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Using a Four-point Scaled Writing Rubric: Improving the Quantity and the Quality of the Writing in a First Grade Specialized 8:1:1 Classroom.

**Lynn Carlson, M.P.S.
Manhattanville College**

Abstract

Educators today are faced with learning to implement the Common Core Standards in Language Arts and Math. Administrators are requiring grade level general education teachers/special education teachers to meet in Private Learning Communities in order to discuss the best ways to implement the CCS as well as to discuss best practices for writing instruction through close analysis of student writing. Research suggests that students use both cognitive and social processes when composing a writing piece (MacArthur, Graham, & Fitzgerald, 2006). Therefore, this study evaluates the importance of first using the social cultural writing process in order to enhance the cognitive writing process of students before they responded to a writing prompt. The study involved administering a journal entry pre test, post-test, and final test over a four-week time period to eight first grade special education students in a specialized classroom. The results were calculated, analyzed, and conclusions/implications were recorded.

Using a Four-point Scaled Writing Rubric: Improving the Quantity and the Quality of the Writing in a First Grade Specialized 8:1:1 Classroom.

Currently, in forty-five states and three U.S. territories (National Governors Association Center for the Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO), 2012) teachers are struggling to adapt to the latest trend in U.S. education of implementing the Common Core Standards in reading and writing instruction while still implementing their prospective state content standards. Since the establishment of No Child Left Behind in 2001 and the importance of schools meeting their adequate yearly progress on state standardized achievement tests, efficient and effective teaching strategies for writing instruction has become extremely important to educators. McCarthy (2008) found some teachers were abandoning their writing programs in order to spend more time preparing for state tests. Improving the quantity and quality of students' writing is very important in the current "high stakes" testing climate of education today while maintaining a teaching practice that concentrates on creating critically thinking students versus teaching students to just be proficient or advanced standardized test takers. Teachers need to learn how to balance preparing students for annual state achievement tests as well as preparing students to function and compete in a rapidly evolving technologically based global economy.

Furthermore, special education teachers need to discover efficient and effective ways to help students with special needs to gain access to the common core curriculum, which includes learning to express themselves through writing. Concurrently, the goal of the special educator is to help students with special needs through accommodations or adaptations to be able to

communicate in order to be proficient self-advocators through both verbal and written expression.

Unlike the current studies that focus on the role of active memory in writing, the efficacy of free-writing, and the use of activity theory to understand the context of writing (MacArthur, 2006) seminal studies explored the question: What is writing? Nystrand (2006) explained that the first studies on writing described how instruction needed to move from what a writing product must look like to instruction influenced by observation results and research findings. Nystrand (2006) credits the shift from the emphasis on what a writing piece must look like to the dependency on research to inform teaching strategies for writing instruction on two significant events in the collegiate world: the Dartmouth Seminar, and the Cambridge Cognitive Revolution at MIT and at Harvard.

The Dartmouth Seminar was conducted in order to reform the teaching of English at Dartmouth College. The participants in the seminar believed that competent writing had less to do with reading instruction, writing instruction, and teaching strategies and more to do with basic insights about language processes and how a person learns. This was a considerable shift in the approach of skills based writing instruction to writing instruction based on simple research about an individual's way of learning and how the mind processes information (Nystrand, 2006).

Eventually, the resulting empirical research that came from the Cambridge Cognitive Revolution at MIT and Harvard in the 1960s and Shaughnessy's (1977) study divided the definition of writing into two different schools of thought; one approach defined writing as a cognitive process and the other defined writing as a social cultural process.

The Cognitive Process of Writing

One of the main contributors of the cognitive process of writing along with Piaget (1952) was Chomsky (1957, 1966, 1968). Chomsky's theory of language acquisition is based on the belief that children are biologically prewired to learn language at certain developmental milestones and in a certain pattern (Santrock, 1999) through the Language Acquisition Device. The LAD is a biological device that helps a child to discern certain language rules and patterns such as identifying phonemes, recognizing sentence structure, and processing the meaning of word placement in a sentence (Santrock, 1999). Chomsky's (1957, 1966, 1968) theory is based on the predictable regularity of language milestones "across languages and cultures and biological substrates for language, and evidence that children create language even in the absence of well-formed input" (Santrock, 1999, p. 159). In other words, it is evidenced that children acquire language according to set milestones across different cultures and languages.

Nystrand (2006) credits Emig's (1971) study in which she evaluates the writing processes of Chicago area seniors, as being the first influential study establishing the cognitive element of writing, which created the writing process that teachers use for instruction in their classrooms today. Emig's (1971) study defined the stages of writing as nature of stimuli, prewriting and planning, starting, and composing aloud (as cited in Nystrand, 2006). He also credits Hayes and Flowers's (1980 & 1996) studies as also profoundly influencing the teaching of the writing process in the classrooms of today through their stages of writing which included planning,

translating, reviewing, and mentoring a part of each stage (as cited in MacArthur, Graham, & Fitzgerald, 2006). Currently, educators teach the stages of writing, which are planning, drafting, revising, editing, and publishing using the Writers Workshop Model (Calkins, 1994).

Social Cultural Writing Theory

By way of, the social approach was born from multiple studies that challenged Flowers and Hayes's (1980 & 1996) findings. An explosion of studies in the 1980s began to explore the possibility that the writing process was not a solitary struggle with individual thought, but an innately social and interactive process in which a person's cultural discourse defines a person's reason for engaging in the writing process (MacArthur, Graham, & Fitzgerald, 2006, p.20). Shaughnessy's (1977) study on the analysis of logic and errors in 4,000 New York City College students' admissions essays is considered the first study according to Nystrand (2006) to acknowledge writing as being a social act. Shaughnessy (1977) concluded that college students' writing should not be judged by a professor as a lack of cognition or a lack of collegiate academic language on the students' part, but should be judged for the student's ability to reason from his or her cultural lens. Nystrand (2006) further concludes that the increase in the diversity of postsecondary students attending city colleges, because of opened enrollment, further drove the need for empirical research on writing as a social act.

The social cultural prospective of proficient writers as mentors (Englert, Mariage, & Dunsmore, 2006) is influenced by Vygotsky's (1962) theory of development that states children actively construct their knowledge through a cultural lens (Santrock, 1999). Vygotsky's (1962) theory of development introduces the term Zone of Proximal Development that defines that children can learn tasks beyond their ability with the guidance and assistance of teachers or peers (Santrock, 1999). In other words, a student learns the process of writing not only from cognitive processes occurring in his or her own brain as Piaget (1952) and Chomsky (1957, 1966, 1968) suggest, but also from a teacher that scaffolds how an individual participates in the writing process. In a social cultural writing process model, the teacher creates many interactive, collaborative and guided writing opportunities to clearly model the language of writing through a shared writing experience with students (Englert, Mariage, & Dunsmore, 2006).

Vygotsky's (1962) theory further describes how a child's ZPD is elevated when a teacher provides scaffolding for a student until he or she can independently complete a task. The social cultural model of writing instruction asserts that a teacher's role is to be the knowledgeable person that creates guided practice teaching strategies when there is a need to model new writing conventions or provide explicit instruction. During explicit instruction, the instructor also invokes independent student practice moments by alternating the teacher's role with the students' role in order to allow students to assume increasing ownership of the writing process (Englert, Mariage, & Dunsmore, 2006). The use of writing rubrics is one way a teacher can try to balance guided teaching practice with independent student practice therefore facilitating students to work within their ZPD.

Use of a Rubric in the Writing Process

Traditionally elementary school teachers use a check list as a rubric (see Appendix A, p. 25) in order to create the guided teaching and independent student practice approach to ensure that their students are working within their individual ZPD during the writing process. Andrade, Du, and Wang (2008) concluded that rubrics provide an indirect learning advantage after reviewing previous studies on the use of a rubric with students' writing assignments and students' responses to the use of a rubric. In their study of elementary school students that used model papers, whole group generated criteria for a rubric and use of a rubric for self-assessment for first draft papers, these investigators found a statistically significant positive correlation between the use of rubrics and students' essay scores (Andrade, Du, & Wang, 2008). Therefore using rubrics can have both have an indirect and direct affect on the quantity and quality of young students' writing.

Current studies on self-regulatory strategies practiced during the writing process also support the use of rubrics as a means to set realistically achievable goals, concentrating on writing for mastery of individual writing needs, and for improving the quality of a student's writing (Brunstein & Glaser, 2011; Kitsantas, Steen, & Huie, 2009; Santangelo, Harris, & Graham, 2008).

Gabriele (2007) suggested that low achieving students given learning goals would accept the goal in order to improve their ability towards understanding and achieving a learning objective, because they increase their effort towards mastery of the learning objective through applying more sophisticated learning strategies as well as more self monitoring and evaluating understanding while learning with a peer. Gabriele's (2007) study focused on the constructive activity of low achieving fourth and fifth grade students assigned learning goals versus performance goals in dyad groups solving a math problem. He found that while learning with a peer on a learning goal, which is a social cultural model, students independently increased their cognitive strategies towards mastery of a learning goal, which is the cognitive model for writing.

Since this investigator was working in a day treatment program in an urban setting, she designed the study to address the cultural deficit of academic language experienced in the home by the special education students (Delpit, 2006; Dyson, 1993; Gee, 1990; Heath 2009; & Valdez, 1996). This author implemented oral language (Cazden, 2001; Lindfords, 2008) practice with her students in order to help the study subjects understand how to formulate a response to a journal entry by using the proper academic language and by using a complete sentence. Based on Gabriele's (2007) recommendation, Cazden's study (2001), and Lindford's (2008) analysis of Vygotsky's (1986) study, this researcher individually scaffolded students by having them orally practice their responses to the writing prompt before they responded independently in their journals. Therefore the social-cultural model was implemented prior to the subjects having to independently use cognitive strategies to construct a written response in their journal.

This writer was able to create a dyad much like Gabriele's (2007) study in which a more proficient writer was able to help a less proficient writer access more sophisticated cognitive strategies in order to address a writing prompt. In addition, the less sophisticated writer became a more self-regulated writer motivated to use a rubric to monitor his or her writing. In other words, the social-cultural model of writing influenced the cognitive writing process to allow the subjects of this study to work within their ZPD.

Purpose

The purpose of this quasi experimental study was to determine if using a four-point writing rubric would improve the quantity and quality of the journal entries in a first grade specialized 8:1:1 classroom at a special school as opposed to using an elementary school checklist rubric of writing objectives.

According to Wharton-McDonald (2001), exemplary teachers create explicit writing instruction that focused on teaching students to write for an audience as well as teach students specific elements needed in order to create genre centered writing pieces. She also found that exemplary teachers scaffolded student learning while teaching them to monitor their own progress. Her further findings concluded that through self-monitoring with a checklist rubric, at-risk first grade writers were able to generate a page of coherent text (Wharton-McDonald, 2001). The teachers in Wharton-McDonald's (2001) study created well-defined student writing objectives. Similarly, Fountas and Pinnell (2001) stated it is important to create a classroom environment in which predictability and organization allows students to deal with the daily flux of classroom routines, which in turn presents students with clear expectations for what they need to accomplish. The predictability, organization and clearly defined expectations will allow students the ability to plan with confidence (Fountas & Pinnell, 2001).

Through a four-point writing rubric, this researcher tried to create a predictable and organized daily writing routine with explicit writing objectives in order to try to increase the quantity and quality of her special education first grade students' journal entries.

The question explored by this study was whether writing objectives defined on a four-point scaled writing rubric would increase the quantity and quality of first grade students' journal entries as opposed to using writing objectives defined on a checklist rubric would improve the quantity and quality of first graders' journal entries. Next, this researcher will present the method used in order to create this fluctuating combination of social cultural writing instruction with the cognitive processes writing approach.

Method

Participants

This research project was conducted in a first grade 8:1:1 specialized classroom at a private agency day-treatment program for elementary school students in an urban school setting. Six boys and two girls populated the specialized classroom. The student population of the specialized classroom included three African Americans, four Latinos, and one Croat student. The Latino students each spoke fluent English and had parents/guardians that spoke both fluent English and Spanish. The researcher was the students' kindergarten teacher as well as their current first grade teacher. The students were told that the checklist rubric and the four-point scaled rubric were being used in order to help them learn how to write a response to a journal prompt. The researcher's goal for this study was to determine if using a four-point rubric instead of a

traditional checklist rubric would improve the quantity and the quality of first grade special education students' journal entries.

Measures

This researcher used two writing rubrics based on the Common Core Standards for first grade. First, this researcher used a checklist rubric for the non-treatment phase of the study. Second, this researcher redeveloped the checklist rubric into a four-point scaled writing rubric for the treatment phase of the study. This researcher redeveloped the checklist rubric in order to explore if writing objectives defined on a four-point scaled writing rubric would increase the quantity and quality of first grade special education students' journal entries as opposed to using writing objectives defined on a checklist rubric. This researcher explored this question because this researcher wanted to inquire if a checklist rubric was adequate enough to help young special education students increase the quantity and quality of their writing.

Procedure

For this study, a pre-journal entry test was administered on the first day of the study. The pre-journal entry test was scored with a four-point scale-writing rubric (see Appendix B, p. 26) and the results were recorded on an Excel spreadsheet. After the pre-journal entry test was marked, an elementary school checklist rubric of writing objectives (see Appendix A, p. 25) was used for the two-week non-treatment phase of the study in order to teach the first grade students the writing objectives for a journal entry. The daily journal entries were evaluated with the same four-point scale rubric used to assess the pre-journal entry test. The results were recorded on an Excel spreadsheet.

In the daily writing routine for the non-treatment phase of the study, the students used open-ended writing prompts such as "The park is . . . ?" As a group activity, the students and this researcher orally discussed how a person could complete the open-ended writing prompt (Cazden, 2001; Englert, Mariage, & Dunsmore, 2006; Linford, 2008). After this researcher and the students orally discussed how to complete the open-ended writing prompt, this researcher had the students state how they found words in the room in order to complete their writing prompts. The students identified that they found words in the room by using the word wall, they formed words using the letter charts (vowel teams, digraphs, diphthongs, etc.) from the sounds they knew, and they asked for help with segmenting word sounds from this investigator or the paraprofessionals. (Englert, Mariage, & Dunsmore, 2006). The students then independently completed their writing journal entries (Gabriele, 2007).

After the students completed their daily journal entries, this author and the paraprofessionals reviewed the journal entries with the students using the checklist list rubric (see Appendix A, p. 40). A writing goal for each student was established at the end of the first journal writing session from one of the items on the checklist rubric. The goal was reviewed each day (Gabriele, 2007). If the student achieved the journal entry-writing goal, a new journal entry-writing goal was set for the student from the list rubric.

Then, after the two weeks of instruction were completed for the non-treatment phase of the study, a post journal entry test was administered and scored with the four-point scale rubric. The results of the post journal entry test were recorded on an Excel spreadsheet in order to compare and contrast test results from the pre-journal test with the post journal test.

During the treatment phase of the study, the same four-point scale-writing rubric that was used to score the first grade students' journal entries in the non-treatment phase of the study was used to teach the first graders the writing objectives for a journal entry. The same writing routine for instruction from the two-week non-treatment phase of the study was used in the two-week treatment phase of the study. The four-point scaled writing rubric was used in order to evaluate the students' journal entries as well as create writing goals for the students. After two weeks of instruction, a final journal entry test was administered. The final journal entry tests were evaluated with the four-point scale-writing rubric and the results of the tests were recorded on an Excel spreadsheet.

When the four week study was completed, the results of the pre-journal entry test, the post journal entry test, and the final journal entry test were analyzed to see if there was a statistically significant increase in student writing quantity and quality from the pre-journal writing test to the final-journal entry writing test.

Analysis of Data

For this study this researcher used a *t* test to analyze the pre-test and the final test scores to determine if using a four point rubric had a statistically significant effect relative to the improvement of the writing products of first grade students. Next, the author will present the results from the data, which was collected from the pretest, post-test, and the final test.

Results

Table 1 below represents the raw scores on the writing prompt test.

Students	Pre-Test	Post-Test	Final Test
#1	4	4	4
#2	4	Absent	4
#3	1	1	0 (Absent)
#4	4	0 (Counseling)	0 (Counseling)
#5	1	1	1
#6	1	1	1
#7	1	4	4
#8	4	Absent	1
Totals	20	11	15
Mean	2.5	1.375	1.875

Table 1. Writing Prompt Raw Scores

Table 1 reflects that the students' scores were either 4 which indicates the students completed most of the writing objectives independently or the students' scores were a 1 which indicates the students did not complete the writing objectives independently.

First, the mean was calculated for all of the tests. Table 1 indicates a decrease from the pre-test to the post-test (-1.125). The table reveals a repeated pattern of scores for students 1, 3, 5, & 6 and an improved score of only student 7. Furthermore, the numbers indicate there was a decrease in the mean (-0.625) from the post-test to the final test.

Finally, the data also indicates a decrease in the mean (-0.15625) from the pre-test to the final test Table 1 also indicates that only student number seven improved his or her score from the pre-test to the post-test.

The final test scores ($M = 2.5$, $N = 8$) did not produce a statistical significant positive result in the difference between the mean scores of the pre-test to the post-test ($M = 1.875$, $N = 8$).

Table 2 lists the statistical data analyzed from the three tests. The table below displays the mean, variance, observations, Hypothesized Mean Difference, df, the t Stat, the t Critical one-tail, and the t Critical two-tail.

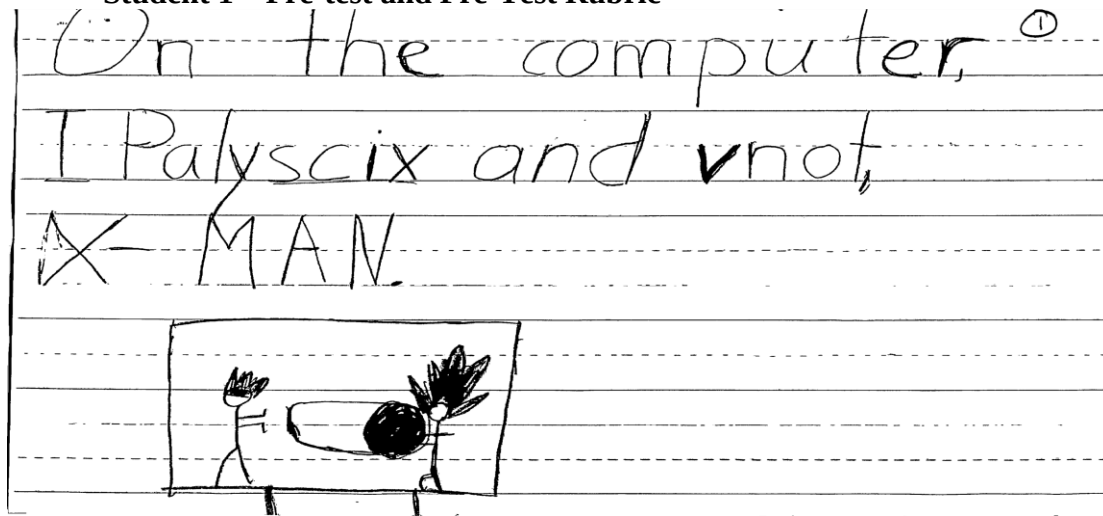
	Variable 1	Variable 2
Mean	2.5	1.875
Variance	2.571428571	3.267857143
Observations	8	8
Hypothesized Mean Difference	0	0
df	14	
t Stat	0.731551909	
P(T,=t) one-tail	0.238254838	
t Critical one-tail	1.761310136	
P(T,=t) two-tail	0.476509676	
t Critical two-tail	2.144786688	

Table 2. T-test: Two-Sample Assuming Unequal Variances

This researcher will further explain the findings of this study by examining the student work samples of the pre-test and the post-test, which are subsequently provided.

Students Work Samples

Student 1 – Pre-test and Pre-Test Rubric



Rubric	4- Excellent	3- Good	2- Satisfactory	1- Unsatisfactory
I will put the date on my paper.	I independently wrote the date on my paper.	I wrote the date on my paper with some assistance.	I wrote the date on my paper with assistance.	I did not write the date on my paper.
I will create a picture that matches my writing.	I independently created a matching picture.	I created a matching picture with some assistance.	I created a matching picture with assistance.	I did not create a matching picture.
I will write two or three sentences about my picture.	I wrote 3 or more sentences.	I wrote three sentences.	I wrote two sentences.	I wrote one sentence.
I began each sentence with an uppercase letter.	I independently started my sentence with an uppercase letter.	With some assistance, I started my sentence with an uppercase letter.	With assistance, I started my sentence with an uppercase letter.	I did not start my sentence with a capital letter.
I ended my sentences with a period, question mark or exclamation point.	I independently ended my sentence with the proper punctuation.	With some assistance, I ended my sentence with the proper punctuation.	With assistance, I ended my sentence with the proper punctuation.	I did not end my sentences with the proper punctuation.
I have space between my words.	I independently put space between my words.	With some assistance I put space between my words.	With assistance, I put space between my words.	I did not put space between my words.
I used the word wall to help with my spelling.	I independently used the word wall in order to spell words.	With some assistance, I used the word wall in order to spell words.	With assistance, I used the word wall in order to spell words.	I did not use the word wall.
I wrote neatly with all words touching the lines.	I independently wrote neatly with the words touching the lines.	With some assistance, I wrote neatly with the words touching the lines.	With some assistance, I wrote neatly with the words touching the lines.	I did not write neatly with the words touching the lines.
I spelled words using the sounds I that know	I independently spelled words using the sounds that I know.	With some assistance, I spelled words using the sounds I that know.	With assistance, I spelled words using the sounds that I know.	I did not spell words with the sounds that I know.
I read what I wrote to an adult.	I independently read what I wrote to an adult.	With some assistance, I read what I wrote to an adult.	With assistance, I read what I wrote to an adult.	I did not read what I wrote to an adult.

Student 1 - Final Test and Final Test Rubric



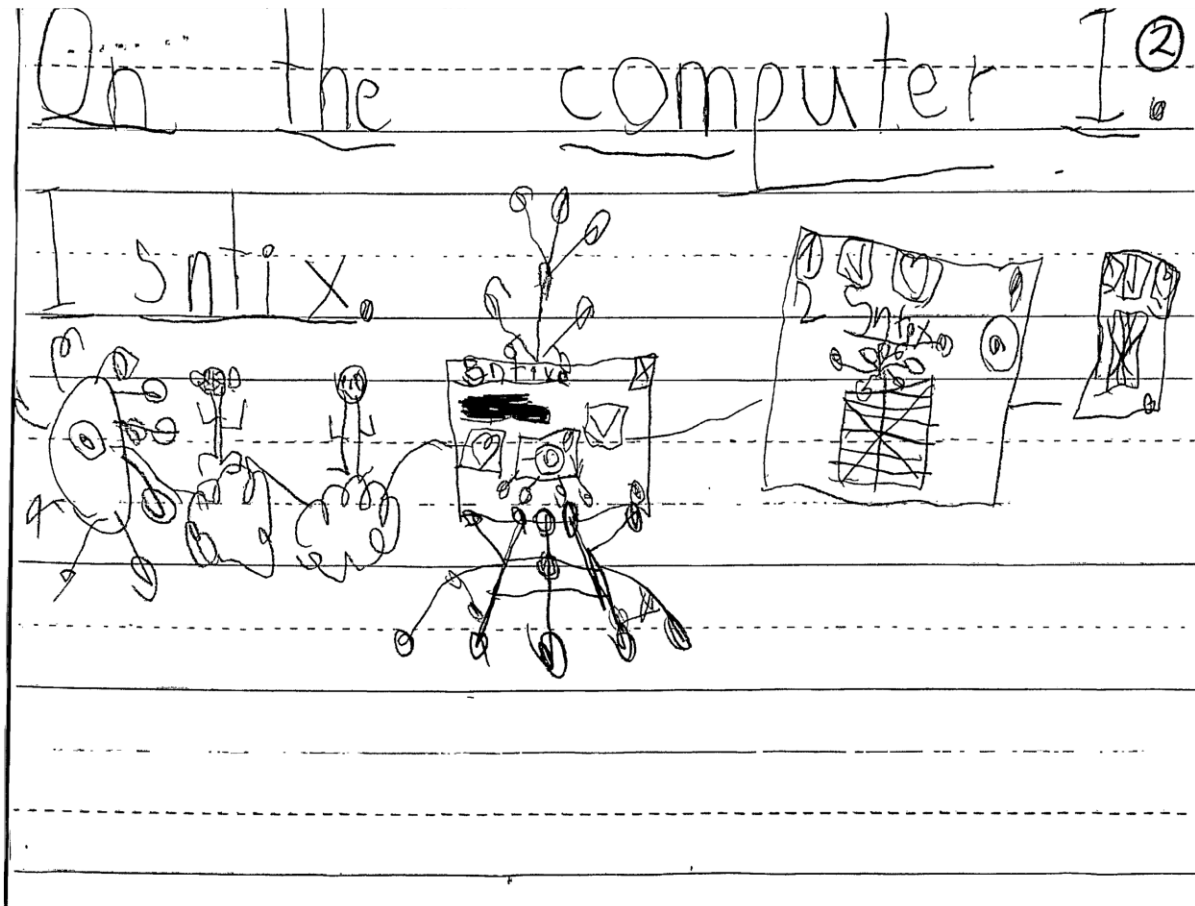
Final Test #1

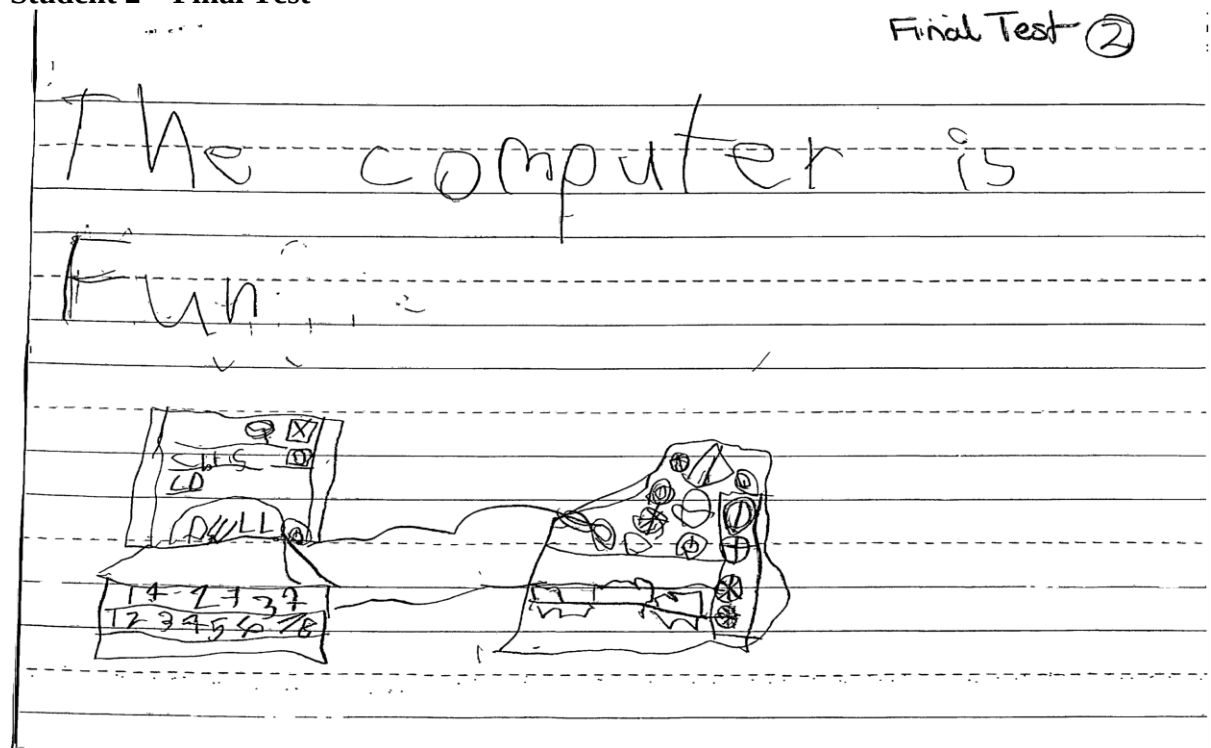
Rubric	4 - Excellent	3 - Good	2 - Satisfactory	1 - Unsatisfactory
I will put the date on my paper.	I independently wrote the date on my paper.	I wrote the date on my paper with some assistance.	I wrote the date on my paper with assistance.	I did not write the date on my paper.
I will create a picture that matches my writing.	I independently created a matching picture.	I created a matching picture with some assistance.	I created a matching picture with assistance.	I did not create a matching picture.
I will write two or three sentences about my picture.	I wrote 3 or more sentences.	I wrote three sentences.	I wrote two sentences.	I wrote one sentence.

