioral change and self-regulation and defined self efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (as cited in Henson, 2001, p. 822). Since teachers' efficacy beliefs have been linked to the implementation and use of new



practices and positive academic outcomes, it is imperative to understand this relationship in order to inform professional development of special education teachers.

Although research shows that professional development and teacher preparation programs reflect that teachers are receiving effective training for the special education classroom, little is known regarding their current perceptions of evidence-based practices. Even though some research has been conducted in this area and provides some insight, the findings are inconclusive due to the fact that (a) they might have missed issues that could be raised in personal interviews, (b) practices investigated were limited and not current with research, and (c) the reliability of the responses were unknown. Therefore, this study attempted to extend Burns and Ysseldyke's (2009) research by interviewing special education teachers on their perceptions of their use of evidence-based practices. The purpose of this study was to investigate the current practices special education teachers use in the classroom. Due to the research to practice gap, understanding what practices teachers currently use warranted empirical inquiry. As research revealed, research based practices are critical in the education of children with disabilities. Informing the research to practice gap helps to inform practice and thus informs change.

### **Research questions**

The research questions for this study included:

1. What are practicing special education teachers' perceptions of their use of evidence-based practices?
2. What are the sources for the practices special education teachers use?

### **Definition of Terms**

- Evidence-Based Practice (EBP): A practice based on empirically supported evidence.
- Individuals with Disabilities Education Improvement Act (IDEIA): This Act requires that schools ensure accountability of research based practices and effective instruction for students with special needs.
- Quality Indicators (QI's): Features that are present in high-quality research studies and standards for evidence based practices.
- No Child Left Behind Act (NCLB): This Act requires that all teachers, general and special education, are considered “highly qualified” in their field. Every state must mandate that all teachers are “highly qualified” and receive proper training and professional development.
- Nvivo 8: Qualitative data analysis software.
- Research to Practice Gap: The lack of translation of research to practice in the special education classroom.
- Personalized Research: A change, alteration, or modification of an evidence-based practice.

## **CHAPTER 2. LITERATURE REVIEW**

The purpose of this chapter was to provide a summary of literature related to teachers' perception and use of evidence based practices and the status of the research to practice gap. The first section provided information on the search procedures. An overview of the research to practice gap was provided for the second section. The third section addressed teachers' perceptions of evidence-based practices. Finally, a rationale for this qualitative research study was presented.

### **Search Procedures**

A literature search was conducted to explore relevant literature using the following databases: *Education Research Complete*, *PsycINFO*, and *Education Resources Information Center* (ERIC). The keywords used for search on these databases included the following: special education, teaching practices, evidence-based practices, research to practice, teacher efficacy, special education teachers, and instructional practices. The search was conducted referring to the years 1980 through present in order to access research that was most current. Previous studies on teachers' perception and use of evidence-based practices were acquired and examined. Ancestral searches from all references lists were conducted for relevant articles. In addition, the website for CEC and the U.S. Department of Education were searched for literature and information as well.

## **Research to Practice Gap**

Recent reform policies such as the NCLB Act of 2001 and the reauthorization of the Individuals with Disabilities Education Improvement Act of 2004 have drawn much attention to the research to practice gap in special education. In fact, the phrase *scientifically based research* is employed more than 100 times within the NCLB policy as the reliable standard for educational practice (Jones, 2009). Research evidences that many effective strategies and interventions have been developed for students with disabilities (McLeskey & Billingsley, 2008). In response to the research to practice gap, much emphasis has been placed on training teachers to use evidence-based practices in teacher preparation and professional development programs; however, evidence suggests a limited use of these practices in the special education classroom (McLeskey & Billingsley, 2008). As Jones (2009) argued, students with special needs are the least able to afford instructional practices that ignore research findings. Many reasons have been cited for lack of use of evidence-based practices such as teacher attitudes and beliefs, administrative support, time constraints, and difficulty in implementation (Jones, 2009).

## **Teachers' Perceptions of Evidence-Based Practices**

In a qualitative study of special education teachers, Boardman, Arguelles, Vaughn Hughes and Klinger (2005) investigated special education teachers' perspectives of EBP's and professional development. They conducted eight two-hour focus group interviews with elementary special education teachers in four different schools who taught students with learning disabilities and emotional and behavioral disabilities (Boardman, et al., 2005). Findings revealed that although some teachers reported using

EBP's endorsed by their schools, many chose instructional practices on their own judgments (Boardman et al., 2005). Most teachers admitted that they continued to use what worked for them despite their school districts requests to use the research-based methods from teacher programs. Also, most teachers reported, "they were neither obligated to nor impressed by the current push to use research based practices in their classrooms" (Boardman et al., 2005, p.177). Teachers indicated that they felt there was a lack of relevant professional development that would help them in managing behaviors in their classroom. A lack of trust of research claims was also a common theme as one teacher reported, "Yeah, I don't know if even when I hear research, I would really not pay much attention because it's coming out of whoever's selling the program" (Boardman et al., 2005).

The study revealed that teachers based their decisions for instructional practices on the individual needs of their students and the effectiveness of a practice for student learning before even considering if a practice was research based (Boardman et al., 2005). Another finding was that teachers reported that "unless their basic needs, such as access to relevant programs and materials, are met, there is no incentive for them to search out and attempt to implement new practices" (Boardman et al., 2005). Findings also showed that teachers' pessimism to research was due to lack of exposure to practices that are unique to special education and suggested that professional development is lacking for teachers in special education (Boardman et al., 2005).

Landrum, Cook, Tankersley and Fitzgerald (2002) examined 127 practicing general and special education teachers' perceptions of the trustworthiness, usability, and

accessibility of intervention information from four different sources in a Likert scale survey. No significant differences were found between the general and special education teachers. This study revealed “teachers rated professional journals and college coursework as generally less trustworthy, usable, and accessible sources of information than their own colleagues and workshops or inservice presentations” (Landrum et al., 2002, p.46). College coursework was rated as less usable and accessible than workshops and other teachers (Landrum et al., 2002). Teachers also rated peers as the source of more trustworthy and usable information (Landrum et al., 2002). This study implicated that significant differences in choices of intervention information can also potentially predict future teacher behavior (Landrum et al., 2002). In conclusion, the overall ratings of sources suggested that teachers mostly value and trust information that comes from colleagues which informs the current research to practice dilemma.

Abbot, Walton, Tapia, and Greenwood (1999) addressed the research to practice dilemma by designing a model called the Juniper Gardens Children’s Project (JGCP) that united researchers and teachers in research and professional development (Abbot et al., 1999). The model was designed in an effort to make research more trustworthy, usable, and accessible (Abbot et al., 1999). Two urban Title 1 elementary schools in the Kansas City, Kansas, metropolitan area participated in this longitudinal study (Abbot et al., 1999). The model was designed to bridge the gap between research and practice by speeding up teachers’ use of EBP’s and promoting new research on practice in the classroom (Abbot et al., 1999). Four lessons from the experience were reported after year two in the study. First, the failure to develop and continue a partnership with School

3 resulted due to the lack of support from teachers revealing that if research doesn't initiate from the "ground up" may not work (Abbot et al., 1999). Second, the translation of research to practice between researchers and teachers proved time consuming and occupied more collaboration time than expected (Abbot et al., 1999). Third, not all teachers had instantaneous interest in the research and did not gain interest until they witnessed the highly interested teachers gain better student outcomes positive student interactions (Abbot et al., 1999). A fourth lesson was that when teachers were supported in using problem solving inquiry methods that linked change in practice directly to change in student performance, student outcomes were accelerated and it supported teacher's change in practice. (Abbot et al., 1999). To conclude, the JGCP model proved that although uniting research and teachers requires time and effort, the outcomes for students are of much benefit.

Cook, Landrum, Tankersley, and Kauffman (2003) referred to the research to practice gap as an "increasingly problematic and prominent obstacle to optimizing student outcomes" (p. 345), especially for students with emotional and behavioral disorders. Arguing that students with emotional and behavioral disorders are often difficult to teach and have poor outcomes, Cook et al. (2003) reported that these students stand in critical need of the instructional practices shown by research to be most effective. In addition, Cook et al. (2003) examined the role of implementing effective practices with students with EBD and discussed barriers and solutions for research to practice translation. In their research synthesis, they found that current research supports that there are many evidence-based practices that are proven to alleviate the behavioral

challenges in students with EBD, however they are used too infrequently (Cook et al., 2003). They also note that even when EBP's are used, they are utilized in an ineffective way and can even be counter productive. More importantly, Cook et al. (2003) argue that EBP's must be used on a regular basis with students with EBD in order for special education to positively impact educational outcomes.

A frequently noted barrier in their research was the translation of research to practice (Cook et al., 2003). They suggested causes for the barriers to be teacher workload, teacher isolation, imposed standards, and teacher's own beliefs and attitudes toward student learning and behavior problems (Cook et al., 2003). Another finding was that teachers do not feel prepared by college programs and feel the lecture format of pre and in service training is limiting (Cook et al., 2003). From their synthesis of research, Cook et al. (2003) developed principles to be used as guidelines to support teachers of students with EBD. First, individuals knowledgeable about EBP's should support teachers. Second, collaborative meetings for feedback and planning should be regular. Third, mentors should be directly involved with the classroom, getting to know the students through direct observation. Fourth, teacher consideration about how to adapt EBP's will relate to their needs, strengths and classroom environment. Fifth, changes in student outcomes should be linked to the implementation of EBP's (Cook et al., 2003). They concluded that special education needs a renewed focus on the teacher educator and in turn teachers working with students with EBD can begin to make use of the special EBP's that produce effective learning outcomes (Cook et al., 2003).



Similarly, Landrum, Tankersley, and Kauffman (2003) examined effective EBP's for students with EBD, their current implementation and their uniqueness to the field of special education. They determined that many of the interventions currently available for students with EBD are research based. However, they also point out the need for expanding the knowledge base of what works for students with EBD. Landrum et al. (2003) also revealed that students with EBD in the general education classroom often lack instruction modified to meet their needs. They also found that special education teachers of students with EBD lacked knowledge and training of EBP's (Landrum et al., 2003). To conclude, Landrum et al. (2003) argue that while increasing the knowledge base of effective strategies is important, implementing the strategies that we know to be effective for students with EBD should be our greatest concern in the research to practice gap.

Research by Nougaret, Scruggs, and Mastropieri (2005) showed that traditional teacher preparation programs are effective for special education teachers and do in fact promote effective teaching skills. Nougaret et al. (2005) researched the differences in forty first year special education teachers that were traditionally licensed and non-traditionally licensed. Twenty traditionally licensed teachers had completed a state-approved teacher education program, which included student teaching in the field of special education (Nougaret et al., 2005). Twenty non-traditionally licensed teachers had completed a bachelor's degree unrelated to education and were enrolled in a licensure program but had completed no more than 2 classes. The non-traditional teachers were teaching with an emergency provisional license. Nougaret et al. (2005) did classroom

observations of these teachers and found that first-year traditionally licensed teachers outperformed the nontraditionally licensed teachers in planning and preparation, classroom environment, and instruction. However, teachers from both groups rated themselves similarly, which suggested the nontraditionally licensed teachers, were “unaware of their own relative deficiencies” (Nougaret et al., 2005, p. 216). Their findings shows that traditional teacher preparation programs are effective and do in fact promote teaching skills that are effective in the special education classroom (Nougaret et al., 2005). They point out that the current teacher shortage in special education results in the hiring of teachers with little or no professional training adding to the problem of the research to practice gap (Nougaret et al., 2005).

Burns and Ysseldyke (2009) research regarding the use of EBP’s in the special education classroom revealed a more positive outcome than previous studies. They surveyed 174 special education teachers and 333 school psychologists on the frequency they used or observed practices being used in the special education classroom. Special education teachers in the survey were members of the CEC and psychologists were members of the National Association of School Psychologists. Their data suggested that teachers are engaging in EBP’s, however less effective strategies such as perceptual-motor training were still reported as being used regularly, representing a gap between research and practice (Burns & Ysseldyke, 2009). They recommended further investigation of teachers reported prevalence of research-based practices given that the NCLB Act was passed in 2001 (Burns & Ysseldyke, 2009).

## **Rationale**

The reviewed literature in this chapter suggested a lack of use of evidence-based practices still exists in the special education classroom. Even though some research has been conducted on special education teachers' use and perception of evidence-based practices, findings are inconclusive. Burns and Ysseldyke (2009) recommended further investigation of teachers reported prevalence of research-based practices given that the NCLB Act was passed in 2001.

Evidence that the research to practice gap still exists in the special education classroom heightened the need to examine special education teachers' use and perception of evidence-based practices. In response to the NCLB Act of 2001, evidence-based practices have been the focus of teacher training programs. In order to understand if the translation of research to practice has been effective, it was important to understand teachers' current perceptions of evidence-based practices.

The implications of this research study proved significant. Further investigation of the research to practice gap in special education was necessary. Given the limitations of previous studies, such as practices investigated were limited and not current, it was important to conduct this qualitative interview study. Overall, this investigation provided a current understanding of highly trained special education teachers' use and perception of evidence-based practices.

## **CHAPTER 3. METHODS**

The methods chapter was organized as follows: (a) research design, (b) participants, (c) data sources, (d) data collection, (e) pilot data, (f) issues of validity and (g) ethical issues.

### **Research Design**

The purpose of this qualitative thesis was to provide an in-depth understanding of the current practices special education teachers use in the classroom. Due to the research to practice gap, understanding what practices teachers currently use warranted empirical inquiry. As research revealed, evidence-based practices are critical in the education of children with disabilities. Since the special education teacher is an essential factor in delivering adequate research based instruction, it is necessary to understand what practices they rely on most often.

An inductive research methodology was used in exploring the perceptions of practicing special education teachers. Qualitative research focuses on descriptive data found from words rather than numbers and demands that the researcher disseminate findings through careful examination and consideration of all details of collected data (Bogdan & Biklen, 2007). Various data sources included individual teacher interviews, teacher artifacts including instructional materials, and memos of individual teacher interviews. Bogdan and Biklen (2007) asserted that qualitative methods are best when

trying to understand the process of change in schools and in understanding how teachers experience change.

