CASE STUDY

FROM NOVICE TO EXPERT: THE PERCEIVED SELF-EFFICACY OF TEACHERS IMPLEMENTING ORTON-GILLINGHAM WITH CHILDREN WITH DYSLEXIA - A CASE STUDY

By

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ABSTRACT

In a time of increased accountability for U.S. schools, teachers are working tirelessly to meet the needs of their ever-changing and diverse classroom populations. Many of these children come to school with a myriad of learning differences and disabilities. The most noted reading disability in many U.S. classrooms is dyslexia. This qualitative case study examined the self-efficacy of teachers who were trained and used a structured literacy tutoring program that utilized the Orton-Gillingham method of phonetic instruction. The results indicate that with sufficient training teachers' self-confidence improved significantly. Knowledge in teaching strategies may have the greatest impact on teachers' self-efficacy, which in turn, effects instructional planning, instructional implementation, and student achievement.

Keywords: Teacher Training, Dyslexia, Self-Efficacy.

INTRODUCTION

The National Reading Panel (2000) and the Reading First Initiative, the cornerstone of the No Child Left Behind Act (NCLB) (U.S. Department of Education, 2002), and more recently Every Student Succeeds Act (2015), called for teachers, specifically primary teachers, to become reading experts. Reading First was created to encourage the implementation of scientifically-based research as the foundation for K-3 reading instruction. In return, districts would continue to support teachers by providing materials and training that was grounded in evidence-based instruction. In response to the demand for highly qualified teachers in the United States, many classroom teachers have returned to school to earn additional degrees and certifications, many as specialists in reading. The need for evidence-based literacy instruction is essential in supporting emergent readers and writers, and reading specialists often hold the key to success for young readers. This additional knowledge can serve as the framework for successful literacy instruction in 21st century classrooms, specifically for children with reading disabilities such as dyslexia.

1. Review of Literature

1.1 Self-Efficacy

Self-efficacy is a key component of Social Cognitive Theory and helps define and describe human behavior. Bandura (1986) described self-efficacy as an individual's perception about their ability to organize and complete activities successfully. Moreover, self-efficacy highlights the concept that individuals are "self-organizing, self-regulatory, proactive, and self-reflecting in shaping their own learning and behavior" (Haverback & Parault, 2008, p.239).

An important component of self-efficacy is one's belief about how they perform a job either ineffectively or effectively (Zusho & Pintrich, 2003). It is the perception that the individual holds that which is essential to their successful performance. If one believes they can perform a particular job, they may be able to do it more successfully, known as perceived self-efficacy (Gürcan, 2005). Bandura (1994) states that self-efficacy results from mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal. Mastery experiences are the most

effective way to create a high sense of efficacy. "Mastery experiences are deemed to have the most influence on self-efficacy as they provide the most authentic evidence of one's potential to succeed" (Bernadowski, Perry, Del Greco, 2013, p. 71). This authentic evidence of skill mastery is increasingly important in classrooms for students and the teachers of those students. Furthermore, Senemoglu (2007) found that motivational levels and academic achievement many very well influence the learning environment, which is an essential piece of the teaching puzzle. If learners are able to feel as if they have mastered a skill, they will then potentially perform better. That performance will lead to success and an overall sense of self-respect, self-worth, self-confidence, and the result is higher levels of self-esteem.

1.2 Teachers' Self-Efficacy

It is through the mastery teaching experience that classroom teachers are able to evaluate their ability to teach reading effectively. Teachers' self-efficacy becomes important in the context of high stakes testing and Every Student Succeeds Act (2015) coupled with more diverse classrooms in ethnicity and cognitive abilities. Plourde (2002) defines teaching efficacy as a belief in one's capability to teach successfully. That is, teachers who perceived themselves as efficacious will in turn be effective in handling classroom instruction and management. Guskey (1988) found that teachers with high self-efficacy beliefs were more likely to report that they embraced innovative techniques in the classroom, especially those linked to mastery learning goals.