I began each sentence with an uppercase letter.	I independently started my sentence with an uppercase letter.	With some assistance, I started my sentence with an uppercase letter.	With assistance, I started my sentence with an uppercase letter.	I did not start my sentence with a capital letter.
I ended my sentences with a period, question mark or exclamation point.	I independently ended my sentence with the proper punctuation.	With some assistance, I ended my sentence with the proper punctuation.	With assistance, I ended my sentence with the proper punctuation.	I did not end my sentences with the proper punctuation.
I have space between my words.	I independently put space between my words.	With some assistance I put space between my words.	With assistance, I put space between my words.	I did not put space between my words.
I used the word wall to help with my spelling.	I independently used the word wall in order to spell words.	With some assistance, I used the word wall in order to spell words.	With assistance, I used the word wall in order to spell words.	I did not use the word wall.
I wrote neatly with all words touching the lines.	I independently wrote neatly with the words touching the lines.	With some assistance, I wrote neatly with the words touching the lines.	With some assistance, I wrote neatly with the words touching the lines.	I did not write neatly with the words touching the lines.
I spelled words using the sounds I that know.	I independently spelled words using the sounds that I know.	With some assistance, I spelled words using the sounds I that know.	With assistance, I spelled words using the sounds that I know.	I did not spell words with the sounds that I know.
I read what I wrote to an adult.	I independently read what I wrote to an adult.	With some assistance, I read what I wrote to an adult.	With assistance, I read what I wrote to an adult.	I did not read what I wrote to an adult.

Student one received the same score on his Pre-test as he did on his Final Test, which indicates that the rubric was not able to measure the improvement in the student's written response to the journal entry question about the computer. Most students received the same score on their pre-test and their final test; with some students receiving improved scores because of better penmanship or spelling.

Student one learned from the pre-test to the final test how to independently respond to the journal entry prompt by generating a sentence to answer the question rather than just complete the given open ended journal entry prompt. This indicates a significant growth in the quality of the student's response.





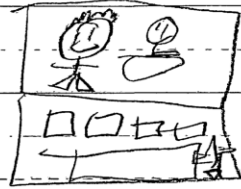
Student two moved from independently generating an incomplete sentence to the open-ended journal prompt question to writing a complete sentence from the open-ended writing prompt.

Student 7 – Pre-test

On the computer I play razz kib

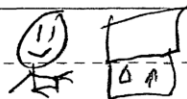
On the computer I play incr et h

On the computer I play pinball



Student 7 – Final Test

4/2/12 ⑦
The computer is fun. The computer
is cool. Because I like to play
jump start 1 grad



Student seven was able to make the most improvement in the quantity and the quality of his writing. He was able to write three unrelated complete sentences to answer the open-ended writing prompt on the pre-test. On the final test, he was able to write three related sentence on the topic of the computer.

Discussion

The p value is 0.476509676 therefore this research must accept the null hypothesis and conclude that there is not a statistically significant difference between the means of the pre-test scores and the final test scores. The use of a four-point rubric versus a list rubric did not appear to help improve the quantity and quality of the writing of first grade students in a specialized 8:1:1 class.

After analyzing the student pre-test and final test work samples, it is clear that students made some improvements in their writing, but based on the declining scores on the students' post-tests and final tests, the improvement in the students' writing does not appear to be due to the use of the four point rubric. This researcher's students were able to move from responding to an open-ended writing prompt to answering a question in their journal. The students learned how to use the words in a question-writing prompt in order to formulate an answer in their journal during the treatment phase of the study.

Student one and student seven made the most progress on answering the open ended writing prompt from the pre-test to the post test by learning to generate an answer sentence independently of the open ended writing prompt; as well as by responding to the prompt with a multiple sentences answer that stayed on topic. Student two made progress by learning to write a response in a complete sentence. Student three was able to improve by generating a response in a complete sentence with better penmanship. Student five was able to show improvement in the quantity of her writing response even though the response was not formatted in complete sentences. Student six was able to learn to write a complete sentence from an open ended writing prompt. Student eight was able to attempt to generate a complete sentence independently of the opened ended writing prompt much like student one was able to achieve (see Student 1 Work Sample, p. 14).

Despite having to accept the null hypothesis relative to the efficacy of the intervention, the students' writing did improve over the course of this study. This author found that working in the teacher student or teacher paraprofessional dyad did create an environment that allowed students guided practice in a social cultural context that inspired the students to use a self-monitoring approach and advanced cognitive strategies in order to achieve the learning goal. Student one's work showed that the student used self-monitoring to independently use more sophisticated cognitive strategies to master the learning goal of responding to a writing prompt by generating a response with a sentence using the appropriate words for the response rather than just reformulating the words of the prompt. In other words, this researcher did replicate some of the findings in Gabriele's (2007) study on low achieving students working in a dyad in order to achieve a learning goal.

Limitations

Limitations of this study were the small sample size, time constraints, student absences due to illness or crisis intervention, and the lack of the use of a teacher rubric in order to grade the pre-test, post-test, and the final test. The way the four-point rubric was written was also a limitation to this study. Students only received four points or one point based on whether they independently completed the writing objective or did not independently complete the writing

objectives. The students were not given partial credit for improvements made in their writing. The rubric did not allow for partial credit for student improvement in their writing.

Implications/Further Research

One of the implications of using a four point rubric with first grade special education students in an urban setting is that it does appear to promote a learning advantage for writing instruction despite the lack of a statistically significant difference between means of the pre-test and final test (Andrade, Du, and Wang, 2008). The student improvement in writing may be due to the consistent repetitive morning journal writing routine. Additionally, whole group oral practice prior to writing a response to the prompt, during the treatment phase of the study, may have also affected the students' ability to respond to the open ended prompt with a complete sentence or with an independently generated sentence. Interactive oral practice prior to the writing of the journal prompt may have had a larger affect on the students' journal responses than the rubrics. Roth and Guinee (2011) found that interactive writing with first grade students improved their independent writing. The results of this study may imply that interactive oral practice may positively impact first graders' independent writing, as does interactive writing.

The findings of this study suggest that a rubric may allow less sophisticated, but yet self regulated writers to monitor their writing. Likewise, the author found that through engaging the less proficient writer in the social cultural writing process, through verbal rehearsal prior to answering the journal entry in writing, may have permitted the less sophisticated writer access to more complex cognitive strategies to address the prompt. In addition, the investigator found that teachers should use a separate rubric to assess students' writing development as opposed to evaluating their writing with the same rubric the students use as a guideline to construct their response.

This author's recommendation for further research is to repeat this study with a redesigned list rubric and a redesigned four-point rubric that allows a student to receive a score of one, two, three, or four as well as an added third rubric used only by the teacher to grade the pre-test, post-test, and final test. The third rubric should contain extensive elements, which can definitively measure improvement in the quantity and quality of the students' journal writing responses. The rubric should use the curriculum-based measures of beginning writing as identified by McMaster, Du, Yeo, Deno, Parker, and Ellis (2011).

This writer recommends a study design that has a treatment group in which the students verbally practice a journal prompt response prior to completing the writing prompt. The control group should also use a four-point rubric in order help the participants self regulate their journal entries. The study should also contain a control group in which students are only allowed to use a four-point rubric as a guideline for their written response to a journal prompt.

A third suggestion relative to a related study is to include a student questionnaire after the pre-test, the post-test, and the final test by both the control group and the treatment group to further investigate if the oral practice provided before the students responded to the writing prompt was beneficial to the treatment group participants. With this design the researcher may be able to

discern whether the oral practice had a greater effect on the improvement of the students' writing as compared with the use of a rubric.

After searching the NIH Computerized Retrieval of Scientific Projects database using the studies which explicitly had writing in the title or abstract, Miller & McCradle (2010) concluded that future research needed to be conducted that explored the relationship between writing development and its relationship to oral language among young students, especially those that struggle with writing as well as ESL students. Therefore, a study designed to measure the affect of verbally practice to writing a journal prompt response would be very timely and relevant.

After analyzing the data of this study, the author found a separate teacher's evaluating rubric is necessary to more accurately assess a student's writing for authentic development. The rubric should evaluate if the students are verbally rehearsing their journal responses with others or independently, prior to writing, as well as evaluate if the scholars are using more sophisticated cognitive strategies during the creation of their responses. Finally, the rubric should assess if the writer is addressing the normal elements of responding to a journal entry (Appendix B, 26). Through a rubric of this type an educator will more accurately evaluate students' writing development therefore precisely identify students' individual writing needs, which in turn allows an instructor to more accurately make informed decisions for writing instruction (Limbrick, Buchanan, Goodwin, & Schwarcz, 2010).

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About the Author

Lynn Carlson is currently an instructor at the elementary level for medically fragile special needs students in the West. She received her Master of Professional Studies degree from Manhattanville College in Special Education with a dual certification in Literacy. Her research interests focus on the effects of the social cultural influence on the cognitive writing process of special needs students.

Appendix A

Journal Entry List Rubric

_____ I will put the date on my paper

_____ I will write two or three sentences

_____ I will create a picture that matches writing

_____ I began each sentence with an uppercase letter.

_____ I ended my sentences with a period, question mark or exclamation point.

_____ I have space between my words

_____ I used the word wall to help with my spelling

_____ I wrote neatly with all words touching the lines.

_____ I will spell words using the sounds I know

_____ I read what I wrote to an adult.

Appendix B

<u>Rubric</u>	<u>4 - Excellent</u>	<u>3- Good</u>	<u>2- Satisfactory</u>	<u>1 - Unsatisfactory</u>
I will put the date on my paper.	I independently wrote the date on my paper.	I wrote the date on my paper with some assistance.	I wrote the date on my paper with assistance.	I did not write the date on my paper.
I will create a picture that matches my writing.	I independently created a matching picture.	I created a matching picture with some assistance.	I created a matching picture with assistance.	I did not create a matching picture.
I will write two or three sentences about my picture.	I wrote 3 or more sentences.	I wrote three sentences.	I wrote two sentences.	I wrote one sentence.

I began each sentence with an uppercase letter.	I independently started my sentence with an uppercase letter.	With some assistance, I started my sentence with an uppercase letter	With assistance, I started my sentence with an uppercase letter	I did not start my sentence with a capital letter.
I ended my sentences with a period, question mark or exclamation point.	I independently ended my sentence with the proper punctuation.	With some assistance. I ended my sentence with the proper punctuation	With assistance, I ended my sentence with the proper punctuation	I did not end my sentences with the proper punctuation.
I have space between my words.	I independently put space between my words.	With some assistance I put space between my words.	With assistance. I put space between my words	I did not put space between my words.
I used the word wall to help with my spelling.	I independently used the word wall in order to spell words	With some assistance, I used the word wall in order to spell words	With assistance, I used the word wall in order to spell words.	I did not use the word wall.

I wrote neatly with all words touching the lines.	I independently wrote neatly with the words touching the lines.	With some assistance, I wrote neatly with the words touching the lines.	With some assistance, I wrote neatly with the words touching the lines.	I did not write neatly with the words touching the lines.
I spelled words using the sounds I that know	I independently spelled words using the sounds that I know	With some assistance, I spelled words using the sounds I that know	With assistance, I spelled words using the sounds that I know	I did not spell words with the sounds that I know.
I read what I wrote to an adult.	I independently read what I wrote to an adult	With some assistance, I read what I wrote to an adult	With assistance, I read what I wrote to an adult.	I did not read what I wrote to an adult.

Effective Inclusion Strategies for Professionals Working with Students with Disabilities

**Kathleen A. Hogan, PhD.
Augusta State University**

**Marla Lohmann, MEd.
University of North Texas**

**Rose Champion, MEd.
Augusta State University**

Abstract

Inclusive classrooms are now the norm in many K-12 public schools across the United States. General education teachers have a difficult job making sure all their students are meeting state standards. With the addition of special education students in the classroom, their job becomes even more difficult due to meeting the needs of the general education students, as well as meeting the academic and behavioral needs of special education students. A student's general and special education teacher need to learn effective collaboration strategies with other educational professionals and parents. The purpose of the article is to provide collaboration strategies to help make the general education teachers' job a little less difficult.

Effective Inclusion Strategies for Professionals Working with Students with Disabilities

There are approximately six million special education students in the United States (United States Department of Education, 2011). Many of these students are currently being educated in inclusive classrooms. With so many special needs students, it is imperative that special education teachers are collaborating and consulting effectively with general educators. Collaboration is best used in inclusive classrooms where the general and special education teacher team-teach together to meet the needs of all students in the classroom. According to Friend and Cook (1990) "collaboration is a style of interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal" (p. 72).

Collaboration is important for several reasons and can be beneficial for all students. First, schools are legally required to utilize collaboration for inclusion; IDEIA (2004) states that students with disabilities must be educated with nondisabled peers to the maximum extent possible. Furthermore, collaboration assists in bridging the gap between special education and general education programming and practices (Conderman & Johnston-Rodriguez, 2009; Gallagher, Vail, & Monda-Amaya, 2008; Graden & Bauer, 1996; Sage, 1997; Snell & Janney, 2000; USDE, 2000).

While collaboration is necessary and beneficial, it is not easy to accomplish. The main issues facing educators in today's inclusive classrooms are that (a) special educators are unfamiliar with general education curriculum (Conderman & Johnston-Rodriguez, 2009), (b) general educators

have limited knowledge of inclusion strategies (Baker & Zigmond, 1990; Conderman & Johnston-Rodriguez, 2009), and (c) there is often infrequent communication between general and special education teachers (Conderman & Johnston-Rodriguez, 2009; Haynes & Jenkins, 1986). This article will provide strategies for collaboration between both general and special education teachers, as well as collaboration strategies for paraprofessionals and parents. These strategies have been identified either through research or through teaching experiences and have been helpful in meeting the needs of both teachers and students.

Collaborating with General Educators

The use of collaboration strategies for general and special education professionals need to be addressed by teacher educators, administrators, counselors, paraprofessionals, and parents. Table 1 provides as list of strategies and who is responsible.

Table 1
General Education Collaboration Strategies

Strategy	Responsible Party	Reference
Create a school-wide vision to bridge special and general education	Administration	Baker & Zigmond, 1990; Gravois & Rosenfield, 2006; Griffin, Kilgore, Winn, & Otis-Wilborn, 2008; Kovalesski & Glew, 2006; McLaren, Bausch, & Ault 2007; McNamara & Hollinger, 2003; Meadan & Monda-Amaya, 2008; Santangelo, 2009; Snyder, Garriott, & Aylor, 2001; Welch, Brownell, & Sheridan, 1999
Provide training during pre and in-service experiences	Administration, teacher educators	Conderman & Johnston-Rodriguez, 2009; Fuchs, Fuchs, Harris, & Roberts, 1996; Griffin et al., 2008; Murawski & Hughes, 2009; Welch et al., 1999; White & Mason, 2006
Know and understand your personal collaboration style as well as the collaboration styles of the professionals with which you work	Counselor, special education teacher, general education teacher, administration, parent	Bos & Vaughn, 2006; Gallagher, Vail, & Monda-Amaya, 2008; Snell & Janney, 2000

Increase time for communication and relationship building for general and special educators to build relationships and communicate with one another	Administration	Bos et al., 2006; Conderman et al., 2009; Gallagher et al., 2008; McLaren et al., 2007; Meadan et al., 2008; Ormsbee & Haring, 2000; Snell et al., 2000; White et al., 2006
Discuss your teaching philosophies, pet peeves, classroom management styles	General education teacher, special education teacher	McLaren et al., 2007; Welch & Brownell, 2002; White et al., 2006
Reverse roles in co-teaching	General education teacher, special education teacher	Meadan et al., 2008; Snyder et al., 2001
Delineate responsibilities	General education teacher, special education teacher	Meadan et al., 2008; Snyder et al., 2001
Recognize one another as professionals	General education teacher, special education teacher	Arthaud, Aram, Breck, Doelling, & Bushrow, 2007; Graden & Bauer, 1996; Griffin et al., 2008; McLaren et al., 2007; Meadan et al., 2008; Snyder et al., 2001
Discuss with students the roles of each teacher in the classroom	General education teacher, special education teacher	Bos et al., 2006; Snyder et al., 2001
Share responsibilities for grading and lesson planning	General education teacher, special education teacher	Meadan et al., 2008; Snyder et al., 2001
Only use reprimands when necessary, and in private	General education teacher, special education teacher	Bos et al., 2006
Use compromising techniques	General education teacher, special education teacher	Bos et al., 2006
Teach the class a lesson on disabilities	Special education teacher	Meadan et al., 2008
Have regular, planned communication techniques planned	Special education teacher, general education teacher	Griffin et al., 2008; McLaren et al., 2007

A daily or weekly progress monitoring report was a strategy the authors used to communicate with general education teachers. The report can be done either on paper or via e-mail. At the end of each day or week, the general education teacher briefly describes the students' progress towards both academic and behavior goals, as well as any concerns that need to be addressed. See Figure 1 for an example of one author's weekly progress report.

Figure 1: Weekly Progress Report

Student Name: _____ Date: _____

Please complete this report for the above-mentioned student and return to me by Monday morning.

1. _____ Does not use class time wisely.
2. _____ Does not come to class prepared.
3. _____ Does not control body and comments.
4. _____ Does not have a positive attitude.
5. _____ Student accepts criticism without argument.
6. _____ Student is disruptive and/or disrespectful to teachers and/or peers.
7. _____ Student acts aggressively towards teachers and/or peers.

Comments: _____

Teacher Signature: _____ Date: _____

Another effective strategy was to schedule regular meetings between the general and special education teachers. One author had a scheduled, weekly meeting with each general education teacher. The meeting was short (generally about 20 minutes long) and the teachers discussed upcoming lessons and modifications, as well as the students' progress toward his/her IEP goals. Finally, one author found it to be beneficial for both teachers to have an open-door policy and encourage other teachers and professionals to call, email or stop by at any time.

A second beneficial strategy is for the general and special education professionals to occasionally reverse roles in the classroom (Meadan et al., 2008; Snyder et al., 2001). This can be accomplished when one teacher leads the class while the other teacher assists. Each teacher has the opportunity to teach the class on a regular basis. Therefore, both teachers take turns leading and assisting and the students view both teachers as equal partners in the classroom instruction.

Collaborating with Paraeducators

Paraeducators play a large role in the education of students with special needs, both in the general education classroom and in special education classrooms. The problems with paraeducators occur when they are not provided training. This often occurs when the supervising teacher has not been trained on how to appropriately supervise individuals. Table 2 provides strategies that can be used when collaborating with paraprofessionals.

Table 2
Paraeducator Collaboration Strategies

Strategy	Responsible Party	Reference
Mutual respect and trust	Special education teacher, general education teacher	Griffin et al., 2008; McLaren et al., 2007
Match the paraeducators' duties to his/her interests and strengths	Special education teacher; general education teacher	Maggin, Wehby, Moore-Partin, Robertson, & Oliver, 2009
Remember that paraeducators are eager to learn new skills and strategies	Special education teacher, general education teacher	French, 2001; Wallace, Shin, Bartholomay, & Stahl, 2001
Clarify roles, responsibilities, classroom routines, and expectations <i>for students</i> at the beginning of the school year	General education teacher, special education teacher, paraprofessional	Bos et al., 2006; French, 2001; Griffin et al., 2008; Maggin et al., 2009; Salzberg & Morgan, 1995
Clearly define <i>paraeducator</i> roles	Special education teacher, general education teacher, administrators	French, 2001; Maggin et al., 2009; Salzberg et al., 1995; Wallace et al., 2001
Be specific when giving tasks to paraeducators	Special education teacher, general education teacher	French, 2001; Wallace et al., 2001

Encourage professional training for paraeducators	Administrators, special education teacher, general education teachers	French, 2001; Maggin et al., 2009; Telzrow, McNamara, & Hollinger, 2000; Salzberg et al., 1995; Wallace et al., 2001
Evaluate paraeducators on a regular basis and provide feedback on the evaluation	Administrators, special education teachers, general education teacher	Maggin et al., 2009; Salzberg et al., 1995; Wallace et al., 2001
Schedule time weekly or monthly to meet and discuss classroom plans and any problems	Special education teacher, general education teacher	French, 2001; Maggin et al., 2009; McLaren et al., 2007
Share your goals for the day, month, lesson, students, etc.	Special education teacher, general education teacher,	Wallace et al., 2001

Developing mutual respect and trust between yourself and your paraeducator is an integral part of collaboration. This can be accomplished in many ways. One strategy is to get to know your paraeducator and his/her strengths and weaknesses as well as his/her likes and dislikes. There are several types of interest inventories that can be used to accomplish this. Additionally, setting up a breakfast or lunch meeting with your paraprofessional to get to know him/her is a non-threatening way to find out more about your paraprofessional. One author occasionally wrote notes to her paraeducators telling them why she appreciated them and often included a small treat (a candy bar, a can of Coke, etc.) with the note. Additionally, the authors found it beneficial to ask their paraeducators for ideas about how approach classroom problems or modifications for particular students.

A second strategy is to define paraeducator roles and responsibilities. It was noted during the authors' time teaching that some paraeducators needed to have explicit directions on what needs to be accomplished. It is important that the classroom teacher explicitly describe classroom responsibilities for the paraeducator to perform and provide those responsibilities in verbal and written instructions. Additionally, teachers must be sure to clearly articulate roles for the following areas (1) lesson planning, (2) instruction delivery, (3) proactive and reactive responses to students' behaviors, and (4) strategies to promote communication, and methods of student evaluation (Malian & Nevin, 2008).

Additionally, the authors provided their paraeducators with either a 3-ring binder or expandable binder. One author taught in a self-contained emotional and behavioral classroom and used the 3-ring binder method. In this binder she included (a) roles and responsibilities of the paraeducator (see Figure 2), (b) the teacher schedule (see Figure 3), (c) paraprofessional roles throughout the day, (d) notebook paper for documentation, (e) student behavior intervention plans (BIP), (f) student individual education plans (IEP), and (g) accommodations page. A second author taught in a self-contained classroom for students with autism and intellectual disabilities and incorporated the expandable notebook method, which included, (a) the paraprofessionals' daily schedule, (b) copies of the students' IEPs, (c) a spiral notebook for daily, written communication between the teacher and the paraprofessional, (d) daily assignments for the students while in the inclusive classroom, and (e) forms for documentation of student's progress toward IEP goals, and (f) accommodation materials, such as a visual timer.

Figure 2: Paraeducator Roles/Responsibilities

SEAC Responsibilities

- ❖ Escort students to and from the special education busses
- ❖ Help with filing
- ❖ Work with students as a group or individually (I will give you their assignment and then you execute...If you have more information about the subject and you feel comfortable giving them more detail please do)
- ❖ CPI as needed
- ❖ Working with students in outclasses
- ❖ Filling out point sheets
- ❖ Help with keeping track of levels, points, etc.

Inclusion Responsibilities

- ❖ Work with SEAC student to make sure BIP, IEPs and modifications are being followed
- ❖ Work with other students that need help
- ❖ Help the classroom teacher as needed
- ❖ If a student needs a modification that the teacher has not modified, ask the teacher how they want it or do it yourself and then tell them what you are doing.
- ❖ Keep a close eye on SEAC students' behavior, if they start having a problem do what you feel is necessary to get the behavior under control before sending them back to SEAC (this can include taking a walk with them, taking them out to the hall to calm down, moving them to a different seat, etc.)

Floater Responsibilities

- ❖ As of right now we have a low number of students and many of which don't need constant supervision. With this comes some down time that I am going to have a floater.
- ❖ You will go to different classrooms to check up on SEAC students.
- ❖ Monitor behavior...If student is not doing what they are supposed to be doing, then step in...give that teacher a break from our student...Take student out in hall and talk to him/her if the need presents itself.
- ❖ Help teacher/students if needed (wanted).
- ❖ You can come and go out of your assigned classes as you feel fit. If the student is doing well and you want to go and check on another room and then go back do so.
- ❖ I want this to be a visual for our students so they know we will be checking up on them and a visual for the teachers so they know we are there to help.

Figure 3: Schedule

Teacher	1 st Period	2 nd Period	3 rd Period	4 th Period	5 th Period	6 th Period	7 th Period
Teacher #1	SEAC	SEAC	SEAC	SEAC	Work w/LP	SEAC	SEAC (AD)
Teacher #2	SEAC	SEAC w/AR	Jones (1007)	Wallac (1007)	SEAC PE	SEAC	SEAC (CV)

			w/AD	w/AD			
Teacher #3	SEAC	SEAC	Johnson w/BD	SEAC	SEAC	SEAC PE	Smith (1406) w/LP

Encouraging professional development among paraeducators is another strategy that can be used to prepare them for future challenges in the classroom. There are several school districts that now require paraeducators to attend district training. The authors also provided both formal and informal training when they worked with paraeducators. One of the easiest ways to accomplish this, according to the authors, was to provide them with the notes from any relevant professional learning they attended. Also, you can provide information to the administrators when you find a training that may benefit both you and your paraprofessional. In one author's school district, the teachers and paraeducators participated together in a book club, where they read and discussed books on topics relevant to education and child development.

Evaluating paraprofessional performance should be a collaborative effort among administrators and the teachers that work closely with the paraeducator. Scheduling time to meet with your paraprofessional can be done several ways. Some ways the authors accomplished this was to meet every day after school, just for a few minutes, to rehash the day. Another example is that once a month they would all meet to go out to lunch or meet before school for breakfast provided by the teacher.

Collaborating with Parents

Parent collaboration is also very important in both general and special education settings for all students. The research has identified several strategies that can assist with this process to make this sometimes daunting task a reality (see Table 3).

Table 3
Parent Collaboration Strategies

Strategy	Responsible Party	Reference
Provide information early on, before the parents have to ask	General education teacher, special education teacher, administrator	Fish, 2008; Kirmani, 2007
Listen to the parents' concerns	General education teacher, special education teacher, administrator	Center for Family Involvement in Schools, 2011; Coots, 2007; Fish, 2008; Hobbs & Westling, 1998; Kirmani, 2007; Orozco, 2008
Introduce parents to everyone at IEP meetings	Administrator, special education teacher	Fish, 2008; Kirmani, 2007
Try to put yourself in the parents' shoes	General education teacher, special education teacher,	Coots, 2007; Kirmani, 2007

	administrator	
Complete home visits	Administrator, special education teacher	Kirmani, 2007; Orozco, 2008; Wang, McCart, & Turnbull, 2007
Invite parents into your classroom/school	General education teacher, special education teacher, administrator	Center for Family Involvement in Schools, 2011; Fish, 2008; Kirmani, 2007; Orozco, 2008
Include parents in transition planning – “change can be difficult for parents and their child”	General education teacher, special education teacher,	Sheehey & Sheehey, 2007,p. 8
Focus on the child’s strengths instead of comparing him/her with typically developing peers	General education teacher, special education teacher,	Fish, 2008
Realize that parents may need the school day as a time for respite	General education teacher, special education teacher,	Coots, 2007
Realize that families are different	General education teacher, special education teacher,	Coots, 2007; Murray & Curran, 2008; Orozco, 2008
Conduct IEP meetings at convenient times	General education teacher, special education teacher,	Fish, 2008
Seek parents’ input	General education teacher, special education teacher,	Coots, 2007
Focus on family’s unique characteristics	General education teacher, special education teacher,	Kirmani, 2007; Murray & Curran, 2008
Find out the family’s goals for the child	General education teacher, special education teacher,	
Pick one day a week to call parents	General education teacher, special education teacher,	
Provide communication forms	General education teacher, special education teacher,	

One strategy to use when working with parents of a child with special needs is to find out more about the child and family, as well as the family’s goals for their child. The authors provided a questionnaire to their students’ parents at the beginning of each school year (see Figure 5).

Figure 5: Family Questionnaire I

Contact Name #1 _____

Email/Phone#: _____

When is the best time to contact you regarding your child? -

Contact Name #2 _____

Email/Phone#: _____

When is the best time to contact you regarding your child? -

There are times that as a consequence, your child could be asked to stay after school.
Would this be possible for your child? _____

1. What do you feel the needs of your child are?
2. What do you feel are your child's strengths?
3. What do you feel are your child's weaknesses?
4. What do you see as your child's interests?
5. What are your expectations of your child?
6. What are your expectations of your child's teachers?
7. What do you feel your child needs to be successful at school?
8. Is there any other information you would like your child's teachers to know?

Another strategy used by the authors was to pick one day a week to call the parents, for both positive and negative reasons. One teacher also sent one or two short emails to each student's family on a weekly basis. The teachers found, though, that parents are often more receptive to hearing the negative when the majority of interactions are positive; therefore, it is important to contact parents on a regular basis about a child's progress. Figures 8 and 9 are examples of the communication logs the authors used to track telephone calls, e-mails, and meetings.