This qualitative design used semi-structured interviews with open-ended questions to investigate special education teachers' use and perceptions of evidence-based practices (see Appendix A). In addition, teachers' sources of practices were investigated. All interviews were conducted in person in order to establish an in-depth understanding of each teachers' unique perspective. This study was designed to answer the following research questions:

- 1) What are practicing special education teachers' perceptions of their use of evidence-based practices?
- 2) What are the sources for the practices special education teachers use?

### **Participants**

This qualitative investigation included ten practicing K-12 special education teachers (7 Caucasian, 1 African American, and 1 Indian) enrolled in a special education graduate program at a university located in the mideast. All teachers were female and ranged in teaching experience from 2 to 24 years. All teachers were teaching in counties located around the university. Participation was elicited through a listserve announcement that invited special education teachers that were enrolled in a graduate program within the university ( see Appendix D). Interviews were audiotaped and conducted in person in various settings that included schools, coffee shops, private homes, and university classrooms. Follow-up questions were answered through email as necessary after the initial interview process. All interviews were transcribed by three

different transcribers. Teachers provided teacher artifacts during the interviews that were examples of strategies used in their classroom. Demographic data on teacher participants was collected (see Appendix A). The following information was included: number of years as a special education teacher, gender, ethnicity, school setting, disabilities represented, and classroom description. After the interviews, a follow up email was sent to obtain education history from all teachers. Demographic data was presented in Table 1 and included the following information: the number of years teaching experience, ethnic background, community setting of school, types of disabilities represented in the classroom, description of their classroom, and degrees.

Table 1

*Teacher Demographics*

Teachers	# Years Taught	Gender	Ethnic Origin	School Setting	Disabilities Represented	Classroom Description	Degrees		
							BA	MED	PHD
Teacher 1	2	F	White	Urban/ inner city	ADHD, ED, LD	Ninth grade English Inclusive classroom	Y	Y	
Teacher 2	7	F	White	Suburban	ED, LD, ID, OHI Hearing impaired visually impaired	Teamed Math 8, Self contained math 8m Algebra 1 teamed taught math	Y	Y	Y (IP)

Teachers	# Years Taught	Gender	Ethnic Origin	School Setting	Disabilities Represented	Classroom Description	Degrees		
							BA	MED	PHD
Teacher 3	16	F	White	Suburban/ Multiculture	ED, LD, Autism, OHI	5th Grade, Cross Categorical resources and inclusion models	Y	Y	Y (IP)
Teacher 4	19	F	White	Rural	Severe Disabilities	Self Contained	Y	Y	Y
Teacher 5	18	F	Indian	Suburban	Children with severe needs, LD, Autism, Intellectual and physical disabilities	K-4 Self Contained	Y	Y	Y (IP)
Teacher 6	4	F	White	Suburban	Autism, MR and ED	K-5 Self Contained	Y	Y	
Teacher 7	28	F	White	Suburban	ED, LD, ADD, Multible Disabilities, Cerebral Palsy, Higher incidence(not low)	Self Contained English and resource	Y	Y	Y (IP)
Teacher 8	3	F	African American	Suburban	ADD, ADHD, mild ED, LD	Self Contained K- 3	Y	Y (IP)	
Teacher 9	4	F	White	Suburban	High Functioning Autism, LD, OHI, ADHD	Self Contained ninth- 12 basic skills and geometry	Y	Y	
Teacher 10	24	F	White	Suburban	75% autism and ID	Self Contained K- 8	Y	Y	Y

*Note.* ADD = attention deficit disorder; ADHD = attention deficit hyperactivity disorder; ED = emotional disabilities; LD = learning disabilities; ID = intellectual disability; OHI= other health impairment, F= female, Y=yes, IP= in progress.

## **Teacher Participant Descriptions**

Teacher 1 was a white female in her mid twenties teaching special education students in a ninth grade English inclusive classroom located in an urban school district. At the time of the study, she was finishing her second year teaching. The disabilities represented in her classroom were attention deficit hyperactivity disorder, emotional disabilities and learning disabilities. She had a bachelor's degree in psychology and master's degree in special education with teacher licensure.

Teacher 2 was a white female in her mid forties teaching special education students in self contained and teamed taught math classes in eighth grade. At the time of the study, she was completing her seventh year of teaching. The disabilities represented in her classroom were emotional disabilities, learning disabilities, intellectual disabilities, other health impairment, and visual impairment. She had a bachelor's degree in telecommunications, master's degree in special education, and was currently enrolled in a PhD in special education leadership. In addition, she was professionally licensed as a special education teacher with learning disability and emotional disability endorsement.

Teacher 3 was a white female in her mid thirties teaching special education students in a cross categorical resource and inclusion model classroom for fifth grade. This type of classroom was described as inclusive and self contained and was located in a suburban school district. This teacher was completing her sixteenth year of teaching at the time of the study. The disabilities represented in her classroom were emotional disabilities, learning disabilities, autism, and other health impairment. She had a bachelor's in speech pathology/audiology with a minor in special education, master's in



education, and was currently enrolled in a Doctor of Philosophy (PhD) in education program. In addition, she was professionally licensed as a special education teacher.

Teacher 4 was a white female in her mid fifties teaching severe disabilities in a high school self contained classroom located in a rural school district. She had a bachelor's in special education, a master's in new professional studies, and PhD in education and was currently professionally licensed as a special education teacher. At the time of the study, she was completing her nineteenth year of teaching and noted that this setting was where she felt that she could make the most difference.

Teacher 5 was an Indian female in her mid forties teaching students with severe disabilities in a K-4 self-contained classroom located in a suburban school district. The disabilities represented in her classroom were severe and included learning disabilities, autism, intellectual and physical disabilities. At the time of the study, she was completing her eighteenth year of teaching. Her education included a master's in child development, master's in special education and was certified to teach severe disabilities from K-12. She was currently enrolled in a PhD in education program.

Teacher 6 was a white female in her mid twenties teaching in a K-5 self contained classroom in a suburban school district. The disabilities represented in her classroom were autism, mental retardation, and emotional disabilities. At the time of the study, she was completing her fourth year of teaching. She had a master's in special education and was licensed as a special education teacher. In addition, she had certification in mental retardation, emotional disabilities, and learning disabilities K-12.

Teacher 7 was a white female in her mid fifties who had taught a self contained English and resource classroom and was currently a special education teacher trainer for her school district. At the time of the study, she had completed twenty eight years of teaching in the special education classroom. The disabilities represented in her classroom were emotional disabilities, learning disabilities, attention deficit disorder, multiple disabilities, cerebral palsy, and higher incidence disabilities. She had a bachelor in K-3 elementary education, master's of education in learning disabilities and she was currently in the process of completing her PhD in education. In addition, she was highly qualified as a special education teacher for English at the secondary level.

Teacher 8 was an African American female in her mid twenties teaching a self contained K-3 class in a suburban private school specifically for special education students. The disabilities represented in her classroom were attention deficit hyper activity disorder, emotional disabilities, and learning disabilities. At the time of the study, she was completing her third year of teaching. She had a bachelor's in psychology and was currently enrolled in a master's in educational psychology program and was licensed in emotional and learning disabilities.

Teacher 9 was a white female in her mid fifties who was teaching a self contained ninth grade geometry and twelfth grade basic skills class in a suburban school district. The disabilities represented in her classroom were high functioning autism, learning disabilities, other health impairment, and attention deficit hyperactivity disorder. At the time of the study, she had been teaching for four years. She had a bachelors in economics, masters in education, and was currently working on an autism certificate.

She was a licensed special education teacher with teaching certification in emotional and learning disabilities.

Teacher 10 was a white female who taught a self-contained K-8 classroom in a suburban school district. She was currently working as a special education teacher leader/mentor in the public school system. At the time of the study, she had been a special education teacher for twenty-four years. She had a bachelors in elementary and special education with a minor in sign language. She also held a masters in special education and a PhD in education and held teacher certification and licensure in special education.

Overall, commonalities among teacher participants were that they were all highly educated and held professional teacher licensure. Nine out of the ten teachers held a master's degree and one teacher was currently completing her master's degree. At the time of the study, 4 of the ten teachers were in the process of completing a PhD in education and 2 of the ten teachers held a PhD in education.

### **Data Collection and Data Sources**

Prior to implementation of this study, citi online training was required and completed (see Appendix B). Next, approval for the research study was sought through completion of the university's Human Subject Review Board (HSRB) (see Appendix C for HSRB approval). In addition, approval for a listserve announcement inviting special education teachers enrolled in the special education graduate program at the university was acquired (see Appendix D). Finally, approval for the Educational Master's Thesis was obtained by all members of the Thesis committee in order to conduct interviews,

transcriptions, and analysis of data. A proposed timeline was developed and amended as needed throughout the interview study (see Appendix E for initial proposed timeline). Consent forms were signed (see Appendix C) by all participant teachers prior to the interview.

Data sources included (a) semi-structured interviews, (b) teacher artifacts from lessons taught, and (c) analytic memos from interview with teachers. According to Maxwell (2005) triangulation of data involves collecting information from a variety of sources which reduces the risk of systematic biases and increases the validity of a study. In this study, triangulation was used during and after data collection of the sources. Maxwell (2005) emphasized that triangulation allows the researcher to acquire an in-depth understanding of issues investigated as well as providing the most credible conclusions. Therefore, triangulation of the data from this study was employed to prove a complete and accurate understanding from all sources of evidence.

### **Semi-Structured Interviews**

Semi-structured interviews with follow up probes were selected for this research study in order to allow the participant to talk freely and reveal perceptions, giving the researcher insight into the subject being investigated. As Bogdan and Biklen (2007) point out, “interviews produce rich data filled with words that reveal respondents’ perspectives” (p.104). Teachers were solicited through a listserv announcement through the Graduate School of Education. The participants had to meet the following requirements: (a) currently teaching in the special education classroom and (b) were enrolled in the Graduate School of Education. Once each teacher responded and agreed

to participate, a meeting was scheduled at the teacher's convenience for a specific date, time, and location for the interview. The semi structured interview (see Appendix A) included fourteen open ended questions about teachers' use and perception of evidence based practices and six demographic questions. Follow up probes provided a chance for elaboration and clarification of information. The dates, times, locations, and length of the interview were outlined in Table 2.

Table 2

*Teacher Interview Schedule*

Teacher	Location	Date	Length of Interview
Teacher 1	Home	January 8, 2010	45 minutes
Teacher 2	School	January 12, 2010	30 minutes
Teacher 3	School	January 13, 2010	40 minutes
Teacher 4	School	January 14, 2010	45 minutes
Teacher 5	University	January 16, 2010	25 minutes
Teacher 6	School	January 20, 2010	30 minutes
Teacher 7	School	January 22, 2010	30 minutes
Teacher 8	University	January 25, 2010	30 minutes
Teacher 9	School	January 26, 2010	40 minutes
Teacher 10	Coffee Shop	February 4, 2010	30 minutes

### **Teacher Artifacts**

According to Bogdan and Biklen (2007), documents provided by participants supply another rich source of data to help better understand how the people who produced it think about their world. These documents provide supplementary evidence to the perspectives being investigated. The special education teachers in this interview voluntarily provided instructional materials, sources of practices, and teaching strategies.

### **Memos**

After each interview was conducted, analytic memos were written. These memos provided descriptive and reflective notes that helped connect what the researcher was observing in the interviews to the participants' point of view. Bogdan and Biklen (2007) point out that speculation is important and productive for the researcher in terms of the development of ideas and qualitative analysis.

### **Pilot Data**

As Maxwell (2005) noted, an important use of pilot studies for qualitative research is to begin to understand the theories held by people and the perspectives that inform their actions. Following HSRB approval a pilot study was undertaken using all of the above described procedures. One interview with a practicing special teacher was conducted. Results of the interview revealed that teachers do not discuss the sources for their practices and do not place importance on if they are research based. For example, this teacher explained, "No I don't think (research based) has ever been brought up because we are all so frantic just to get the next lesson completed that we have never even discussed (research based)." (Wanda Tate, personal communication, November 21,

2009). This teacher also reflected that teachers do not go around discussing research-based strategies and they mainly rely on their own ideas and what other teachers have tried. The interview procedure appeared effective based on this one interview.

### **Issues of Validity**

The purpose of this study was to understand special education teachers' use and perceptions of evidence-based practices in order to understand the status of the research to practice gap. Maxwell (2005) identified reactivity and researcher bias as two specific validity threats qualitative studies.

#### **Reactivity/Researcher Relationship**

Reactivity concerns the influence of the researcher on the setting or individuals studied. As Maxwell (2005) noted, the goal is to understand this influence and use it productively. I was the sole interviewer for this study and my role as a student collecting data for my Masters thesis in Educational Psychology at the university was explained to all participants, as well as my role as the researcher. While interacting with each participant, I assumed the role of the professional researcher. Consistent research procedures were used with all participants. I had the relationship of fellow student with three of the participants in my study. My connection with the Graduate School of Education at the university was a commonality that I shared with my participants. With all participants, I emphasized the purpose of my study and explained that I was trying to get an understanding of their use and perception research based practices to support the special education classroom. My careful attention to the negotiation of relationships

facilitated open conversations with each of my participants and I felt that they were not influenced by my presence.

### **Researcher Bias**

My own personal bias concerning special education teachers' use and perception of research was due to my experience as a graduate research assistant teaching research based writing strategies to children with special needs and as a parent of children with learning disabilities. Although I was aware of my perspective of special education teachers use and perception of evidence-based practices, I felt that my perspectives helped in guiding the research. In order to maintain consistency, the interviews were semi-structured and open ended. Throughout the study, I felt that I upheld a professional researcher perspective.