The ability to work with struggling readers may require both pedagogical talent and the belief that one can support those struggling readers. Specifically, Linek et al. (1999) found that preservice teachers who worked with students for an extended period of time shifted from a less teacher centered view of teaching to a more student centered approach to teaching overtime. This literature supports the notion that theory can be implemented into practice if given the opportunity to do so. Real world experience helped preservice teachers to be more reflective about their teaching situations (Hedrick et al., 2000), and led to higher levels of teacher self-efficacy (Parameswaran, 1998).

More specifically, teachers engaged in a practicum consisting of bi-weekly tutoring sessions provided an opportunity to engage in real world, one-on-one, autonomous teaching that allowed for focused instruction without the pressure of teaching an entire class. Worthy and Patterson (2001) found that reading tutors showed a shift in their concerns about meeting the individual needs of students once they worked one-on-one with students with reading disabilities. Additionally, teachers' abilities to individualize instruction improved after prolonged engagement, which in turn, improved self-efficacy and improved content knowledge.

If elementary school teachers, those who work most closely with students with reading difficulties and differences, are able to improve self-efficacy in their teaching, they can then improve instruction and positively impact student achievement.

1.3 Orton-Gillingham

Literacy is recognized as a basic human right, yet those who suffer from dyslexia find managing everyday literacy activities challenging. Dyslexia is a complex, language-based learning disability. This disability affects language skills, specifically one's ability to read, write, and spell. Defining dyslexia has been at the center of debate for many years, but for the purposes of this study, the definition was operationalized as,

A neurological learning disability differentiated by difficulties with word recognition, spelling and decoding. These differences tend to cause a deficit in the phonetic component of language which is frequency unexpected in comparison to other cognitive abilities and the establishment of proficient classroom instruction. (Lyon, Shaywitz, & Shaywitz, 2003, p. 2)

Instructional practices for school-aged children with dyslexia is a challenge for regular classroom teachers, reading specialists, and special education teachers alike.

Orton-Gillingham (OG), a popular instructional training method, is often used with children with dyslexia. Developed by neurologists, Dr. Samuel Orton and Anne Gillingham, in the early 20th century, this method of teaching reading focuses on phonetics with a multi-sensory pedagogical approach, making it unique and

different from other approaches. The goal of OG is to engage all senses so the concepts are solidified into long-term memory. The OG method has gone on to become the basis for 15 commercial programs and used throughout schools all over the world (Rose & Zirkel, 2007).

In a time of increased intense accountability in U.S. schools paired with Individuals with Disabilities Education Act (IDEA) (1975) and the No Child Left Behind Act (NCLB) (2002), school districts must utilize reading programs couched in scientific research. Rose and Zirkel (2007) reviewed cases that specifically addressed OG programs and their connection to law suits brought against school districts. Within these findings, parents who sue school districts due to inefficient instruction or violation of Individualized Education Plans (IEP) goals specific to dyslexia, cite tuition reimbursement, program placement, or provision of preferred methodology of instruction, specifically OG as the reasons to take school districts through due process. According to Rose and Zirkel (2007), school districts are hesitant to provide OG instruction because it requires "intense one-on-one instruction, sometimes several hours a day, which may not be a feasible system due to budgetary and personal restraints" (p. 171). In reality, OG tutoring may be most effective in a private setting utilizing one-on-one instruction outside of brick and mortar schools.

2. Purpose of the Study

Because so little research exists on the effectiveness of OG instruction (Richey & Goeke, 2006), the purpose of this study was to examine the effect OG training has on elementary teachers' perceived self-efficacy and their ability to work with children diagnosed with dyslexia. By increasing the self-efficacy of elementary teachers, universities have the opportunity to train candidates to work specifically with dyslexic children. Dyslexia affects nearly 40 million American adults who have not learned reading strategies to successfully deal with text. Moreover, 20 percent of U.S. school children are dyslexic (International Dyslexia Association, 2016) and classroom teachers must be equipped to work with children in their nation's schools.

3. Design and Methodology

A case study design was utilized for this study that included data collection from a researcher-created pre and post survey and semi-structured interviews. Stake (2000) described case study methodology as researcher inquiry that examines in-depth a program, event, activity, process, or one or more individuals. For this case, the perceived self-efficacy of certified teachers employing Orton-Gillingham instruction with dyslexic children was investigated. By utilizing a case study design, the researcher was able to explore a phenomenon using multiple data sources through complex interventions, relationships, communities, or programs (Yin, 2003).