Figure 8: Communication Log I

A Note from Mrs. XXXX

Today's Date:

Today, we worked on the following things:

Language Arts:

Math:

Science:

Social Studies:

Functional Skills:

Specials:

Notes about the day:

Your child did well with...

and with...

Your child struggled when...

Other notes:

Figure 9: Communication Log II

Date and Time	Form of Contact	Who Initiated Contact?	What was Discussed?	Notes from Communication

Figure 10: Daily Communication Sheet				
<u>Joe's Daily Communication Chart</u>				
Math	Reading	Science/ Social Studies	Specials	Behavior
☺ ☹	☺ ☹	☺ ☹	☺ ☹	☺ ☹
Notes from Mrs. XXXX:				

The authors also used two other types of communication forms such a daily communication form (see Figure 10) and an assignment sheet (see Figure 11).

Figure 11: Assignment Sheet			
Assignment #1	Completed (Yes or No)	Signature	Homework
Assignment #2	Completed (Yes or No)	Signature	Homework
Assignment #3	Completed (Yes or No)	Signature	Homework

Conclusion

Due to both the legal requirements and the benefits to the students and education professionals, collaboration is essential in the inclusive classroom. Special educators must become proficient at collaborating with other teachers, with paraeducators, and with parents. By using the strategies outlined in this article, teachers can increase their collaborative skills and improve the education of all students in their classroom.

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About the Authors

Dr. Kathleen Hogan is currently an Assistant Professor of Special Education at Augusta State University. Previously she taught in a self-contained classroom for students with emotional and behavioral disorders at both the elementary and secondary levels. Her research interests include professional collaboration in schools and meeting diversity standards in higher education.

Marla Lohmann, MEd. is a former teacher of students with autism, ED, and MR at the early childhood, elementary, and junior high levels. She is currently a doctoral student in Special Education at the University of North Texas and her research interests include professional collaboration in education and preschool behavior management.

Rose Champion, MEd., is a graduate of Augusta State University in the School Counseling program. She is currently residing in Baton Rouge, LA. Her research interests include professional collaboration in education and meeting CACREP standards in higher education.

Professional Development to Support Students with Disabilities in Multi-Tier Classrooms: A Case Study

**Brooke Blanks, Ed.D.
Radford University**

Abstract

The purpose of this study was to understand general education teachers' experiences with a school-wide effort to increase the use of evidence-based teaching practices that were highlighted through a professional development workshop in evidence-based reading instruction. A qualitative case study method was used to describe the experiences of five kindergarten and first grade teachers with a professional development program that was part of a school improvement initiative in early reading. Two themes emerged from the analysis of the data. Theme 1: Teachers do what they know how to do. Theme 2: Professional development must be evidence based. Implications of these findings for future practice and research are discussed.

Professional Development to Support Students with Disabilities in Multi-Tier Classrooms: A Case Study

Why America's school children experience chronic reading failure has been the subject of research and policy for decades (Allington, 1984; Torgesen, 2009). However, the reasons children are at-risk are less important than the quality of reading instruction they receive (Foorman & Torgesen, 2001). Significant negative academic, personal, and social consequences are associated with reading failure. During the past several decades, policy makers have launched several state and federal initiatives to improve reading outcomes for children, particularly children who live in poverty, are English language learners, and/or who have disabilities. Yet, reading failure remains a persistent and unresolved educational problem (NCES, 2011)

National and State Reading Initiatives

The *Report of the National Reading Panel* was released in 2000. The findings of this report became the basis for the Reading First legislation in Title I of the 2001 reauthorization of the Elementary and Secondary Education Act (ESEA), which later became known as No Child Left Behind (NCLB) (Antunez, 2002). Reading First was the catalyst for national and state level initiatives to improve student outcomes in reading.

Since 2000, the North Carolina State Improvement Program (NCSIP) has been working to increase instructional quality in reading and math for students with disabilities. The North Carolina State Improvement Project II (NCSIP) is a personnel development program funded by the Office of Special Education Programs (OSEP). NCSIP II is focused on translating research to practice by using the findings of the initial NCSIP grant to develop and implement the research-based professional development program, *Teaching Students with Persistent Reading Problems*.

Although funded through an OSEP State Personnel Development Grant for students in special education, professional development efforts under NCSIP II include general education teachers.

One widely recognized approach intended to reduce reading failure is to increase teachers' knowledge and practice of effective instructional practices by providing them with professional development. Although many studies explore teachers' behaviors after receiving professional development, there is little precedent in the literature for exploring teachers' post-professional development behaviors through the lens of evidence-based practices in professional development.

Literature Review

Teachers in today's general education classrooms work in an environment of unprecedented accountability for student achievement. The latest reauthorization of the Elementary and Secondary Education Act mandates that general educators educate all children to a level of academic achievement that makes college a realistic and attainable goal (U.S. Department of Education, 2010). More children with disabilities than ever before are served in the general education classroom (U.S. Dept. of Education, 2010), and the law is clear that the general education classroom is the preferred educational environment for all children (IDEA, 2004).

Too many students experience chronic reading failure, including students who are at-risk and students with disabilities. The most recent National Assessment of Educational Progress (NCES, 2011) results indicate that while overall reading scores have improved slightly in the last 18 years, little progress has been made towards closing the achievement gap between White and Black students; furthermore, the increase in the number of students who scored at the proficient level is so small as to be practically nonexistent (Manzo & Cavanaugh, 2007). Students with disabilities and students who are at-risk continue to lag behind their peers in reading. Research also suggests that despite increased accountability and scrutiny, students who are most at-risk for academic failure are also those least likely to receive effective reading instruction (Stichter, Stormont, & Lewis, 2008).

Multi-Tier Reading Instruction in Early Elementary Classrooms

One promising approach to reducing reading failure is a multi-tiered decision making framework known as Response-to-Intervention (RTI), a comprehensive early detection and prevention strategy designed to identify and provide support for struggling readers at the first sign of difficulty (Deno et al., 2009; Gersten et al, 2008). RTI is a strategic approach for supporting children who are at-risk (due to disabilities, socioeconomic disadvantage, or limited English proficiency) for school failure before they fall behind (Coyne & Harn, 2006). RTI originally was intended as an alternative assessment model for evaluating children for learning disabilities (Coyne & Harn, 2006). However, RTI has evolved from just a special education identification tool to a general education instructional practice (Kavale & Spalding, 2008). As such, RTI is changing the way general educators work (Hoover & Patton, 2008).

Collaboration and evidence-based instruction are the cornerstones of effective RTI implementations (Gersten et al., 2009). Decisions are made using a team-based problem-solving

structure. Data from progress monitoring assessments are used to determine students' responses to instruction and also to identify children who need additional instructional interventions (Bursuck & Damer, 2011). Students move through the increasingly intensive tiers of instructional intervention based on their performance on regularly scheduled, research-validated measures. The successful implementation of RTI requires extensive knowledge and skill on the part of classroom teachers (Bursuck, Damer, & Smallwood, 2008; NJCLD, 2005; Gerber, 2005; Podell & Tournaki, 2007).

Preparing Teachers for Effective Reading Instruction

Teachers use a wide range of methods to teach reading. Some are highly effective and include evidence-based and/or promising practices. The consistent lack of growth in reading proficiency among US students, however, suggests that many teachers are not using methods that are consistent with what is known about best or promising practices in reading instruction (NCES, 2011). In their study of two schools piloting RTI, Bursuck & Smallwood (2009) found gaps in teacher knowledge in critical areas related to RTI implementation including scientifically based instruction, data-based decision making, and collaborative practice. Thus, it is unsurprising to learn that teachers require ongoing, high quality professional development to achieve and maintain effective, high quality professional practice, job satisfaction, and longevity in the profession (Desimone, Porter, Garet, Yoon, & Birman, 2002; Fishman, Marx, Best, & Tal, 2003; Garet, Porter, Desimone, Birman, & Yoon, 2001).

Professional Development

Professional development means “a comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement” (Hirsch, 2009, p. 12). To meet the demands of working in dynamic, complex, highly stressful environments, teachers, like all professionals, must have access to high quality professional learning opportunities throughout their careers (Fullan, 2010; Taylor & Labarre, 2006).

Traditional professional development. Traditionally, professional development has been delivered to teachers as one-time in-service workshops that feature an outside expert lecturing on a content area or topic with perhaps a few learning activities thrown in to keep things interesting (Fullan, 2010). Only 18 percent of teachers feel that professional development connects to their personal teaching situations or experiences (National Center for Education Statistics [NCES], 2001). Five to ten percent of teachers implement practices or ideas learned in traditional professional development (Joyce & Showers, 2002). Ten to fifteen percent of teachers report that professional development includes ongoing support or materials to be used in their classrooms (NCES, 2001). Thus, it is not surprising that only 12-27 percent of teachers reported that professional development significantly improved their teaching practices (NCES, 2001).

Effective professional development. Three major reviews of the literature on professional development (Darling Hammond & Richardson, 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001; Quick, Holtzman, & Chaney, 2009) agree on the following essential characteristics of effective professional development: (a) deepens teachers content knowledge; (b) is relevant-helps teachers connect content knowledge to their students’ needs; (c) facilitates active learning

in authentic contexts; (d) has coherence with school, district, state, and national goals; (e) is collaborative and collegial; and (f) provides sustained support for teachers' ongoing learning over time.

Professional development that includes the traditional elements of theory and demonstration with guided practice, immediate corrective feedback, and coaching produces the largest effect sizes for increasing teachers' knowledge and skills but also produces significantly larger effect sizes for transfer of training to the teachers' classroom practice (Joyce & Showers, 1995; Killion & Harrison, 2006). Without effective professional development, teachers cannot grow professionally and do not learn the skills they need to effectively teach students, including students who are at-risk for reading failure, in general education classrooms (Waldron & McLeskey, 2010).

Methodology

The purpose of this study was to explore the relationship between a professional development program in evidence-based reading instruction and the teachers' subsequent experiences teaching reading. The context of the study is a small rural elementary school during the second year of a grassroots RtI implementation. The researcher examined characteristics of the professional development program in order to interpret and explain the teachers' instructional decision making. The study was guided by the following research questions:

1. What did teachers know about effective reading instruction after attending the professional development program?
2. What effective instructional practices in reading did teachers enact after attending the professional development program?
3. What characteristics of the professional development program explain teachers' subsequent knowledge and skills in evidence based reading instruction?

Design

A qualitative case study method was used to describe the experiences of five K-1 general education teachers as they taught reading in multi-tier classrooms after participating in a professional development program devoted to evidence-based reading instruction that was part of school and system-wide improvement plans. To answer the research questions, the researcher used a single-case holistic case study design (Yin, 2009).

Participants

Participants included a purposive sample of 5 K-1 general education teachers working at Stone Elementary School during the 2010-2011 school year. All teacher participants had Bachelors' degrees in elementary education; one of the teachers had a Master's degrees. One teacher was a National Board Certified Teacher. Two teachers were in their fourth year of teaching; the remaining three teachers had 28- 33 years of teaching experience. Most of the teachers had taught kindergarten or first grade in this rural school for their entire careers. Several instructional leaders also served as key informants for this study. They were interviewed in order to fill in

gaps in the researcher's knowledge of the administrative practices and processes in the school system.

Setting

As a state "School of Progress with high growth", Stone Elementary School is positioned as a high -performing school located in a low- performing county (NCDPI, n.da.). The "school of progress" designation indicates that at least 60% of students performed at grade level on the 2009-10 high stakes assessments. "High Growth" indicates that growth in student learning exceeded the amount of growth that is expected in one year (NCDPI, n.da)

Components of the Professional Development Program

The professional development program was a project funded through a federal Office of Special Education Programs State Professional Development Grant (SPDG). The program focused on preparing general education teachers to work with students who demonstrate persistent problems learning to read, especially students with disabilities who receive reading instruction in general education classrooms.

The trainer manual describes the program as a "thirty-hour course that will require participants to complete readings and activities, which are designed to increase knowledge and strengthen skills in teaching students who struggle with reading and spelling" (NCDPI, 2009). The training is delivered to teachers in a large group face-to-face format. It includes twelve training units to address the 5 key areas of reading (NRP, 2000). Learning tasks include a series of "Table Talk" discussion questions and three projects: (a) create a brief staff development program, including slides to educate their building colleagues about the findings of the national reading panel, (b) assess a student who is at-risk for reading failure and develop an instructional plan; and (c) select and review a reading program using the *Guidelines for Selecting an Effective Program* and develop a written report. The goal of the course was to increase teachers' knowledge of research-based reading instruction to meet the needs of struggling readers in general education classrooms.

Data Collection & Analysis

The researcher conducted approximately 200 hours of participant observation (Creswell, 2010) across the 5 teacher participants' classrooms. The three data sources for this study were (a) documents, which included professional development training and participant materials, the Stone school improvement plan, teachers' lesson plans, instructional materials, and assessment data; (b) transcriptions of digital audio recordings from interviews, (c) anecdotal field notes from classroom observations, staff meetings, and informal discussions with participants. Anecdotal field notes and interview data were the primary sources of data. Documents were used to triangulate data from these two primary sources. Rubrics were developed to interpret the content of the data sources in the following areas: effective early reading instruction (Bursuck & Damer, 2010; Darling Hammond & Richardson, 2010; Garet, Porter, Desimone, Birman, & Yoon, 2001).

The researcher used pattern matching, the preferred strategies for case study analysis (Yin, 2009). Coding procedures and a data analysis plan provided categories of information, which formed the basis of the emerging themes of the study (Creswell, 2009). The researcher and a second reader established reliability with consensus of final decisions, judgments, and conclusions relative to the findings from all data sources (Yin, 2009). Potential bias related to the researcher being embedded in the context was a legitimate concern, yet a significant amount of data was collected because of the interactions between the researcher and participants. Insider status allows the researcher to gain a valuable perspective that allows the researcher to produce a well-rounded, “accurate” portrayal of case study phenomenon (Yin, 2009). The use of research-based rubrics for data analysis, triangulation of the data among multiple data sources, the use of a second reader, and member checks reduced these threats to validity.

Results

The purpose of this study was to explore the relationship between a professional development program in evidence-based reading instruction and the teachers’ subsequent knowledge and skills teaching reading. The researcher interpreted the teachers’ experiences implementing strategies covered in the workshop through a lens that took into account the extent to which the professional development program was consistent with best practices in professional development.

Two major themes emerged from the analysis of the data; these themes are presented in the order that fits the narrative that describes the teachers’ experiences. Theme 1: Teachers do what they know how to do. Theme Two: Evidence-based professional development is essential for RtI. The results have been organized to show how the participants’ experiences related to teach of these themes as reflected in information gathered from the data sources of the study.

Theme 1: Teachers Do What They Know How To Do

The five teacher participants in this study were observed during their reading/literacy instructional blocks. Data sources included anecdotal field notes, teacher interviews, and teachers’ lesson plans. These data indicated that the teachers’ knowledge about evidence-based reading practices as well as their knowledge of reading theory influenced these teachers’ instructional choices. Descriptions of the teachers’ commonly used instructional practices were based on the aggregated field note and interview data. These descriptions were triangulated using the lesson plans and are embedded in the following sections that describe the instructional practices used to teach each of the 5 key areas of reading (NRP, 2000).

Knowledge and Skills

Phonics. Teachers in this study clearly understood the importance of phonics instruction and knew how to teach phonics to early readers. When teachers and instructional leaders were asked to talk about the five key areas of reading, all teachers were able to accurately describe why phonics is important.

...letter sounds and letters are the basis for their reading and their writing, and their speaking because we say those words and we drill it so much and Foundations has been great for that (Interview, Instructional Leader).

The teachers' lesson plans documented which letter sounds and spelling patterns were taught each week and also documented that the teachers were using these commercial programs' guidelines, practices, and activities to plan this part of their literacy instruction. Data from anecdotal field notes confirmed that teachers were observed using research-based phonics instruction in all classrooms. Few data indicate that teachers provided instruction, evidence-based or otherwise, in the other four key areas of reading: phonemic awareness, fluency, comprehension, and vocabulary. Multiple data sources including interview transcripts, anecdotal field notes, and lesson plans tell the same story.

Phonemic awareness. Although two of the ten units in the professional development program address phonemic awareness-what it is and how to teach it, no instruction in the fundamental skills of blending or segmenting was recorded in the anecdotal field notes and no evidence of blending or segmenting instruction was found in the lesson plans. When asked, teachers did not describe how they teach phonemic awareness in their classrooms. There is little in their answers to indicate that they clearly understand what phonemic awareness is. Several teachers used a commercial program (Wilson Foundations) and believed that it provided phonemic awareness instruction. In fact, Foundations does not explicitly teach the phonemic awareness activities, segmenting and blending. During the interviews, each teacher was asked to describe how she taught phonemic awareness. Their answers follow:

I feel like Foundations does so much with phonemic awareness...in the beginning it starts off with introducing a letter or two a week (Interview, Teacher).

...well we have our new program, Foundations, this year, which is really good, I do writers workshop and I model for them to sound out words and connecting the letter and the sound for the writing (Interview, Teacher).

The significance of the lack of the teachers' phonemic awareness knowledge cannot be ignored. Because teachers did not have sufficient knowledge of phonemic awareness, either in theory or in practice, when students struggled with CVC word tasks, the teachers did not recognize that some students were having difficulty due to an inability to perform basic phonemic awareness tasks of isolating and manipulating the sounds of spoken language. Thus, appropriate instructional interventions were not provided to these students.

Universal screening data from Fall and Winter AIMSweb administrations show that 10% to 40% of students in the five teacher participants' classes performed below the school and district benchmark targets on the mid-year AIMSweb assessments of early reading skills, particularly *Phonemic Segmentation Fluency* which assesses children's ability to deconstruct words into their component sounds. When students' performance on early reading skills were compared to national norm targets on the AIMSweb assessments, the percentages of students in each class who were below benchmark ranged from 25-100 percent in early reading skills including phonemic segmentation fluency, letter naming fluency, letter sound fluency, and nonsense word fluency. Students' poor performance on Phonemic Segmentation Fluency is consistent with findings that indicate that teachers did not understand phonemic awareness or provide phonemic

awareness instruction even though a great deal of time was spent on these topics during the professional development program.

Vocabulary, comprehension, and fluency. During the professional development workshop, teachers spent approximately 20 of the 30 in class hours “learning” about vocabulary, comprehension, and fluency. The trainers and the professional development written materials gave thorough explanations of each area and provided examples of how to provide effective instruction. Yet, the aggregated data did not indicate significant teacher knowledge about vocabulary, comprehension, or fluency once teachers returned to their classrooms. When the teachers were asked to describe how they taught vocabulary, comprehension, and fluency to their students, the teachers did not do so.

Okay, for comprehension I haven’t done a whole lot as far as in my literacy groups yet cause some of them are just getting into books but as far as doing read- alouds, we’ll kind of talk about stuff,... fluency-yeah, fluency just the more they practice reading and right now our homework is getting ready to be, we’re going to have spelling tests on Fridays...I mean we really do a lot with vocabulary, as far as, I’ll talk to them about the words that are in the stories we’re reading what does that word mean, what’s that word remind you of (Interview, Teacher).

Teachers did not articulate theoretical knowledge of vocabulary, fluency, or comprehension areas and the field notes and lesson plans do not document evidence-based instruction in vocabulary, comprehension, and fluency. The anecdotal field notes and the lesson plans do not document instances of planned teacher oral read-alouds, which are the natural medium for vocabulary, comprehension, and fluency instruction with pre-alphabetic readers. Regardless of the time given to these topics in the workshop, it is clear that teachers left the workshop with little knowledge about the 5 key areas of reading (NRP, 2000) and few evidence-based instructional strategies for teaching these to struggling readers. Thus it is unsurprising that students did not demonstrate growth in comprehension, vocabulary, and fluency on either AIMSweb, or state benchmark assessments. in response to teachers’ instruction.

Instructional Decision Making

The data are similar when it comes to teachers’ instructional decision making. The school was in its second year of a grassroots RTI implementation. Using data for instructional decision making was an essential element of the professional development in reading that all teacher participants’ attended and was the focus of one of the projects the teachers were required to complete to receive CEUs for the professional development. The field note data suggested that teachers were not using the available assessment data (AIMSweb, DRA, Children’s Progress, PALS, work samples) to form their instructional groups or to move children between instructional groups. When asked about how they formed their instruction and intervention groups, the following was a typical response.

....those are flexible groups. After a while, you know, I’ve seen how much I think they have progressed we, we’ll adjust and flex, you know, so – some will move up, some may move down (Interview, Teacher).

Field note data indicated that during the two quarters the researcher was observing and gathering data in these five classrooms, a single student in one of the five classrooms was moved between groups.

Using data to differentiate instruction and to choose appropriate instructional materials was also a major topic addressed in the professional development program. Interview data offered insight into teachers' decision-making processes when planning instruction. Teachers were asked how they choose materials for the reading instruction.

I kind of just look at my leveled readers and see what I think they're good at. The first day if I see that book's too hard, I just plan day by day, I don't plan by the week. (Interview, Teacher).

We just find the books that we think are good for right now and we just pull from whatever skills we feel like they need. (Interview, Teacher).

These interview data when combined with the lesson plans suggested that teachers did not use a systematic approach to planning for evidence-based reading instruction or use research-based assessment data when making instructional decisions in their general education classrooms. Field notes, lesson plans, and instructional materials indicated that center activities required students to (a) read directions that were clearly beyond their current reading level, (b) use academic skills they did not yet possess such as using a dictionary, or (c) emphasized skills such as drawing, coloring, or decorating that were not academic tasks that promote acquisition of early reading skills. These data suggested to the researcher that the teachers did not know how to either integrate evidence-based practices in reading instruction into their literacy centers or effectively differentiate instruction within the literacy centers using evidence-based instructional practices.

Clearly, the professional development program had little impact on teachers' knowledge of evidence based reading or their skills in planning and providing students with evidence-based reading instruction. Although this finding is not news in and of itself, a common institutional response is to blame teachers or question their commitment, training, etc. When the researcher initially began looking at teacher characteristics, she quickly realized that it was unlikely that the problem rested in the teachers. After all, the 5 teachers volunteered to attend the workshop for a week in the summer so that they would not have to take time out of their classrooms during the school year. The field notes document that on average the teachers spent 9.25 hours a day in their classrooms during the school year and all teacher participants reported working at home during evenings and weekend. Most of the instructional materials teachers used were hand-made. Teachers purchased snacks, lunches, coats and other essentials for their students with their own money. All of the teachers were traditionally licensed through accredited and well-respected state universities. The school had a very effective mentoring and induction program for new teachers. The researcher was satisfied that commitment and preparation did not explain the teachers' lack of knowledge and skills after attending the workshop. Thus, she turned her attention to the professional development program and an alternative explanation was immediately apparent. The reading content was evidence-based but the design and implementation of the professional development program was not.

Theme 2: Professional Development must be Evidence Based

The teachers in this study were willing to learn new things and develop new skills. Indeed, these teachers repeatedly expressed their beliefs that professionals can always improve their practice and should be willing to try new things. Professional development is embedded in the school culture as is the belief that professional development can be an agent of school change. Three sub-themes emerged from the data that suggest in its current implementation, the NCSIP professional development program was not sufficiently evidence-based to affect teachers' knowledge or instructional practice. The sub-themes are relevance, guided practice, and coaching.

Relevance. The teachers were asked to discuss their thoughts on their experiences with the workshop. Although all teachers believed the content was important and helpful for teachers to know, these kindergarten and first grade teachers questioned the extent to which they could use much of this information in their own classrooms.

A review of the workshop materials and required assignments yielded data that were consistent with the teachers' concerns about the training's relevance to their teaching situations. To receive all 5 CEU credits, participants had to identify a student who was struggling in early reading skills, assess the student using a sample assessment developed for use as part of the RF training, use these data to diagnose the student's instructional needs, write goals and objectives to address the student's needs, and make evidence-based instructional recommendations (Foundations of Reading Trainer's Manual, 2009). An instructional leader explained,

They'll get the 3 credits for sitting through the workshop, which is what the state says if you are going to come in and observe the class you will get the three credits, but if you are going to do the homework and all that stuff you will get the five... but the expectation was that they would do the homework and do it to a level that shows that they grasped the material and could go back and utilize the skills taught in their classroom (Interview, Instructional Leader).

The assignment was due by September 30, 2010. Early kindergartners typically do not have sufficient experience with early reading to be appropriate for this project because they have not yet received instruction. Thus, the kindergarten teachers assessed first grade students in order to complete the project by the deadline. Although the kindergarten teachers successfully completed the project and received their CEUs, data in the researcher's field notes indicate that they did not believe the project had much to do with the way they instruct or assess or plan for reading instruction in their kindergarten classrooms. Data from the document review of the RF trainer's manual raise further questions about the relevance the training had for the teacher participants.

Make sure they [workshop participants] understand that it [the assessment required for the project] is a sample [emphasis in original] of items that are similar to those found on other tests and NOT [emphasis in original] a complete test. The BSRA [sample assessment] was developed for use as part of the Foundation training to provide practice in evaluating students. Actual tests that are appropriate for use with students are described on the CD and in the handout (Foundations of Reading Trainers' Manual Unit 4 Slides and Notes, n.d.).

These teachers had access to AIMSweb materials and data in their school and were learning to use these tools as part of their RTI implementation. It is possible that allowing teachers to complete the student assessment project using one of their own students and authentic materials from their lived professional experiences may have improved the relevance the teachers' found in the workshop.

During the training all participants were shown slides and received handouts explaining how to complete the assessment project. Trainers also shared a completed sample project with the teacher participants during the summer workshop. Teachers also had access to information about student assessment and writing goals and objectives via the online text that is available to all workshop participants. However, some teachers expressed the belief that the workshop would be improved by more explicit guided practice.

Guided practice. The professional development program consisted of approximately 30 hours of face-to-face contact with workshop participants in an interactive workshop format. The workshop materials included approximately 750 slides, an online text, and approximately 30 pages of supplemental handouts that include materials for in-class activities, resource lists, and examples of evidence-based practices in assessment and instruction. Participants had to complete discussion questions based upon the unit topics, which provide participants the opportunity to take the material to a deeper level of understanding (Interview, Instructional specialist). All workshop participants were required to complete 3 homework projects to receive five CEU credits for the workshop. The homework assignments included the following (a) review a commercial reading program, (b) assess an at-risk student using a pseudo-assessment tool developed expressly for the workshop and develop an instructional plan (including goals and objectives) based on the examples provided in the participant slides and materials; and (c) create materials to share information about the findings of the NRP with colleagues.

The interview data revealed conflicting perceptions of the extent to which teachers' felt prepared and supported to complete the homework assignments successfully. The teachers' expressed concerns about the volume of material and the instructional approaches used during the workshop.

I thought it went really fast this summertime. I, I don't think I absorbed it, the way they threw it at us and they really, you know, and when things were challenged, I don't think they – I know that there were a lot of teachers in there that were lost. (Interview, Teacher).

[They] needed more demonstrations. Too fast, that's again, throwing something out there and not taking time with it... It seems like we were always given more information — we were given the information and the ideas and, and, but you know, these are ideas and things that we don't know how to do, and nobody listens (Interview, Teacher).

Teachers also expressed that they did not have adequate support to feel confident completing the assignments.

...that's not something you can throw at people. I mean, it takes baby steps, you know? Or I don't know, let people practice what they're learning and, I mean I'll tell you, my project wasn't pleasing to them. I just, and there were no comments, kind of like national

boards, you know, they don't give you feedback, which is something you always give your students, but no, I was just told to do Section this, this and this over again and resubmit it (Interview, Teacher).

Three of the five teacher participants successfully completed the homework assignments and received 5 CEUS. Two of the five teacher participants did not successfully complete the homework assignments and received 3 CEUs. The interview data suggested that teacher participants desired more guided practice than they received. However, the professional development program did include a coaching component. Its impact is described in the next section.

Coaching. As written, the professional development program included three or more on-site visits to each participant. These visits were supposed to be conducted by certified trainers and were to occur over the year after participants attended the workshop. The purpose for the visits is to check the fidelity of teachers' use of evidence-based reading instruction; it is important to note that no opportunities for modeling or practicing evidence-based reading instruction were included in the workshop. (Trainer's Manual, 2009). A review of the tools that the training personnel developed to use during coaching visits indicated that these visits were not consistent with the research describing effective coaching. Instead the visits are intended to function as "fidelity checks" on teachers' usage of research-based instructional practices. No coaching visits occurred during the 18 weeks of the study.