### **Addressing Validity Threats**

Maxwell (2005) emphasized that methods and procedures are vital in the process of ruling out validity threats and increase the credibility of a study's conclusions. In this study, several strategies were used to address possible validity threats. First, the interview questions were developed with an experienced teacher in order to address content validity. A pilot study was conducted using the developed interview with one practicing special education teacher and results determined that the interview questions were effective. As Maxwell (2005) notes interviews enable the collection of rich data that provide a full picture of the phenomenon being explored. In this study, ten interviews were audiotaped transcribed and coded which provided rich data for analysis of the phenomenon of special education teachers' use and perception of practices.



Memos were written after careful readings of interviews. Nvivo 8 qualitative software was used to code and collapse interview data. There were 368 items that were coded including strategies, awareness of evidence-based strategies, implementation of strategies, resources, success with students, views of curriculum, and perceptions of other teachers. After inductively coding interview data, a peer coder was trained and coded portions of the interview data. This peer coder also transcribed and reviewed interview data. A 100 % agreement on codes and categories were established. Triangulation was done for categorization and synthesis of common themes. Maxwell (2005) revealed that triangulation is a strategy of collecting information that reduces the risk of chance associations and systematic biases and enables a better assessment of the study's developed generalizations. Therefore, this study used triangulation with three different data sources. The data sources included: (a) semi-structured teacher interviews, (b) memos of teacher interviews, and (c) teacher artifacts from lessons taught and sources for practices. As recommended by Maxwell (2005), triangulation was used during and after data collection of the sources as well as in the final analysis, ruling out validity threats by evidence, not methods.

### **Ethical Issues**

All special education teacher identities were strictly maintained and kept confidential. Participants were assured that there would be foreseeable risks or benefits from their voluntary participation in the study. I also assured all participants that my role in the study was of the professional researcher.

## **CHAPTER 4. DATA ANALYSIS AND RESULTS**

This study examined 10 special education teachers' use and perceptions of evidence-based practices as well as what sources for practices they rely on most. The investigation included teacher interviews, teacher artifacts, and analytic memos of each individual interview. This chapter presented the results of the analysis of all data. The first section provided a detailed description of the how the data was analyzed. The second section provided results of the investigation based on analysis using the constant comparative method (Bogdan & Biklen, 2007) as well as resulting themes found from the collected data. The last section provided a synthesis of major findings using the inductive approach to reveal an in depth understanding of teachers' use and perception of evidence-based practices through a description of the teacher groups that emerged through the analysis.

### **Data Analysis**

Triangulation of all data sources was done for categorization and synthesis of common themes. Data sources included interviews, memos, and teacher artifacts. Constant comparative method (Bogdan & Biklen, 2007) was employed to create categories from the descriptive data that was compared and contrasted across sources resulting in a conceptual framework for teachers use and perception of research that revealed three main themes.

Data analysis began by listening to each transcribed teacher interview. Then, additional data was collected through analytic memos written about each teacher interview. In addition, teacher artifacts from the interviews were collected and analyzed. As each data source was analyzed, it was compared to other data sources to reveal connections and identify similarities and differences. Once similarities and differences were revealed, the data was synthesized into categories and then into common themes. Nvivo 8 qualitative software was used to code, categorize, and collapse all interview data. Triangulation was used during and after data collection of the sources as well as in the final analysis to reduce the risk of validity threats.

### **Interview Data**

Ten individual teacher interviews were audio taped, transcribed and coded. Nvivo 8 qualitative software was used to code, categorize, and collapse all interview data. Initially, interview transcripts were read several times to become familiar with how teachers answered the interview questions. Initial themes that emerged were recorded as potential coding categories. As Maxwell (2005) suggested, the goal of coding should be to fracture the data in such a way that categories are developed that facilitate comparison and lead to the development of theoretical concepts. Teacher quotes from interviews were coded to support the development of themes and theoretical concepts. Throughout the collection of interview data, data reduction occurred. Reliability of interview coding was increased through the use of a peer coder that was trained to review and code interview data.

### **Teacher Interview Memos**

After each interview was conducted, notes were written regarding teacher responses about their perception of evidence-based practices during the interview. After a careful reading of each transcribed interview, a detailed memo was written summarizing the interview and evidence from the memo was used to support the themes and concepts that were emerging from the data. Each teacher memo was compared and contrasted with other data sources to provide a triangulation of the data.

### **Teacher Artifacts**

Teacher artifacts were collected during interviews with teacher participants. These artifacts were used as data sources in this study. Instructional material and examples of teaching strategies were examples of the artifacts collected. Analysis of the artifacts provided additional evidence in order to substantiate relevant themes that evolved from the teacher interviews.

### **Analysis Across Data Sources**

Data Analysis started after the first teacher interview and continued throughout the interview schedule. During the interview, notes were taken that helped shape analytic memos that were developed after careful readings of transcribed interviews. Teachers also provided lesson plans, strategies, and practice sources as artifacts that helped understand more about teachers' perceptions of research based practices. These teacher artifacts were incorporated into the data analysis as well. Nvivo 8 qualitative software was used to manage, shape, and understand the data. Three hundred and sixty eight items were coded including strategies, awareness of evidence based strategies, implementation

of strategies, resources, success with students, views of curriculum, and perceptions of other teachers. Triangulation of all data sources was done for a synthesis of common themes. Finally, based on the triangulation of all data sources, teachers were divided into three distinct groups that had emerged after an in depth analysis of the data. These three distinct groups exposed teachers' perceptions and use of evidence based practices. A common thread also ran through all teachers and three themes emerged. In order to strengthen the validity of the findings, colleagues in the field took part in discussions about the procedures, conclusions, and resulting themes.

### **Results**

After analysis of all data, it became apparent that three distinct groups were present concerning teachers' perceptions and use of evidence-based practices: Aware, Partially Aware, and Unaware. Of the ten teachers, four teachers were considered aware, three teachers were partially aware, and three teachers were unaware. A common thread throughout all teachers evidenced three main themes: (a) All teachers believe they are using evidence-based practices, (b) Awareness level varies, and (c) Personalization of research varies by awareness.

#### **Levels of Awareness Across Highly Educated Special Educators**

The Aware teachers are described as special educators that are very aware of their strategy sources when using and sharing evidence-based practices. These teachers conveyed that they had an in depth understanding of research and acknowledged the importance of basing their practice on research. They trusted, recommended and used evidence-based practices regularly and relied on research first as their source of practice

in the classroom. Their words supported the idea that research should be valued and used in making decisions about teaching students with disabilities. They also conveyed that they understood the importance of fidelity of implementation when personalizing research to meet the needs of students with disabilities. Personalization is the alteration or change of an evidence-based practice. Conversely, the partially aware teachers conveyed that even though research is recommended for the special education classroom, they were not always aware when using or sharing strategies if they were research based. This lack of knowledge impacted their personalization of research and revealed limitations to their ability to implement evidence based strategies with fidelity. Finally, the unaware teachers expressed that they were mostly unaware when using or sharing strategies if they were research based. They believed that the practices they used were evidence based; however, they were unaware of the source and did not feel it was important to check as long as they saw it working in the classroom. Due to this fact, their words conveyed they lacked an in depth awareness of research. In addition, they mainly relied on colleagues and their own ideas for strategy sources. Therefore, this inferred that their personalization of research may have lacked consideration of fidelity of implementation.

It is interesting to note that all teachers felt they were using evidence-based practices regardless of their level of awareness of research. In addition, despite the fact that all teachers were highly educated and held teacher licensure, awareness levels varied. Regardless of their level of education and experience in the classroom, their expressed opinions about their use of research differed. For example, while all teachers claimed they were using evidence-based practices, their words describing sources,

implementation and discussion of strategies differed according to their awareness levels. Therefore, one can conclude that the reason for the research to practice gap may be a lack of awareness of evidence-based practices. Table 3 showed how the levels of awareness affected use of research.

Table 3

*Data Reduction for Use of Research*

Research	Aware	Partially Aware	Unaware
Discusses	Yes	Not Always	Seldom
Implements	Yes	Sometimes	Sometimes
Relies on	Yes	Occasionally	Rarely

**Group 1: Aware**

Based on the conversations regarding use and perception of evidence based practices, 4 out of the 10 teachers participating in this study were identified as Aware of research. Teachers within this group were passionate about research and consistently relied on it to inform their practice. They expressed that they did not want to take chances or waste time with strategies that were not proven by research to work with students with special needs. Throughout the interviews, these were the teachers whose sources for strategies were research based and who felt it was important to be aware if a strategy was proven by research before using or sharing with colleagues. For example, when asked to discuss use of research-based practices, Teacher 5 replied,

I like to see the research base behind the strategies before trying it. If it is research based and it has been proven to work with a similar kind of population that I'm working with then I am not afraid of trying it. It's just that things that are not proven with other children, I'm afraid to try those I'm not even afraid, I'm just skeptical about trying those (interview, 1/16/10).

Similarly, Teacher 6 said,

I'm currently enrolled in coursework so I use a lot of my notes and I watch a lot of online streaming video from my courses. My assistant principal used to be a classroom teacher and she also is board certified as a behavior analyst so I would often use her as a resource. I don't have a lot of time to waste. I also rely on my autism consulting teacher that pulls research from the Association for Applied Behavior Analysis and Journal of Applied Behavior Analysis (JAVA) (interview, 1/20/10).

Along with regarding the source for strategies as important, like Teacher 5, Teacher 6 was also skeptical of strategies not proven by research as she commented, "I do find myself more and more questioning some of the strategies that other people working with my kids suggest... where is this rooted, where does this come from and how are we going to know if it works" (interview 1/20/10).

In addition, teachers in the aware group reported that they implemented new strategies often and were the most open minded. Teacher 7 elaborated on this as she stated,



All the time! I mean, you know, obviously from being in you know in a graduate program my mind is wide open to new ideas. So I actually I do a lot of reading and so you know, when I read about or hear about new strategies I'm you know very open to including those. So a lot of it is from my own reading and I get a number of publications. So I find out about new strategies and things. It's just is kind my own reading. Also, my county's emphasis this year is on best practices, so there would be things like that that would come through staff developments through my county too. Not just through my own outside reading. (interview, 1/22/10).

When asked about their awareness of research when using and sharing practices, all of the aware teachers confidently stated they were and noted that they were aware that their practices were evidence-based. These teachers adamantly expressed that research informed their practice and revealed that they collaborated often about research with colleagues. Teacher 5 captured this ideal as she stated,

I do share a lot of materials. Sometimes I might come across journal articles that are not relevant to my students that might be relevant or helpful to other teachers so I do share those, I put them on the staff news or I'll just write a little blurb about those on websites and things like that. And I have received communication from other special education teachers also saying that they found this part useful in that particular thing that I sent out to them. So I definitely see that they use it. Some teachers want to dig up the resource or look it up more in detail. I might

have looked at one part of it. So we do share the source also yes (interview, 1/16/10).

Teacher 10 reiterated what Teacher 5 stated while revealing her enthusiasm for research.

The ones that I have researched, I will tell people and I do admit that I get made fun of because I read professional journals. I'm like, Oh, I was reading in *Teaching Exceptional Children*, and this was one of the things that they tried. And they're like, Okay, and I'm like, No, you've got to try this because I did it and here is what happened I believe in giving credit where credit is due. If they say, Wow, that's really great, I'm like, It is, but I didn't think of it. Here's where I got it. Because I think we need to know where to find other things. And if you found one good thing on an Internet site, there might be something else good (interview, 1/29/2010).

In addition, the aware teachers revealed openness about sharing strategies with colleagues and promoted lifelong learning. Teacher 10 spoke about the importance of collaboration in special education.

I believe that teachers always need to keep learning, and so I was shamelessly going to other teachers saying, "What's another way to do this, what's another way to do that? How do you do this?" I believe in collective intelligence. Together we really are smarter, and as long as I can keep learning, I can keep passing that onto my kids. And what a gift, to know that there are always ways you can explore the same information in different ways (interview, 1/29/2010).

Teacher 6 echoed this thought about openness as applied to trying new strategies.

I would say at least weekly we are changing or adjusting something and that took me awhile to learn as a teacher that it's okay like I can't just say here it is it's what we're going to do I have to open my mind to go it needs to be changed every week. You know, not like on the dot like every Friday it needs to be everything just needs readjustment constantly and when I accepted then I was fine (laughing) When I kept thinking, why isn't this working it needs to work so I can be done with it and move onto something else. You know, um it was negative (interview 1/20/10).

Overall, teachers in the aware discussed, implemented, and relied only on evidence-based practices. These teachers were confident and shared success stories with students and saw problems as challenges in the special education classroom.

## **Group 2: Partially Aware**

The partially aware group consisted of three teachers. These teachers were not always aware when using or sharing practices if they were evidence-based. While these teachers did claim that some practices they used were evidence-based, at times they conveyed uncertainty about the source. This group also articulated that they did not always feel comfortable sharing research with other teachers and relied on other sources such as colleagues and their own ideas for strategies. For example, when asked to discuss if she was aware when using and sharing practices if they were research based, Teacher 8 stated, "Sometimes yes and sometimes no. I think...for me sometimes, just the

middle of instruction something will strike me and I'll try it, and it works. And later on I find out, oh, there was an actual name for what I did a few weeks ago" (interview, 1/25/2010). Teacher 9 elaborated on this thought, revealing uneasiness about sharing research with colleagues.

It depends on which one it is, I mean, this is really bothering me, I won't quote it as research based because to most of my colleagues would be kind of, um.. they know that I'm still going to school and if I said, well that's not a research based, that's kind of, even though its good to say it in a seminar, if someone's coming up to you and asking you for help as a colleague, and you kind of quote that to them, it's kind of a negative thing. It's sort of like, well she knows, you know, like I'm throwing it in their face that I'm (highly educated) or, I'm being snooty- do you know what I'm saying? (interview, 1/26/2010).

Another partially aware teacher, Teacher 2, expressed her thoughts about strategy sources and revealed that she did not feel skepticism about trying strategies that were not proven by research as she stated, "I found this and it's not an evidence based strategy, this is what teacher's do a lot we just go find (any strategy) and my kids love (it) this year" (interview, 1/12/2010). This teacher also revealed her uncertainty about research as she stated "there's another strategy but I don't think it's evidence ...I don't think that any of this has been (proven by research) and I would love to see if you did this or gave the kids a worksheet who would do better" (interview, 1/12/2010).