Triangulation of data through semi-structured interviews, pre and post survey data, and current literature ensured credibility was achieved.

3.1 Participants

Fifteen classroom teachers enrolled in an Orton-Gillingham training program at a small, private university in the U.S. served as the participants for this study. All participants were certified teachers with teaching experience varying greatly. Five teachers had 0-3 years experience, four teachers had 4-6 years experience, six teachers had 7-10 years experience, and one teacher had 11 or more years experience. Six participants were certified reading specialists, four were certified as reading specialists, and five were general education teachers in k-4 classrooms. Participants took an eight week graduate level course that specifically taught the OG pedagogy. After successful completion of the course, participants began a one hundred hour practicum which required one-on-one tutoring with children identified as having dyslexia as per their Individualized Education Plan (IEP).

3.2 Instruments

The primary instrument was a survey created by the researcher that consisted of three sections measuring knowledge, confidence, and frequency of strategy usage. Using a Likert scale ranging from "not at all" to "extremely confident", participants completed the survey prior to the start of the program and after fifty hours of one-on-one tutoring with a child diagnosed with dyslexia.

4. Findings

The ten questions of the survey were designed to measure a tutor's confidence, knowledge and instructional

implementation in working with children diagnosed with dyslexia. All 15 tutors are certified teachers, working in various capacities and settings in k-12 education.

4.1 Confidence

4.1.1 Survey Results

Confidence can be separated into two categories, trait and state. Trait confidence is the feeling one has about their ability to perform a task or job. On the contrary, state confidence is defined as an "in the moment" or "right now" belief that one can perform a task or job (Vealey, 1986). Differentiating between the two is an important part in determining teachers' confidence levels in teaching children with dyslexia. It is imperative that teachers possessive trait confidence levels that extend beyond the here and now. Table 1 illustrates the pre and post confidence levels of teachers after taking an eight week course in Orton-Gillingham training and tutoring for 50 hours. Teachers' post confidence levels increased in four areas specifically related to teaching reading; letter identification (+.93), word reading (+.94), fluency reading (+1.00), and reading accuracy (+.94).

An increase in confidence levels in helping children become better readers, specifically dyslexic children, will help classroom teachers become better at dealing with specific issues in the regular classroom. May and Kundert (1996) posit that a lack of training can be an obstacle for teachers in dealing with any level of atypicality in students. Moreover, Kalaian and Freeman (1994) found that self-confidence levels had a significant impact on various aspects of teaching and self-confidence is one area that needs attention when training teachers. The data illustrates an increase in reading instruction confidence after participating in an eight week course and tutoring

Question: Confidence	Pre	Post	Δ
What is your current confidence level for helping children with dyslexia learn to identify letters?	2.73	3.66	+.93
What is your current confidence level…….learn to read word?	3.46	4.40	+.94
What is your current confidence level……Learn to read fluently?	2.26	3.26	+1.00
What is your current confidence level…..learn to read accurately?	2.26	3.20	+.94
Mean	2.67	3.63	+.96

Table 1. Pre/Post Survey Data: Orton-Gillingham Teachers

designed specifically to train teachers in using the OG method.

4.1.2 Interview Results

Data from semi-structured interviews with the fifteen teachers indicates that their confidence levels increased as a result of the OG tutoring. Two major themes emerged from the data; self-assurance and trusting one's intuition. Teachers reported a sense of self-awareness and self-assurance after they were trained in specific pedagogical techniques for dyslexic children. Participant 1 (P1) stated, "I have never felt more aware of my ability to work with children who struggle. I am finally able to help those kids who cannot help themselves." Moreover, Participant 13 (P13) added, "I trust myself more now than ever before that I am able to do what is best for my students. My abilities are so much better than, and I am certain I can help more of my kids to the best of my ability." Fourteen of 15 participants echoed similar sentiments in reference to their confidence levels. Participant nine (P9) commented, "This is the answer I've been looking for to help my students, but more importantly, help myself become a better reading specialist. I feel a hundred percent better about my ability to teach dyslexic children".