Discussion

Answering the first two research questions of this study was straightforward. What did teachers know and do about enacting evidence based instructional practices after attending the NCSIP professional development program in effective reading instruction? Sadly, not much! Little evidence emerged that teachers' knowledge or use of evidence-based practice increased after attending the workshops or participating in the homework activities. Teachers used evidence-based practices in phonics and had knowledge about phonics after attending the workshop. It is not possible, however, to establish a causal relationship between the workshops and the teachers' knowledge or practice. The teachers had access to evidence-based reading programs and materials apart from the workshop that clearly describe how to systematically and explicitly teach phonics using evidence-based instruction that included unison responding and cumulative review. The teachers' descriptions of how they make instructional decisions suggest that access to these instructional programs alone may have been sufficient to produce their limited knowledge of effective phonics instruction. Indeed, the only observed use of evidence-based reading instruction occurred within the context of these commercial programs. While it is important that teachers have access to effective tools, no commercial program is an adequate substitute for an experienced, committed teacher who knows enough about reading to design and deliver effective instruction. What is needed is effective professional development to increase teachers' capacity to infuse all aspects of their literacy program with research-based instructional practices.

Answers to the third research question regarding the factors that explain the efficacy (or lack thereof) of the professional development to increase teachers' use of evidence-based

instructional practices in reading are addressed by the second theme; evidence-based professional development is essential for RtI. If we want to change teachers' practice, there must be some level of accountability for the developers and funders of professional development projects to ensure that such projects are consistent with what is known about effective professional development. Federally funded professional development programs must be grounded in research-validated practices that increase teachers' knowledge and change teachers' pedagogy

Accountability for providing effective instruction to all students is a vast and complex issue. On one hand, there is the logical desire to identify and extend effective instructional practices and also to recognize and reward effective practitioners (U. S. Department of Education, 2010). On the other hand, blame and punitive consequences are often attached to ineffective teachers and schools (NCLB). Yet, no studies were located that examined the extent to which federally funded professional development programs for teachers are consistent with research on effective professional development practices. Thus, the extent to which it is possible to hold accountable designers and funders of such programs is unknown. Perhaps it is time to explore these issues. Teachers need and deserve access to research-based professional development that is likely to improve their practice; to provide otherwise is simply a waste of teachers' time and taxpayer dollars.

One thing is certain; the data from this study and the literature concur that teachers need high quality professional development to learn to use instructional practices in their own classrooms (Joyce & Showers, 2002). Thus, helping teachers know how to use effective instructional practices requires effective, research-based professional development.

Conclusion

Response-to-Intervention requires that general education teachers know a great deal about research-based reading instruction because general education teachers are largely responsible for providing early reading instruction to the vast majority of students. Therefore, there is a need for ongoing, high-quality, job-embedded professional development to support teachers and increase their use of evidence based reading instruction with struggling readers.

Clearly, there are many challenges ahead. Many questions remain unanswered. However, this small study makes clear that it is critically important to provide general education teachers access to high quality research-based professional development in order to implement and sustain Response to Intervention. The study suggests that there may be a need for increased scrutiny of federally funded professional development projects to ensure that teachers have adequate opportunities to develop knowledge and skills in evidence-based reading instruction. The extent to which similar problems exist in other federally funded professional development projects is unknown and should be the explored in future research.

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About the Author

Dr. Brooke Blanks is an assistant professor in Special Education within the School of Teacher Education and Leadership at Radford University. Dr. Blanks' research interests include professional development, preservice teacher education, Response-to-Intervention, and inclusive education in rural schools. She teaches courses in assessment, instructional methodology, and supervises interns in K-12 settings. Her 15+ years of service in the helping professions have included K-12 special education in a variety of public and private settings, clinical reading education, and social work with community based service-learning programs serving at-risk youth and their families.

Integrated Education in Contemporary Poland

Danuta Apanel, Ph.D.

Abstract

This article presents the most important aspects, organizational principles and achievements in the field of integrated education in Poland. The author outlines the dynamics of the development of institutions of integrated education and institutions with integrated sections between 1989 and 2010. She describes the actual state of teaching conditions, discusses the immediate social milieu of learners with special needs and provides a numerical and percentage layout of children with different disabilities. The author also discusses the characteristics of the staff employed at institutions of integrated education, their factual competence and opportunities to obtain the necessary qualifications to work with children with special educational needs. Finally, the author presents the results of her surveys conducted among employees of institutions of integrated education. The respondents point to the difficulties related to the introduction of this form of education in Poland, at the same time stressing the necessity of continuing efforts that promote the development of integrated education, conducive to the so-called inclusive education in all schools.

Integrated Education in Contemporary Poland

The main objective of special education science in Poland before the transformation of its political system was the analysis of the problems of special needs children. This research subject was a result of education and social policy established by the Government of Polish People's Republic. Such policy had significant influence on social behaviors towards special needs people.

The education system of pre-transformation Poland limited everyday contacts of the "standard" children to the ones with equal to their learning capabilities. They were growing up convinced that the normal world is devoid of people with special needs. They matured not realizing that similar age ones with various deficiencies and growth difficulties existed.

In educational, psychological and medical literature, as well as in everyday language, traditional classifications of mental disability were commonly used. The negatively tinted names of the three levels of mental disability were: idiocy, imbecility and moronism. Nevertheless within the last dozen or so years one can notice positive changes in social awareness regarding the role of special needs persons in society. In the eighties thanks to the World Health Organization (WHO), those labels were excluded from the language.

The spectrum of research in this area of education has expanded to include not only childhood but the entire life of special needs persons. This group also comprises individuals who are sick and susceptible to retardation resulting from ailments, disorders or social conditions as well as the rehabilitation of elderly people.

An adequate education system for teaching children with special needs is a particularly urgent problem for contemporary special needs education. In Poland the system in force is partly about integration, but also partly about segregation.

The segregation system is aimed at children with an intellectual disability, children who are blind, visually handicapped with additional dysfunctions, and those who are deaf and hard of hearing with additional limitations. On the other hand, children with partial developmental defects, chronically ill children and those with the dysfunction of motor organs as well as children with learning problems or behavioral disorders are educated within the integrated system. At the level of upper secondary school, blind people, visually handicapped and hard of hearing and those with the dysfunction of motor organs study alongside able-bodied learners. Only vocational schools keep their segregation character, mainly due to technical and methodological causes.

A distinctive form of integration is special classes in schools for children with a slight mental retardation. It is also possible to attend regular classes in schools where an individualized curriculum is applied.

The idea of integration, otherwise referred to as integrated education for Special Needs children side by side with their classmates, is already commonly accepted, and it has become a source of both favorable changes in social attitudes and educational opportunities for the individuals in question. However, as K. Barłóg indicates¹, ‘while there is a common agreement as to the need for reform of the educational system in this regard, there is still a lack of material resources, difficulties in changing social attitudes and sentiments, a general lack of tolerance towards otherness which favors ingrained stereotypes’.¹

The Condition of Institutions of Integrated Education in Poland

The first institutions of integrated education were founded in Poland at the beginning of the 1990s, mainly owing to an immense involvement of parents with handicapped children, who looked for opportunities of educating their children in the company of healthy peers. Every year one can notice a dynamic increase in the number of institutions concerned with integrated education and teaching, which shows that this form of education is becoming more and more recognized and understood among teachers, parents and education authorities.

Table 1. The Dynamics of the Development of Institutions of Integrated Education and Institutions with Integrated Sections in Poland Between 1989-2010

Institutions	Number of Institutions by Year							
	1989/90	1992/93	1995/96	1998/99	2001/02	2004/05	2007/08	2009/10

¹ K. Barłóg, ‘Barriers and threats to the integration of disabled individuals’ (in) ‘Problems of special needs education in times of social change’ edited by A. Pielecki, Lublin 2002, p.36

Nursery schools	1	58	105	255	303	340	342	382
Primary schools	-	26	162	403	505	603	652	761
Junior secondary schools	-	-	-	83	166	218	289	353
Upper secondary schools	-	-	-	-	41	65	84	87
Total	1	84	267	741	1015	1226	1367	1583

Source: author's analysis based on reports from institutions of integrated education compiled for The Methodological Centre of Psychological and Pedagogical Assistance MEiN in Warsaw and author's research

The above table denotes that over the last 18 years there has been a steady increase in the number of institutions of integrated education within different stages of the educational process. The greatest growth is noticeable at the level of primary schools. There are also more junior secondary schools and upper secondary schools, which helps to ensure the continuity of education for handicapped children within each educational stage in a wider dimension.

Teaching Conditions in Institutions of Integrated Education

The realization of integrated teaching requires the institutions of integrated education to meet certain conditions, some curriculum-management principles defined by law. These include:

- multi-level teaching within the framework of a common curriculum, (a curriculum tailored to the needs of children as for the content and pace, individualized curricula, active methods based on co-operation);
- descriptive or descriptive-digital assessment, supporting teachers, and other specialists coordinating the process of educating and teaching (speech therapists, physiotherapists, doctors, nurses, psychologists);
- additional teaching aids, technical means, rehabilitation appliances;
- classroom arrangement stimulating the activity of special needs children;
- extra activities integrating groups, (e.g. those related to pedagogical therapy, sociotherapy);
- methods supporting both education and teaching, partnership with families (counseling, planning educational objectives);
- school support groups (e.g. supervision of the effectiveness of school curricula, protection of students' rights);
- reducing architectural obstacles (wheelchair ramps, lifts, improving bathrooms, preparing necessary facilities);

- close co-operation between institutions working for those with special needs, creating integrated groups comprising both special needs and children without disabilities in key with the needs of the local community;
- the recommended number of children in nursery school classes is 15 to 18; in school groups are 18 to 20 children, both of which include 3 to 5 children with varying types and degrees of disability.

Special needs children should live in the immediate neighborhood adjacent to their kindergarten or school so that their integration continues outside the institution: during a walk, in a shop, or in church.

Another very important issue is the architectural adjustment of buildings meant to accommodate learners with different disabilities. First of all, it is necessary to prepare ramps and wide external doors (so that students in wheelchairs can access the school via the main entrance together with their classmates) and installing a lift which would make it possible for students to move freely from one floor of the building to the next. Inside the building a number of various rooms must be thought of well in advance (e.g. speech therapists, doctor's, for re-education, rehabilitation and others, provided with adequate equipment), and also a front office, canteen and day-care room. In addition, school bathrooms should be renovated to accommodate the special needs students.

The height of some desks should be adjusted to the height of a wheelchair. All rooms should be fitted with wide doors and anti-skid floors. School corridors should be wide to enable wheelchair users to move around freely.

Notice boards of all kind should be placed in such a manner that children in wheelchairs could easily write on them and attach their work.²

Spatial arrangement within any integrated classroom differs from that of a traditional one. There are certain zones to be allocated:

- relaxation area, where a child can release emotional tension;
- area for individual work, where supporting teachers can work with a child using different methods without disrupting the usual classroom routine;
- the classroom should be equipped with appropriate teaching aids and technical means;
- special needs children should have an adequately equipped workplace

Learners with Special Educational Needs

Because of the existing tendencies of integrating the process of education of special needs children with able-bodied ones, one has to keep in mind the fact that schools will host more and more blind and visually handicapped children, deaf and hearing impaired as well as

² *The house without barriers*, 'Integration' July / August 2001, p. 11

learners with orthopedic problems, in wheelchairs, or even students with moderate mental disability. It is vital to ensure appropriate teaching and educational conditions, provide adequate teaching aids and rehabilitation appliances, books and qualified staff for all those students.

The number of special needs children applying for admission to institutions of integrated education is growing every year. Advantageous regulations in the educational law along with parents' increasing knowledge of the existing laws, and above all, positive experiences of integration have all made this form of education an issue of interest to many people. Unfortunately, the institutions of integrated education cannot accommodate everyone interested and the supply does not meet the demand. It is estimated that the number of available places is three or four times lower than the ever-growing demand.

Table 2. The Number of Institutions, Integrated Sections and Special needs children in Institutions of Integrated Education in the 2009/10 School Year

Type of Institution	Number of Institutions	Number of Integrated Sections	Number of Special needs children
Nursery Schools	382	967	3911
Primary Schools	761	3340	13776
Junior Secondary Schools	353	1246	5495
Upper Secondary Schools	87	341	1489
Total	1583	5849	24661

Source: author's analysis based on reports from institutions of integrated education compiled for The Methodological Centre of Psychological and Pedagogical Assistance MEiN in Warsaw and author's own research

As delineated in the chart above, during the 2009/10 school year there were 3911 children in the integrated sections of the nursery schools. In primary schools the number of special needs children amounted to 13,776 and 5,495 children with special needs attended junior secondary schools, whereas there were 1,489 learners in upper secondary schools.

The majority of institutions of integrated education place children with different kinds of disabilities in their integrated sections. It may be concluded that these institutions favor full integration. The total number of integrated sections in different institutions is 5894, of which, 967 sections exist in nursery schools, 3340 in primary schools, 1246 in junior secondary schools and 341 in upper secondary schools. Compared to 2005/06, the total number of integrated sections grew by over 600.

The table below presents a numerical layout of children with different disabilities in school year 2009/10.

Table 3. Special Needs children in Integrated Sections in the 2009/10 School Year

Type of Children's Disability	Number of children	%
Blind	108	0.4
Visually handicapped	1546	5.9
Deaf	244	0.9
Hearing impairment	1831	6.9
Slight mental retardation	4912	18.6
Moderate and considerable mental retardation	1790	6.8
With diagnosed autism	1178	4.5
Chronically ill	3222	12.2
Physically handicapped	3555	13.5
With coupled disability	3516	13.3
With disturbed behavior, social incompatibility	4510	17.1
Total	26412	100.0

Source: author's analysis based on reports from institutions of integrated education compiled for The Methodological Centre of Psychological and Pedagogical Assistance MEiN in Warsaw and author's own research

An analysis of the data indicates that within the school year 2009/2010, the biggest group among integrated children in nursery schools and schools comprised learners with a mental disability – 25.4 % of the total number of all special needs children educated in integrated sections. In this group there were children with a slight mental disability (18.6 %) and some with a moderate and considerable degree of retardation (6.8 %). The second largest group, approximately. 13.5% was made up of physically special needs children, 13.3 % with a coupled disability and about 12.2% chronically ill.

The number of children with emotional disorders, disturbed behavior and those socially incompatible was 17.1%. The figure has been steadily growing over the years. It is becoming a serious challenge for schools and teaching staff alike, because such children require a lot of attention and specialized support on the part of their teachers and the peer group.

The smallest group in the integrated sections analyzed comprised students with impaired hearing – 7.8 % and impaired vision – 6.3%.

‘One may conclude that the system of partial integration used in the special - needs education in Poland meets the needs and abilities of learners with considerably limited capabilities. It also holds true in case of ‘the uniquely baled’ students, that is, those with special, but not pathological, needs and forms of adaptation’.³

³Z. Sękowska, *‘The evolution of theory and practice in special needs education’* (in) *‘Special needs education and the needs of the present and challenges of the future’*, edited by M. Chodkowska, Lublin 1998, p.26

Although the thorough research hasn't been conducted yet, it is commonly observed that the widely advertised slogan of full integration of all children, including mentally handicapped ones, does not take into account their real needs and abilities. It exposes them to stressful situations in the school community, making them aware of not only their own difficulties, but also their otherness, fostering attitudes of rejection.

Teachers and Other Specialists in Institutions of Integrated Education

The presence of handicapped children entails the need to develop the existing and to introduce new methods of work for teachers working with groups of learners with mixed educational needs. The necessity of providing the children with proper care and support in the process of education calls for improved qualifications on the part of the teaching staff. It is also vital that schools employ supporting teachers and other specialists.

Table 4. Number and Type of Specialists Employed at Institutions with Integrated Sections in School Years: 2003/04, 2005/06, 2007/08, 2009/10

School year	Supporting teachers	Psychologists	Speech therapists	Physio-therapists	Therapist Re-educators	Others	Total
2003/2004	2560	475	789	393	1104	601	6468
2005/2006	5745	637	1069	520	1108	795	10602
2007/2008	7268	640	1157	533	1222	608	12184
2009/2010	6654	719	1283	530	1379	915	11480

Source: author's analysis based on reports from institutions of integrated education compiled for The Methodological Centre of Psychological and Pedagogical Assistance MEiN in Warsaw and author's own research

An analysis of the data regarding the employment of specialists indicates a steady increase in the number of teachers with special pedagogical qualifications working in the capacity of supporting teachers. Compared to the school year 2003/04, the number of supporting teachers has tripled (from 2560 to 6654). The biggest group among the supporting teachers was special needs teachers – oligophrenia teachers (because of the predominant number of learners with a mental disability in integrated grades). Other types of specialists - psychologists, speech therapists, physiotherapists and therapists, are also becoming more and more numerous.

Table 5. Specialists Working in Institutions with Integrated Sections in the 2009/10 School Year

Numbers	Supporting teachers	Psychologists	Speech therapists	Physio - therapists	Therapists	Others	Total
Individuals	6654	719	1283	530	1379	915	11480
Jobs	5429	478	712	327	498	507	2951

Source: author's analysis based on reports from institutions of integrated education compiled for The Methodological Centre of Psychological and Pedagogical Assistance MEiN in Warsaw and author's own research

Specialists are employed full time and part-time – their hours range from full-time jobs to a few hours weekly – depending on the actual needs of students. Regrettably, this state of affairs is influenced by the financial condition of administrative districts. A lot depends on the negotiating abilities on the part of school directors (it may be worthwhile to consider organizing training sessions for principals in this respect).

Approximately 90% of all institutions listed in the CMPPP (The Methodological Centre of Psychological and Pedagogical Assistance MEiN) register employ a teacher supporting the work of another during classes in integrated grades. In some 54% of such institutions, there is a supporting teacher present during some lessons, whereas in 38 %, a supporting teacher takes part in every class.

In the school year 2009/2010, 7268 special-needs teachers (5675 jobs) supported special needs children during classes. Supporting teachers should adjust the syllabus to the abilities and needs of a special needs child to enable him or her to achieve success up to their ability. The type of specialists employed by such institutions is pre-conditioned by the children's needs. 719 psychologists (478 full-time jobs) lent therapeutic assistance and support to children at institutions of integrated education. Their help is very important when it comes to working with children with emotional and behavioral disorders, who constitute the most challenging group in the sphere of integration. All specialists assist in identifying learners' special educational needs, in preparation of individualized teaching syllabuses and therapy programs. They co-operate with parents of both healthy and handicapped children.

One should keep in mind that children who study in conditions promoting integration have various problems and developmental defects, which is bound to cause numerous difficulties in the process of learning and adaptation. Due to such phenomena, the necessity to train all teachers in the sphere of special education becomes evident. 'The teacher must be aware what abilities, capabilities and difficulties different non-standard children have. He or she should also know the teaching methods used by those working with the deaf and hard of hearing. In addition, such teachers should be able to train their students to appropriately use hearing aids, corrective glasses, magnifiers and magnifying glasses as well as instruct them how to make use of electro-

acoustic appliances in case of visual or hearing impairment or orthopedic appliances in case of a disability of the motor organs'.⁴

Teachers without specialized preparation are not ready to conduct such classes or use the above-mentioned teaching aids. Consequently, special needs learners in schools often have very limited opportunities to benefit from school curricula and fully participate in the social life of their schools.

School teachers can obtain specialized qualifications during post-graduate studies. The customary practice of educating special-needs teachers during teacher training studies is inadequate to serve the scheme of partial integration of special needs education in Poland. However, due to the enlarged scope of research in relation to students without disabilities, and yet functioning in society individuals, the system is still being improved, and even reformed.

We are still clearly lacking in specialists for corrective, compensatory, prophylactic and therapeutic work with children at nursery schools and learners suffering from cerebral palsy, with speech impediments and learning difficulties.

In many surveys conducted in Poland, the employees of different institutions of integrated education emphasize the same difficulties in introducing this type of education, primarily:

- lack of financial resources for both equipment and facility renovations required for working with special needs children;
- negative social attitudes: intolerance on the part of parents of children without disabilities, misgivings on the part of parents of special needs children, school teachers' low awareness;
- lack of factual knowledge and preparation on the part of teachers employed at institutions for schooling children with special needs;
- lack of qualified staff: speech therapists, therapists, specialist teachers;
- lack of specialized assistance for teachers of institutions of integrated education;
- insufficient preparation for children with special educational needs at the pre-school level prior to the onset of formal schooling.

⁴ Z. Sękowska, *'The evolution of theory and practice in special needs education'* (in) *'Special needs education and the needs of the present and challenges of the future'*, edited by M. Chodkowska, Lublin 1998, p.26

Conclusion

The situation of people with special needs in today's Poland is a consequence of how they have been perceived and treated before transformation of its political system. Explanation of this problem requires separate and detailed analysis. Most likely, in a dozen or so years, the social and educational situation of special needs people in Poland will change because of younger generations who were shaped, raised and educated after the political regime transformation. These individuals perceive the problem of disability, mainly interaction with special needs people and their position in society, much differently than other generations.

Regardless of the difficulties related to the introduction of the system of integrated education in Poland, an ever-growing number of children with disabilities are now educated in public schools alongside children without disabilities. Therefore, one may suppose that the traditional question of 'integration or segregation?' in the teaching process of the special needs children makes no sense. Considering these matters in their unity as inter-related issues, may bring forth some eagerly-awaited benefits for both children with special needs as well as for children without disabilities.

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About the Author

Danuta Apanel, Ph.D., Humanities, Field of Pedagogy; Assistant Professor, Department of Tutelary and Educational Pedagogy of the Institute of Pedagogy, Pomeranian University of Słupsk; Historian of Education and Upbringing; Academic Teacher . Author, ‘The Entire Institutional Assistance for Children in Central Pomerania between 1945- 1975’; Editor and co-editor for various publications; author of numerous articles on the history of education and pedagogical thought as well as the history of institutionalized and home care for children; those with special needs and isolated ones in particular. The author co-operates with The Polish Society of the History of Education based in Warsaw, The Polish Pedagogical Society, University of the Senior Citizen in Słupsk, various scientific centers in Poland and abroad, and also the German organization - JUNIKUM, which assists children, young people and their parents having problems with social adjustment.

The Effects of Self-Graphing on Oral Reading Fluency for a Student with E/BD within an Alternative Education School

**Sara C. McDaniel
University of Alabama**

**Kristine Jolivette
Georgia State University**

**Robin Parks Ennis
Georgia State University**

Abstract

Students with emotional and behavioral disorders (E/BD) exhibit behavioral and social challenges that affect their ability to access instruction in the classroom. Despite this, there is a paucity of research on reading interventions for students with E/BD. Recent researchers have demonstrated positive effects when pairing simple interventions to comprehensive reading programs. This study extends the literature base by building upon the tiered supports provided to a student with E/BD in a self-contained alternative education school and evaluating the effects of adding self-graphing before and self-graphing after reading multiple passages on oral reading fluency. Social validity and intrinsic motivation also were assessed with implications for practice and future directions discussed.

The Effects of Self-Graphing on Oral Reading Fluency for a Student with E/BD within an Alternative Education School

Students with emotional and behavioral disorders (E/BD) exhibit behavioral and social challenges which may impede their ability to access academic instruction in the classroom (Little, Lane, Harris, Graham, Story, & Sandmel, 2010). The behavior of students with E/BD may be characterized by disruptive outbursts, aggression, social withdrawal, inattention, or depression, all of which can be to varying degrees. These students tend to experience school failure including low test scores and grades, grade retention, and school dropout (Wagner & Cameto, 2004; Lane 2007). Also, school failure coupled with displays of inappropriate behavior may lead to decisions for the students to receive their special education services within alternative education settings. School failure often can lead to poor post-school outcomes for students with E/BD characterized by poor employment, mental health and substance abuse issues, and access to the corrections system (Jolivette, Stichter, Nelson, Scott, & Liaupsin, 2000).

In addition to displaying more chronic and intense social and behavioral problems than their typical peers, students with E/BD also may have comorbid academic deficits (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). These comorbid deficits may contribute to the negative school and post-school outcomes such as dropout (Wehby, Falk, Barton-Arwood, Lane & Cooley, 2003). The specific academic deficits students with E/BD may experience can be significant and the scope wide-ranging (Nelson, Benner, Lane, & Smith, 2004). Reading deficits

are one way students with E/BD may struggle with and related to negative school and post-school outcomes (Greenbaum, Dedrick, Friedman, Kutash, Brown, Lardierh, & Pugh, 1996). Additionally, poor reading motivation associated with a history of reading failure may moderate the effects of efficient reading interventions for students with E/BD due to the bidirectional relationship that exists between reading motivation and reading literacy (Becker, McElvany, & Kortenbruck, 2010). Therefore, effective reading interventions for struggling readers with E/BD should be acceptable and motivating to the student.

According to Harris, Oakes, Lane, and Rutherford (2009), more research with students with E/BD is warranted, particularly for supplementary reading interventions for struggling readers with or at-risk for E/BD. Further, less is known about the effects of interventions for students with E/BD within tiered models of support- response to intervention (RtI) and positive behavioral interventions and supports (PBIS) model. A combined tiered model of RtI and PBIS model for students with E/BD may provide them with both academic and behavioral prevention and intervention using data-based decisions. (Lane, Kalberg, & Menzies, Bruhn, Eisner, & Crnabori, 2011). This model may assist in the identification and implementation of a variety of interventions to improve or ameliorate both academic and behavioral problems. For students non-responsive to universal supports, Lane (2007) suggests that targeted, secondary-tier interventions be identified by following a systematic, pre-determined protocol.

Although targeted, evidence-based practices at the secondary-tier should be available for use in RTI/PBIS models, a paucity of research regarding effective and efficient secondary-tier reading interventions exists. Researchers have shown that comprehensive reading interventions using scripted reading programs in small, ability leveled groups of students with E/BD may have positive effects (Barton-Arwood, Wehby, Falk, 2005; Lingo, Slaton, & Jolivet, 2006; McDaniel, Houchins, Terry, & Gagne, 2011). Alternatively, positive effects also have been shown for interventions that are added to existing reading instruction for use as targeted, secondary-tier supports (Gunter, Miller, & Venn, 2003; Lingo, Jolivet, & Barton-Arwood, 2009; Oakes, Mathur, & Lane, 2010; Strong, Wehby, Falk, & Lane, 2004). One such intervention is self-graphing, an element of self-monitoring (Gunter, Miller, Venn, Thomas, & House, 2002). Self-monitoring incorporates metacognition strategies targeting improvement with control of focus and thought, and regulation of accuracy and pace (Nelson & Narens, 1990). When implemented, self-monitoring strategies improve reading achievement for students with disabilities (Laurice & Eveleigh, 2011). Self-monitoring strategies where students evaluate behavioral performance are effective in reducing problematic behaviors and increasing prosocial behaviors (Hughes, Copeland, Argan, Wehmeyer, Rodi, & Presley, 2002). DiGangi, Maag, and Rutherford (1991) found that the effectiveness of self-monitoring was enriched when student data were graphed by the students themselves.

The use of self-graphing with students with E/BD originated with the graphing of behavioral data such as on-task behaviors and homework completion (DiGangi et al., 1991; Trammel, Schloss, & Alper, 1994). This strategy was extended to graphing of academic data for students with E/BD by Gunter et al. (2003). In their ABAB case study, a third grade female with E/BD entered the number of words read correct from a grade level social studies text into a computer program that produced a graphic representation of reading progress. The authors suggest that the self-graphing

intervention is effective for students who are intellectually capable of learning and completing the task successfully but whose improved motivation would in turn improve performance.

In an extension of this work, Sutherland and Snyder (2007) used self-graphing of words correct per minute (WCPM) as a component of a comprehensive reading intervention for four middle school students with E/BD. Additional components included reciprocal peer tutoring and a paragraph shrinking strategy. Students in this study completed fluency curriculum based measures at their ability level once a week and entered their data point into a computer program that produced a graph of their reading progress. They found improvements in disruptive behavior, active responding during instruction, and oral reading fluency.

Types of performance feedback are associated with self-graphing procedures. Lingo et al. (2009) examined specific types of performance feedback and measured instances of appropriate behavior during reading instruction without feedback, with verbal feedback only, and with verbal and visual feedback combined, and found that combined verbal and visual feedback yielded improved appropriate behavior when feedback was given during instruction. In the seminal studies of self-graphing of WCPM data with students with E/BD, feedback was provided after the completion of the student reading aloud (Gunter et al., 2003, Sutherland & Snyder, 2009). While both of these approaches yielded positive results, it remains unclear if changing the order in which students self-graphed and received performance feedback would alter student outcomes. In addition, none of these studies used self-graphing within three-tiered models of support or with students in alternative education settings.

