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AUTHOR: Jane E. Weissman

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MASTER OF ARTS IN EDUCATION

Jacqueline Thousand  
PROJECT COMMITTEE CHAIR

*Jacqueline Thousand*  
SIGNATURE

4/12/15  
DATE

Steven G. Hardman  
PROJECT COMMITTEE MEMBER

*Steven G. Hardman*  
SIGNATURE

4/12/15  
DATE

**Running Head: WRITING INTERVENTIONS**

The Elementary Teacher's Handbook of Writing Interventions  
for Students with Learning Disabilities

by

Jane E. Weissman

A Project Paper

Submitted in partial fulfillment of the

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### **Dedication**

I dedicate this project to my daughters, Katherine and Charlotte. You are the lights of my life, and you give my life meaning and purpose. I am a better teacher and human being because of you both. I love you!

I also dedicate this project to my husband Marc. You have been with me from the beginning of my educational endeavors, supported me every time I wanted to take another class or pursue another degree, and you believed in me every step of the way. For that I'm eternally grateful.

### Abstract

For many people, expressing themselves through writing can be a complex endeavor. For students with Learning Disabilities these difficulties are common. As teachers, our goal is to provide successful educational opportunities for all of our students. To create these opportunities for our students with Learning Disabilities, one must identify the most effective writing skills and strategies. When given effective, focused, research-based instruction, students with Learning Disabilities have the prospect for a successful future. The purpose of this project is to identify the most effective, research-based writing skills and strategies for students with Learning Disabilities. The author reviewed previously conducted research to identify writing strategies and skills that have shown to be most advantageous to students with Learning Disabilities. This research revealed three themes: 1) writing skills/strategies of planning, generating text and prewriting; 2) technological supports of word processing and speech-to-text voice recognition; and 3) the teaching approach of Self-Regulated Strategy Development (SRSD). From this research, the author created *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities*. This handbook provides straight-forward, easy to understand interventions that can be used by general education teachers for their students with Learning Disabilities in their inclusive classroom. Recommendations for further research may be in the area of psychological processing deficits within Learning Disabilities and the most effective writing strategies for students with all disabling conditions.

*Keywords:* Individuals With Disabilities Education Improvement Act (IDEIA), Learning Disability, Least Restrictive Environment (LRE), pedagogy, writing proficiencies

## Chapter 1 - Definition of the Problem

Writing is a difficult means of expression for many students, but can be especially so for students with Learning Disabilities. Their writing difficulties can present in a multitude of complex ways. Gillespie and Graham (2014) note that when students with Learning Disabilities are measured against students without disabilities, their writing is generally more basic, less detailed, and less meaningful. At one K-12 Southern Californian charter school, most of the students with Learning Disabilities experienced difficulties with all types of writing activities. This is true of students in all grades, from elementary through high school. With each passing year, if strategic writing interventions are not employed to provide these students the necessary writing skills, their deficits are compounded. Parker, Burns and McMaster (2012) have determined this cumulative effective then lead to students being unsuccessful in the K-12 school setting, as well as post-secondary school, and possibly later in life.

### Purpose of Project

Identifying and providing students with focused writing instruction as early as possible will help prepare students for success in their future years. According to Gillespie et al. (2014), to address writing deficiencies for students with Learning Disabilities, one must identify the most effective writing pedagogy. This leads to the research question of: what writing interventions do educational researchers find most effective to increase writing abilities for elementary students with Learning Disabilities?

The purpose of this project was to create a handbook for teachers of students with Learning Disabilities that would provide teachers with beneficial writing strategies and interventions. *The Elementary Teacher's Handbook of Writing Interventions for Students with*

*Learning Disabilities* was based upon an extensive review of the literature on effective writing strategies for students with Learning Disabilities. The ultimate goal of the handbook is to provide teachers with a resource allowing them to offer students with Learning Disabilities writing strategies and skills to promote writing independence. Independence translates to students carrying these skills forward beyond their school years and throughout their future adult life.

The educational research examining optimal writing strategies for students with Learning Disabilities identifies three teaching approaches that garner the highest benefit. The approaches are 1) specific writing strategies and skills, 2) technological supports, and 3) the teaching method of Self-Regulated Strategic Demonstration (SRSD). Writing strategies and skills fall into three categories: planning, text generation, and revising. The technological supports currently available are word processing devices as well as speech-to-text voice recognition abilities. SRSD is a research based teaching method that has been proven effective in teaching writing skills and strategies to students with Learning Disabilities. SRSD not only focuses on the academic skill, but also on self-regulation, which teaches students to counter negative self-talk with positive statements.