The partially aware teachers had mixed responses about how often they implemented research. Two out of the three teachers felt they implemented often while

the third teacher in the group did not implement as often. In addition, their words revealed that they often looked to other teachers for ideas and did not often rely on strategies proven by research. For example, Teacher 9 remarked in her response to how often she implements, “this is ongoing” (interview, 1/26/2010). She further explained, “If I’m having a problem with a student, or if another teacher has a problem with a student, we’re always collaborating and saying, ok you have him in English, do you see this behavior, ok, oh I fixed that, how did you do it?” (interview, 1/26/2010). Similarly, Teacher 2 stated, “Every day something happens something changes..... you have to be adaptable (interview, 1/12/2010). However, Teacher 8 revealed that she did not always try research-based strategies.

I would say, only if I’ve done everything that I can think of doing would I go and look for something else, either talking with another teacher and asking her how she did this one particular lesson or anything like that. Sometimes I think what happens most often is that I’m either sitting in class or sitting at a staff development or something, and they talk about strategy or a different way to teach something, and then I’ll consider that with the group of kids I have. Sometimes I might try it and sometimes I won’t (interview, 1/25/2010).

When asked to discuss what sources for strategies they relied on most, two out of the three partially aware teachers said colleagues. For example, Teacher 2 reported that she relied on “Colleagues definitely and other teachers” (interview, 1/12/2010). Likewise, Teacher 9 stated, “I would say I would start with teachers and then go to the

books (interview, 1/26/2010). Teacher 8 claimed that she relied on classes most and staff development second, however, her words during the interview revealed a lack of knowledge of research based strategies. For example when asked to provide a specific example of a research strategy, this teacher was very vague and her words revealed that although she was focusing on making a personal connection with her students, she lacked in depth knowledge of specific evidence based strategies.

I don't know. I guess that's a difficult question for me. I always like to find ways to make it engaging, and that can come...there's like no one way that I do that. Sometimes one thing will work and then that same thing won't work either the next day or with a different subject. So, I try to be as broad...I think one thing I consistently do, I guess, one strategy that I always recognize works is my animation, like how animated I am when I'm instructing. If I'm tired or having a bad day or the kids are just...and I'm not really motivated to be animated or funny or engaging, then I look at my classroom and they're like, kind of hum-drum. So even if I don't feel like it, sometimes I have to force myself. So, I guess that is one that I use the most often and one that I see the most response (interview, 1/25/2010).

In general, the three partially aware teachers did not always rely on research in teaching students with special needs. Although they knew about research and heard about it in their classes and staff development, they placed as much reliance on strategies suggested by teachers or their own ideas regardless of whether they were proven by research.

### **Group 3: Unaware**

The third group of teachers was identified as unaware due to their lack of trust and dependence on evidence-based practices in the classroom. The three teachers in this group repeatedly expressed skepticism about the importance of using strategies that were proven to be effective in working with students with special needs. For example, when asked if aware when using and sharing practices if they were evidence based, Teacher 3 stated, “No, not really, our success really is with our own kids. I don’t really go for the big research based although I’m sure some of them are, do you know what I mean?” (interview, 1/13/2010). Similarly, Teacher 1 replied, “I mean I don’t and I haven’t seen anybody discuss the fact that it was, that something was research based or not so no I don’t know about that” (interview, 1/8/2010). Teacher 4 elaborated on her feelings about using research and reported, “when I look to what am I going to use in this classroom to motivate my kids I don’t go online and look for an evidence-based strategy. I think when you’re in the trenches, I’m not worried if somebody in an ivory tower has blessed this, all I care about is I’m trying to get my students to the next level and I’ll try anything” (interview, 1/14/2010).

When answering if they discussed strategy resources, the teachers in this group reported that this was not a common practice for them. For example, Teacher 1 replied, “I mean, not necessarily like how we find it, probably not” (interview, 1/8/2010). Teacher 3 stated “If we have time, you know, time is critical” (interview, 1/13/2010). Similarly, Teacher 4 initially answered if she discussed strategy sources by quickly replying that she did not but then added, “I mean I might” (interview, 1/14/2010). These

responses revealed that teachers in the unaware group seldom shared or discussed strategy resources. This reflects that the unaware group had the least amount of trust in research and disregarded its importance in the education of students with disabilities.

Although the unaware group expressed that their practices were based on their collection of strategies from teacher education and experience, they were unable to cite specific strategies or sources from research. For example, Teacher 1 reflected on her source for practices and pointed to a binder from her graduate studies and said, “Like this book right, everything that I’ve learned, you know, on the way to my degree just the knowledge that I’ve gained were the strategies that I’ve learned in my classes and stuff like that. You know, collaborating with other people but you know” (interview, 1/8/2010). However, her lack of elaboration on strategies and sources throughout the interview inferred that she was unaware of research.

Similarly, Teacher 3 stated, “It’s really my bookshelves, I mean I have a host of actual paper book resources, I’ve over the years made a binder of graphic organizers” (interview, 1/13/2010). However, this teacher expressed that she was unaware if her sources for strategies were evidence-based. The third teacher in the unaware group responded, “I would say my people connection in terms of my assistive technology team, since we use a lot of technology I need a lot of technology support” (interview, 1/14/2010). This teacher worked with severe disabilities so her main resource for learning in the classroom was technology. This could be the reason that she relied less on specific evidence-based practices and more what her technology support suggested for



her population of students with severe disabilities.

In addition, when each teacher in the unaware group was asked about how often they implemented new strategies, one out of the three said they rarely implemented while the other two said they implemented often. For example Teacher 3 stated, “Actually I guess I’d say not that often, I kind of stick to the ones that I know are working (interview, 1/13/2010). Whereas Teacher 1 replied, “I would say it’s on a daily basis, it may be something small. It may not be like oh we’re introducing this big new strategy each day, something different each day. But just in general I mean, just kind of things you do or even minor things just like, like nonverbal prompting or things like that” (interview, 1/8/2010). Similarly, Teacher 4 stated, “every minute of the day”(interview, 1/14/2010).” Although two out of the three teachers reported that they implemented new strategies often, the fact that they stated that they were unaware when using and sharing practices if they were evidence-based implied that they could be implementing strategies that were not proven by research.

### **Awareness Levels and Personalization of Research**

All teachers were personalizing research. Personalization of research varied by levels of awareness of research. Table 4 provided a list of the practices and sources stated by the different groups of awareness.

Table 4

*Data Reduction for Sources and Practices within the Levels of Awareness*

Recommended Practices	Sources
<b>Aware</b>	
ABA	Journals
Universal Design	Inservices
Differentiation	Assistive Technology Support
Behavior modification	Cast.org
Assistive Technology	Iris Center
Errorless Teaching	CEC
Mixing and Varying	LD Online
Prompting and Cueing	Collaboration with Expert
Prompt Fading	Colleagues from Graduate Classes
Natural Environment Teaching	Research Based Internet Sites
Generalization	Rick Lavoie website
Shaping	Assistive Technology Team
Inspiration Software	Consulting Teacher
Graphic Organizers	
Kagan Strategies	
Metacognitive strategies	

Color Coding

Praise and Encouragement

Systematic Reinforcement

Structured Teaching for Social Skills

Positive Reinforcement

Differentiated Reinforcement

Rubrics

Excite

Hands on manipulatives

Board Maker

Hands on manipulatives

Life Skills

---

Recommended Practices	Sources
-----------------------	---------

---

**Partially Aware**

Try to stay animated

Classes

Packet Math

Staff Development

Organization

Colleagues

Visual Strategies

Other Teachers

Mnemonics

Graduate Courses

Chunking

Workbooks

Increase Font Size

Internet

Technology

Card Activities

Draw

Star

ABA

Active Learning

Assistive Technology

Color Coding

Facing Math

Replacement Strategies

Positive Reinforcement

Generalization

Life Skills

Decoding

SRA Reading Program

Active Learning

Recommended Practices	Sources
<b>Unaware</b>	
Power Writing	Assistive Technology Team
Ability Grouping	Other Teachers
Peer Tutoring	Experience Teaching
Think Alouds	Collected Worksheets and Graphic
Generic Scaffolding	Organizers
Graphic Organizers	Graduate courses
Sabotage	
Fading the prompt	
Direct Instruction	
Graphic Organizers	
Success Maker Math	
Differentiation	
Repetition	
ABA	
Pairing spoken word with sign and picture	
Life skills	
Universal Design	

A description of teachers, their personalization of research and their descriptions of success with students by levels of awareness is provided next.

### **Group 1: Aware**

These teachers personalized research in such a way their students with special needs had positive academic outcomes. In every discussion of strategy examples, reliance and knowledge of research was clearly significant in these teachers' practice.

For example, Teacher 5 was an experienced teacher in her mid thirties from India who was currently enrolled in a PhD special education program at the local university. As special education teacher of 18 years, she relied only on proven evidence based strategies that she found in scholarly journals and the CEC website. She was skeptical of using any other strategies because time was so valuable for her students that she did not feel that wasting it on trying new things not proven by research was effective. Dedication to the students in her classroom was her top priority. Projecting a serious demeanor, she pointed out that teachers had to be proactive to find out about the resources that were available in order to be good teachers in the classroom. She was sure of the power of evidence-based practices and technology in the classroom. Her knowledge of how they worked coupled with her experience in seeing them work made her confident about her ability to be successful in the classroom. She was highly motivated and sure of her strategies and this empowered her to feel she could affect change. She also had a good understanding how her students learned. In addition, this teacher had a lot of support from administration, technology resources, teaching consultants, and county resources (memo 1/16/2010).

Teacher 5 described how she used research and what her goals for success were for her students.

I work with children with severe needs so it's based on life skills like money skills and using calculators so that it's making them progress towards independent life skills. There are multiple things that work, behavior modification definitely works, a reward system works, so I use a token economy, and applied behavioral analysis definitely works with them. It varies based on the children. There are several assistive technology devices which certain children use like we use a lot of board maker stuff teacher created stuff with lot of visuals and I also have some of the children who have difficulty communicating in sentences use Mini mo which is an assistive technology device that is an augmented communication device (interview, 1/16/2007).

This teacher further described how she sees success in the classroom by using various evidence-based strategies coupled with technology.

Definitely using technology because it's so interactive that again it has to be interwoven, it has to be part of your big lesson plan it's not that you just pick up something and just start teaching. Children seem to respond better they are more engaged with it and their retention skills are definitely better because I have one particular student who is who has severe intellectual disability and he doesn't even talk. So we have to use augmentative communication device for him. But that student with the Smart Board every time there is something going on although he might not be part of that lesson he's sitting on one side but he's using

terminology what I'm teaching one student here. So it's, that just speaks to the power of technology that how that child although he's all the way on the other side of the room working with another teacher how interested he is in this lesson going on here because of the way it's being taught (interview, 1/16/2007).

Teacher 6 was a young teacher with four years teaching experience who had completed a masters in special education. She taught K-5 highly aggressive autistic children with Autism spectrum disorders in a self-contained setting. She had a consulting teacher with vast experience working with students with autism and used the *Journal of Applied Behavior Analysis* as a source for her strategies. During the interview, she stated that she relied heavily on the Journal of Applied Behavior Analysis for most of her strategies, focusing on communication and social skills (memo, 1/20/2010).

As teacher 6 described goals for her students, she seemed passionate about helping them achieve success in the classroom with evidence-based practices.

I want them to be able to communicate what they need, what they want, how they feel. I want them to be able to get meaningful interactions with other people, whether it be their family or anybody in the community. I want them to have a set of basic skills to be able to access things in the community like basic reading and writing and math abilities to give them as much independence as possible.

This teacher elaborated on her use of evidence-based practices to help her students succeed.

For reading, for retelling specifically we're using mixing and varying, we're using prompt fading, we're using errorless teaching. For example, he's being asked to



retell a short story and we have visual supports, visual pictures in front of him and he's supposed to put these visual pictures in order. So the prompt hierarchy might go like this. Instead of putting all 3 in order just to see if he can do it, the 3<sup>rd</sup> one is the first one so the 3<sup>rd</sup> one will already be there. Then I reread the story and as I'm reading the first part I'm pointing to the picture that he needs to put in the first section. And I read the second part and I point to the one that he needs to put in the 2<sup>nd</sup> section so it's errorless. He doesn't have a chance to make a mistake. I do that X amount of times which is specified in the curriculum that I drew up for him. I do that maybe 2 or 3 trials and then on the next trial I wait so I have a 2 second delay. He's got 2 pictures in front of him and the 3<sup>rd</sup> one's already there and I'm reading and I'm waiting to see if he's going to reach for that correct picture and put it there. And I wait 2 seconds if he doesn't do it I'm going to tell him which one goes where and that's to prevent him from making a mistake but giving him an opportunity a window of opportunity to do it independently. Then, I'll differentially reinforce it. That gets faded over time and the task itself increases in complexity over time (interview, 1/20/2010).

It was clearly evident when interviewing this teacher that she was implementing and personalizing research with fidelity in her classroom. She was very specific and descriptive about evidence-based practices, fidelity of implementation, and reliance upon research as her source. In addition, she was very detailed in describing exactly how she followed evidence-based practices to teach her students.

Another aware teacher, Teacher 7, revealed success with students through her use of practices based on research. A special education teacher for over twenty-eight years, Teacher 7 was completing her PhD and was motivated as a teacher mainly because of her knowledge of what worked in the classroom and her experience of success with students. Teacher 7 was currently a teacher trainer for her school district but discussed her recent experience as a twelfth grade self-contained English teacher. Her goal was to help her students develop skills to graduate successfully. She understood her students and was compassionate. Customizing the curriculum each year based on her students' capabilities, she taught writing through the use of strategies such as graphic organizers, scaffolding, task analysis, rubrics, color-coding, and visual emphasis. After giving a detailed description of her writing strategies, she said she and another teacher blended these strategies when they were trying to help their ninth grade self-contained students succeed in writing. She inferred that she was talking about how she developed strategies from research and used research-based strategies. She referenced the CEC website and LD (Learning Disabilities) online. In addition, she commented that graduate classes and teacher training programs within the county were also her source for strategies (memo, 1/22/2010).