The purpose of this study was to investigate whether student response to self-graphing of data prior to reading or self-graphing directly after reading a passage improved oral reading fluency. The research questions were: (a) what are the effects of before and after self-graphing on words correct per minute of oral reading fluency?; (b) how does self-graphing affect intrinsic reading motivation?; and (c) how socially valid is self-graphing for both before and after phases?

Wayne: A Case Study

Setting

This study took place in a 1st through 5th grade separate, alternative education (AE) self-contained elementary school for students with E/BD in the an urban school district in the Southeast. The majority of students are African American and male students with approximately 85% qualifying for free and reduced lunch services. As with other self-contained AE schools, this school is charged with providing unique and intensive services with a goal of transitioning the students to less restrictive educational settings (Lane, Barton-Arwood, Nelson, & Wehby, 2008; Simonsen, Britton, & Young, 2010). Students are placed at this school by a team based on academic and/or behavioral failure to progress in their mainstream school settings (either in self-contained or inclusion classrooms, with or without resource support). Return to a mainstream school setting is determined by a team based on academic and/or behavioral progress.

This school recently was using a three-tiered model of support by implementing school-wide PBIS (SWPBIS) to address behavior alongside a RTI to address students' academic skills. Their school-wide PBIS were for all students and included: (a) a universal set of positively stated expectations; and (b) a reinforcement system where tickets received for prosocial behavior were translated into points as part of students' daily progress report card. (c) The school was also implementing Check, Connect, and Expect (Cheney, Lynass, Flower, Waugh, & Iwaszuk, 2010) a secondary-tier behavioral intervention for students nonresponsive to SWPBIS. *Check, Connect, and Expect* is a secondary-tier behavioral intervention that provides a dedicated coach who delivers social skills instruction, and daily check-in and check-out procedures with goal setting and daily progress reports. As a universal academic support, *Corrective Reading* (CR; Engelmann, Meyer, Carnine, Becker, Eisele, & Johnson, 1999) was implemented for students in third through fifth grade who were reading at least one grade level below their peers. *CR* is a leveled, explicit, scripted reading program with each lesson including teacher-directed instruction, independent written reading exercises, and oral reading practice. Students received daily small group instruction in ability groups formed based on their *CR* level.

Participant

Wayne was a third grade African American male who attended the self-contained school for 16 months at the start of this study. Prior to attending the self-contained school for students with E/BD, Wayne attended a mainstream school and accessed special education services with an E/BD eligibility in a self-contained classroom. Wayne was moved to the self-contained school through a placement decision based on his disruptive and potentially dangerous behavior. Wayne's primary disruptive behaviors included verbal and physical outbursts and leaving his assigned area. Wayne was placed in the B1 section of CR after completing the CR Placement test at the beginning of the year. CR lessons occurred daily and the peer group and time of instruction remained consistent. With two months of CR instruction alone, Wayne failed to demonstrate reading progress and was nominated by his teacher to participate in this study where he could receive support with oral reading fluency. Initial curriculum based measures at the start of the study indicated that Wayne's reading ability was at the 1.5 grade level.

Measures

Two dependent variables were collected (a) words correct per minute (WCPM) and (b) intrinsic motivation.

Word correct per minute. The median WCPM score from the three *AIMSweb* probes was used to assess the students' level of oral reading fluency. For each probe, a timer was set for one minute, each probe was scored by marking each error while reading and noting the last word read prior to the timer sounding. Errors were scored following the *AIMSweb* procedures with an error being omissions, repetitions, words read incorrectly, and words that the student did not know after 3 seconds.

Intrinsic motivation. The Task Evaluation Questionnaire of the Intrinsic Motivation Inventory (IMI; McAuley, Duncan, & Tammen, 1987) was read aloud to be completed by Wayne both before baseline and after the last session of intervention to assess his level of intrinsic motivation

to orally read. The questionnaire included 27-items on a 4-point Likert scale (1=very true, 2=sort of true, 3=just a little true, 4=not true at all). Three of the items were worded negatively and reverse scored. The IMI yields scores in the area (each containing nine items): (a) interest/enjoyment; (b) sense of competence; and (c) perceived effort. Scores for each subcategory are calculated by dividing the yielded score (after items are reverse scored) by 36 and multiplying by 100.

Social validity

Intervention acceptability was assessed by the student using a researcher created questionnaire before the first baseline session and after the last intervention session. Wayne was read aloud a 15-item questionnaire where he responded to each question using a 4-point Likert scale (1=very true, 2=sort of true, 3=just a little true, 4=not true at all). Three of the items were worded negatively and reverse scored. Total scores ranged from 15-60, with lower scores suggesting higher acceptability.

Treatment fidelity

Treatment fidelity was conducted for both phase script adherence and WCPM calculation. The percentage of script adherence fidelity was assessed via direct observation by dividing the total number of observed components by the total number of expected components, multiplying the score by 100. The percentage of WCPM calculation was assessed using the point-by-point method of the total number of agreements divided by agreements plus disagreements, multiplying the sum by 100. See Table 1 for treatment fidelity data.

Inter-observer agreement

Inter-observer agreement (IOA) was conducted on script adherence and WCPM using the same point-by-point formula as treatment fidelity (see Table 1 for results).

Design and Conditions

An ABCB design were used to investigate the functional relation between words correct per minute and self-graphing before reading (B) and self-graphing after reading (C).

Baseline. WCPM was assessed two to four times per week (depending on Wayne's daily schedule) immediately following a *Corrective Reading* session in which he was asked to read aloud three *AIMSweb* 2nd-grade level probes. The 2nd-grade probes were selected as they were above his current independent reading level but below his frustration level. The interventionists followed a during baseline that included procedures for greeting the student, explaining the reading probe process, starting and stopping each probe, and thanking the student for reading that day (See Figure 1). Reading probes were administered to Wayne outside of the regular classroom either in the hallway or the school's library.

Self-graphing Before Reading. This phase took place immediately following a CR session. During the self-graphing before reading phase, the interventionist followed a script with the same

components used during baseline (greeting the student, etc.) for the three *AIMSWeb* probes and added verbal and visual feedback procedures for graphing the previous day's median score prior to reading (See Figure 1). Wayne used a highlighter to color in a column on his graph his WCPM median score which was provided by the interventionist.

Self-graphing After Reading. This phase occurred immediately following a CR session. A script was followed for this phase (See Figure 1) where Wayne graphed his median WCPM data point from the days 3 *AIMSWeb* probes once he was finished reading. The interventionist calculated this score and told Wayne the number to graph.

Results

Correct Words per Minute

The mean number of CWPM increased over baseline ($M=72.00$) when self-graphing was added both before ($M_1=88.50$, $M_2=83.60$) and after ($M=82.00$) reading (see Table 1). Data for each phase also are presented in Table 1 and graphically in Figure 2.

Intrinsic Motivation

Wayne's responses on the IMI pre-intervention were as follows: (a) interest and enjoyment=25%; (b) sense of competence=39%; and (c) perceived effort=25%. These results suggest that prior to the intervention Wayne had low levels of each of interest and competence and put forth little effort in the area of reading. Wayne's responses on the IMI post-intervention were as follows: (a) interest and enjoyment=92%; (b) sense of competence=92%; and (c) perceived effort=92%. These results suggest that following intervention Wayne's interest, competence, and effort regarding reading all improved significantly.

Social Validity

Wayne's rating of acceptability for the intervention was assessed using a social validity questionnaire with possible scores ranging from 15-60 with low scores suggesting high acceptability. Wayne rated the intervention a 51, suggesting low levels of acceptability.

Discussion

Students with E/BD often struggle in both academic and behavioral domains (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). Without remediation in both domains, in this case by secondary-tier intervention supports, students with E/BD are more likely to experience negative long-term outcomes (Wehby, Falk, Barton-Arwood, Lane, & Cooley, 2003). In this study, self-graphing was used as a targeted, secondary-tier reading intervention within a combined RtI/PBIS model. Self-graphing, whether used before or after a student reads probes, fits within secondary-tier interventions as it doesn't require extensive training to implement and can be implemented with a student as soon as non-responsiveness to universal tier supports is observed; both hallmarks of secondary-tier interventions (Hawken, & Horner, 2003). In addition, the self-graphing intervention provides the student an opportunity to be involved in the data progress monitoring process that may assist with motivation to perform better. Wayne's WCPM and IMI data suggest

that the addition of the easy to implement and low cost intervention of self-graphing may enhance the benefits of existing reading programs for students like Wayne whose reading progress was minimal due to his challenging behaviors. Further, self-graphing before Wayne read resulted in a higher mean of WCPM than self-graphing after he read which may suggest that adding self-graphing before a reading probe can increase the intrinsic motivation of struggling readers. This suggestion is made even though Wayne rated his acceptability of the interventions low.

Even with improvement in the number of words read correctly per minute, there are several limitations. First, as a case study there is limited generalizability of the obtained results. Replication of the study across participants is needed to promote generalizability of the effects of the interventions. Second, with only one participating student it was not possible to counterbalance the two interventions. Future researchers should evaluate the effectiveness of the interventions by counterbalancing the interventions across multiple participants. Third, the inclusion of participants with different behavioral and reading needs within alternative education settings is needed.

Implications for Practice and Future Areas for Research

Throughout the intervention sessions, whether it was self-graphing before or after he read, Wayne displayed noncompliant or other inappropriate behavior during all reading instruction and activities. As a student with E/BD who also had history of reading deficits, Wayne's teacher and the interventionist were not surprised by his behavior but it did influence the data collected. There were several instances when a planned session could not occur due to consequences of his inappropriate behavior. Also, if Wayne required prompts during a session he would then read quietly and slower which negatively affected his data. Future researchers may more proactively address his inappropriate behavior through linkages to the SW-PBIS reinforcement system. For instance, he could earn an extra ticket for compliance. In addition, future researchers may collect data on a student's behavior to better monitor and thus potentially address, the influence of behavior on academic measures.

Within this applied setting, a self-contained alternative education school, several potential setting events were observed which may have affected Wayne's performance. Throughout the study Wayne's primary teacher was often absent causing disruptions to his schedule. Researchers report that unpredictable elements in the environment may influence a student with E/BD to engage in inappropriate behavior. Also, students in his class and peers were engaged in inappropriate behavior during activities and some of these students left the school while new students were introduced. These other distractions and different peer groups also may have influenced Wayne's behavior. Researcher will want to better monitor the setting events and their links to student behavior in the future.

Students with E/BD within alternative education settings, like Wayne, may benefit from three-tiered behavioral models of PBIS and academic models such as RtI to address both their behavioral deficits and academic deficits. Currently, there are very few studies using tiered support for this population within alternative education settings even with many researchers calling for these investigations (Lane, Jolivette, Conroy, Nelson, & Benner, 2011). Future

researchers should continue to investigate the effectiveness of various behavioral and academic tiered interventions for students with E/BD.

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About the Authors

Dr. Sara C. McDaniel is an Assistant Professor at the University of Alabama in the Department of Special Education and Multiple Abilities. Sara is a former classroom teacher whose research areas include secondary tier PBIS, interventions for alternative school settings, and supports for students with academic deficits and challenging behavior.

Dr. Kristine Jolivette is an Associate Professor at Georgia State University in the Department of Educational Psychology and Special Education. Her research interests include children and youth with emotional and behavioral disorders, positive behavioral interventions and supports across the tiers, proactive and preventative interventions for use with youth in alternative and juvenile justice settings.

Ms. Robin P. Ennis, M.Ed., BCBC, is a doctoral student and clinical instruction in the Department of Educational Psychology and Special Education at Georgia State University. Her interests include three-tiered models of positive behavioral interventions and supports and learning strategies for students with and at-risk for emotional and behavioral disorders.

Table 1. *Results: WCPM, Fidelity, and IOA*

		Baseline	Before 1	After	Before 2
WCPM	Mean	72.00	88.50	82.00	83.60
	SD	6.48	4.51	7.97	23.64
Treatment Fidelity	Sessions	25%	22%	60%	22%
	Implementation	96%	100%	100%	100%
IOA	Sessions (of Fidelity)	100%	50%	33%	50%
	Agreement	100%	100%	100%	100%
WCPM Fidelity	Sessions	25%	22%	60%	22%
	Implementation	98.55%	98.06%	97.03%	98.06%
IOA	Sessions (of Fidelity)	100%	50%	33%	50%
	Agreement	95.66%	99.67%	99.62%	99.67%

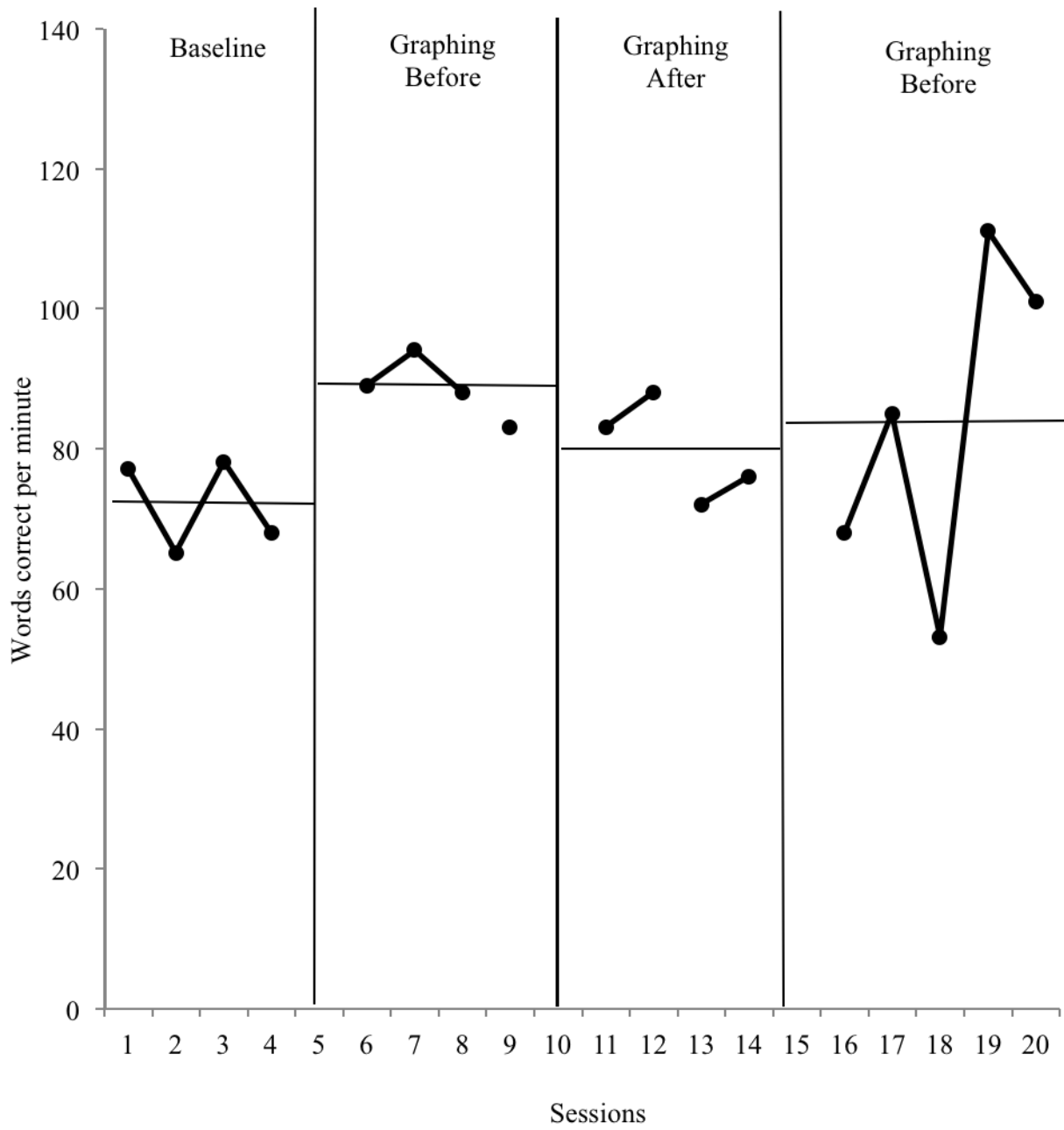
Note: IOA=Inter-observer agreement; WCPM=words correct per minute.

Figure 1. *Baseline, Before, and After Graphing Scripts*

Baseline Script	
Today you are going to read three stories out loud to me. You will have one minute to read each story. 1. Teacher presents the first passage: First please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage. While the student reads the teacher records omissions, repetitions, words read incorrectly, and words that the student did not know after 3 seconds. At the end of 1 minute, the teacher marks the word that the student read last. Stop reading now. Teacher collects the first passage. 2. Here is your next story (teacher presents the second passage). Please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage recording all items as for passage 1. Stop reading now. Here is your next story (teacher presents the second passage). Teacher collects the second passage. 3. Here is your next story (teacher presents the third passage). Please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage recording all items as for passage 1. Stop reading now. Teacher collects the third passage. Thank you for reading with me today.	
Self-graphing <i>Before</i> Script	Self-graphing <i>After</i> Script
Before reading today we will graph your middle score from what you read the last time you read to me. Teacher has calculated words read correct for each probe from the last reading and has determined the median score. Your middle score that we need to graph is _____ (teacher states the median score). Last time you read to me was day _____ (teacher states the day that needs to be graphed). Please use the highlighter to color in the block for today up to your score _____ (teacher restates median score). Teacher monitors accuracy of highlighting. Good graphing! Today you are going to read three stories out	Today you are going to read three stories out loud to me. You will have one minute to read each story. 1. Teacher presents the first passage: First please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage. While the student reads the teacher records omissions, repetitions, words read incorrectly, and words that the student did not know after 3 seconds. At the end of 1 minute, the

loud to me. You will have one minute to read each story. 1. Teacher presents the first passage: First please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage. While the student reads the teacher records omissions, repetitions, words read incorrectly, and words that the student did not know after 3 seconds. At the end of 1 minute, the teacher marks the word that the student read last. Stop reading now. Teacher collects the first passage. 2. Here is your next story (teacher presents the second passage). Please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage recording all items as for passage 1. Stop reading now. Teacher collects the second passage. 3. Here is your next story (teacher presents the third passage). Please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage recording all items as for passages 1 and 2. Stop reading now. Teacher collects the third passage. Good reading! Thank you for working with me today.	teacher marks the word that the student read last. Stop reading now. Teacher collects the first passage. 2. Here is your next story (teacher presents the second passage). Please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage recording all items as for passage 1. Stop reading now. Teacher collects the second passage. 3. Here is your next story (teacher presents the third passage). Please read this one (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say “Stop,” I need you to stop reading out loud. Start here (point to the first word of the passage). Begin. Teacher starts the stopwatch when the student says the first word of the passage recording all items as for passages 1 and 2. Stop reading now. Teacher collects the third passage. Teacher calculates words read correct for each probe and determines the median score. Thank you for reading. Now we will graph your middle score from what you read today. Teacher presents the student with his graph and a highlighter. Your middle score that we need to graph is ____ (teacher states the median score). Today is day ____ (teacher states the day that needs to be graphed). Please use the highlighter to color in the block for today up to your score ____ (teacher restates median score). Teacher monitors accuracy of highlighting. Good graphing! Thank you for working with me today.
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Figure 1. *Wayne's WCPM for each Phase*



Applied Behavior Analysis: Current Myths in Public Education

Cheryl Fielding, Ph.D.

**John Lowdermilk, Ph.D.
University of Texas Pan American**

Lauren L. Lanier

Abigail G. Fannin

Jennifer L. Schkade

Chad A. Rose, Ph.D

**Cynthia G. Simpson, Ph.D.
Sam Houston State University**

Abstract

The effective use of behavior management strategies and related policies continues to be a debated issue in public education. Despite overwhelming evidence espousing the benefits of the implementation of procedures derived from principles based on the science of applied behavior analysis (ABA), educators often indicate many common misconceptions in this area. These misconceptions contribute to a reluctance on the part of educators to implement strategies utilizing what we know to be true about the operation of behavioral law. Further, these misconceptions often impede educator effectiveness and student progress. This paper reviews 3 common misperceptions: 1) ABA is used exclusively for children who have autism; 2) ABA may only be implemented using a teacher/student ratio of 1:1, and; 3) negative connotations of terminology associated with ABA. Important legal issues, procedures, research, and philosophical issues related to the implementation of ABA is explored along with concluding recommendations for public school educators.

Applied Behavior Analysis: Current Myths in Public Education

Public education is, historically, a punitive institution. From suspensions and expulsions to verbal reprimands, the majority of consequences imposed by teachers and administrators are done with the idea that such consequences will decrease the rate of future behavior; thereby “sending a message that certain behaviors will not be tolerated” (Skiba, 1999, p. 2). Zero tolerance policies that involve removing a student from the classroom or campus for up to a year for certain offenses have been included in state and federal regulations (Skiba, 1999). Why are school policy-makers relying on zero tolerance policies over planning, prevention, and positive behavior supports? Axelrod, Moyer, & Berry (1990) write, “one source of difficulty is the process by which the most commonly used behavioral principle - positive reinforcement - operates” (p. 314).

Reinforcement is defined as an environmental change contingent on a behavior that increases the future frequency of that behavior (Cooper, Heron, & Heward, 2007). An environmental change could mean the addition of some stimulus (positive reinforcement) or the removal of some stimulus (negative reinforcement). Many teachers have commented that they would like more training in behavior management strategies, and then in the same conversation have said that they do not believe in using reinforcement. As Maag (2001) writes, “just because someone may not like something, does not consequently abolish its existence” (p. 180). Reinforcement is a law of nature. If a behavior increases, then it is being reinforced. This still seems to be a difficult concept for many in public education to grasp, whereas the practices of punishment are readily accepted. Why do teachers have an aversive reaction to reinforcement? The difficulty may stem from the idea that, to many, positive reinforcement means giving students candy and stickers when they are good. They may try giving candy and stickers, find the procedure ineffective, and then claim that positive reinforcement does not work. This is a pervasive and incorrect belief among those unfamiliar with the principle of reinforcement; if it looks like a reinforcer, and sounds like one, then it must be one. Ward (1995) writes, “It may look and sound like a reinforcer, but unless it increases the frequency of the behavior it follows, it’s not a reinforcer” (p. 490).

Still others in public education have the expectation that students should behave well in school. This irrational belief is referred to as demandingness: “a magical and ineffective attempt to change events to a more desirable outcome without engaging in any behavior other than saying either the word “expect” or “should” ” (Maag, 2001, p. 183). Asking teachers to use a strategy that promotes pro-social behavior by offering students reinforcing items or activities requires these educators to change their own behavior and challenges their previously held beliefs. Reinforcement procedures are not easily implemented; they are time and labor intensive, require consistent analysis of data, and expect educators to accurately identify the reinforcing functions of problem behavior. When these procedures are implemented appropriately and effectively, they will work.

Despite all the research that has been conducted on the benefits of positive reinforcement approaches, there is a debate over whether it should be used in public education. Hundreds of experimental studies have demonstrated that reinforcement can improve conduct and learning in public education (Chance, 1992). Reinforcers do not have to be candy, stickers, or trips to Disney World. Praise too can have a positive effect on students’ learning and conduct, and it is free for all teachers to give. Yet, these extrinsic motivators have been subject to intense criticism. Kohn (1993) makes a claim that “the evidence overwhelmingly demonstrates that extrinsic rewards are ineffective at producing lasting change in attitudes or even behaviors” (p. 783). His research has found that rewards are inherently controlling, ineffective, make learning less appealing, and ignore curricular questions (Kohn, 1993). Kohn further extols the exciting new trend in public education wherein lessons are designed and directed at how the student constructs his or her own ideas of the world.

This student-centered learning appeals to many parents, educators, and administrators; however, Erickson (2001) rejects the constructivist view of education writing that constructivism as a meaningful concept has lost its power. He wants teachers to be actively engaged, providing

students with opportunities and consequences whether they are naturally occurring or contrived. In a constructivist view, if a student does not learn the way we teach, then the blame falls on the student. In a behaviorist view, if a student does not learn the way we teach, then we need to change the way we teach. The behaviorist view of education places the responsibility for student learning on the teacher. Perhaps this is why so many in public education settings ignore or reject behavior analysis. Reitman (1998) acknowledges that “behavior analysis, and interventions derived from this perspective, remain vulnerable to misrepresentation by those who find its precepts unpalatable or objectionable.” Without instruction on efficient and effective reinforcement strategies, educators will continue to behave as they have in the past: adopting the easier (and more reinforcing for the teacher) punishment strategies for all learning and behavior problems.

Reinforcement and punishment are technologies derived from the principles of behavior analysis. Regardless of where your personal beliefs fall on the issue of implementation of these technologies, the main goal of behavior analysis is to improve the society in which we live. So which technology should be used? Van Houten et al. (1988) made a few suggestions: individuals have the right to (a) a therapeutic environment; (b) services whose overriding goal is personal welfare; (c) treatment by a competent behavior analyst; (d) programs that teach functional skills; (e) behavioral assessment and ongoing evaluation; (f) the most effective treatment procedures available. Reinforcement and punishment are foundational concepts in the science of behavior. With the controversy surrounding these cornerstone technologies, it is no wonder that behavior analysis has had such a difficult time garnering widespread acceptance. In the following pages we will exam some myths about ABA and provide a foundation for implementing ABA in public schools.

ABA Myths

Myth 1: ABA is Exclusively for Autism

“The conventional wisdom within the field of ABA is that one of the most significant – if not the single most significant – empirically supported success story is ABA-based early intervention for developmental disabilities and childhood autism in particular” (Herbert & Brandsma, 2002, p. 45). In 1987, Lovaas’ study brought an immeasurable amount of public attention to the science of applied behavior analysis. Since this study, numerous additional studies have shown that complex behaviors can be built through behavioral treatment helping to suppress aggression, self-stimulatory behavior, and other pathological behaviors often seen in individuals with autism spectrum disorders (ASD) (Lovaas, 1987). The data show more people being diagnosed with ASD than ever before. It is unclear to which degree this increase can be attributed to improved efforts to diagnose and a broader definition of the disorder (Center for Disease Control and Prevention [CDC], 2011). According to Lovaas (1987), the etiology of the disorder is still unknown and the outcome may be poor. However, the CDC lists ABA as an important approach in the treatment of people diagnosed with ASD. ABA improves a variety of skills and encourages positive behaviors (CDC, 2011). Dr. David Satcher, United States Surgeon General from 1998 to 2002, wrote that ABA is the treatment of choice for individuals with ASDs (CDC, 2011).

Applied behavior analysis is the best empirically evaluated treatment among those available for helping to educate people with autism (Rosenwasser & Axlerod, 2001). ABA has recently emerged with widespread recognition beyond academic & behavior psychologists and special educators (Rosenwasser & Axlerod, 2001). It would be remiss, however, to assume that the public attention gained from its success in the ASD community has only served the science well. ABA has been marketed in the media by numerous magazines, newspapers, and television broadcasts as the best available treatment for children with autism. Herbert & Brandsma (2002) wrote that these publications frequently announce that ABA programs have the ability to result in dramatic developmental gains for many individuals with autism. It is even “claimed that many of these children can eventually function in normal education settings, and are indistinguishable from their peers,” (Herbert & Brandsma, 2002, p. 46). Such rash claims presented in the media can easily give the hopeful parent the idea that ABA can “cure” their child. The sensationalistic spin applied by the media and even some behavioral professionals about the results of ABA therapy; have the potential to cause lasting and even permanent damage to the reputation of the science. Although, few would argue that ABA is reputable method for instructing children with autism, to claim ABA as a “cure” can be misleading.

The science of applied behavior analysis is gradually becoming a subfield of developmental disabilities (Hayes, 2001). A growing number of professionals in the behavior analytic community are expressing concern that the practice of applied behavior analysis and behavior analysis as a whole is losing its identity due to a majority of research being conducted in autism spectrum disorders. According to a survey of publication trends in JABA, the trend found “most notable is the relative increase in the percentage of articles in developmental disabilities” (Northup, Vollmer, & Serrett, 1993, p. 535).

Along with concern regarding publication trends, the practice of ABA is becoming increasingly more autism specific in public knowledge, as well. While research in autism is most certainly needed and warranted in the behavior analytic community, expanding research in other important areas and not getting lost among interventions specific to ASD is vital to the future success of the science. We must not mistake ABA as a therapy for autism rather it is a science. According to Dillenburger & Keenan (2009), the knowledge base gathered from the science of ABA as a whole underpins all of these techniques and, therefore, learning a specific technique is not learning the complete science. Additionally, specific applications or programs, such as discrete trail training, should not be equated with ABA (Dillenburger & Keenan, 2009).