### **Significance of Project**

Students identified as having a disabling condition and eligible for special education services are mandated by the Individuals with Disabilities Education Improvement Act (IDEIA) to be educated in the Least Restrictive Environment (LRE). According to McLeskey, Landers, Williamson, and Hoppey (2012), the LRE for over 70% of special education students ages 6-11 is the general education classroom. The placement of students with Learning Disabilities in general education classrooms increased 160% between 1990 and 2007. During this same time

frame, the percentage of students with Learning Disabilities served through pullout support decreased 45%; those served in separate classrooms or separate schools decreased 54%.

There is an identified need for general educators to have additional information to support the learning of students with disabilities. Idol (2006) evidenced this in her study of four school groups of general education teachers who taught inclusive general education classrooms. She found that many of these teachers did not feel fully prepared to work in their inclusive classrooms. Further, although general education teacher preparation programs in the U.S. generally include content on how to accommodate for students who are English learners and who are eligible for special education, with the exception of some credential programs such as at Syracuse University, candidates must return to school to receive their special education authorization or go through a concurrent general education and special education credential program, such as at the researcher's institution of higher education (J. Thousand, personal communication, April 3, 2015).

This project involves the creation of a handbook of writing interventions designed to bridge the instruction knowledge and strategy gap for general education teachers who work with students with Learning Disabilities. The handbook provides these teachers with easy to follow supports while providing writing instruction.

### **Definition of Terms**

**Disabling condition.** There are 13 federally defined disability categories that could warrant children between the ages of three and 21 eligible for special education services. The categories are: autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment,

specific learning disability, speech-language impairment, traumatic brain injury, and visual impairment.

**Inclusive education.** Inclusive education is the philosophy and practice of educating students with disabilities in the same general education classroom as students without disabilities.

**Individuals with Disabilities Education Improvement Act (IDEIA).** IDEIA is the federal law initially promulgated in 1975 as Public Law 94-142, the Education for All Handicapped Children that ensures students with disabilities a free and appropriate public education in the Least Restrictive Environment. IDEA mandates that all students with disabilities be educated within the least restrictive environment.

**Learning Disability.** A Learning Disability also known as a Specific Learning Disability, is a federally defined disability category in which a child could be made eligible for special education services. A Learning Disability is determined if there is a significant discrepancy between a student's abilities and their achievement. A student must also have a psychological processing deficit to qualify for special education services.

**Least Restrictive Environment (LRE).** The LRE is the federally mandated policy that the placement of first choice for students with disabilities is the least restrictive environment of the general education classroom.

**Pedagogy.** Pedagogy is the practice or method of teaching, especially in the area of academics.

**Psychological processing deficit.** A psychological processing deficit is a deficit in a person's mental information processes that may include visual, auditory, visual-motor, sequencing and memory dimensions.

**Woodcock-Johnson Achievement assessment.** The Woodcock-Johnson Achievement assessment is a standard achievement test, commonly used in the assessment of students for special education eligibility particularly in the Learning Disabilities eligibility category.

## Chapter 2 - Literature Review

Writing and written expression can be difficult means of communication for most people. For individuals with Learning Disabilities, writing can be the most arduous aspect of their disability. If identified early, a student with a Learning Disability who receives focused, high-quality instruction and interventions could develop effective strategies and skills to produce written work appropriate to any task. This, in turn, may set them up for a brighter future. The purpose of this project is to create a writing handbook for teachers who work with students with Learning Disabilities. This handbook can help to create effective, long lasting writing skills, which, in turn, may contribute to a happy and successful life.

The research that has been conducted on writing interventions for general education students, as well as students with Learning Disabilities, speaks to these benefits. This research has examined the many components of writing and what specific areas are difficult for students with Learning Disabilities. Research reveals that students with Learning Disabilities often produce writing that is more rudimentary, less detailed, and less coherent. Effective writing skills are paramount to a student's success in secondary and higher education learning structures; lack of these skills can inhibit future career opportunities (Parker, Burns, & McMaster, 2012). The areas in writing that are especially problematic for students with Learning Disabilities are generating content, organizing structure, goal creation, writing mechanics, and text revision. The quantity and quality of writing can also be influenced by a student's interest in or familiarity with the topic (Chalk, Hagan-Burke, & Burke, 2005; Graham, Harris, MacArthur & Schwartz, 1991).

Further writing components that have been researched include assessment, writing mechanics (spelling, grammar, punctuation), writing tools, motivation, behavior, organization, planning, revising, writing environment and expectations. Researchers examining the area of

writing have, for the most part, focused on three critical areas: “explicit teaching of the writing process through strategies and procedural facilitation; adherence to a basic framework of planning, writing and revising; and feedback” (Saddler, 2006, 292).