Bandura (1986) posits that self-confidence is a strong indicator of self-regulation, and this self-regulation is linked to achievement. In this case, achievement is two-fold. Achievement of the teacher is defined as their increase in confidence and self-efficacy, and student achievement can be measured by students' ability to read accurately and fluently.

4.2 Knowledge

4.2.1 Survey Results

Knowledge of content is a basis for learning and teaching. Teachers' content knowledge positively affects curriculum implementation and pedagogy (Carr et al., 2000) and ultimately student achievement. Harlen and James (1997) posit that teachers cannot successfully guide students toward understanding if they themselves do not know. Because of this, the survey measured participants' knowledge of strategies that can aid in the teaching of dyslexic children. Table 2 illustrates the findings in reference to knowledge of participants. The questions measured

knowledge of multi sensory methods (+.26), explicit instruction (no change), and accommodations for children with dyslexia (+.80), which revealed that two areas increased and one area stayed the same. Teachers' lack of increase in knowledge of explicitly teaching letter/sound correspondence could be due to their experience as elementary classroom teachers, special educators, and reading specialists.

These findings indicate that enhanced pedagogical content knowledge was reported after an intensive eight week course in OG training. This knowledge construction is essential in training teachers who can work effectively with children diagnosed with dyslexia.

4.2.2 Interview Results

Data collected from semi-structured interviews revealed two themes from participants related to knowledge; innovation in instruction and filling my toolbox. Ten participants indicated that after their training they felt they had learned innovative teaching techniques after OG training. For instance, Participant 3 (P3) stated, "I've heard of multi-sensory instruction, and I really thought I understood it and actually did it in my class. I quickly learned that I was wrong. Requiring students to be actively involved with multiple senses simultaneously has really made a difference in my student's ability to decode. It seems simple enough, but it is something I wasn't doing. I now know how to do this properly". (interview, Sept. 2016).

Likewise, in relation to innovation in instruction, Participant 10 (P10) commented, "There are times in your career when you realize you've been doing it very wrong for a really long time".

Many participants felt as if their knowledge of instruction increased dramatically after their course in OG training. An indicator of teacher quality is pedagogical knowledge. Teacher effectiveness is more than content knowledge

Question: Knowledge	Pre	Post	Δ
How would you describe your knowledge of multisensory methods?	3.40	3.66	+.26
How would you……explicit instruction in letter/sound correspondence?	3.53	3.53	+.00
How would you….accommodations for students with dyslexia?	2.53	3.33	+.80
Mean	3.15	3.50	+.35

Table 2. Pre/Post Survey Data: Orton-Gillingham Scholars

and knowledge of pedagogy, but this basis is a prerequisite for successful teachers.

The second theme, filling my toolbox, was apparent in 12 of the 15 participants. Most notably, Participant three (P3) stated, "I am learning so many strategies to add to my repertoire." Moreover, Participant six (P6) commented, "I can take all that I've learned and apply to my classroom immediately and that feels really good".

Having the resources and skill set to aid in children's literacy development helped these teachers add tools to their teaching toolboxes. It is within these findings that classroom teachers can improve practice by improving confidence and self-efficacy to help students be successful.

4.3 Instruction

4.3.1 Survey Results

Instruction for dyslexic students is unique in that it is explicit and systematic. Work with phonology, semantics, sound-symbol correspondence, syntax and morphology are important components of such work. More importantly, applying multisensory methods have also been effective with children with dyslexia. The questions measured teachers' frequency of use of three areas; multisensory methods (+.54), explicit instruction in letter-sound correspondence (+.4), and accommodations (-.07). This data revealed that two areas increased after instruction and tutoring in Orton-Gillingham, and one area decreased. Teachers decrease in implementing accommodations for dyslexic students may be reflective in that all lessons were either individually customized for the student with whom the teacher worked or their instructional practiced changed in their classrooms. This alone could account for teachers not recognizing that they were, indeed, making accommodations in the preparation for the lessons. Table 3 illustrates the pre and post frequency of instruction used throughout the tutoring sessions conducted after the OG training.