Teacher 7 described her implementation of evidence-based practices as key in her high school senior's writing success.

How do you get a 6-page research paper out of kids who have trouble writing and reading? So that was being highly organized on my part as far as definitely scaffolding things down into tiny pieces. I did really detailed lessons about using

data bases, doing research, and organizing notes. I taught them strategies for highlighting, color coding and or numbering things to organize. This is from a lot of the research that I've done (interview 1/22/10).

Finally, the last aware teacher, Teacher 10, had been teaching for 24 years in a K-6 self contained classroom and had recently completed her PhD in special education. When describing the goals she had for her students, she used an analogy of taking her students to the top of the mountain to describe how she helped them achieve success. I felt this conveyed her positive belief in herself as a teacher and her students as learners. Climbing the mountain, Teacher 10 pointed out, is a different journey for each individual child and she believed that she had the ability as a teacher to motivate them to get there. Maximizing potential was what this teacher emphasized as her vision for her students and she involved students and parents in making future short and long-term goals.

Throughout the interview, she conveyed how she personalized research-based strategies and added her own "flair" to make learning fun. Her extensive knowledge of research coupled with her years of experience seemed to influence her ability to modify and add her own personal touch to her use of evidence-based strategies. She also said she was good at "finding the hook," revealing that she understood how to motivate her students to learn. She incorporated visual and active learning whenever possible (memo, 2/4/2010). In addition, she gave extensive specific examples of her strategies and how she saw success in the classroom.

For reading, I am a firm believer of direct instruction, and I think Anglemen did a great job of arranging the reading mastery program around the types of learners

that I know. So, focusing on that vocabulary development, on systematic decoding, and then adding that comprehension piece in and doing all of it in cumulative review, I think he had it really together and I had a lot of success with that. I took readers usually more than one grade level per year with that program. But I also added my own, sort-of flair to that. Like, I had letter vests. They had these little vests made of felt, and I would put phonetic sounds on them, and then I would say, “Okay, you guys make the word marsh,” and they had to figure out what the sounds were and in what order they occurred. And then they had to make their sounds blend so that they made a word. And, it sounds kind of silly and hokey to have fifth graders doing that, but they absolutely loved it. And it was a fun way to get them to practice the spelling and the writing, and the fact that letters sequence in a certain order. When I taught younger kids, I did a variation of that with the little plastic magnetic letters. We would do those on little cookie sheets, and each child would have to make the word for me. And again, it sounds hokey, but when kids have success, I think they just love that feeling, and I love it, too. I love to watch their faces (interview, 2/4/2010).

### **Group 2 Partially Aware**

Teachers in the partially aware group also personalized research but because they did not always rely on research as their source for practices, it was questionable whether their adaptation of strategies was always effective in the classroom.

For example, Teacher 2 was a middle school special education math teacher who had been teaching for 7 years and was currently enrolled in a PhD in education program. She and another teacher had developed a strategy called "packet math" that organized math homework, class work, and notes into one color-coded system eliminating lost paperwork and creating more instructional time for students. As a result, she said that students were empowered and there was not a problem with homework. Teacher 2 said that most of the strategies she used were teacher created because there are very few middle school math strategies. She shared how she felt a need for a forum for active teacher research. She felt that the strategies developed by teachers should be tested by researchers and then proven so that there could be more special education teaching strategies for middle school math (memo, 2/4/2010). Although this teacher was passionate about teaching special education and obviously worked hard to improve learning for her students, her responses about research revealed mixed feelings. For example, Teacher 2 commented that her resources for strategies were mostly colleagues and other teachers. She also complained about how meeting the demands of the state standards impeded on her time to implement new strategies.

You know, PEMDAS (Parenthesis, Exponents, Multiplication, Division, Addition, Subtraction) is a big one the kids learn. DRAW (Discover, Read, Answer, Write) is a strategy, STAR (Search, Translate, Answer, Review) is a strategy. But sometimes the strategy takes more time to teach than the actual lesson in math. And we don't have time. And I'm not saying the kids wouldn't learn it better. They might. But because the way that the state has structured our

spacing, we don't have 5 minutes. You know and our special education classes, we're responsible for the same material. The Standards of Learning drive everything. It's more difficult to teach a strategy when you've got to jump from topic to topic, week to week. Sometimes day to day. Because we have 10 different units in 40 weeks and 17 different standards, it's really hard (interview, 2/4/2010).

This teacher's candid conversation revealed two problems that prevented her from using evidence-based practices: lack of time and lack of available strategies. Unfortunately, this could eventually impact the academic outcome of students in her classroom.

Teacher 8 was teaching K-3 students with learning disabilities in a private suburban school. She was satisfied with her job and revealed that she felt the flexibility to teach a concept that her students did not seem to master for as long as she needed because she did not have to follow a standards based curriculum. The private school in which she worked had great administrative support encouraging constant collaboration and education through conferences. However, she revealed a partial awareness of research throughout the interview. When asked about a specific teaching strategy, she was unable to provide an example. She replied, "I don't know. I guess that's a difficult question for me. I always like to find ways to make it engaging, and that can come...there's like no one way that I do that. Sometimes one thing will work and then that same thing won't work either the next day or with a different subject" (interview, 1/25/2010).

Although this teacher revealed a passion for teaching in the special education classroom, she also admitted that she did not often try strategies provided by the professional development in her school. She placed a big emphasis on making a personal connection with her students, however, she seemed to lack an overall knowledge of specific evidence-based practices. She provided an example of a student she helped with writing.

So, just today for instance, I gave the kids a writing prompt, and I just said write a story about a dog. It can be anything you want. It has to... we've gone over the components of a story, so it has to have these components. Do the best that you can and just go for it. And since usually with my students, writing is very difficult for them because there are attention issues, they just have a harder time focusing on components of a sentence and then getting their thoughts together enough to write on paper or if their thoughts are together, they can't spell very well so they get discouraged. So, my expectations weren't that high. I wasn't expecting there to be half a page of story – I just wanted to see what they would do with a prompt like that, with a direction like that. And I was really impressed with this same student. He before would just kind of look at you strangely if you said write a sentence or even finish this sentence if you gave a sentence starter. And today he was still a little hesitant. He wanted to... he asked me, well, how do you spell this word and how do you spell this word? And I said just do the best you can, sound it out and keep writing. And he did. He gave me like 3 or 4 sentences that actually followed thought, and I was really, really impressed. I told

him he did a fabulous job, and that I was really happy with the work he had done.

So, that was a bit of a surprise to me that he would risk so much when last year

this was a kid that when he came to school, he would hide in his sweater or

hoodie. So, he's one really big success story (interview 1/25/2010).

Teacher 8's words revealed that she did not have high expectations for her students.

Although she stated that she was experiencing success with students, she was unable to

cite which strategy had helped her impact her student's learning.

The last teacher, Teacher 9, was teaching a basic skills class for high functioning autistic students and a self-contained geometry class ninth - 12th grade. She was very friendly and candid about her experience in the classroom. She had been teaching special education for 4 years and credited her ability to do well in the classroom stemmed from her personal experience with her son who has autism. She began the interview by showing me the technology that she uses with her classroom. She placed high emphasis on building relationships with her students and keeping a positive classroom environment. She cited many ways that she used positive reinforcement with her students. She also stated that she relied on research, other teachers, and in-services for her strategy use. She said that she often shared ideas with her colleagues. However, she made note that discussing research, she felt, could make her seem "snooty" to other colleagues in the school so she did not go around saying talking about the research that much (memo, 1/26/2010). This teacher gave an example she called a replacement strategy that helped her achieve success with a student.



There was a student today who, he blurts out a lot and it's very negative. Like, I was doing something at the board and he was like, well that's stupid, um, just a minute, just because it's easy for you doesn't mean its- and he kept coming up with these negative things. And so finally I said, you know what, I said, you're really sour today, here, and I throw him a piece of candy. And he went, oh, and I said, and since everybody else had to put up with your sourness I think they need a piece of candy too, so everybody got a piece of candy. Now that, now that might not be like, that's the like, you know, other people said that was a reward for bad behavior-but it made him think for a minute and everybody was happy, and the thing is that people get really tired after lunch, and so half of them are sleeping anyway. So, you know, it woke them up, they said thanks and he did not blurt out again for the rest of the day (interview, 1/26/2010).

Throughout the interview, Teacher 9 described several instances like this revealing that she knew how to think on her feet. Her compassion for students with special needs stemmed from her personal experience with her own child and seemed to help her understand exactly how each student in her class felt. However, her inability to share research, coupled with her reliance on other teachers as her first source for strategies implied that her personalization of research might not always be effective in the classroom.

**Group 3: Unaware:**

These teachers personalized research in such a way that could be inconsistent or dangerous to students' learning. Their words revealed that they did not rely on research or take time to see if strategies were evidence-based.

Teacher 1 was a young ninth grade special education teacher who had been teaching English in an inclusive classroom in an urban school district for two years. Concerned about the fact that some of her students could not read or write on a ninth grade level, she lamented the fact that although she recommended these students for remediation, the school did not have a remediation program. She also expressed concern with the motivation of the students in this inner city school and said that school was not their number one priority and that their focus was what going on in the neighborhood such as shootings, jail, etc. This teacher was the anomaly of all the teacher participants because she did not seem satisfied with her job. Due to her disgruntled attitude about her job, I asked her if she would rather be teaching another age group. She responded that she would prefer to teach a self-contained elementary school classroom (memo, 1/8/2010).

The interview with Teacher 1 revealed that she was overwhelmed and felt powerless to affect change or impact success with students in her classroom.

I'm an advocate of remediation skills. There are some students in our class even though they're in 9<sup>th</sup> grade English, I don't know how they've gotten there.

Teachers passed them, but they really weren't prepared for it. They just don't have the skills, the reading fluency or anything. I mean, I feel the best thing for them would be I don't know if you would call it a strategy, but it's just my

opinion, that they get remediation skills before they even come into the 9<sup>th</sup> grade classroom. I mean there's a student with reading fluency that is extremely low, he may not even read on a 1<sup>st</sup> grade level, it's that bad. He cannot write. He's also dyslexic, he cannot spell and I don't know how he's made it to 9<sup>th</sup> grade. When you see him in the class, you know like he can't do anything. And when you're in a class like that, you can't you don't have time to re teach him those skills. You don't have time to do that kind of remediation. So I think really when you can pinpoint those students that need the remediation before you put them in an inclusion class (interview 1/8/2010).

Listing challenges as problems was characteristic of the entire interview with Teacher 1. She was unable to provide success stories and when asked about sharing research she replied, "I mean, it's just kind of so fast paced everybody has their own kind of job duties or things that we don't we try to collaborate" (interview, 1/8/2010). Her personalization of research seemed minimal and also ineffective due to lack of success stories, resources, and a supportive administrative environment.

Another unaware teacher, Teacher 3, was an enthusiastic teacher who was teaching in a cross categorical 5<sup>th</sup> grade classroom. She had a great sense of humor and laughed a lot during the interview making little jokes about her experiences in meeting her students needs. She admitted that she used a lot of different strategies and her resources were from research, other teachers and her own ideas. She was big on using songs, chants, popular sayings or names to help her students learn. She noted that she did not have time or know if some of the strategies were research based, she just used them

because they worked. One of her favorite strategies was power writing. She explained that she found out about it from a 4th grade general education teacher and did not know of the originating source (memo, 1/13/2010). She explained this practice and how she altered it.

I've got my own research, like I have no proof. I could not show you my power writing, I couldn't say well look, this is what he did before... I have no actual research on it. But I can tell you it's the most powerful thing I've ever used for writing. Without being able to you know, document it, you know. Mastropieri did the POWTREE, right? She came to talk to our class last semester and I was like that's so funny Plan, Organize Write. Power of writing that's what I've been doing with my kids. Literally left her that day, came home and made up the POWTREE with my one, two, threes and so that the T is the topic so that's my #1. The R is the reason, that's the #2, and the 3's are the explanations that support that. Right. I can take any type of writing and make it power writing just by you know, thinking it through, graphing it out putting it into some kind of format so that there's this big giant tree, with 3 branches and there's your 3 reasons for you're a a your persuasive writing. I've avoided doing persuasive writing for years because I can't figure out a way to make them understand what it is that you're trying to do. Cause it's kind of an abstract concept (interview, 1/13/2010).

When further probed on whether she used the evidence-based research book called Self Regulated Strategy Development (SRSD) on which POWTREE is based, this teacher

laughed and said, "I didn't go there," inferring that her personalization of evidence-based practices lack fidelity of implementation and can be detrimental for students' learning.

The third and final teacher in the unaware group was Teacher 4. This teacher had been teaching for nineteen years and was currently teaching a high school classroom of students with severe disabilities. When choosing strategies for her classroom, she stated that she relied on "gut." In other words, she expressed that she did not always check to see if something was evidence-based. She felt there was a lack of research for her population of students. She said that while she was "in the trenches," she tried anything within reason, if it worked. During the interview, she described how her students were very low functioning and there was very little they could do post schooling so her main goal was for her student's to develop life skills. She relied heavily on assistive technology to help her students reach this goal.

After the interview, she described a particular student that she had success with with technology. When he came to her class initially, he was physically disruptive and bordering on being sent away to a living facility. She said he would just start running down the hallway out or would have tantrums that could not be controlled and that he was known to hit teachers. Using technology, this teacher helped him learn to communicate. She said it took time but with the implementation of a personal communication board, he could now talk to teachers and parents through the symbols on his board. She remarked that technology had made his whole personality change and stated "this has changed his life and has saved him from having a meaningless life where he would never be able to communicate with others" (memo, 1/14/2010).