This researcher’s review of the literature regarding writing interventions yielded areas or themes that organize the remainder of this chapter; namely, 1) writing strategies and skills, 2) technological supports for writing, and 3) Self-Regulated Strategy Development (SRSD) approach to writing instruction. After the writing strategies and skills of planning, writing and revising are examined, then available technologies for assisting writing, such as dictation through speech-to-text software are presented. Finally, the SRSD method for teaching strategies using self-regulation and goal setting is then detailed (Saddler, 2006). This research answers the question: What writing interventions do educational researchers find most effective to increase writing abilities for elementary students with Learning Disabilities?

### **Writing Strategies and Skills**

**Planning.** For many children with Learning Disabilities, problems with writing can be categorized as: lower level (i.e., grammar, punctuation and spelling) and higher level (i.e., audience awareness, planning, content generation, and revising) problems (Saddler, 2006). Classroom instruction for struggling students often focuses upon teaching the lower-level skills. Yet, students with Learning Disabilities often need to be supported with the higher-level skills of planning, since they often spend a minimal amount of time planning what they will compose (Graham, Harris & Larsen, 2001). To reinforce this idea, Graham and Harris (2009) report that when students are requested to perform advanced planning of their writing, they typically spend one minute or less in the planning process.

Lack of planning is in-step with students with Learning Disabilities view of writing as a singular assignment - writing. This limited approach, coined by Saddler (2006) as the “what’s next?” strategy, ignores the aspect of planning and revising which can lead to an assignment that follows more of a question-and-answer format based upon what the student can recall at the time of composition.

Regarding the recall and compose pitfall, Brooks, Vaughn, and Berninger (1999) describe working with students with Learning Disabilities by modeling the writing strategy of planning by “thinking out loud”. This demonstrates their thought process of planning and how they turn their planning into writing a composition. This strategy yielded marked improvement in the composition quality for the students with Learning Disabilities taught this strategy. A follow-up study showed that teachers’ adaptations of instruction in the area of planning for students with Learning Disabilities increased the overall quality and quantity of compositions. These adaptations include asking the students to talk through their story prior to composition and the use of graphic organizers and pictures to increase details, as well as to document event sequences of the students’ composition ideas (Graham, Harris, & Larsen, 2001).

Additionally, Bui, Schumaker, and Deshler (2006) studied the effects of teaching a series of writing strategies which included prewriting-planning to students with and without Learning Disabilities. The prewriting-planning strategy used a planning sheet graphic organizer with headings corresponding to the story grammar elements. Results of this study indicate that students with Learning Disabilities that participated in this study, which included pre-writing planning instruction, experienced a significant overall increase of quality in their sentence, paragraph, and text structure as well as theme writing. The points in the theme writing aspect

correspond to the relationship between the sentences and paragraphs to the topic, or overall theme of the composition.

**Writing/Generating Text.** Berringer, Abbott, Whitaker, Sylvester, and Nolen (1995) noted that, in the process of translating thoughts into text, some primary-grade (K-3) students could create text (i.e., translate working memory ideas into their oral language) much easier than they could compose their thoughts into writing (i.e., translate their oral language into written orthographic representations). Fear of creating imperfect text or text that contains errors can result in reluctance and reticence in writing with any student, but particularly students with Learning Disabilities. As a means to facilitate an increase in students' written representation of their thoughts, Berringer and colleagues (1995) encouraged students to write down their thoughts and ideas without concern about their final product or whether it contained mistakes.

Furthermore, Brookes et al (1999) modeled generating text and sentences while verbalizing this process and transcribing their sentences in front of the students. While demonstrating this process the researchers made deliberate mistakes in letter formation, spelling, and sentence structure, in order to suggest and show that errors can be corrected during revision. The researchers used the Writing Samples subtest of the Woodcock-Johnson assessment, commonly used to identify Learning Disabilities, to determine writing skill abilities before and after research interventions. The use of this strategy resulted in an increase of the quality of student's compositions, as measured by an increased score on the Writing Samples subtest. The student's writing was more topic-focused and contained an increase of supporting details. Additionally, in the study conducted by Bui and colleagues (2006), one aspect of the study emphasized disregarding errors in writing mechanics in the drafting phase, while utilizing a sentence and paragraph model to generate text. The understanding was that corrections to the

writing mechanics would be made after the first draft was completed. This also resulted in an increase in the overall quality in the students' compositions. On average, students with Learning Disabilities historically scored significantly lower than those without disabilities on statewide writing assessments. The use of this strategy later contributed to the students with Learning Disabilities scoring relatively the same on the statewide writing examinations as students without Learning Disabilities.