While public awareness and acceptance may be the cornerstone to the success of the science, it must not be ignored that ABA is, in effect, pigeonholing itself into one specific area. Cooper, Heron, & Heward (2007) define ABA as, “the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change” (p. 20). This definition certainly indicates the reasons for which ABA has been successful in the treatment of ASDs, however it is the science of behavior change across all organisms that exhibit behavior. As Dillenburger & Keenan (2009) wrote, a wide range of techniques has been based on applied behavior analysis that has been used to help people with many behaviors and diagnoses. ABA has been used in clinical settings, geriatric nursing centers, prisons, and in numerous other

settings that have no relation to autism spectrum disorders. Furthermore, most therapies and autism specific interventions are to be implemented in a one-on-one, practitioner to participant environment. However, applied behavior analysis interventions can be conducted in any environment, across practitioners and participants. It has been shown that the most effective environment for conducting behavioral research is the natural environment (e.g., the classroom).

Myth 2: ABA is Exclusively for 1:1 Instruction

Despite the identified effectiveness of principles and procedures derived from ABA, educators seldom use these techniques in their classrooms (Axelrod, Moyer, & Berry, 1990; Pumroy, 1984; Rosenfield, 1985). Teachers are faced with the challenging task of providing instruction that will give students the ability to meet these increasing demands (Axelrod et al., 1990). Often during instructional time, general education teachers use “on-the-spot” management to address academic and behavioral concerns of their students (Skinner & Hales, 1992). ABA is often viewed as a procedure appropriate only for animals and institutionalized persons. According to Skinner & Hales (1992), the most common reason cited for classroom teachers’ resistance to ABA interventions is the explanation of why people behave the way they do. Classroom teachers tend to explain student behavior in the classroom as coming from factors within the individual, which is contradicted by ABA approaches that focus on observable behavior (Medway, 1979).

Project Follow Through, the largest and most expensive federally funded experiment ever, was conducted from 1968-1977 (Heward, 2000). This program examined nine approaches to teaching academic skills and involved more than 8,000 children in 20 communities. These children were divided into groups and taught using one of the nine different models. The only two models to show encouraging results were the behaviorally based ones: Direct Instruction and behavior analysis (Gersten, Carnine, & White, 1984). Despite these impressive findings, behavioral approaches do not appear to be used in classrooms for children who are nondisabled (Sulzer-Azaroff, 1986).

In order to gain greater access into the classrooms, ABA should add behavioral structure to existing programs (Enright & Axelrod, 1995). Peer tutoring is an accepted practice by many schools; therefore, a study was conducted to see whether peer tutoring could show increases in student sight-word vocabulary over traditional reading groups (Heron, Heward & Cooke, 1983). Specific tutoring procedures that included prompting, praising, plotting, and testing basic sight-words were taught using modeling and feedback procedures to first graders. Results showed an increase in student sight-word vocabulary words based on the behavioral structure implemented.

Maheady, Sacca, & Harper, (1988) conducted a study to teach tutoring behavior such as presentation of material, prompting, then praising using modeling, practice, and corrective feedback. In the same study, the researchers taught the participants behavior such as attending, responding in a timely manner, and accepting correction to high school students with and without disabilities in a general education social studies class (Maheady et al., 1988). Alners & Greer (1991) studied the effects of the three-term contingency used in the classroom and found immense improvement in learning when the teacher gave immediate feedback on the student’s responses.

Another easily implemented behavioral approach is the use of response cards during group discussions. When comparing response cards to hand raising, results indicate an increase in student-initiated opportunities to respond, and overall, student responses were higher (Christle & Schuster, 2003). Sutherland, Alder & Gunter (2003) compared the effect of varying rates of opportunities to respond to academic requests and results suggest that increases in opportunities to respond were associated with increased correct responses and task engagement, and decreased disruptive behavior.

Applied behavior analysts have identified specific student and teacher behavior and curricular material features that increase the likelihood of positive academic results (Stanley & Greenwood, 1983). Token economies are another example of an accepted practice used today in general education classrooms. Research shows with behavioral structure, a token economy can help overcome some of the challenges affiliated with assessing classroom participation (Junn, 1994).

Boniecki & Moore (2003) wrote that the use of a token economy with rewards for correctly answering questions had many benefits such as an increase in class discussion and an increase in the number of students who made attempts to answer questions correctly. Nelson (2010) conducted a study using classrooms that currently used token economies. Nelson studied whether the effects of students earning bonus points (BPs) token slips for asking good questions during specific classes would increase participation leading to improved student performance. The results suggested using token economies are effective for encouraging classroom participation and using BPs may have encouraged students to generalize the behavior of participation from one setting to another. The ease of implementing a token economy, in addition to the small amount of preparation time, should support its widespread use in classroom settings (Nelson, 2010). Fantuzzo & Atkins (1992) explain how we must develop school-based strategies that are both sensitive to the needs of our diverse student population and suitable for use in schools.

Behavior analysts should consider the efficacy of the intervention. The question, “*Can and will* teachers and school personnel actually use the intervention?” should always be considered when suggesting behavioral approaches to classroom settings (Fantuzzo & Atkins, 1992, p. 37). In order to promote the use of a behavioral approach, the behavior analysts should consider practices that enable and empower teachers to effect relevant behavior change (Fantuzzo & Atkins, 1992).

Myth 3: Public Misconception of ABA Terminology

Yes, ABA uses punishment. That is not a myth. In the past, behavior analysis and behavior modification procedures were given a negative connotation in the public media partially due to the punishing aspect. In 1978, Turkat & Feuerstein conducted a review of public literature because of a growing concern about the negative media coverage that behavior modification seemed to be amassing. They examined articles in the *New York Times* and found that, “time and again, behavior modification was equated incorrectly with such procedures as psychosurgery, brainwashing, drugs, sensory deprivation, and even torture” (p. 194). Could these gross misrepresentations by a respected newspaper have an effect on society at large?

Woolfolk, Woolfolk, & Wilson (1977) looked at labeling bias in a series of two simple experiments, where they compared the names “behavior modification” and “humanistic education.” A video was shown to two groups of college students (experiment 1 used undergraduates and experiment 2 used graduate students) that displayed a teacher in an elementary special education class using positive reinforcement techniques. In both experiments, one group was shown the video and told that they were watching “behavior modification” while the other group was told they were watching “humanistic education.” Members of both groups were then given a questionnaire about the video and its practices. Overall, the video labeled “behavior modification” was rated less favorably than the same video labeled “humanistic education.” The punitive nature of behavior modification presented by the media in the past has led many people to oppose its practices without fully understanding its processes. With the growing success of behavior analytic procedures in areas like autism and developmental disabilities, people are now seeing the truth of behavior analysis and its benefits for society as a whole.

There are still many who oppose behavior analysis because of its use of punishment. As a concept, punishment is defined as an environmental change contingent on a behavior that decreases the future frequency of that behavior (Cooper, Heron, & Heward, 2007). An environmental change could mean the addition of some stimulus (positive punishment) or the removal of some stimulus (negative punishment). While that definition seems fairly straightforward, applied researchers are apprehensive about exploring its usefulness as an intervention due to societal constraints. Lerman & Vorndran (2002), in an effort to help further the field of behavior analysis, suggested that a better understanding of the punishment processes must be obtained if these processes are to be used effectively. As Horner (2002) acknowledges, “punishment is a natural and ongoing part of life” (p. 465). Teachers, parents, friends, and society in general employ punishing strategies in the form of reprimands, red marks on papers, parking tickets, spankings, and social jibes (Horner, 2002). Without a better understanding of punishment, it can easily be abused. “To ignore punishment as an application is akin to ignoring the benefits and limitations of seemingly, overly invasive medical procedures. Of course, such research needs to be conducted in an ethical and humane manner,” (Vollmer, 2002, p. 469). Punishment is an effective behavior change strategy that, when used appropriately, has been shown to benefit individuals when other techniques did not.

Two camps have formed on either side of this punishment debate. Between these two camps, there are those who see the benefit of punishment in certain situations, but they assert that punishment has been misused and abused by people implementing behavior change strategies. Horner & colleagues (1990) called for the development of a “non-aversive” behavioral intervention that emphasizes lifestyle changes, functional analyses, multi-component interventions, setting event and antecedent interventions, teaching of adaptive behaviors, building environmental arrangements, minimizing punishment, distinguishing between emergency and proactive programming, social validation, and dignity. This has come to be known as Positive Behavior Supports (PBS), and it has put a spotlight on previously unregulated technologies in behavior analysis and given strength to the non-aversive movement.

One extreme strategy that emerged from the non-aversive movement is Gentle Teaching. While Gentle Teaching (GT) does recognize and support the use of behavioral techniques such as

errorless teaching, task analysis, and choice making, what makes it distinct from ABA, according to McGee & Menolascino (1991), is its main assumption of “unconditional valuing.” The effects of this unconditional valuing, observed as a feeling of companionship (e.g., warm gazes, hug, smiles,), is proposed as a solution to the problem encountered when positive reinforcement techniques have not had the desired effects (McGee, 1992). Bailey (1992) counters this argument by writing; “behavior analysts do not disagree with the philosophy of GT toward clients (because it is congruent with our own) but abhor GT’s total disregard for science and the scientific method” (p. 882). Jones (1994) furthers this argument with the idea that even “unconditional valuing” can be perceived as aversive. While Gentle Teaching was developed with good intentions, its lack of science and data based decision-making, as a foundation, should caution users from adopting it or other similar approaches. Gentle Teaching has faded from mainstream behavior analysis, but not the non-aversive movement.

Positive behavior support is “an applied science that uses educational and systems change methods (i.e., environmental redesign) to enhance quality of life and minimize problem behavior” (Carr et al., 2002, p. 4). Fifteen years after the Horner et al. (1990) article, it is evident that many PBS components introduced into behavioral science have taken root. Techniques such as functional behavioral assessment (FBA), multi-component interventions, antecedent manipulations, teaching adaptive behavior, minimizing punishers, and building environments with effective consequences have all demonstrated significant positive change both in the literature and in practice (Snell, 2005). This growth of values and technologies is not without its limitations. As Snell (2005) writes, there is the “inevitable gap between what we know about addressing problem behavior and what we typically do in school, home, and community settings” (p. 13).

Implementing ABA in Public Education

Despite the challenges that applied behavior analysis faces in disseminating its ideas and practices into the mainstream, there is cause for hope. In 2004, the Individuals with Disabilities Education Improvement Act (IDEA, 2004) was passed that mandates that public education use behavioral methods to handle classroom behaviors (P.L. 108-446). These methods include functional behavior assessments, positive behavioral supports, classroom and student management, behavioral interventions, and prevention of behavioral problems (Bloch & Axelrod, 2008). While it does not specifically define the strategies to implement these methods, the recognition of behavior analysis as a legitimate tool for the improvement of our classrooms is a step in the right direction.

The specific strategies we should use are still a matter of debate. While functional behavior assessment methods are very clearly outlined, “positive behavioral supports” remains open to interpretation. This interpretation has led to many school districts adopting practices that have no evidence base. How do we, as behavioral educators, convince administrators and school board members to insist on implementing evidence-based practice? Axelrod (1993) outlined seven possible steps toward achieving that goal. The first is to make our main priority the dissemination of effective technology. We have the research demonstrating our effectiveness; we have mentioned just a few examples in the previous sections. Now we need to put this information into the hands of the policy makers in language that they can understand. His

second suggestion is to develop comprehensive educational systems. Axelrod claims that a major disconnect between public education and behavior analysis is the fact that teachers need a plan for an entire year, “not a piecemeal collection of procedures” (1993, p. 2). Shaping and fading are effective strategies, but they do not explain how to design a math or reading curriculum.

The third suggestion is to simplify and beautify existing effective practices. Direct Instruction (DI), while not very pretty to many educators, is an efficient system that is based on research. It would be a daunting, but worthwhile, task to make DI more *aesthetically pleasing*. The fourth idea is to better market effective educational practices. There should be standards in place for the practices used in education that are considered scientific. Also, many educators are put off by the mechanistic language and labor intensiveness of behavior analysis. We are aware of this, yet little has been done to make our practices more “user friendly.” Obtaining new measures of educational success is Axelrod’s fifth suggestion. He argues that student performance should not be the only measure, but the efficacy of adopted curriculums as well. He further argues that educational reform should not be targeting teachers; “professors and other educational decision makers should be held responsible for poor teaching procedures and curricula” (p. 6). His final suggestion is that we forage into new fields. This goes back to the issue of dissemination. We need to contact a broader audience with user-friendly language and procedures.

Some of the procedures that can be easily adapted to be implemented by classroom teachers include group discrete trial teaching, differential reinforcement, response cost, and token economies. Discrete trial teaching in a group setting can employ the use of opportunities to respond (OTR). “An OTR can be defined as the interaction between a teacher’s academic prompt and a student’s response,” (Haydon, Mancil, & Van Loan, 2009, p. 268). Choral responding is one group method of an OTR/discrete trial. The teacher asks a question, all students verbally respond in unison, and the teacher provides feedback in the form of reinforcement or error correction. Differential reinforcement can employ group contingencies in which a consequence is contingent on the behavior of one or all members of a group (Cooper, Heron, & Heward, 2007).

Token economies can also be very valuable tools in classroom or school-wide settings. This is a “behavior change system consisting of three major components: (a) a specified list of target behaviors; (b) tokens or points that participants receive for emitting the target behaviors; and (c) a menu of back-up reinforcers that participants obtain by exchanging tokens they have earned” (Cooper et al., 2007, p. 560). Token economies have been proven effective in small and large groups. The strength of the back-up reinforcers chosen is paramount to the success of the system.

Some additional interventions that employ behavioral principles and can be implemented in the classroom setting are; pivotal response training, direct instruction, verbal behavior, shaping, chaining, task analyses, extinction, and response cost. According to Hursh (2007), applied behavior analysts have resources that can be brought to the classroom, implemented teacher training programs, and then be transferred into the classroom by identifying, coaching, and maintaining those practices.

One example of implementing behavioral procedures in public school systems is the 1969 study by O’Leary, Becker, Evans, & Saudargas. This was a replication of a previous study by O’Leary and Becker on implementing a token reinforcement system in a public school. The replication was conducted in order to study how treatment effects from the token economy system could be maintained. The goal of this study was to decrease disruptive behavior in seven children in a second-grade class of 21 children. Main & Munro (1977), in a review of the 1969 study, stated that researchers obtained the operant level of unacceptable classroom behavior for six students receiving an individualized program of instruction in mathematics and science in a nonacademic grade-nine class in a public junior secondary school. “Rules, educational structure, and praising appropriate behavior while ignoring disruptive behavior were introduced successively; none of these procedures consistently reduced disruptive behavior,” (O’Leary et al., 1969, p. 3). Researchers in this study found that when a token system was introduced with the initial two conditions, a dramatic decline of inappropriate responses was reported in all subjects (Main & Munro, 1977). Withdrawal of the token economy resulted in an increase in inappropriate behavior. When it was reintroduced with contingency contracts, the behavior reduced below the mean of the first token condition for all subjects. The token economy was thinned and eventually removed which left teacher praise and attention as conditioned reinforcers along with the contract system. During a four-week follow-up, data indicated that low levels of inappropriate behavior were maintained in all subjects (Main & Munro, 1977).

A current comprehensive model for applying behavioral principles to schools is the comprehensive application of behavior analysis to schooling (CABAS). According to R. Douglas Greer (1992), designer of the CABAS system, “the school environment must be specifically designed to maintain and improve upon the applications of the science of behavior in order to be successful in its implementation. This model integrates behavioral principles in rules for all persons (students, teachers, and administrators) in which it is implemented. In the CABAS system, the use of behavior analysis is systemic, with continuously evolving applications of behavior analysis that are based on the relationship between the different parts of the system which are the students, teachers, parents, supervisors, and university personnel (Greer, 1992). The students in schools where the CABAS program has been employed “learned from four to seven times more after CABAS was implemented than before its implementation” (Greer, 1992, p. 66). This is not a simple task, however it is potentially much easier and more cost effective than the current practices being used in our public school systems.

“As schools and their populations are growing, their budgets are shrinking in an inversely proportional direction” (Greenberg & Martinez, 2008, p. 221). The United States Department of Education statistics released in March of 2011 delineate that the “total public and private elementary and secondary school enrollment reached 55 million in fall 2007, representing a 10 percent increase since fall 1994. Between fall 2007, the last year of actual public school data, and fall 2019, a further increase of 6 percent is expected, with increases projected in both public schools and in private schools.” Some states, such as Texas, which is currently facing a 3 billion dollar state-wide cut in education funding, is projected to have an increase in enrollment of more than 15% between 2007 and 2019.

Greenberg & Martinez (2008) reviewed the relative cost for implementing an ABA program for early intervention (EI) center where children were diagnosed with pervasive developmental

disorder (PDD). The cost measured was for pull out services. The researcher found that “it can be projected that the monetary savings observed will be exponential and are likely to reach hundreds of thousands of dollars when compared across years” (Greenberg & Martinez, 2008, p. 223).

Greenberg (2007) applied teacher-training packages to teachers using ABA. In this study, costs were lowered after exposure to the treatment package occurred showing that the relative cost of implementing an ABA program will decrease over time. These projections could be comparable to retaining a student that might otherwise be sent to an alternative campus for undesirable behavior. Alternative placements are paid for out of school district funding and alleviating the need for this expenditure has the potential to save more money than the cost of training teachers in simple behavioral methods to prevent those undesirable behaviors from occurring.

Conclusion

The data for the interventions are clear: they have been shown to effectively improve behavior and academic performance. With education budgets invariably shrinking and populations in schools continuing to grow, it is imperative that the model used to improve, maintain, and excel academic and behavioral performance be considered for change. Applied behavior analysis has been empirically validated across numerous interventions that have the potential to change the way public education functions as a whole.

Both individual and group contingencies have been shown to produce greater student achievement, and they are methods that can be counted within the requirements of IDEA. The passing of IDEA, 2004 and the upcoming reauthorization of the Elementary and Secondary Education Act are the stepping-stones that will aid in the adoption and acceptance of behavior analysis in our public education system, but merely having it in our legislation is not enough. There is still a long way to go as far as making applied behavior analysis a household strategy. The need for effective educational practices remains increasingly critical, consistently effective practices are neither widespread, nor appropriately implemented. “Behavior analysts have been trained to develop, deliver, and monitor educational programming that is driven by the results it produces with students. Collaborative consultation with the moment-to-moment coaching it entails can assist educators to create their own evidence-based practices” (Hursh, 2007, p.44). Behavioral principles offer a wealth of effective and empirically validated practices to offer public education. The research is here. The desire is here. As Bloh & Axelrod (2008) write, “The means and justification are here. Let us now serve” (p.55).

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About the Authors

Cheryl Fielding is a Board Certified Behavior Analyst and Associate Professor at the University of Texas Pan American. Her research interest is in the area of the staff selection process for caregivers of children and adults with challenging behavior.

Lauren L. Lanier is a practicing Board Certified Behavior Analyst in Houston, TX. She currently serves as an independent contractor with CARE, LLC supervising ABA tutors in

various states and consulting in Texas school districts. Ms. Lanier can be contacted via email at llanier02@gmail.com.

Abigail G. Fannin is a Board Certified Behavior Analyst in Houston, TX. She is currently working as a special education Teacher in Klein ISD. Ms. Fannin has 7 years of experience teaching children on the autism spectrum utilizing the principles of ABA.

Jennifer Schkade is a Board Certified Behavior Analyst who has spent the past 10 years working with students with autism in a variety of settings including, public schools, private day programs and in families' homes. She currently works as a behavior specialist in Klein ISD and as an ABA therapist with CARE, LLC. Jennifer has conducted many workshops for teachers helping school systems improve classroom management through the use of ABA. Ms. Schkade can be contacted via email at jennifer.schkade@gmail.com

Chad A. Rose is an Assistant Professor of Special Education at Sam Houston State University. His research explores the predictive and protective factors associated with the overrepresentation of students with disabilities within the bullying dynamic.

Cynthia G. Simpson is a Professor and Dean of the School of Education at Houston Baptist University in Houston, Texas. Her research explores gender discrepancies within the bullying dynamic and bullying prevention strategies within a multi-component framework. Dr. Simpson has worked in a variety of settings assessing and developing curriculum for students with autism.

John Lowdermilk, Ph.D., (jlowdermilk@utpa.edu) is currently an Assistant Professor of Special Education and Director of the Educational Technology Resource Center & Curriculum Resource Center at the University of Texas Pan American. His research interest is serious educational gaming and he regularly conducts professional development workshops in the area special education.

Application of the RtI Model in Learning Disability Diagnosis: Perceptions of Current Practices by New Jersey Special Education Administrators

**Pamela E. Lowry, Ed.D.
Georgian Court University**

Abstract

This paper examines current practices in implementing a Response to Intervention (RtI) in diagnosing specific learning disabilities. The use of the aptitude achievement discrepancy model, RtI model or a combination is reviewed. A survey of special education administrators in New Jersey compares methods of identification and consistency of application across districts. Findings indicate that few districts are currently implementing RtI along with the discrepancy model in determining eligibility with a specific learning disability. No district is using RtI as the sole determinant for this classification category. RtI models differ across districts with no consistency in interventions or screening tools.

Application of the RtI Model in Learning Disability Diagnosis: Perceptions of Current Practices by New Jersey Special Education Administrators

The reauthorization of the Individual with Disabilities Education Act in 2004 (IDEA) has raised questions regarding identification of students with a specific learning disability. While the definition remains relatively the same, IDEA 2004 includes using a Response to Intervention (RtI) in its diagnostic criteria for a Specific Learning Disability (IDEA, 2004). IDEA allows states to choose between the intelligence - achievement discrepancy diagnostic method and response to research based interventions model for eligibility under the classification category of specific learning disability (SLD). This ability to choose will allow for differing diagnostic practices, prevalence rates, and symptom constellations across geographic locations (Brueggermann, Kamphaus, & Dombrowski, 2006). The problem of identification has been ongoing with critics of the discrepancy model referring to it as the wait to fail model (Fuchs & Fuchs, 2007). Critics of RtI state that it cannot identify the basic psychological processes addressed in the SLD definition (Kavale et.al, 2008). A question that arises is whether the use of RtI in identification of a specific learning disability, with or without the use of a discrepancy model, will yield more consistent results.

In addition, IDEA does not provide guidelines for incorporating RtI as a method for diagnosing eligibility for special education services, under the category of specific learning disability. Fuchs and Fuchs (2007) suggest that there are six components for which schools must make decisions regarding implementation of the RtI process. School districts must determine: “how many tiers of intervention to use; how to target students for preventative intervention, the nature of that preventative intervention, how to classify response, the nature of the multidisciplinary evaluation prior to special education and the function and design of special education” (Fuchs & Fuchs, 2007). With this many options, critics challenge the validity of a diagnosis of a specific learning disability based on RtI. Special education articles and court rulings have served to confuse rather than clarify the role of RtI in diagnosing a SLD (Zirkel, 2011). Universal screening, progress monitoring, scientifically based instruction and interventions are identifiable

components of RtI. What is not clear is how extensively they are implemented (Fuchs, 2012). Many professionals have indicated that there is too much variability among and within the RtI models for it to provide a reliable indication of a learning disability (McKenzie, 2009). RtI has too many problems for it to be the sole mechanism for identifying a SLD. There are many reasons why a child might not respond to an intervention besides SLD (Hale et. al., 2010). “The RtI model can provide useful information . . . it cannot be used as the sole basis for determining whether a student has learning disabilities” (NJCLD, 2011).

This study focuses on the actual application of the RtI model among New Jersey school districts. Examination of its use in the prereferral process and actual application in eligibility considerations was conducted. Administrators, of special education programs in New Jersey, were surveyed to determine the components of RtI in their respective districts, the extent to which RtI data is used to determine eligibility for special education services – specific learning disability, and the training received by the decision makers in the identification process. Comparisons were made among responding districts to examine consistency of implementation of the RtI model and its use as a diagnostic tool. The potential of use of the RtI model to improve consistency in diagnosis of a specific learning disability is also discussed.

Method

The purpose of the study was to examine the actual implementation of the RtI model in New Jersey school districts. Whether or not the district has developed a model, the design of the model, consistency of the model design among districts, and its use in determining eligibility was explored.

Participants were randomly selected from the list of Special Education Administrators provided on the New Jersey Department of Education website. Survey instruments were mailed both electronically and in paper form. Sixteen New Jersey special education administrators representing 16 different districts responded to the survey. The respondents represent elementary districts, secondary districts, and districts that have both elementary and secondary schools. Respondents represented districts with student populations ranging from 250 to 17,000. Data analysis was performed using Microsoft Office Excel 2007. Districts that reported no RtI model did not complete subsequent questions regarding its implementation in the district. Results reported regarding implementation reflect the percentage of those districts that responded to the questions.

Results

Discrepancy Model

Of the responding districts, 86% use the discrepancy model either solely or as part of the process to determine eligibility as a student with a Specific Learning Disability. Most districts, 63% use 1.5 standard deviations (SD) as the criteria to determine eligibility in that classification category. Twenty five percent use less of a discrepancy (1 SD) while 12% are more stringent using a 2 or 2.5 SD discrepancy to determine eligibility.

RtI Models

Survey results indicate that 69% of the reporting districts have developed and use an RtI model. However, only approximately one third indicated the development of written guidelines to define its implementation. Supervision of the implementation of RtI falls outside of the Special Services department in 92% of districts. One respondent commented, “RtI is a general education responsibility not special education, yet general educators know little to nothing about it.” The purpose of the RtI model differs across districts. Most (60%) districts use the RtI model to provide scientifically based interventions for academically at risk students and assist in determining eligibility for special education services. Approximately half of the districts specified using RtI data in determining eligibility for classification with a specific learning disability. However, none of the reporting districts indicated that it was used as the only means to determine eligibility with a SLD without Child Study Team (CST) assessment. One special education administrator suggested, “It is unclear what (instructional strategies) truly constitutes ‘research based’ and what will hold up in court.”

Most districts (57%) indicated that they used a three tier RtI model. Approximately one quarter (29%) reported a four tier model. Districts reported a variety of instruments used for universal screenings. Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was reported to be used by most reporting districts. Other instruments reported were Diagnostic Reading Assessment (DRA), portfolio assessments, Fountas and Pinnel Benchmarks, AIMS web and Curriculum Based Measurements. Some districts reported using more than one screening instrument.

Districts reported a variety of supports at different tier levels. Tier 2 supports included small group instruction, targeted strategy lessons, and study skills. One to one tutoring and direct instruction targeting deficit areas were reported Tier 3 supports. Other tier supports reported were extra math or language arts periods, mentoring, and tracking. Positive Behavior Supports (PBS) systems were also reported. Reading interventions such as Pathways, Orton Gillingham and Wilson were also identified. One respondent reported observing many discrepancies in the planning of RtI instruction.

RtI Data in the Referral Process

Most districts, 62% reported always using RtI data for early remediation with 25 % using RtI data for remediation sometimes. Twenty five percent always use RtI data to determine referral to the CST for assessment. Another 75% indicated that RtI data is sometimes used to refer students to the Child Study Team (CST). Whether or not the data is provided to the CST varies among districts with 40% stating they always provide the data to the team. Forty percent indicated that they sometimes provide the data and 20% stated they never provide the data to the CST. In considering a student’s eligibility for special education services, with a specific learning disability, none of the districts indicated that they always incorporate RtI data into the decision making process. Eighty percent indicated that they sometimes consider RtI data with 20% stating that they never use RtI data when determining classification with a specific learning disability. When RtI data is considered along with individual CST assessment results, RtI data is usually given less weight in 62% of reporting districts. Equal weight is given in 25% of districts

and in only 12 % of districts is it given more weight than assessment results. Thirty eight percent of the respondents indicated that none of the CST members have been trained to use RtI data in considering eligibility. Other districts reported that all (27%) or some (23%) CST members have been trained in RtI process.

Model Comparison

Special education administrators were equally divided in their opinion that the discrepancy model is sufficient to determine the existence of a learning disability. Approximately one third suggested that it is sufficient; one third indicated it is not sufficient and approximately one third remained neutral. Again, special education administrators were divided when asked if moving through the tiers of an RtI model was enough to determine eligibility with a specific learning disability. Thirty-eight percent of the respondents indicated that progressing through RtI tiers is not sufficient to determine the existence of a learning disability. Approximately one quarter (27%) of the respondents indicated that that RtI alone is sufficient to determine eligibility with a specific learning disability, with 23% remaining neutral. More than half (52%) did not agree that adding the RtI model to the criteria for determining the existence of a learning disability would improve consistency of diagnosis across school districts.

Special education administrators were also asked if adding the RtI model to the criteria for determining the existence of a learning disability would improve consistency of diagnosis across school districts. Forty two percent agreed that it would improve consistency. One quarter of the respondents disagreed.