Overall, Teacher 4 was a passionate teacher who loved her job, had success with students, and was transforming lives in the process. However, her words revealed that she did not rely on research first for strategies as she stated, “when I look to what am I going to use in this classroom to motivate my kids I don’t go online and look for an evidence-based strategy” (interview, 1/14/2010). This reflected that although she was very passionate for her students and had knowledge of research, she also felt that her own ideas and other unproven strategies are just as useful. Therefore, her personalization of strategies could be dangerous to students learning.

The teachers in the unaware group did not base their practice on research. Other sources such as their own ideas and other teachers were just as important as research to their classroom practice. These teachers were changing and adapting evidence-based practices in such a way that they may not be recognizable as research-based .

### **Awareness Affects Personalization**

After in depth conversations with participants regarding their use of evidence-based practices, it became evident that teachers’ awareness of research affected how they discussed, implemented, and relied on research. Despite the fact that all of the teachers in this study were highly educated, had access to professional development, and knew about research, they did not all seem aware of research in the same way. In fact, some of the most educated and experienced teachers admitted that they were not concerned about whether a practice was evidenced-based before using it in their classroom. A commonly cited reason for this was lack of time and the lack of evidence based practices available. Additionally, some teachers felt uncomfortable about sharing research due to the social

culture of their school. It was also surprising that highly educated teachers were personalizing research in such a way that it could be dangerous to the academic outcome of students their students with special needs. This implicates that more research needs to be done on teachers' use and perception of research.

## **CHAPTER 5. DISCUSSION**

This chapter gives an overview of the purpose of this research study. Major findings are revealed as well as a review of the conclusions of the research questions. The chapter finalizes with implications for teacher researchers, professional development, and suggestions for future research.

### **Overview**

Research-based practices are proven to enhance the academic outcome of students with special needs (Gersten, Vaughn, Deshler, & Schiller, 1997). In addition, innovative research-based instructional practices that benefit students with special needs have been identified and mandated by the U.S Department of Education (Gersten, Chard & Baker, 2000). However, improvement in practice only occurs when teachers alter their routines and implement research-based practices that address students' academic needs and goals (Gersten et al., 1997).

Research reveals that changing instructional routines and implementing new practices have been found to be difficult for some special education teachers (Gersten et al., 1997). In addition, research showed that teachers' lack of knowledge and trust of evidence-based practices still exist (Landrum & Tankersley, 2004). Although special education teachers play an important role in providing an appropriate education for students with disabilities, research suggests that students participating in the special education classroom across the nation are at risk of not receiving effective evidence-



based instruction. Due to the problem of implementation, the gap between research and practice continues to be an issue of national concern for the special education classroom (Abbot, Walton, Tapia, & Greenwood, 1999).

This research study investigated the current practices special education teachers use in the classroom with students with special needs. Additionally, the study explored the sources that special education teachers base their practices on and their perception of research. Two research questions were investigated. Qualitative research methods were employed that included interview, artifacts, and memos to address the following questions: What are practicing special education teachers' perceptions of their use of evidence-based practices? What are the sources for the practices special education teachers use?

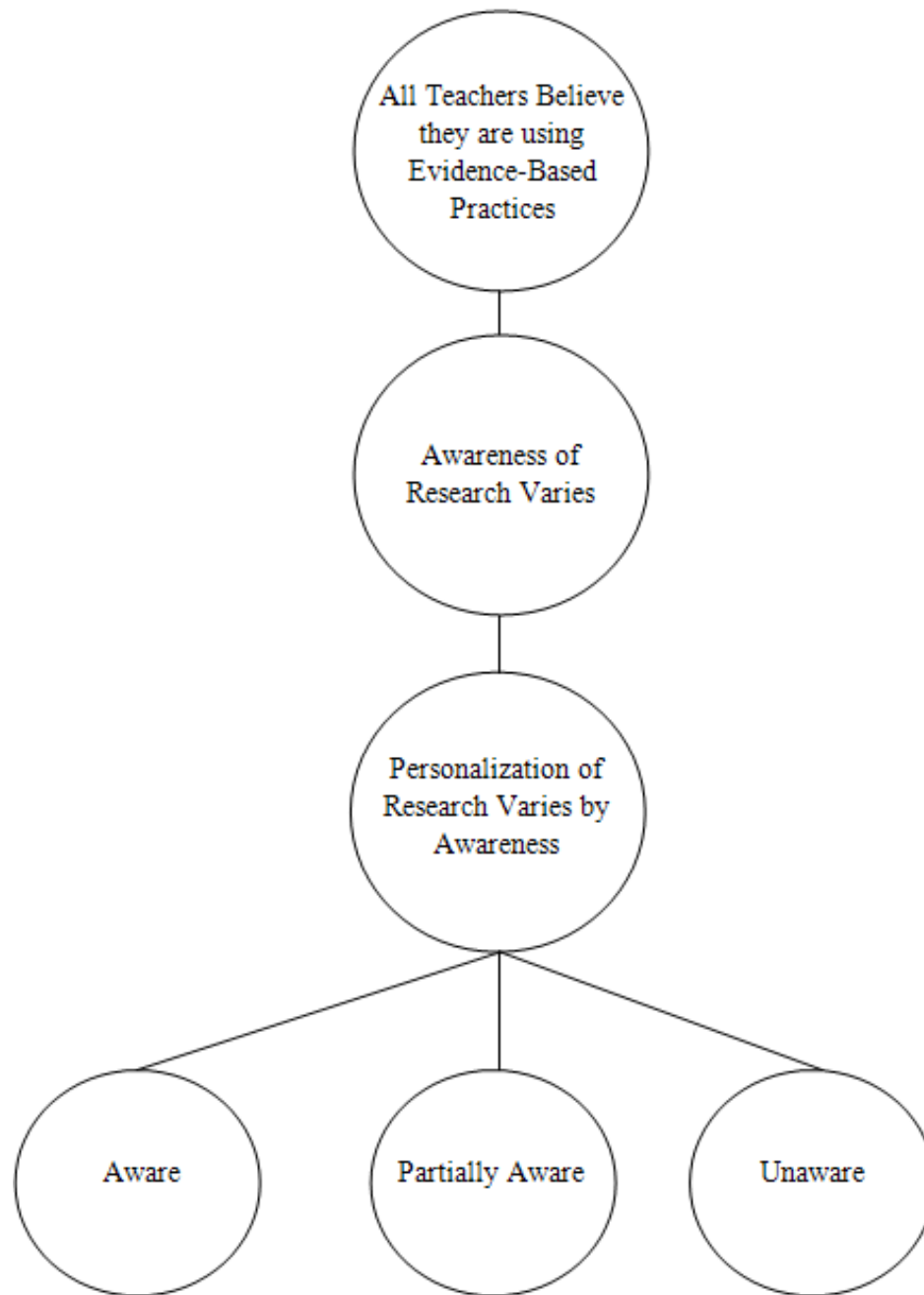
### **Discussion**

Based on the analysis of all data from interviews, artifacts, and memos, three major themes emerged and three groups of teachers were exposed. A synthesis of all data revealed a development of a conceptual framework to understand the themes and teachers' perception of research. In addition, a conceptual framework for teachers' awareness of research in relationship to teachers' personalization of research evolved after a triangulation and synthesis of all data.

#### **Teachers' Perception of Research Conceptual Framework**

Although specific evidence-based practices have been identified to improve the academic outcomes of students with special needs, the research to practice gap is still a matter of national debate (Jones, 2009). As students who occupy the special

education classroom are diverse in needs, characteristics, and abilities, it is critical that special education teachers rely on effective instructional practices. After a complete synthesis of all data sources from this study, a conceptual framework of special education teachers' awareness levels was developed to understand the phenomenon of teachers' use and perception of research and is identified in Figure 1.



*Figure 1.* Conceptual Framework of Teachers' Use and Perception of Research

A common thread throughout all teachers evidenced three main themes: (a) All teachers believe they are using evidence-based practices, (b) Awareness level varies, and (c) Personalization of research varies by awareness. Awareness levels are identified in Figure 2. Each theme is discussed separately next.

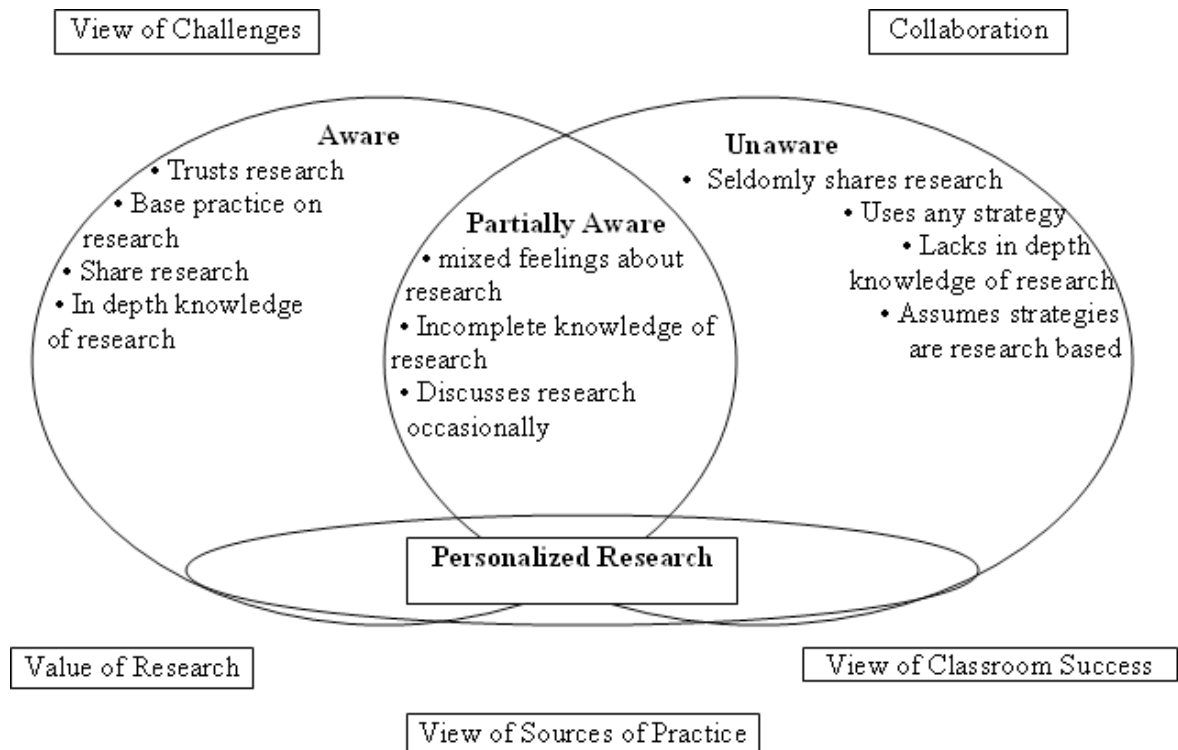


Figure 2. Conceptual Framework of Awareness Levels of Special Education Teachers

### Theme 1: All Teachers Believe They Are Using Evidence-Based Practices

A common theme found in this sample of special education teachers was: All teachers believed they are using evidenced-based practices. This finding was similar to Burns and Ysseldyke's (2009) previously conducted study, which also found that special education teachers were implementing evidence-based practices. Like the special

education teachers in Burns and Ysseldyke's (2009) survey, the teachers in this sample were also highly educated. They surveyed 174 special education teachers and 333 school psychologists on the frequency they used or observed practices being used in the special education classroom. Their data suggested that even though teachers were engaging in EBP's, less effective strategies such as perceptual-motor training were still reported as being used regularly, revealing a gap between research and practice (Burns & Ysseldyke, 2009). This study extended Burns and Ysseldyke's (2009) study by conducting in depth interviews in to gain a better understanding of teachers' use and perception of evidence-based practices. The current study found that even though special education teachers believed they were using evidence-based practices, they were sometimes less effective due to their level of awareness and personalization of research.

While Burns and Ysseldyke (2009) findings were somewhat optimistic in terms of the research to practice gap, other studies have revealed a lack of use of research in the special education classroom. Boardman et al. (2005) found that most teachers admitted they continued to use what worked for them despite their school districts requests to use the research-based methods from teacher programs. Evidence continues to suggest a limited use of these practices in the special education classroom (McLeskey & Billingsley, 2008). However, Doug Fuchs, professor at Vanderbilt University, asserted that special education research has provided teachers with a solid empirically supported series of instructional strategies (CEC, 2009).

## **Theme 2: Awareness Level Varies**

This study also found that there is a limited use of evidence-based practices due to teachers' lack of awareness of research. Teachers' understanding of research-based practices are proven to raise their awareness of how to solve instructional problems and increase their willingness to experiment with research (Sparks, 1988). Raising teachers' level of awareness also results in teachers that are more willing to experiment with recommended practices and have higher efficacy beliefs (Sparks, 1988). Teachers within this study that were more aware of research conveyed higher levels of teacher efficacy. As a result, these teachers were the ones that discussed, implemented and relied on research. As Pajares (1992) argued, "teachers' beliefs can and should become an important focus of educational inquiry" (p.307).

Within this study of special education teachers, three levels of awareness of research were evident. Aware teachers had an in-depth knowledge of evidence-based practices and tended to use, rely, and share research often. Partially aware teachers sometimes used and shared research but did not always rely on it. Unaware teachers did not often share, use or rely on research.

Similar to these findings, Jones (2009) revealed three distinct groups of teachers in regards to their use and perception of research. Based on her study of ten novice special education teachers, she found that teachers were grouped as: Definitive Supporters, Cautious Consumers or Critics of research. She concluded that the reason for the research to practice gap could be due to an inaccurate perception of teaching practices or an uncertainty of how to implement practices with fidelity.

Jones (2009) findings were comparable with the findings from this study in that these 10 teachers' awareness of research also affected their trustworthiness of research. The more aware of research the teacher was, the more the teacher relied upon and trusted research. The less aware teachers did not always feel it was necessary to consult research-based websites for validation of their practices.