**Revising.** The revision process in general education classrooms typically focuses upon the high-level writing skill of revision in order to enhance the overall writing content. However, revision in the writing instruction for students with Learning Disabilities often focuses upon handwriting, spelling, and grammar rather than revision (Berringer et al., 1995). When asked to revise, students with Learning Disabilities typically use a “thesaurus approach to revising” (Graham et al., 2001 pg. 75), while making any corrections to mechanical errors and/or a few word substitutions. Thus, when writing revisions are performed by students with Learning Disabilities, there is generally little change to the substance of the writing. Children with Learning Disabilities place the importance of writing revisions on their transcription skills, which include handwriting, spelling, capitalization, or punctuation. Graham et al., (2001) illustrate this when describing how a 5th grade student with Learning Disabilities was asked to make revisions to his writing. The changes were surface level and focused on spelling, handwriting, and a few word changes.

Brooks et al., (1999) followed their demonstration of text generation with the deliberate errors with a modeling of review and revise processes for the students in the study. The first step of the review and revise process is to reread the text and to note sentence additions or deletions that would enhance the composition. During this step the researcher also noted handwriting and

spelling errors. Then, the researchers modeled making the revisions discussed. This strategy demonstrated marked improvement in the composition quality, with an increase of details and writing focused to the writing topic. Additionally, Monroe and Troia (2006) focused on how students with Learning Disabilities could make writing revisions that have valuable effects on their writing. The researchers taught the students a strategy called CPO (Compare, Diagnose, and Operate). This strategy helps students determine if what they have written matches their expectations. If not, then the students go through a series of statements such as: this sentence needs detail or this sentence is too short. After the students make the change, the students then asks themselves again if what they have written matches their expectations. This exercise is performed at the paragraph level as well. This resulted in an increase of content, organization, sentence fluency, word choice, and conventions.

### **Technological Supports for Writing**

For students who struggle with writing mechanics, the use of technology tools have also been proven to develop composition quality as well as boost motivation and success.

**Word processing.** Tools to assist students with Learning Disabilities are as simple as an electronic keyboard, such as the AlphaSmart or an iPad keyboard. Also available are word processing software packages that autocorrects spelling errors, offers a word choice or a selection of alternate words through the thesaurus option. These can provide benefits that ease the revising process helping students to make substantial revisions without having to recopy a handwritten draft (Graham et al., 2001). Students with Learning Disabilities frequently do not identify themselves as writers. Continued writing shortcomings create writing anxiety which can lead to a complete avoidance of any writing task. Zhang (2000) found that educational

technology provides opportunities for students to express their thoughts without being burdened with their limitations in writing. The research observed that using a computer program created specifically for students with Learning Disabilities was initially a motivator simply due to the fact that it was technology. The students continued to be motivated to write because they were able to produce professional looking compositions they were eager to share with their teachers and friends. Additionally, some students in the study who refused to participate in the writing process were urged to express their frustrations about writing in their written composition. This provided those students with new knowledge that writing can be used for more than just school work.

In concert with the other researchers, Montgomery and Marks (2006) also reported that prompting students with Learning Disabilities to use a word processing program to produce written composition was extremely motivational and also encouraged these students to take risks in their writing. Additionally, editing their writing was far less cumbersome of an exercise and students were more inclined to make suggested revisions greater than minor word changes.

**Dictation, speech-to-text, and voice recognition software.** De La Paz (1997) experienced that students who dictated their thoughts during advanced planning, rather than writing them out, increased their idea generation without being preoccupied with the writing mechanics. Technological advancements have created wonderful accommodations for students with writing difficulties. Speech-to-text software, such as Dragon Naturally Speaking, helps students with Learning Disabilities put their thoughts into writing, without the struggle of the writing mechanics (Nuance, 2015).

Lee and Templeton (2008) found that speech-to-text software provides an instantaneous display of a student's dictated thoughts which can then be edited as necessary. This provides

motivation for the students to work on a written assignment, and also increases their writing self-efficacy. Further Lindstrom (2007) noted that voice recognition software continues to be beneficial to post-secondary students with learning disabilities struggling with the written language by allowing them to use their abilities in oral language to help create written text. Additionally, speech recognition software assists in organizing thoughts to outline writing ideas, as well as assisting in writing mechanics.