These findings indicate that participants used instruction in decoding more often and implemented more multi-sensory instruction after their training. Teachers felt they made less accommodations for dyslexic students after the training. It could be implied that teachers integrated more multisensory and word attack work into their daily lessons,

Question: Frequency of Instruction	Pre	Post	Δ
How often do you use multisensory methods for teaching reading?	3.13	3.67	+.54
How often……explicit instruction in letter/sound correspondence?	2.53	2.93	+.4
How often….accommodations for students with dyslexia?	2.80	2.73	-.07
Mean	2.82	3.11	+.29

Table 3. Pre/Post Survey Data: Orton-Gillingham Scholars

thus making less individualized adaptations for children with dyslexia.

4.3.2 Interview Results

Data collected from semi-structured interviews revealed two themes emerged in reference to frequency of instructional implementation that included; less is more and nothing is a secret. Ten of the 15 teachers responded that they found that by doing less busy work in their classrooms and more skills work, the rewards were apparent in student outcomes. For instance, Participant 14 (P14) stated, "I am doing much more work in a shorter period of time with my students during ELA (English Language Arts) block. I am able to see real growth by examining skills more in-depth although I am covering less each day, if that makes sense". After further prompting, P14 said "It's like that saying 'a mile long and an inch deep,' but I'm going a mile deep and an inch long". The content covered is more in-depth and more effort is used to ensure students grasp the skill before moving forward with the curriculum. Likewise, Participant 2 (P2) stated, "Now that my students are truly engaged with the phonics instruction, I am getting more bang for my buck. I am working less, and they are learning more in a shorter period of time. That's a win-win for me!"

The second theme, nothing is a secret, referred to what many participants coined "making it obvious". Explict and systemic instruction makes it clear to students what is being taught and nothing is left to the imagination. Participant 11 (P11) indicated, "I show them the sound, I model the sound, I give examples, and I make sure they get it in multiple ways. We do not move on until I am sure the children understand what is expected and how to use the sound in many contexts". Participant one (P1) stated, "By making phonics instruction structured and in a logical sequence and applicable immediately, all my students are able to transfer the sound symbol correspondence to reading in a timely fashion".

The implementation of systematic and explicit instruction is best practice in phonics instruction (National Reading Panel, 2000), and providing teachers with the time and training needed will not only benefit dyslexic children, but all children in elementary classrooms.

5. Implications

Universities have the responsibility to offer teacher training programs that will support and nurture teachers in their journey to be life-long learners. In this case, teachers sought knowledge to become better teachers of reading for children diagnosed with dyslexia. Measured by interviews and a pre/post survey, teachers' knowledge and confidence in utilizing the Orton-Gillingham method of reading instruction increased. Teachers higher self-efficacy will achieve at higher rates with more training and practice. Armor et al. (1976) found teacher efficacy to be strongly related to students' success on assessments related to reading, and more importantly, reading achievement. This information solidifies what we know about teachers and their ability to work with children once they are provided the knowledge, confidence, and resources to do so effectively.

6. Limitations

Limitations of this study include a small sample size thus generalizability, reliability, and replicability is not possible though the case provides a unique perspective. This case does, though, provide the reader with insider information about a program that might be of interest to other universities where teacher training occurs. Furthermore, diagnosis of dyslexia is representative of a small number of students in their public schools across the nation. It is imperative that teacher training programs provide opportunities to learn a variety of programs in structured literacy instruction.

Conclusion

Children with reading disabilities are at-risk of school failure, depression, and a life of crime as adults. According to The Literacy Project Foundation, 85% of U.S. children in the

juvenile system have problems with reading or may have a reading disability. It is the job of educators to help children become the best that they can be in all they do. Reading is the foundation of all content areas, and teachers who are equipped to teach all children will make an impact on our future generations. Teachers with a sense of high self-efficacy will, in turn, teach students to the best of their ability. A small step toward helping dyslexic children is through professional development and teacher training via programs such as Orton-Gillingham. When teachers are provided with training that can be immediately implemented in their classrooms, children will reap the rewards.

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