Moreover, Gersten et al. (2000) argued that sustained use of evidence-based practices depended upon teacher understanding of research. Their research revealed factors that enhance teachers' sustained use of research based practices and found that teacher understanding of research drives how teachers implement and use evidence-based practices.

Many studies have been conducted on professional development that explored teacher awareness and understanding of research. Research revealed that teacher efficacy and use of evidence-based practices are related (Henson, 2001). Findings from research showed that acquiring and applying practices improves teacher efficacy; efficacy beliefs indicate instructional behaviors; and active teacher research affects teacher efficacy and practice implementation.

Furthermore, research showed that teacher efficacy can be developed if teachers are actively involved with research (Henson, 2001). Henson (2001) examined participatory teacher research in professional development. Teachers brainstormed to identify instructional challenges that were relevant to their classroom. Results indicated large gains across time in general and personal teaching efficacies and implementation of evidence-based practices. Interviews supported this finding. Teachers reported that they

preferred the teacher research to traditional in-services. Gersten et al. (1997) advocated that rigorous studies on teachers' implementation of evidence-based practices continue to be conducted in order to understand the translation of research to practice.

### **Theme 3: Personalization of research varies by awareness**

The teachers in this study revealed that their knowledge and awareness of evidence-based practices impacted how they personalize and modify strategies. Teachers that had an in depth knowledge of evidence-based practices personalized research in a way that it could have a positive outcome. Teachers that lacked an in depth knowledge of evidence-based practices personalized research in a way that could be inconsistent and dangerous to students' learning.

Similarly, Jones (2009) found that fidelity of implementation was an issue in her teacher participants. There was a disconnect between the teachers' perception of research and actual utilization of practices. Observations of teachers in the classroom revealed little evidence of use of research-based practices despite their stated reliance on research in interviews. Even the teachers that were found to be definitive supporters of research did not provide evidence to support their views of teaching practices.

This study revealed findings similar to Jones (2009) in that teachers who believed they were using evidence-based practices were actually personalizing research in such a way that could be ineffective in the classroom. For example, their descriptions of their use of evidence-based strategies revealed that they were altered to such a degree that they were no longer recognizable as an evidence-based strategy.



Cook et al. (2003) also found that even when teachers' used evidence-based practices, they were utilized in such an ineffective way that they were counter productive. Furthermore, they emphasized that evidence-based practices must be used on a regular basis in order for special education to positively impact educational outcomes. It is important to note that this study included one inclusive classroom teacher that had a low awareness of research. As this teacher conveyed being less satisfied with her job, she inferred that, her limitation to decide on strategies used in the classroom potentially impacted her ability to implement evidence-based practices.

Similar to Cook et al. (2003) findings, this study also found teachers randomly using evidence-based practices and blending them with other practices in such a way that they seemed to lack effectiveness in the classroom. This personalization of research inferred that translation of research to practice may be so distorted by some teachers that positive academic outcomes may not even be possible.

### **Summary**

Data from this study extended the research of Burns and Ysseldyke's (2009) study as well as other previous studies and explored the status of the current research to practice gap in the special education classroom. This study revealed that a difference in teachers' awareness of research affects personalization of research. The development of a conceptual framework of teachers' awareness levels helped further understand the phenomenon of teachers' use and perception of research. The conceptualization of awareness levels was further supported by Jones (2009) study, which also revealed three different groups existed in teachers' perception and use of research in the classroom.

Jones (2009) research also presented three teacher groups: (a) Definitive Supporters, (b) Cautious Consumers, and (c) The Critics. Definitive Supporters were described as special educators that felt research was essential in their practice. Similarly, the Aware special education teachers in this group were passionate about research and constantly relied on it to inform their practice. These teachers discussed, implemented, and relied on research. The Cautious Consumers were described as teachers that unsure of the true value of research. Similarly, the Partially Aware teachers in this group were not always aware when using or sharing practices if they were research based. The Critics, like the Unaware teachers in this group, reflected that they did not often share, discuss or use evidence-based strategies that were proven to be effective in working with students with special needs. This study differed from Jones (2009) study in that all teachers were highly educated and experienced.

### **Limitations**

As this study's purpose was to investigate special education teachers' use and perception of research, several factors could have limited the researcher's ability to have an in depth understanding of the translation of research to practice through the viewpoint of special education teachers. First, the extent to which this study is representative of other special education teachers is unknown. Secondly, all participants were all highly educated teachers. Third, reliance on self-report of teachers could have resulted in incomplete evidence. Fourth, the researcher's bias and personal experiences could have affected the analysis of data. Finally, the lack of observation of classroom practices may

have limited the ability to further prove teachers' use and perception of evidence-based practices.

### **Implications for Professional Development**

The findings from this study provided an understanding of teachers' use and perception of evidence-based practices. A conceptual framework was developed that grouped teachers according to their level of awareness of research and resulted in a better understanding of their use and perception of research. In addition, this study found that the personalization of research of special education teachers was an important factor as to how well evidence-based practices were implemented by special education teachers. Personalization of research also affects the academic outcome of students with special needs.

Future studies on the professional development of special education teachers should focus on teachers' levels of awareness of research. As this research study revealed, teachers that lack awareness of research may be altering practices in such a way that they may be detrimental to students with special needs. In addition, since the teachers in this study were highly educated and experienced, future research should be conducted to further understand how professional development can change teachers' awareness of research. Explaining research to teachers needs to be supported in teacher education and future research on how to best achieve this is needed. Professional development should be supported by school and university partnerships, emphasizing action research in order to promote teachers awareness of research. If teachers can

become more aware of research and personalize research effectively, positive academic outcomes for students will result.

### **Implications for Future Research**

The current literature on teacher use and perception of evidence-based practices is inconclusive. Research on the practices of special education teachers warrants additional inquiry due to evidence of a research to practice gap. This study's purpose was to investigate the translation of research to practice by examining special education teachers' use and perception of evidence-based practices. As a result, this qualitative interview study provided a conceptual framework for insight into how teacher's level of awareness affects personalization of research. Therefore, the current study extended prior research of the reported practices in the special education classroom. A replication and extension of this study could involve more participants and classroom observations would also provide a more comprehensive analysis.

Future research should continue to explore teachers' perceptions of their own teaching practices. This may include how teachers objectively evaluate their implementation of evidence-based practices. In addition, understanding what encourages special education teachers to continue to rely on research after professional development and teacher training would be beneficial. Since sustainability and fidelity of implementation of evidence-based practices is critical in the special education classroom, gaining more understanding of how to change teachers' awareness of research is imperative. It is important that all special education teachers recognize that since special

education evolved out of research, it is imperative that research be the basis for all practices.

## Appendix A

### Special Education Teacher Interview

1. What are your educational goals for the students in your special education classroom?
2. What do you find works best to accomplish these goals?
3. Tell me about the curriculum that you use in the classroom.
4. What are the objectives/skills of the curriculum?
5. What kinds of strategies do you use to teach skills/objectives of the curriculum?
6. What do you like about this strategy?
7. How often do you implement new strategies in the classroom?
8. Give me an example of a practice, instruction, or strategy that you would recommend to special education teachers.
9. What are your resources for using these strategies?
10. What resource do you rely on most for the strategies you use?
11. Do you find other special education teachers in your school rely on the same resources?
12. Do you share strategy ideas with your colleagues?
13. When you share strategies with colleagues, do you discuss how you found the strategy?
14. When using or sharing strategies, are you aware if the strategy is research based?

#### **Follow up probe questions to above interview questions:**

What do you mean?

Would you explain that?

Can you give me an example?

Tell me about it?

Take me through an experience.

**Demographic questions**

1. How many years have you been a special education teacher?
2. What is your gender?
3. What is your ethnic background?
4. What type of community setting is the school that you work?
5. What types of disabilities are represented in your classroom?
6. How would you best describe the classroom that you teach?

## Appendix B

### Collaborative Institutional Training Initiative CITI

ion ReportCurriculum Complet Human Research

2009/10/12Printed on

(mguckert :username) Mary Guckert :Learner

George Mason University :Institution

**Contact Information** Graduate School of Education :Department

0367-930-703 :Phone

edu.gmu@mguckert :Email

&This group is appropriate for Social :Research Behavioral &Social 1Group

.Behavioral Research Investigators and Key Personnel

(3258793 #Ref) 09/09/11Refresher Course Passed on .2Stage

Required Modules	Date Completed	
Introduction 101Refresher Course	09/11/09	no quiz
History and Ethics .1REFRESHER MODULE 101 SBR	09/11/09	(%80) 5/4
Regulatory Overview .2REFRESHER MODULE 101SBR	09/12/09	(%80) 5/4
.Fundamental Issues .3REFRESHER MODULE 101SBR	09/08/11	(%80) 5/4
Vulnerable Subjects .4REFRESHER MODULE 101SBR	09/09/11	(%75) 4/3
Additional Topics .5REFRESHER MODULE 101SBR	09/09/11	(%80) 5/4
How to Complete The CITI Refresher Course and Receive the Completion Report	09/09/11	no quiz

**affiliated the learner listed above must be ,For this Completion Report to be valid**  
**Falsified information and unauthorized use of .with a CITI participating institution**  
**and may be considered scientific misconduct by ,the CITI course site is unethical**  
**.your institution**



## Appendix C

### HSRB Approval

	<a href="mailto:&lt;edu.gmu@hsrb&gt;HSRB">▶ &lt;edu.gmu@hsrb&gt;HSRB</a>
From	
Sent	pm 12:03 2009 ,19October ,Monday
To	<a href="mailto:edu.gmu@mguckert">edu.gmu@mguckert</a>
Cc	<a href="mailto:&lt;edu.gmu@mmastrop&gt;Margo A Mastropieri"> &lt;edu.gmu@mmastrop&gt;Margo A Mastropieri</a>
Bcc	<a href="mailto:javascript:parent.addSender(%22%22)">javascript:parent.addSender(%22%22)</a>
Subject	6593#HSRB approval of protocol

,Dear Mary

A Special Education Teacher" ,The HSRB has approved your protocol  
Informing Current Practices in the Special Education :Interview  
We will send you the approval letter in the mail along with ".Classroom  
at should be used in thea stamped copy of the approved consent form th  
Please do not begin the research until you receive the .research  
Mastropieri will also receive copies in campus .Dr .approval documents  
.mail

.please let me know ,If you have any questions

,Thank you  
Bess

--  
chBess Dieffenba  
Office of Research Subject Protections  
6C4MS ,University Drive 4400George Mason University  
22030VA ,Fairfax  
4121-993-703 :phone  
9590-993-703 :fax

## Appendix C

## HSRB approval



### Office of Research Subject Protections

Research 1 Building  
4400 University Drive, MS 4C6, Fairfax, Virginia 22030  
Phone: 703-993-4121; Fax: 703-993-9590

TO: Margo Mastropieri, College of Education and Human Development  
FROM: Sandra M. Sanford, RN, MSN, CIP *SM*  
Director, Office of Research Subject Protections

PROTOCOL NO.: 6593 Research Category: Class Project (G)

PROPOSAL NO.: N/A

TITLE: A Special Education Teacher Interview: Informing Current Practices in the Special Education Classroom

DATE: October 19, 2009

Cc: Mary Guckert

On 10/19/2009, the George Mason University Human Subjects Review Board (GMU HSRB) reviewed and approved the above-cited protocol following expedited review procedures.

Please note the following:

1. A copy of the final approved consent document is attached. You must use this copy with the HSRB stamp of approval for your research. Please keep copies of the signed consent forms used for this research for three years after the completion of the research.
2. **Any modification to your research (including the protocol, consent, advertisements, instruments, funding, etc.) must be submitted to the Office of Research Subject Protections for review and approval prior to implementation.**
3. Any adverse events or unanticipated problems involving risks to subjects including problems involving confidentiality of the data identifying the participants must be reported to Office of Research Subject Protections and reviewed by the HSRB.

The anniversary date of this study is 10/18/2010. **You may not collect data beyond that date without GMU HSRB approval.** A continuing review form must be completed and submitted to the Office of Research Subject Protections 30 days prior to the anniversary date or upon completion of the project. A copy of the continuing review form is attached. In addition, prior to that date, the Office of Research Subject Protections will send you a reminder regarding continuing review procedures.

If you have any questions, please do not hesitate to contact me at 703-993-4015.

## HSRB Approval



### INFORMED CONSENT FORM

#### A Special Education Teacher Interview: Informing Current Practices in the Special Education Classroom

##### RESEARCH PROCEDURES

*The purpose of the study is to investigate the current practices special education teachers use in the classroom.*

*If you agree to participate, you will participate in an audio taped interview over the phone or in person. The interview will take approximately 30-60 minutes. You will take the interview at your convenience.*

*The content of the interview is about special education teachers' practices in the classroom.*

##### RISKS

*There are no foreseeable risks for participating in this research.*

##### BENEFITS

*There are no direct benefits to you as a participant. However, your involvement will contribute to the knowledge base of the current practices Special Education teachers use in the classroom.*

##### CONFIDENTIALITY

*Your name will not be included in the interview and other collected data. The interview tapes will be safeguarded by the Principal Investigator, Dr. Margo Mastropieri and the researcher, Mary Guckert.*

Approval for the use  
of this document  
EXPIRES

OCT 18 2010

Protocol # 6593  
George Mason University

## Appendix C

### HSRB Approval

#### **PARTICIPATION**

*Your participation is voluntary, and you may withdraw from the interview at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.*

#### **CONTACT**

*This research is being conducted by Mary Guckert, Graduate Research Assistant and Dr. Margo Mastropieri at the Department of Special Education at George Mason University. Mary Guckert may be reached at 703-930-0367 or at [mguckert@gmu.edu](mailto:mguckert@gmu.edu). And Dr. Mastropieri may be reached at 703-993-4136 or [mmastrop@gmu.edu](mailto:mmastrop@gmu.edu) if you have questions or to report a research-related problem. You may contact the George Mason University Office of Research Subject Protections at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.*

*This research has been reviewed according to George Mason University procedures governing your participation in this research.*

#### **REPLY and CONSENT**

*I have read this form and agree to participate in this study.*

Name \_\_\_\_\_

Date of Signature \_\_\_\_\_ or date taken verbally via phone

\_\_\_\_\_ I agree to audio taping

\_\_\_\_\_ I do not agree to audio taping

Approval for the use  
of this document  
EXPIRES

OCT 18 2010

Protocol # 6593  
George Mason University

## Appendix C

### HSRB Approval

#### RECRUITMENT EMAIL FOR LISTSERVE

Greetings K-12 Special Education Teachers!