Discussion

This study was prompted by discussions regarding the limitations of the discrepancy model in diagnosing a learning disability and the inconsistencies of diagnostic procedures across districts. The RtI model is identified in special education code as a method that may be used in determining eligibility as a student with a learning disability. The study describes how the RtI model is currently used in school districts in New Jersey. The study focused on the current use of the RtI model, what constitutes the RtI model, how it is used, and perceptions of accuracy in diagnosing a specific learning disability.

The study results indicated that the RtI model is not currently developed or used in a majority of New Jersey school districts. Comments by respondents indicated that the New Jersey Department of Education has not provided guidelines for a particular RtI model or its implementation at the district level. Respondents indicated that in most districts, implementation of RtI activities do not fall under the supervision of the special education administrator. Approximately one third of the reporting districts indicated that they have developed and use a RtI model and have written guidelines in place.

In describing the RtI model there is little, if any, consistency across districts. Most districts indicated that the RtI model in place consists of three tiers. Beyond that there is little similarity with regard to the interventions provided at the different tier levels. Universal screening procedures are also inconsistent among the districts. These results alone raise the question as to

the reliability of the RtI model in determining a specific learning disability and whether or not it is providing appropriate prereferral interventions.

The results of the survey indicated that in New Jersey the majority of students classified with a specific learning disability are diagnosed through the use of the discrepancy model. Individual standardized assessments are used to determine a discrepancy of 1.5 standard deviations between IQ and achievement. However, special education administrators differ in their opinion on the efficacy of this model in determining a specific learning disability. Most CST members, who are charged with diagnosing a specific learning disability, are not trained to incorporate RtI data in the diagnostic process. Without proper training, the use of this data will be haphazard at best and not defensible in court.

Most special education administrators feel that neither the discrepancy model nor the RtI model alone can identify the existence of a specific learning disability accurately. They are split in their opinion as to whether or not adding the RtI model to the discrepancy model will improve consistency of diagnosing a specific learning disability. One special education administrator stated, "State departments should take a leadership role in establishing criteria and guidelines so that there will be consistency among districts. If not, data cannot be interpreted with any reliability."

Limitations and Future Research

This study narrowly focused on special education administrators in New Jersey. Admittedly, there is little guidance at the state level regarding RtI models and implementation. For this study, only special education administrators were surveyed while study data indicated that in some districts RtI implementation falls under the auspices of general education. Therefore, special education administrators may not be aware of the particulars of the RtI model in place or the elements of that RtI model. Special education administrators, as supervisors of CSTs, are a good source of information regarding the use of RtI data in diagnosing a student with a specific learning disability, as they are responsible for CST supervision.

These findings suggest the need for further research into the design and application of an RtI model. Research should be expanded to include both general and special education administrators. Also, examination into the practices of incorporating RtI data into the diagnostic criteria for eligibility as a student with a SLD should be considered. Actual practice would be determined by surveying CST members.

Consistency of diagnosis will require well developed RtI guidelines at the state and or federal level. Also, guidelines for incorporating RtI data along with data obtained from individual assessments need to be developed. Finally, CST members will need to be trained to interpret and include this data as they consider student eligibility with a specific learning disability. Further research should include examination of actual practice for including RtI in the diagnostic criteria across states with specific guidelines and those states that have not developed RtI guidelines.

Conclusion

Despite the limitations cited above, this study is a first step in examining the actual practice of implementing an RtI model. The study gives some insight into how the RtI model is used in some school districts and how special education administrators view its use as a diagnostic tool for determining a SLD. It highlights inconsistencies of implementation and use of RtI data across school districts.

Most special education administrators agreed that neither the discrepancy model nor the RtI model alone can accurately and consistently diagnose a SLD. However, a process that includes both individualized assessment and data garnered from a well developed and consistent RtI model may actually provide the best method for diagnosing SLD. Training for those who would be implementing this process is needed to ensure accurate diagnosis.

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About the Author

Pamela E. Lowry, Ed.D., is an assistant professor and director of the Learning Disability Teacher Consultant program at Georgian Court University in Lakewood, New Jersey. She is a NJ licensed Learning Disabilities Teacher Consultant and Nationally Certified Educational Diagnostician. Dr. Lowry earned her doctorate from Rutgers University in New Brunswick, NJ. She has worked in public education as a special education teacher, LDTC and special education administrator. Her research interests include assessment and diagnosis of students with learning disabilities and effective inclusive teaching practices.

An Exploratory Study of Successful Paperwork Management Techniques for Novice Special Education Teachers

Richard L. Mehrenberg, Ph.D.
Millersville University

Abstract

Eighteen novice special education teachers were interviewed to determine successful strategies regarding paperwork completion and paperwork advice for those new to the field. Interview transcripts revealed five specific paperwork completion strategies: (a) get organized; (b) understand your job description; (c) ask for help; (d) appreciate the value of special education paperwork; and (e) know when to take a break. Each technique is described, enhanced with interview excerpts, and composite examples as appropriate.

The Paperwork Problem

The timely and accurate completion of professional paperwork, such as IEPs, annual goals, objectives, and student re-evaluations represents a distinct challenge for many special education teachers. Excessive paperwork has been reported as a contributing factor in regards to job stress (Emhich, 2001; Olson & Mutusky, 1982), job dissatisfaction (Luckner & Hanks, 2003), and a desire to leave the profession (Cross & Billingsley, 1994; George, George, Gersten, & Groesnick, 2001). These problem may be intensified for professionals in the early stages of their careers, a time described in the research as especially stressful and challenging (Ergenekon, 2009; Mamlin, 2012).

The research clearly establishes professional paperwork as a major *problem* for special education teachers. However, few viable solutions have been proposed. One notable exception has been the Paperwork Reduction Act.

The Paperwork Reduction Act

The Paperwork Reduction Act was created as part of the 2004 revision to the Individuals with Disabilities Education Act. The Paperwork Reduction Act consisted of two components. The first allowed up to 15 states to pilot programs designed to reduce paperwork and administrative tasks placed on teachers and schools. The second section of the act allowed up to 15 states to extend an IEP for up to three years with parental approval.

Although many considered this legislation a step in the right direction, most states were reluctant to participate. Samuels (2006) cited two main reasons why the legislation was not embraced by special education state officials. First, it was believed that a reduction of paperwork was no guarantee of a reduction of liability. It was thought that the only way to defend against possible lawsuits was through extensive documentation.

The second reason why states chose not to participate reflects directly on the nature of bureaucracy. Officials believed that the additional documentation needed to measure the effectiveness of the program would be more burdensome than completing the paperwork in the first place.

The challenges associated with timely and accurate completion of professional paperwork have been exacerbated by a lack of empirical evidence regarding best practices. No peer-reviewed studies were located that specifically recommended routines and practices to improve paperwork productivity. This paper attempts to fill that gap.

The Current Study

An exploratory study was conducted in order to determine (a.) how novice special education teachers managed their paperwork duties, and (b.) what paperwork management advice they would give to those new to the field. A nationwide random pool of fifty novice special education teachers was selected by Market Data Retrieval, a national market research firm that focuses specifically on educators. Novice teachers were defined as those with five or less years of classroom experience. This subgroup was specifically targeted since they are the demographic most often described in the literature as being negatively impacted by professional paperwork.

The pool of fifty was then narrowed down by the researcher to twenty in order to increase participant diversity in variables such as geographic location, age, grades taught, subjects taught, and types of disabilities regularly encountered. Eighteen of the twenty contacted respondents agreed to participate in a semi-structured telephone interview expected to last approximately forty-five minutes.

Key demographics reported among the respondent sample included residency in twelve states, teaching students with nine distinct IDEA-recognized disabilities, and teaching in schools that run the gamut from pre-school to vocational transitions services. Other demographics mirrored those reported elsewhere in the literature, such as a majority of respondents being both white and female. (Billingsley, 2002; Billingsley, Carlson, & Klein, 2004; Griffin et al., 2009).

The mean age was 33 years old. This was older than the mean participant in the aforementioned studies, but can be accounted for by the fact that five of the participants were embarking on their second career. The mean number of years teaching experience for the sample was 2.5. A select rundown of key demographics is listed in Table 1.

Table 1

Select Respondent Demographic Information

Name	Age	Years Experience	Primary Type of Instruction
Amy	22	1	Itinerant
Angela	24	1	Itinerant
April	24	1	Itinerant
David	50	2	Self-contained
Doreen	48	2	Itinerant
Jeanette	47	3	Co-teach
Kathie	42	2	Self-contained
Kerri	26	3	Self-contained
Krissy	31	4	Self-contained
Laura	29	5	Self contained
Linda C.	24	2	Itinerant
Linda M.	24	2	Self-contained
Melinda	37	2	Self-contained
Paul	25	3	Co-teach
Rosalee	33	2	Itinerant
Ryan	29	5	Co-teach
Shellie	52	3	Co-teach
Tiffany	25	2	Self-contained

Particular interview topics, relevant to this article, focused on the following four areas:

1. An initial impression of special education paperwork.
2. Discussion of relevant formal education, training, and on the job experiences in regards to paperwork completion.
3. Description of specific helpful paperwork management techniques that they have used.
4. Paperwork management advice for those new to the field.

Responses were recorded, coded, and analyzed, in accordance with grounded theory research techniques (Birks & Mills, 2011). Trustworthiness was addressed in two ways. A colleague familiar with both qualitative research and special education read and coded half of the interviews independently of the researcher. Findings were shared, and categories were refined in accordance with established practices of peer debriefing (Barber & Walczak, 2009).

Secondly, at the conclusion of each question and answer session, respondents were given an email address to submit forms, photographs, and other materials referenced in their narrative. The attachments were then analyzed and incorporated into the research with the intent to triangulate interview data.

Emergent themes were categorized into five distinct paperwork management recommendations. They were (a) get organized; (b) understand your job description; (c) ask for help; (d) appreciate the value of special education paperwork; and (e) know when to take a break. The remainder of this article provides descriptions, comments, and examples for each strategy.

Paperwork Management Recommendations

Get Organized

Respondents stated that strong organizational skills were an immense benefit when it came to the preparation, retrieval, and utilization of special education paperwork. Simple tools such as file folders, labels, and binder clips were all used to alleviate clutter and chaos. It was suggested to develop a reliable system for handling paperwork and stick to it. One way to do so was to create a form that compiles contact information, important dates and communication logs for each roster student. Based upon a composite of respondents' recommendations, Figure 1 illustrates a simple reference sheet that could be printed out and stapled to the inside of each student's binder.

Figure 1. Sample paperwork management organization form.

Student Name: _____
Parent/Guardian Names: _____
Address: _____

Home Phone Number: _____ Work Phone Number: _____
Email Address: _____

IEP annual date: _____

Set up meeting appointment with parents/guardians by: _____
(No later than 30 days before annual date)

Communication Log

Participant	Method of Communication	Date	Nature of Conversation

A second mentioned suggestion to improve organization and reduce clutter was to regularly eliminate obsolete or outdated materials. It was stated that the regular use of a industrial shredder ensures that confidential documents are disposed of appropriately. Respondents stressed that teachers must know ahead of time what is permissible to discard and when. When in doubt, it was suggested that those new to the field contact an administrator or special education supervisor before taking action.

A third cited area of needed organization and updating is the school computer. the following techniques were recommended to simplify and organize a teacher's database. First, create an electronic folder for each student on the caseload. Next, inside of each folder, store digital documents such as IEPs. scanned copies of student work, and email correspondence with teachers and parents. Explicitly label each file. Third, ensure that the computer, and if possible, the files themselves, are password protected for reasons of confidentiality. By habitually organizing and maintaining records, respondents felt that new teachers would be able to spend less time working with paper and more time working with pupils.

Understand Your Job Description

Some respondents mentioned a sense of disillusionment in regards to how much of their time was spent working on paperwork. As one respondent stated, "I went to school to be a special education teacher, yet I spent most of my day holding meetings and filling out paperwork" Statements such as this one might be attributed to problems associated with role conflict.

Role conflict is defined as a "perceived discrepancy between the type of tasks that a worker regularly engages in and those that they expect to do" (Singh & Billingsley, 1995). It may be especially challenging for novice teachers not prepared for all of the bureaucratic, non-teaching related tasks that they must complete. Past research has suggested that role conflict among special educators has been positively correlated with burn-out (Emhich, 2001) and negatively correlated with job satisfaction (Billingsley & Cross, 1992; Gersten, Keating, Yovanoff, & Harniss, 2001).

In order to reduce potential hazards associated with role conflict, respondents suggested that those new to the field have a clear understanding of the many non-teaching professional responsibilities associated with the being a special educator. Frequent and in-depth conversations with a seasoned co-worker or a trusted professor were suggested as ways to help novices cope with the multitude of expected bureaucratic tasks.

Respondents cited numerous internet sources to help novice teachers and teacher-candidates get a more realistic perspective on the profession. Table 2 cites the particular resources referenced by respondents used to meet this objective.

Table 2

Recommended Electronic Resources for Novice Teachers and Teacher-Candidates

Resource Title	Web Address	Description
Reality 101 blog	http://cecblog.typepad.com/	A blog sponsored by the <i>Council for Exceptional Children</i> that records the ongoing professional experiences of a series of beginning special education teachers.
National Association of Special Education Teachers	http://www.naset.org/	Website dedicated to meeting the needs of special education teachers. Extensive information on topics such as behavior management, IEP development, and literacy. Additional resources available with membership.
Special Education Teachers' Chatboard	http://teachers.net/mentors/special_education	Active national electronic bulletin board that allows participants to post questions, ask advice, and share successes with colleagues.
The IRIS Center	http://iris.peabody.vanderbilt.edu/	Training website that provides reports, podcasts, and interactive tutorials that align special education research with practice.

Ask for Help

Not all of the respondents' feelings of frustration were attributed to role conflict. Some participants understood what was expected of them, yet felt overwhelmed by the process. Participants shared specific instances of not having sufficient time to complete all that was required of them during the school day. One teacher stated:

Our planning periods are only 50 minutes long and this is when we are expected to do our IEP meetings. So often, I'd have a parent in, and I'd feel as if I had to hurry because the bell was about to ring. They wanted to talk about their child and I felt bad because I was too focused on getting to class. It was difficult because you never knew if there would be someone to cover your class until you got there. My mind was totally scattered during those occasions.

"Don't be afraid to ask for help" was a recurring recommendation among respondents.

One particularly valuable source of help to participants was professional mentors. This is not surprising since research has shown mentors to have a positive impact on beginning teachers. Novices reported feeling more competent and motivated when assigned a mentor (Huling-Austin, 1986, Odell & Ferrarro, 1992). These feelings may extend to the completion of paperwork. Respondents encouraged novice teachers to seek out mentors to answer questions about paperwork and to ask to see quality examples of completed forms.

Another source of help for respondents were co-workers. Interview participants provided the following examples of how they have worked with co-workers in order to lighten the paperwork load on both of them.

- Shared effective organization and time-management techniques.
- Provided feedback for each other on IEP drafts that were particularly lengthy, complex, or out of the ordinary.
- Made a commitment to occasionally cover each other's class if a meeting ran overtime.
- Was available as a sounding board in times of professional stress or frustration.

By collaborating regularly with a co-worker regarding bureaucratic responsibilities, novice special education teachers may better appreciate the old maxim, "many hands lighten the load".

Appreciate the Value of Special Education Paperwork

Respondents were asked to give their initial impression of special education paperwork. Comments included "ever-changing", "ridiculous", and "a pain". Respondents comments were overwhelmingly negative in tone. One possible explanation for this attitude might be a perceived lack of value. The IEP may be perceived as a legal formality, something to draft, sign, and then file away, rather than a useful tool for guiding and supporting a student's education.

Those respondents who found inherent value of the IEP as a educational tool, often referenced specific resources that were used to help them gain a better appreciation of the purpose and function of special education paperwork. In particular, specific textbooks were mentioned that

helped them draft and enact quality IEPs. Table 3 lists the specific book recommendations from respondents to meet this goal (see *Table 3—Inserted After References* section)

Know When to Take a Break

Thorough and accurate paperwork completion can be a very time-consuming endeavor. It is estimated that special education teachers spend an average of five hours per week on paperwork (Carlson, Chen, Schroll, & Klein, 2003; Suter & Giangreco, 2009). Interview respondents commented on the difficulty of successfully separating the responsibilities of their professional and personal lives. A second-year teacher shared:

There is a lack of time to prepare during the school day. I cannot do everything I need to get done at once. For example, our school day ends at 2:30, but because of meetings, files and checking papers, today I got home at 6. This is not at all out of the ordinary for me.

Another participant discussed the double-edged sword brought on by the introductory of technology:

Both a curse and blessing this year is that we were assigned laptops so that we could access the IEP program from home. I find myself resorting to taking my paperwork home. It helps me at school; it doesn't help my family or marriage.

Comments such as these underscore the importance of knowing when to take a break.

Activities such as exercise, reading, and church services were mentioned as things that the participants look forward to when they want to take their mind off of work,

It was also recommended to take breaks when drafting an IEP. Respondents felt that the quality of the product would be enhanced if special education teachers were able to complete the forms in smaller, more manageable increments rather than one marathon session. Table 4 presents a composite of suggested strategies to guide a case manager through three mini-sessions of drafting an IEP, based upon guiding questions.

Table 4

Guiding Questions and Examples Designed for IEP Segmentation

Guiding question	Relevant segments of the IEP to complete
1. What is already known about the student?	Student demographics Present level of performance
2. What is the student to accomplish?	Annual goals and benchmarks Assessment Transition plans (as appropriate)
3. How will the student be supported to meet these accomplishments?	Accommodations Modifications Related services Non-participation with non-disabled peers

Final Thoughts

The findings of this exploratory study present a small glimmer of insight regarding how special educators successfully manage their paperwork responsibilities.. The opinions, recommendations and experiences of these eighteen teachers have limited value unless others not only recognize the significance of the paperwork problem, but also work on remediating it. It is suggested that future researchers investigate the efficacy of some of the mentioned practices on a larger scale through empirical means. Researchers should also determine the best ways to decrease the *quantity* of paperwork, while maintaining, or even increasing, its *quality*.

Special education paperwork is not going to go away in the foreseeable future. It is possible that the amount of paperwork may even increase because of both the profession's commitment to data-driven instruction, and the high perceived level of litigiousness of American society.

Understanding and accepting this fact may be the first step to help novice special educators cope with the challenges that they face. The techniques discussed in this article may help address that need. Increased organizational skills, collaborative strategies, and a realistic attitude towards time management may contribute to an educator's ability to instruct students with disabilities in ways that are more thoughtful, thorough, and relevant.

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Table 3

Recommended Books Regarding the IEP Process

Title and Authors	ISBN #	Amazon Product Description
<i>Better IEPs How to Develop Legally Correct and Educationally Useful Programs</i> By Barbara D. Bateman & Mary Anne Linden	1578615682	A newly revised and enhanced edition of the ultimate guide to understanding IEPs from a legal standpoint, complete with IDEA 2004 updates. A classic in its field, Better IEPs presents a focused, three-step process that zooms in on the individual student and dismisses out of hand the one-size-fits-all approach that is too often mistaken for proper procedure in today's schools. Gives all educators confidence and know-how to develop competent IEPs. Written by Dr. Barbara Bateman, an attorney and professor emeritus and the number one expert on IEP law in the nation, and coauthored by Mary Anne Linden.
<i>Aligning IEPs to Academic Standards</i> By Ginevra Courtade-Little & Diane M. Browder	1578615488	By following this book, your students with significant disabilities can participate in parallel activities directly related to the general curriculum. For example, when meeting a math state standard in measurement, have the student match coins to a linear jig to purchase an item. The valuable and unique book shows you how to construct student IEPs with goals aligned to each state's academic content standards for each student's assigned grade and ability level.
<i>Understanding, Developing, and Writing Effective IEPs: A Step-by-Step Guide for Educators</i> By Roger Pierangelo & George A. Giuliani	1412917867	Written by legal and education experts and aligned with the reauthorization of IDEA 2004, this practical resource provides a step-by-step plan for creating, writing, and evaluating IEPs.

<i>Wrightslaw: All About IEPs</i> By Peter W.D. Wright Pamela Darr Wright & Sandra Webb O'Connor	1892320207	Whether you are the parent of a child with special education needs, a seasoned educator, or a professional advocate, you have questions about Individualized Education Programs, (IEPs). In this comprehensive, easy to read book, you will find clear, concise answers to frequently asked questions about IEPs. Learn what the law says about IEP Teams and IEP Meetings, Parental Rights and Consent, Steps in Developing the IEP, Placement, Transition, Assistive Technology and Strategies to Resolve Disagreements.
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Factors Influencing Teacher Behavior with Students with Diverse Learning and Behavioral Needs

Edward K. Schultz
West College of Education at Midwestern State University

Cynthia G. Simpson
Houston Baptist University

Abstract

Over the last two decades, inclusion has become a critical part of the reform efforts to improve the delivery of services to students with disabilities. As general education teachers are asked to assume greater responsibility for students with diverse learning and behavior needs, it is important to examine factors that influence their teaching behavior while instructing students identified at risk or with specific learning disabilities. Factors influencing teacher behavior with students who have diverse learning and behavioral needs being served in inclusive environments are addressed, including: (a) teacher expectations of student behavior, (b) attribution patterns, (c) teacher attitudes toward inclusion, (d) personal teacher efficacy, and (e) teacher qualities.

Factors that Influence Teacher Behavior with Students with Diverse Learning and Behavioral Needs in Inclusive Classrooms

Over the last two decades, inclusion has become a critical part of the reform efforts to improve the delivery of services to students with disabilities. Inclusive schools are characterized by a shared service delivery model in which general and special education teachers work collaboratively to provide quality services to students with disabilities (Praisner, 2003). Recent legislative acts such as the Individual with Disabilities Education Improvement Act (IDEIA) of 2004 and No Child Left Behind (NCLB) have increased the level of shared responsibility between special educators and general educators in providing services for students with disabilities. As general education teachers assume greater responsibility for students with diverse learning and behavior needs, it is important to examine factors that influence their teaching behavior when instructing students with disabilities.

The authors examine factors that influence teacher behavior with students who have diverse learning and behavioral needs served in inclusive environments, including: (a) teacher expectations of student behavior, (b) attribution patterns, (c) teachers' attitudes toward inclusion, (d) personal teacher efficacy, and (e) teacher qualities. While these factors will be discussed separately, it is important to note that these factors are interrelated.

Teacher Expectations

Teacher expectations are critical in developing student's self-expectations and self-efficacy (Good, 1981; Romain, 2010). Teacher and student behavior is reciprocal in its exchanges, which often leads teachers to modify their behavior toward students who do not display expected age or grade level behavior. Of course, students enter each grade level with varying levels of academic and social abilities. Teachers must have realistic expectations and a repertoire of skills to respond appropriately to these challenges. If challenges are not addressed teacher and peer judgment of students who do not display prosocial behavior may become cemented resulting in a reputational bias (Beebe-Frankenbeger, Lane, Bocian, Gresham, & MacMillan, 2005).

Upon school entry, students are expected to demonstrate specific skills and competencies which will enable them to meet the academic and social task demands of the school environment (Whitted, 2011). Students who lack these prerequisite skills are at risk for a host of negative educational outcomes including academic underachievement, poor relationships, peer and teacher rejection, and increased likelihood of being referred for special education (Dunlap et al., 2005). Understanding the social and behavioral expectations teachers hold for students allow for the development of more effective interventions and to improve outcomes for students with disabilities..

In examining such behaviors, elementary school teachers' were asked to identify which social skills they viewed as critical for students to possess to be successful in their classrooms. Teachers viewed self-control and cooperation skills as equally important for success but perceive assertion skills as less important (Lane, Givner, & Pierson, 2004). Specifically, the majority of teachers identified seven social skills to be critical for success in their classrooms:

- (1) follows directions,
- (2) attends to instruction,
- (3) controls temper with peers,
- (4) controls temper with adults,
- (5) gets along with people who are different,
- (6) responds appropriately when hit, and
- (7) uses free time in an acceptable way. (Lane, Givner, & Pierson, 2004, p. 421).

High school and middle school teachers indicated relatively similar expectations of student behavior; however, a majority of teachers identified only five skills as essential for success in school: (1) attend to your instruction, (2) controls temper in conflict situation with peers, (3) controls conflict situations with adults, (4) follows directions, and (5) responds appropriately to physical aggression from peers (Lane, Givner, & Pierson, 2003, p. 421). While teachers held similar expectations of student behavior essential for success, studies have indicated differences of degree of importance of essential skills among general education and special education teachers as well as degree of importance between grade levels. For example, elementary general educators viewed

cooperation skills as more essential for success than did special education teachers (Lane, Givner, & Pierson, 2004).

Teacher Behavior Expectations

It is important for general and special educators to have self-awareness of their own behavior expectations in order to prepare students for the social demands of each specific setting. Research indicates significant differences in teachers perspectives about the importance of self-control, cooperation, and assertion skills across levels (Lane, Pierson and Giver, 2003). Findings also indicated that while skills in the area of cooperation and self-control are viewed as necessary by teachers across the kindergarten through twelfth-grade span, these skills are viewed as more necessary from middle school teachers' perspectives. Elementary and middle school teachers rated assertion skills, as a whole, as significantly more important for success in comparison to high school teachers. Teachers at all grade levels all placed similar importance on cooperation skills (Lane, Pierson and Giver, 2003).

Organizational Behavior

Middle school is a time when students make numerous classroom transitions throughout the day and have the added responsibility of managing a locker. In addition to social competence, teachers hold expectations regarding the construct of organizational behavior. Students with disabilities often have difficulties with organization, especially students with learning disabilities and ADHD. McMullen, Shippen, and Dangel (2005) reported work completion as the highest ranking behavior when surveying science and social studies teachers. In addition, bringing supplies to class were ranked nearly as high. Teachers with a greater understanding of these disabilities will be able to have reasonable expectations and be able to provide targeted instruction in areas of deficit.

Attribution Patterns

Behavioral expectations of students by teachers are inextricably tied to what the teacher attributes to the cause of the behavior. Attribution theory explains how individuals interpret events and its relationship to their thinking and behavior. Teachers responses to student behavior are dictated by the casual attributions they attached to the behavior. Once teachers attribute an outcome to a causal factor, an emotional response such as anger or pity, will influence the teacher response behavior in response to the student behavior (Morin, 2001). These causal factors possess three underlying psychological properties:

a) locus (whether the cause originates within the person or the environment), b) stability (whether the cause is stable or unstable), and c) controllability (whether the cause is under the volitional control of the person. Moreover, controllability is linked to responsibility. A controllable cause results in the perception that the student is responsible for the outcome; likewise uncontrollable cause leads to the perception of no responsibility (Clark & Ariles, 2000, p.77).

Teachers can find themselves trapped in a dysfunctional attribution cycle (Morin, 2001). This can be described as a teacher observing the misbehavior, followed by the teacher applying inaccurate causal factors to explain the cause of the behavior (i.e., the student is willfully refusing to work rather than not working due to not understanding), and then responding inappropriately due to the perceived misbehavior. Using the prior example, a teacher may give the student a “conduct cut” for not working instead of providing additional instruction. These faulty interpretations can lead to a cycle of frustration for both the student and teacher (Morin, 2001).

Teacher can also get trapped in a dysfunctional attribution cycle when responding to academic behavior displayed by students with learning disabilities. Clark and Artiles (2000) summarized the attribution research literature conducted in the United States and concluded that

(a) teachers make attributions based on the locus, stability, and controllability of perceived causes of an outcome; (b) student ability, effort, and learning disability designation seem to have causal properties; and (c) perceived causal factors influence teacher emotional and behavioral responses to student performance, and these responses may have an effect on future student behaviors and self-perceptions (p. 78).

Students receive messages concerning their social competence throughout the day with teachers serving as a primary source of information. While teachers no doubt wish to build children’s self-esteem and a sense of personal competence, they may inadvertently do the opposite via the attribution messages sent to students with learning disabilities (Clark, 1997). For example, a teacher may attribute a student failing a test due to a disability and not make him/her correct the test, when in fact the student simply did not study. This phenomenon is illustrated in the often-cited work of Graham and Weiner (1986) that established a link between anger/pity and rewards/punishment.

According to Graham and Weiner (1986), anger or pity is often the teachers’ initial response following a negative classroom outcome. This is linked to the controllability of the event. If who a student who is perceived as having high ability fails an important test due to lack of effort (a controllable cause), a teacher feels anger toward that student. In contrast, a student who failed due to his perceived low ability (uncontrollable cause) will evoke pity from his teachers. Consequently, the high ability/poor performer will be more likely to be treated differently than the low ability/poor performer regarding punishments and rewards.