You have an opportunity to participate in cutting edge research. The Special Education Department of the Graduate School of Education at George Mason University is conducting a research study. Your classroom knowledge is vital to the furthering of the field of special education! Please contact me to share your insight of your current special education classroom practices. I would like to, with your consent, ask your opinion about special education issues.

Interviews will be held face to face or over the phone at your convenience.

Please contact me at 703-930-0367 or [mguckert@gmu.edu](mailto:mguckert@gmu.edu).

Approval for the use  
of this document  
EXPIRES

OCT 18 2010

Protocol #: 6553  
George Mason University

## Appendix D

### Listserv Announcement Approval

Original Message -----

**From** Michael Behrman <mbehrman@gmu.edu>

**Date** Tue, 06 Oct 2009 18:55:41 -0400

**To** Mary Patricia Guckert <mguckert@gmu.edu>

**Cc** [tscruggs@gmu.edu](mailto:tscruggs@gmu.edu)

**Subject** Re: special education teacher interview

I have two special ed listserves (one for cohorts and one for oncampus) and I am OK with it. M

On Oct 6, 2009, at 4:11 PM, Mary Patricia Guckert wrote:

- > Hello Professor Behrman and Professor Scruggs:
- >
- > I am currently a graduate research assistant for Dr. Margo
- > Mastropieri and I am doing research on special education teachers
- > to
- > determine what practices they are currently using in the classroom.
- > The project is called: A Special Education Teacher Interview:
- > Informing Current Practices in the Special Education Classroom.
- >
- > My research project includes an interview with special education
- > teachers. I would like to get permission to send my request for
- > interviews through the Department of Special Education listserve.
- >
- > I spoke with the Office of Research and Subject Protections and
- > they
- > requested an reply to this email as part of the HSRB application.
- >
- > Thank you,
- > Mary Guckert

## Appendix E

### Proposed Timeline

Week of:

- Jan 19, 2010: Researcher will interview special education teachers
- Jan 25: Researcher will collaborate with and meet with Dr. Mastropieri to review interview research
- Jan 31: Researcher will interview with special education teachers
- Feb 7: Researcher will interview with special education teachers
- Feb 14: Researcher will collaborate and meet with Dr. Mastropieri to review progress to date
- Feb 21: Researcher will interview special education teachers
- Feb 28: Researcher will interview special education teachers, transcribe interviews, collaborate with Dr. Mastropieri to review data and data analysis
- March 7: Spring Break – no meeting
- March 14: Researcher will interview special education teachers, transcribe interviews, collaborate with Dr. Mastropieri to review data and data analysis
- March 21: Researcher will interview special education teachers, transcribe interviews, analyze data
- March 28: Researcher will interview special education teachers, transcribe interviews, analyze data
- April 4: Researcher will interview special education teachers, transcribe interviews, collaborate with Dr. Mastropieri to review data and data analysis
- April 11: Researcher will analyze data and synthesize with current research
- April 18: Researcher will analyze data and synthesize with current research
- April 25: Researcher will collaborate with Dr. Mastropieri
- April 31: Researcher will collaborate with Dr. Mastropieri
- May 7: Researcher will present research findings and defend thesis proposal

## Appendix F

### Teacher Artifact #1

Name: \_\_\_\_\_

4 Square Powerwriting

2 _____	2 _____
3 _____	3 _____
3 _____	3 _____
3 _____	3 _____
<div>1 _____ 2 _____ 2 _____ 2 _____</div>	
2 _____	1 _____
3 _____	*3 _____
3 _____	*3 _____
3 _____	*3 _____



## Appendix G

### Teacher Artifact #2

Name \_\_\_\_\_ Date \_\_\_\_\_

Powerwriting - Summary paragraph outline

1 Topic (Include name of story/passage)	_____
2 What happened in the beginning? (Setting characters)	_____
3	_____
3	_____
3	_____
3	_____
2 What happened in the middle? Problem? (Problem or conflict)	_____
3	_____
3	_____
3	_____
3	_____
2 What happened in the end? How was the problem solved? (Resolution)	_____
3	_____
3	_____
3	_____
3	_____
1 Topic- concluded	_____

## Appendix H

### Teacher Artifact #3

Name \_\_\_\_\_ Date \_\_\_\_\_

Powerwriting - 5 paragraph outline

1 \_\_\_\_\_  
2 \_\_\_\_\_  
2 \_\_\_\_\_  
2 \_\_\_\_\_

2 \_\_\_\_\_  
3 \_\_\_\_\_  
3 \_\_\_\_\_  
3 \_\_\_\_\_

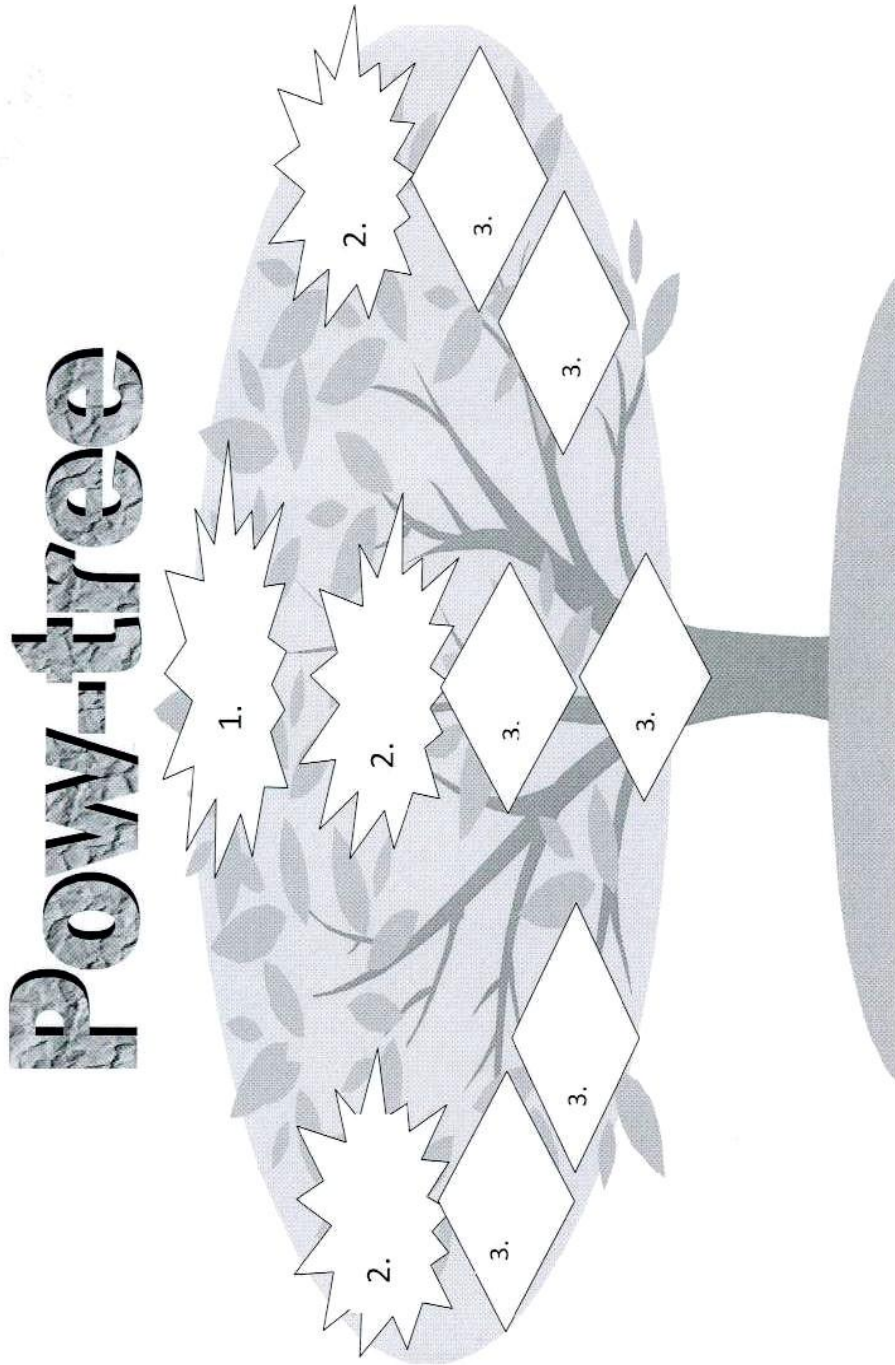
2 \_\_\_\_\_  
3 \_\_\_\_\_  
3 \_\_\_\_\_  
3 \_\_\_\_\_

2 \_\_\_\_\_  
3 \_\_\_\_\_  
3 \_\_\_\_\_  
3 \_\_\_\_\_

1 \_\_\_\_\_  
\*3 \_\_\_\_\_  
\*3 \_\_\_\_\_  
\*3 \_\_\_\_\_

Appendix I

Teacher Artifact #4



## References

## References

- Abbott, M., Walton, C., Tapia, Y., & Greenwood, C.R. (1999). Research to practice: A “blueprint” for closing the gap in local schools. *Exceptional Children*, 65, 339-353.
- Alderman, M. K. (2008). *Motivation for achievement: Possibilities for teaching and learning*. New York, NY: Routledge.
- Boardman, A.G., Arguelles, M. E., Vaughn, S., Hughes, M. T., & Klingner, J. (2005). Special education teachers’ views of research-based practices. *Journal of Special Education*, 39, 168-180. doi:10.1177/00224669050390030401.
- Bogdan, R.C., & Biklen, S.K. (2007). *Qualitative research for education: An introduction to theories and methods*. Boston, MA: Pearson.
- Burns, M.K., & Ysseldyke, J.E. (2009). Reported prevalence of evidence-based instructional practices in special education. *The Journal of Special Education*, 43, 3-11. doi:10.1177/0022466908315563
- Council of Exceptional Children (2009). *Evidence-Based Practice*. Retrieved from [http://www.cec.sped.org/AM/Template.cfm?Section=Evidence\\_based\\_Practice&Template=/TaggedPage/Tagged](http://www.cec.sped.org/AM/Template.cfm?Section=Evidence_based_Practice&Template=/TaggedPage/Tagged)
- Cook, B.G., Landrum, T.J., Tankersley, M., & Kauffman, J.M. (2003). Bringing research to bear on practice: Effecting evidence-based instruction for students with emotional or behavioral disorders. *Education and Treatment of Children*, 26, 345-361.
- Cook, B.G., & Schirmer, B.R. (2003). What is special about special education?: Introduction to the special education series. *The Journal of Special Education*, 37, 139. doi:10.1177/00224669030370030201
- Cook, B.G., Tankersley, M., & Landrum, T.J. (2009). Determining evidence-based practices in special education. *Exceptional Children*, 37, 365-84.
- Gersten, R., Vaughn, S., Deshler, D., & Schiller, E. (1997). What we know about using research findings: Implications for improving special education practice. *Journal of Learning Disabilities* 30, 466-476. doi:10.1177/002221949703000501

- Gersten, R., Chard, D., & Baker, S. (2000). Factors enhancing sustained use of research-based instructional practices. *Journal of Learning Disabilities, 33*, 445-457. doi:10.1177/002221940003300505
- Henson, R.K. (2001). The effects of participation in teacher research on teacher efficacy. *Teaching and Teacher Education, 17*, 819-836. doi:10.1016/S0742-051X(01)00033-6
- Jones, M. L. (2009). A study of novice special educators' views of evidence-based practices. *Teacher Education and Special Education, 32*, 101-120. doi:10.1177/0888406409333777
- Landrum, T. J., Cook, B.G., Tankersley, M., & Fitzgerald, S. (2002). Teacher perceptions of the trustworthiness, usability, and accessibility of information from different sources. *Remedial and Special Education, 23*, 42-48. doi:10.1177/074193250202300106
- Landrum, T.J., Tankersley, M., & Kauffman, J.M. (2003). What is special about special education for students with emotional or behavioral disorders? *The Journal of Special Education, 37*, 148-156. doi:10.1177/00224669030370030401
- Landrum, T.J., & Tankersley, M. (2004). Science in the schoolhouse: An uninvited guest. *Journal of Learning Disabilities, 37*, 207-208. doi:10.1177/00222194040370030401
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage Publications.
- McLeskey, J., & Billingsley, B.S. (2008). How does the quality and stability of the teaching force influence the research-to-practice gap? A perspective on the teacher shortage in special education. *Remedial and Special Education, 29*, 293-306. doi:10.1177/0741932507312010
- Nougaret, A.A., Scruggs, T.E., & Mastropieri, M.A. (2005). Does teacher education produce better special education teachers? *Exceptional Children, 71*, 217-230.
- Pajares, M.F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*, 301-330. doi:10.3102/00346543062003307
- Sparks, G. M. (1988). Teachers' attitudes toward change and subsequent improvements in classroom teaching. *Journal of Educational Psychology, 80*(1), 111-117. doi:10.1037/0022-0663.80.1.111

U.S. Department of Education. (2009). *Doing What Works*. Retrieved from <http://dww.ed.gov/>.

## **CURRICULUM VITAE**

Mary Guckert was born in Smithfield, North Carolina. After completing her Bachelor of Individualized Studies in American Literary History at George Mason University, she continued her studies to complete a Masters in Educational Psychology. Currently, she is a Graduate Research Assistant for Dr. Margo Mastropieri in the Graduate School of Education at George Mason University and is enrolled in the PhD in Education program.