Clark (1997) studied this phenomenon using elementary school teachers ($N=97$; 84 women, 13 men) by rating responses to vignettes of hypothetical boys with and without learning disabilities who experienced failure. Teachers responded to the vignettes with evaluative feedback, expectations for the students, explanations of the cause of the failures. In addition, teachers rated their anger and pity for each of the vignettes. As expected, teachers had more pity for the low ability/poor performer than the high ability/poor performer. Teachers reported higher ratings for anger for the high ability/poor performer than the low ability/poor performer. Teachers also held expectancy

beliefs that students with learning disabilities were more likely to fail in the future. This finding raises questions about whether general education teachers feel they have the ability to change this trajectory.

Personal Teaching Efficacy

Another factor that influences teacher behavior with students with diverse learning and behavior needs is personal teaching efficacy (PTE; Kosko & Wilkins, 2009). Personal teaching efficacy refers to the perception teachers have of themselves as “able” or “less able” to make an impact a child’s education (Morin, 2001). Referral bias can occur often without malevolence toward students from low socioeconomic status (Podell & Soodak, 1993) and from culturally and linguistically diverse backgrounds (Sullivan, 2011; Szu-yin Chu, 2011). For example, Podell and Soodak (1993) investigated teachers’ sense of efficacy and biases in their decisions to refer students to special education. They identified underlying beliefs and biases that factored into the teacher’s decisions to refer students to special education such as the teachers’ sense of their own effectiveness. Teachers’ willingness to work with more difficult students may depend on their ability to effect change.

The influence of teacher efficacy with student problem type (i.e. behavior, learning, or both) on teachers’ placement and referral decisions has been examined. Soodak and Podell (1993) hypothesized that (a) efficacy relates to teachers’ placement and referral judgments. Specifically, general education teachers with greater efficacy will be more likely to keep students with problems in the general education classroom, (b) placement and referral decisions are mediated by the nature of the student’s problems. For example, students who display both learning and behavior problems are referred more often than students with only learning difficulties. According to Soodak and Podell (1993), the results have both practical and theoretical implications:

1. Teachers’ sense of efficacy has a significant influence on their judgments regarding the appropriateness of general education placement for students with learning and/or behavior problems.
2. General educators with a greater sense of personal efficacy were more likely to perceive the general education placement as being appropriate for students having difficulties. In contrast, special educators’ judgments of the appropriateness of regular class placement were not related to their sense of efficacy.
3. General educators who do not perceive themselves as being able to influence student outcomes believe that students with learning and behavior challenges should not be placed into general education.
4. Placement decisions are not simply a function of teachers’ confidence in their own teaching ability. Instead, when general and special education teachers feel personally able to affect change in their students, but cannot overcome external factors (i.e., poverty, family) in their students’ lives, they also are likely to believe that students who display challenging behavior and learning do not belong in general education.

The effects of on-going support and professional development for teachers have implications for increasing PTE. Kosko and Wilkins (2009) found a positive relationship between professional development and teacher perception of the ability to adapt instruction for students with disabilities. Behavior and academic coaching have also been used successfully to increase teachers comfort and use with evidence-based strategies (Duchaine, Jolivette, & Frerick, 2011). As instruction for students with disabilities takes place primarily in the general education classroom, opportunities for special and general educators to learn from each other are daily occurrences and opportunities to increase efficacy.

A cyclical relationship between the need of teachers to feel efficacious by using specific strategies and confirmation that using specific strategies will lead to increased efficacy occurs daily in the classroom (Morin & Battalio, 2004). Increased support and greater collaboration between special and regular education may help facilitate the use of best practices and help increase teachers' PTE. Brownwell, Adams, Sindelar, Waldron, and Vanhover (2006) studied teacher learning cohorts (TLC) using a collaborative problem solving professional development model over the course of 3 years. Teachers who were considered "high adopters" implemented new strategies readily and experienced success with them and as the authors noted, "success bred success (p. 181)." These teachers went on to try new strategies and trained others.

School-wide positive behavior support (PBS) initiatives have experienced considerable success when properly implemented. Positive relationships have occurred between the teachers' perceived success with students and the level of consultation and support received (Carter & Van Norman, 2010). When student behaviors have improved, teachers' attitudes concerning the remediation of misbehavior have become more positive. When teacher practice results on a positive outcome, there is a corresponding increase on PTE (Morin & Battalio, 2004).

Training and Support

Personal teacher efficacy may be related to the level of training and support regular education teachers feel while working with students in inclusive environments. Buell, Hallam, Gamel-McCormick and Scheer (1999) surveyed 289 special and general education teachers to explore the relationship between teacher's feelings of efficacy concerning educating students with disabilities and to identify the training and support needs of teachers. Teachers were asked about successful implementation of inclusion, beliefs about motivation and home environment, and confidence in adapting classroom materials and procedures to accommodate students with disabilities in inclusive environments. The results indicated a strong negative relationship between teachers believing they can influence students and their beliefs that little can be done to offset environmental factors. This relationship existed for both special education and general education teachers.

Buell, Hallam, Gamel-McCormick and Scheer (1999) reported differences between special and general educators. Overall, the special education teachers in this study

reported that they were more confident and prepared to include students with disabilities in the general education classroom. General educators do not feel as confident in their skills (e.g., adapting materials, managing behavior) needed to support inclusion. Differences in special education and general education certification were reported in the area of needed supports. General educators reported less support and resources than special educators. Teachers' perceived levels of support might affect their confidence in working with students with disabilities. Training topics general education teachers indicated they needed included program modification, assessing academic progress, adapting curriculum, managing student behavior, developing IEPs, and using assistive technology.

The relationship between teacher efficacy and the presence or absence of support via consultation was examined with teachers sharing responsibility for students with disabilities (Gotshell & Stefanou, 2011). A concurrent purpose of this study was to examine the interaction of teacher learned helplessness with efficacy. Teachers who received more support have higher teacher efficacy scores and lower learned helplessness scores. This study was conducted in schools utilizing a response-to-intervention (RTI) instructional framework. As more schools adopt the RTI framework, it is important to emphasize collaboration and consultation as a key component.

In order for students with diverse learning and behavioral needs to succeed in inclusive environments, it is important to design in-service trainings that increase teachers' confidence in their own ability to work with students with disabilities (Brownell et al., 2006). It is also critical that teachers receive on-going consultation and supports (Gotshell and Stefanou, 2011). In order to foster teacher efficacy, schools should include all teachers in decision-making concerning classroom policies, student instructional planning, and the in-service training programs offered (Buell, et al., 1999).

Teacher Attitude

Teacher attitudes toward the inclusion of students with disabilities is perhaps the single most important variable that influences teacher behavior. These attitudes are shaped by experience with students with special needs, levels of education, and training. Van Reusen, Shoho, and Barker, (2001) surveyed 125 high school teachers concerning inclusion. Negative attitudes towards the inclusion of students with disabilities were reported in over half (54%) of the obtained response scores. Teachers with the least amount of special education training, knowledge, or experiences in teaching students with disabilities were more likely to hold a negative attitude. In contrast, teachers who had the highest level of special education training or experiences reported positive attitudes toward inclusion.

Jobe and Rust, (1996) conducted a similar study of teacher attitudes using 162 classroom teachers. Results of their questionnaire reflected almost exactly neutral teacher attitudes when averaged together. The typical responses fell between the extremes of strong agreement and strong disagreement. It was further noted that many unsolicited comments written on the surveys lead the researchers to believe that the results may have been

different if specific disabilities were noted on the questionnaire. For example, students with emotional and behavioral disorders (EBD) invoke attitudes and behaviors from teachers different from other disabilities (e.g., physical disabilities). This supports previous research findings by Coleman and Gilliam (1983) when it was reported that students who do not disrupt the learning environment and do not monopolize teacher time are viewed more favorably by general education teachers.

Heflin and Bullock (1999) conducted a study that may give some insight into the underlying reasons why general education teachers have negative attitudes toward students with emotional and/or behavioral disorders (EBD). Three school districts of various sizes were studied (<2000, 10, 000, and 50, 0000). Interviews were conducted with both special and general educators. Patterns in the data emerged as teachers responses were similar across district size.

The responses given by general education teachers illustrate many of the factors that shape attitudes and influence behavior when students with EBD are placed in inclusive environments. General education teachers reported varying degrees of skepticism and fear with including students with EBD and were willing to try including students with disabilities as long as “appropriate support” was in place. They also reported skepticism about the support they would receive and wanted options to send disruptive students to corrective environments. In this study, teacher age appeared to affect willingness to provide inclusionary services: older teachers were more resistant.

Many of the issues identified by Heflin and Bullock (1999) are consistent with other variables that influence teacher behavior such as expectations and efficacy. During the interviews, the teachers were asked about their negative perceptions about inclusion. Both general and special education teachers identified problems as insufficient support and training, nonproportional ratios, behavior management, and time constraints.

One aspect of inclusive practices that shapes teacher efficacy, attributions, and attitudes that influences teacher behavior is that students with specific learning disabilities (SLD) often require accommodations and /or modifications in order to succeed in the general education classrooms. Specific learning disabilities are considered “hidden” disabilities since the disability is not readily perceived by teachers. The perceived similarity between students with SLD and their non-disabled peers may prevent the general education teacher from seeing both the need and appropriateness for more intensive accommodations/modifications (Bryant, Dean, Elrod, & Blackburn, 1999).

Bryant et al. (1999) examined the rural teachers’ attitudes toward accommodations/modifications in inclusive classrooms. They investigated the effectiveness, fairness, and realistic implementation of the top 15 of 63 accommodations/modifications approved by the Mississippi Department of Education.

The results of Bryant et al. (1999) raised additional questions and indicated:

1. Both the elementary and secondary general education teachers indicated that providing individual assistance to the student with SLD was the most effective accommodation/modification. Open book exams were ranked as the least effective by elementary, which is not surprising since most students with SLD have reading problems. Secondary teachers reported having a third party (e.g. a teacher assistant) take notes was least effective.
2. The elementary teachers rated two classroom accommodations/modifications as being most fair: (a) making phone contact with parents when assignments are not completed, and (b) using weekly homework folders that parents must sign to acknowledge receipt. An interesting observation to this finding is that teachers considered a phone call home an accommodations/modification.
3. Secondary teachers reported that providing peer assisted assignments was the fairest accommodation/modification; however this practice can also be labeled a learning strategy rather than an accommodations/modification.
4. Both the elementary and secondary teachers rated the use of a third party to take notes for students with learning disabilities as being most unfair to the non-disabled students in addition to being ineffective and unrealistic.
5. The elementary teachers felt that phone contact with parents when assignments were not completed was the most realistic to implement, while secondary teachers felt that providing the students with learning disabilities with individual assistance was the most efficient. Both levels of teachers agreed that having a third party take notes for the students was the least realistic to implement in the general education classroom.

Principal Influence

The principal's attitude toward inclusion has tremendous impact on the teachers' attitudes and behaviors. Principals influence all phases of a school including allocating resources, supervising personnel, and implementing state and district policy. Both general and special educators indicated that principals have a more favorable view of inclusion than the teachers but indicate that general education teachers do not possess the necessary instructional study (Cook, Semmel, & Gerber, 1999). These findings underscore the role of carefully designed in-service programs and proving necessary supports.

Praisner, (2003) surveyed 408 elementary school principals to investigate relationships regarding attitudes toward inclusion and reported about 1 in 5 principals' attitudes toward inclusion are positive with the remaining uncertain. Like teachers, the more positive experiences reported with students with disabilities resulted in a more positive attitude toward inclusion. Disability type was a major factor related to placement perceptions of principals with general education settings were chosen less frequently for students with EBD and autism. Less restrictive placements were chosen most often for other categories such a speech and language disabilities, orthopedic impairments, sensory

impairments and specific learning disabilities. A lack of special education training was also cited in this study as influencing attitudes.

Teacher Qualities

The attributes and personality traits of the teacher have a direct impact on their behavior with students with diverse learning and behavioral needs. Although teachers have varying attributes and personality traits, there are certain personality traits some that seem to increase the effectiveness of inclusion of students with disabilities.

Brownell et al. (2006) studied a teacher learning cohort (TLC) for 3-years in order to determine the qualities teachers possess in response to additional training. This cohort was provided professional development and collaborative problem solving supports in the implementation of evidence-based practices in the classroom. Of the eight participants, three were rated as “high adopters,” three were rated as “moderate adopters,” and two were rated as “low adopters.” High adopters were described as interested and willing to try to new things, considered knowledgeable, and student focused. Moderate adopters were similar to high adopters in several qualities but were inconsistent in implementing newly learned strategies. Low adopters were described as needing more support and being less knowledgeable concerning pedagogy and held different beliefs concerning student discipline.

Olson and Chalmers (1997) conducted a study in which school principals and special education teachers identified general education teachers who were the most skilled at including students with disabilities in their classroom. These individuals were interviewed and as a result several themes regarding personality traits and attributes of the teachers emerged. These teachers:

- (a) were described as tolerant, reflective, and flexible,
- (b) accepted responsibility for all students,
- (c) described a positive working relationship with special educators,
- (d) reported adjusting expectations for integrated students, and
- (e) Indicated that their primary inclusionary attitude was showing personal warmth and acceptance (p. 30-31).

Students with disabilities also have opinions on what personality traits they feel define effective teachers. Owens and Dieker (2003) interviewed nine students identified with EBD to understand the qualities teachers who students perceived as effective possess. The qualities the students identified in these teachers were: enthusiastic, hold high expectations, understanding, encouraging, and good at communication. Although the teachers the students were discussing were special educators, it would be reasonable to assume that students with EBD would want all of their teachers to possess these attributes.

Implications for Practice

This review identified five of the underlying factors that influence the behavior of teachers who work with students with diverse learning and behavioral needs. An understanding of these interrelated factors is essential in today's schools where the number of students with diverse needs rises and educating students with disabilities is viewed as a responsibility of all teachers. With this in mind, several recommendations can be made to improve practice.

The need for professional development opportunities using a collaborative and consultative problem-solving approach can address several issues raised in this report. Brownell et al., (2006) showed that the use of this model can be effective for some teachers, but not all. The challenge is for teachers and administrators to engage in reflective activities designed to discover underlying factors of behavior. For example, the reciprocal nature of efficacy and support cannot be ignored. A teacher may be competent in content and pedagogy but not feel supported. Conversely, a teacher may have the necessary supports, but is still developing in pedagogy and classroom management skills. An understanding of this may lead to a more tailored approach to providing teacher support and training.

A common theme which emerged from this review is the impact of success on the attitudes and efficacy. Success is highly motivating and reinforcing and efforts need to be made in induction and mentoring programs which will maximize the success of teachers. This knowledge combined with three stages of concerns teaching professionals encounter (Richardson & Placier, 2001) will help move novice teachers from the "survival stage" in their early career to the "results and mastery" stage where teachers have a great deal of expertise. This can be achieved through an approach which provides on-going support, reflection, and effective professional development.

Finally, teacher training programs can use this information to better prepare teachers who enter the field. Prospective teachers need opportunities to examine their attitudes and beliefs prior to teaching. Just as students learn about the characteristics of exceptional students, instruction should also focus on the understanding their counterparts (i.e., other teachers) who they will be sharing responsibility for teaching students with disabilities.

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About the Authors

Edward Schultz, Ph.D. is an assistant professor at the West College of Education at Midwestern State University located in Wichita Falls, Texas. In addition to teaching undergraduate and graduate courses at MSU; he has been a special education teacher of students with emotional and/or behavioral disorders, learning disabilities, special education department chair, and an educational diagnostician. He is a state advisor for the Texas Educational Diagnosticians Association (TEDA) and is a national board member of the Council of Exceptional Children (CEC) His research interests include multi-tiered systems of support, specific learning disability identification, and issues which effect students with EBD.

Cynthia Simpson, Ph.D., is the Dean of the School of Education at Houston Baptist University in Houston, Texas. She has more than 18 years of experience in the public and private sector as a special education teacher, elementary teacher, educational diagnostician, and administrator. Dr. Simpson has published upwards of 80 journal articles, while also collaborating on over 12 different books. Due to her extensive research in various educational fields, she has been able to publish training manuals, scholarly technical papers, and contribute to numerous book chapters. Dr. Simpson has been recognized by multiple organizations for her contributions to the field of special education and is a featured speaker at the international, national, and state level. Her research interests include multi-tiered systems of support, gender differences within the bullying dynamic, and identification of specific learning disabilities.

Educational Outcomes for Students with Special Needs: The Impact of Support and Resources on Teachers' Perceptions

Traci Y. Sharpe

**Director of Exceptional Child Education for Taylor County Schools in
Campbellsville, Kentucky**

Abstract

This article defines a theoretical framework for reviewing factors that affect a teacher's self-efficacy as they work to impact the educational outcomes for students with special needs. Bandura's Social-Cognitive Theory is utilized on the basis that one's belief in his ability to be effective has a direct impact on his effectiveness. This information will contribute greatly to the field of education and the work of administrators who seek answers for increasing teachers' self-efficacy as society continues to move toward the inclusion of those with disabilities.

Educational Outcomes for Students with Special Needs: The Impact of Support and Resources on Teachers' Perceptions

The Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 is the guiding legislation for the education of all students with disabilities in our great nation. One component of IDEIA is the Individualized Education Plan (IEP), which is the legal document that ensures each child with a disability has access to the general curriculum in the Least Restrictive Environment (LRE). This article will seek to explain how a teacher's perception is impacted by the support and resources received. Furthermore, literature will be reviewed to establish a connection between teachers' perceptions and educational outcomes for students with special needs.

Because law has directed us to provide access to the general curriculum for all students, "the percentage of students with disabilities who are served in general education settings for 80% or more of the school day has increased from 45% to 52%" (NCES, 2007b). This shift in educational setting for students with disabilities is a great move forward; however, how are we to ensure that placement in the regular education setting will lead to increased student achievement?

Based on research conducted by Sari, Clikoz and Secer in 2009, teachers' attitudes toward inclusive education were affected by their self-efficacy perceptions in terms of their teaching. Interestingly, in the same study conducted by Sari et al. (2009), student teachers' attitudes toward inclusive education were higher than teachers who are currently in the field. This difference in teachers' attitudes may be due to the fact that student teachers have recently taken a course on special education (Sari et al., 2009); however, the varying attitudes may be due to the current teacher's perception of the support received. "Early research stressed that successful inclusive efforts are associated with administrative support, adequate material and personnel resources," (Gaad & Kahn, 2007, p.102). Notable, the majority of mainstream teachers stated that they need support

from parents and administrators when it comes to what is expected of their students, (Gaad & Khan, 2007).

Based on the utilization of Bandura's Social-Cognitive Theory, this article will seek to answer the question, "Does access to resources and supports increase teachers' perception that they can have an impact on the educational outcomes of students with special needs?"

Theory

Self-efficacy is the individual's faith in his ability to successfully demonstrate behaviors required to attain an expected result (Sari et al., 2009). Bandura (1977, 1986) gave superiority to the concept of self-efficacy in his social learning theory. Based on Bandura (1997), the formal definition of self-efficacy is, "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p.31). "Self-Efficacy theory posits that the perception of one's ability affects one's thoughts, feelings, motivation, and actions" (Paneque & Barbetta, 2006, p.171). "Bandura has emphasized self-efficacy as people's perception of their competence in dealing with their environment and exercising influence over events that effect their lives" (Miller, 2011, p.243). In 1986, Bandura went on to state that self-efficacy perception affects an individual's choice of activities, perseverance in the face of hardships, and level of their efforts and performance. It is important to note that perceived self-efficacy is the belief in one's competence to tackle difficult or novel tasks and to cope with adversity in specific demanding situations (Luszczynska et al., 2005).

The concept of self-efficacy lends itself to the research question, "Does access to resources and supports increase teachers' perception that they can have an impact on the educational outcomes of students with special needs?" According to Paneque and Barbetta, a teacher's efficacy beliefs can influence their behavior regarding the choices they make, the effort they expend toward students and tasks, and their perseverance under adverse conditions. One could deduce that the teaching of students with disabilities in a mainstream classroom could be considered an adverse condition and that a teacher's self-efficacy would impact his or her performance in that situation. "Overall, efficacious teachers tend to engage in more productive, quality teaching behaviors" (Paneque & Barbetta, 2006, p.172).

Given that a teacher's efficacy does have an impact on performance in the classroom, it is appropriate to assume there would be a markable difference in impact for a teacher given his/her level of self-efficacy. According to Paneque and Barbetta, teachers with low efficacy feel that they only have minimal influence on student achievement. Bandura (1997) asserted that persons with low self-efficacy have low self-esteem and harbor pessimistic thoughts about their accomplishments and personal development. Likewise, according to Bandura (1986) individuals with high self-efficacy perception concerning a specific situation make a great effort to accomplish a task, and they do not simply backtrack when they encounter trouble and act with persistence and perseverance. Sari, Celikioz and Secer (2009) confirmed this belief by sharing that those individuals who possess a positive view of their performance because of their experiences has a higher

self-efficacy. “Also, teachers with a high sense of efficacy have a strong conviction that they can influence student learning, even the learning of those students who may be more challenging,” (Guskey & Passaro, 1994). People with high self-efficacy choose to perform more challenging tasks (Luszczynska et al., 2005).

A review of teachers, both student teachers and practicing teachers, yielded a variety of results. “The scores of the teachers’ self-efficacy were higher than the student teacher’s scores,” (Sari et al., 2009). Wood and Benton (2005) shared that preservice teachers should be informed about how teacher feelings and expectations can influence the self-efficacy of students with disabilities. In regards to male and female teachers, female students had more positive views about inclusion than male students did and they had higher self-efficacy beliefs (Romi & Leyser, 2006).

“Similar to self-efficacy, optimism is theorized to influence human behavior through its effect on goal striving and motivation” (Luszczynska et al., 2005, p.82). This information leads us to believe that those who are optimistic have high self-efficacy, which leads to improved educational outcomes. This information, as well as others based on the measure of one’s optimism and self-efficacy, is based on self-reporting via a questionnaire.

As with any research; however, there can be limitations. One fear of conducting research by way of a questionnaire is the concept of social desirability which may influence individual’s responses (Gaad & Khan, 2007). When conducting research via questionnaire, the researcher has to remain cognizant of social desirability and ensure this is addressed with those subjects participating in the research so individuals will share their true thoughts and opinions.

Another theory that closely aligns with this literature review is the Attribution Theory. Weiner (2000) conceptualized that attribution theory is comprised of two related subtheories: intrapersonal and interpersonal. Weiner went on to explain that the interpersonal theory of motivation concerns the judgment of those we consider significant others (teachers, coaches, peers, etc.) make in response to an individual’s success or failure. “Intrapersonal theory of motivation focuses on the explanations an individual gives in response to an event, about the laws (internal, external), stability (stable, unstable), and controllability (controllable, uncontrollable) of the cause of his or her success or failure” (Weiner, p.154). Although this theory does have a relationship to the current question, the social cognitive theory most clearly aligns.

Student Outcomes

Bandura (1986) defines learning as “knowledge acquisition through cognitive processing of information” (p.235). Romie and Leyser identified personal teaching efficacy as the belief that he or she has the skills and abilities to influence students’ learning and behavior. Tschannen-Moran and Wolfolk-Hoy (2001) reported that teacher efficacy beliefs were related to student outcomes, such as achievement motivation and even the students’ own sense of self-efficacy. This is confirmed by Miller (2011) who states that,

“self efficacy affects all types of behavior-academic, social, and recreational” (p. 243). “Numerous positive outcomes have been associated with teacher’s high sense of self-efficacy--among these are student achievement” (Paneque & Barbetta, 2006, p. 172).

Further confirmation that teacher’s self-efficacy affects student achievement comes from Romi and Leyser (2006) where they found the following: “teachers’ self-efficacy beliefs have been related to a variety of student outcomes and to teacher classroom behavior” (p.88). Furthermore, Bandura (1997) shared that teacher efficacy affects teachers’ thoughts, actions in the teaching process, their effort and their dedication and willingness to improve student achievement. The above research confirms that teacher efficacy does have an impact on student achievement as asked in the research question; however, Tschannen-Moran and Wolfolk-Hoy (2001) indicated that further research is needed since, consistently over time, high teacher efficacy has indicated a strong relationship to student outcomes.

Support and Resources

Lambe and Bones (2006) identified “key issues that student teachers feel need to be addressed to ensure they can become effective teachers in the inclusive classroom” (p. 180). Two of those areas related to the need for resources and training. According to Lambe and Bones (2006), the first need to be addressed is “providing sufficient resources and reducing class size” and secondly, “providing training to promote positive attitudes to inclusion and special educational needs among all teachers” (p. 180). Gaad and Khan (2007) state that results from their research stated that “results also indicated that teachers perceive additional training, support from administrators and access to related services and resources as necessary in order to meet the needs of their students with special educational needs in the mainstream education setting” (p.95). Studies also confirm the need for reduced class sizes, more resources and more support services (Gaad & Khan, 2007; Paneque & Barbetta, 2006). “Teachers indicated they need more instructional resources, additional resource people, more funds and assistance in dealing with school administrators” (Gaad & Khan, 2007, p. 106). Teachers in the same study went on to request training for school administrators, stating that they need motivation and understanding from them if they are to be successful in educating students with special educational needs in their classrooms (Gaad & Khan, 2007).

According to McHatton, Boyer, Shaunessy and Terry (2010), “the lack of exceptional education content may lead principals to begin their careers without the ability to effectively oversee concerns (programmatic or personal) related to students with exceptionalities” (p.3). McHatton et al. (2010) went on to state that “principals’ increased awareness of special education and gifted education issues facilitate greater support of special education and gifted education teachers, responsiveness to program issues, and promotion of ongoing reflection” (p.5). “Findings indicate that principals who report having more knowledge about special education were more involved in special education programs. Administrative support for best-practices in the classroom and knowledge of legislation for student with exceptionalities leads to improved outcomes for students in these programs” (McHatton et al., 2010, p.5).

This information is critical, given 95% of principals said they frequently participate in teacher observations; however, only 45% of administrators feel they are prepared to do so (McHatton et al., 2010). Administrators also reported that the majority of their time with Exceptional Child Education is spent in teacher observations; however, approximately one-third of the administrators in this study indicated they were well prepared by their preparation programs to conduct these teacher observations (Mchatton, et al., 2010). Clearly, “that indicates principals who have a broader understanding of exceptional student education can foster an environment more conducive to improving outcomes for these student” (McHatton, et al., 2010, p. 16).

Although administrative support is crucial in the process of educating students with special needs, additional resources are also needed. One such resource is funding. Sari, Celikoz and Secer (2009) found “the reason for the negative attitudes of teachers and student teachers towards inclusive education may be from the policy of the local education authorities with which financial support is not given to the schools to do this” (p.39). Hodkinson (2006) believes that further research is needed to determine if the lack of financial support is undermining the successful implementation of students with special needs into the regular education classroom. In addition to funding for the district and schools, teachers need more resources such as proven instructional materials and equipment that is appropriate for the individual needs of the students.

Gaad and Khan (2007) found that teachers’ rejection of inclusion oftentimes stemmed from lack of support and resources. Teachers in their study indicated a lack of instructional materials, lack of time to produce instructional materials, and lack of time to consult with experienced teachers contributed to their rejection of inclusion practices. “Most teachers also indicated they would like to receive training on strategies on behavioral management, discipline and strategies for adapting instruction and incorporating various instructional methods into a lesson” (Gaad & Kahn, 2007, p. 102). Teachers in the Gaad and Khan (2007) study went on to indicate “they would also like to receive training in special education particularly in learning about the characteristics of students with special needs, inclusion and the individualized education program” (p.102). According to Hodkinson (2006), “the data further highlights a greater percentage of the participants are now of the opinion that additional training in the pedagogy of inclusion is important” (p.51).

Discussion

A review of current literature indicates that administrators can benefit from increased knowledge of students’ special education needs so they can, in turn, provide additional supports to staff. One could deduct that improved self-efficacy in the teacher would, in turn, improve educational outcomes for students with or without special needs. Further research will be needed to produce the evidence necessary to support the theory that improved support and resources will affect a teacher’s self-efficacy. Without question, the research referenced throughout this article provides evidence that a teacher’s self-efficacy, low or high, does have an effect on student achievement.

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About the Author

Traci Sharpe is the Director of Exceptional Child Education for Taylor County Schools in Campbellsville, Kentucky and is currently obtaining her Doctorate degree from Liberty University in Lynchburg, Virginia. Having worked in the area of special education for fourteen years, Traci has varied experiences that include being a teacher in alternative education, the resource room, and the collaborative setting. Traci has also worked as a behavior consultant and currently serves as an administrator. She and her husband Woody have a ten-year-old son, Tate, and a four-year-old daughter, Anna Beth.

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