### **Self-Regulated Strategy Development**

Self-Regulated Strategy Development (SRSD) is an empirically-validated method for teaching writing strategies, unlike technological supports which help students with writing mechanics. SRSD is an instruction model designed to slowly reduce writing supports for students as they work through a six-stage writing instruction process. When SRSD is used in the writing instruction of students with Learning Disabilities, students are supported in developing the strategies, skills, and self-regulation abilities exhibited by expert writers (Laud & Patel, nd). Saddler (2006) states that SRSD is based upon the notion that the development of self-regulation processes is vital to the learning process, and that the mechanisms necessary for self-regulation can be established and enhanced through instruction. SRSD is designed to help struggling writers learn and perform the higher-level writing processes, create writing independence, and develop positive attitudes toward writing in general, while developing positive attitudes and writing self-efficacy. Mason, Harris and Graham (2011) reiterate that self-regulation development involves setting learning goals, self-monitoring of one's own performance, self-instruction and self-reinforcement.

Chalk, et al (2005) and Lipscomb (2014) state that self-regulation development and self-assessment in writing instruction through SRSD is taught with six stages. The first stage involves activating prior knowledge related to the writing process and knowledge of the composition subject. The second stage involves the instructor and student discussing the student's current level of performance, as assessed by a baseline writing sample, as well as discussing the strategy that will be taught to the student. During this stage, the teacher and student set target goals for the student's writing, which are reviewed throughout the writing process. The third stage involves the teacher modeling the writing skill or strategy, such as details that support the main idea, or figurative language, and modeling the use of that skill. During this stage the teacher also models self-regulation skills for the students. At the fourth stage the student memorizes the strategy, sometimes using a mnemonic device. Stage five involves collaborative practice with the students working in small groups or pairs, as well as working individually with the instructor. The instructor provides feedback to the student while continuing to provide support, and then fades-out the support. The sixth stage involves independent practice for mastery, where the students work independently as the instructor fades all assistance.

## **Conclusion**

The purpose of the literature review is to describe and determine the most effective writing strategies to assist students with Learning Disabilities to develop writing skills. Extensive research has identified that focused writing strategies of planning, writing/generating text, and revision, taught using Self-Regulated Strategy Development, combined with technological supports provides the most beneficial formula to teach students with Learning Disabilities. In the next chapter, Chapter 3, the author presents a review of the methodologies used to produce a

writing handbook for students with Learning Disabilities. The goal of this handbook is to establish writing skills for these students that will help them to lead a happy and successful life.

### **Chapter 3 - Methodology**

Writing is one of the most difficult means of communication for individuals with Learning Disabilities. If quality, focused instruction is provided to these students, they can create writing proficiency that will have positive effects throughout their lives. Unfortunately, students with Learning Disabilities don't always receive the writing instruction they need. The guidance they do receive typically focuses on superficial revisions, such as spelling errors and minor word changes (Brooks et al., 1999). Their lack of writing abilities may limit their future prospects in higher education and possible career avenues (Parker et al., 2012).

This section describes the methodologies used to create the project of *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities*. This handbook is designed to provide general education and special education elementary teachers of students with Learning Disabilities focused, research-based strategies and skills to assist their students in developing strong writing abilities. Based upon extensive research, this handbook will include the most proven methods and writing strategies to create inherent writing skills for students with Learning Disabilities. The researcher's review of literature has identified three themes on which the handbook will focus: 1) writing strategies and skills, 2) technological supports for writing, and 3) Self-Regulated Strategy Development (SRSD) approach to writing instruction.

#### **Audience and Setting**

*The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* has been created to assist both elementary general and special education teachers, in teaching students with Learning Disabilities. According to Wrightslaw.com (2010, p.1),

“[s]pecial education ... is not a place, a placement, or pre-packaged program. Special Education is a ‘service for children rather than place where such children are sent.’” When a child is identified with a disability and qualifies for special education services, that child must receive the necessary services within the Least Restrictive Environment (LRE). The LRE for many children with disabilities is within a general education classroom. Cameron and Cook (2013) report that as inclusive education increased, the requirements of general education teachers’ abilities to teach students with disabilities have increased as well. However, Idol (2006) indicated that elementary and secondary general education teachers studied who taught in or were about to be teaching in an inclusive setting, did not feel fully prepared to address the academic needs of students with disabilities. These teachers requested more support and education in making modifications to instruction and curriculum to support their students in special education. This handbook is designed to provide straight-forward, simple to understand strategies and pedagogy to guide writing instruction for students with Learning Disabilities.

### **Procedures**

The author researched scholarly literature to identify writing deficits in students with learning disabilities. From this research the author identified the most common writing problems to be a lack of organization, content generation, writing goal creation, mechanics, and text revision. The research also revealed that the typical writing interventions utilized with these students did not address the problems experienced by student with learning disabilities. In fact, the interventions typically employed included “surface” editing which corrects spelling and grammar, as well as some minor word changes. This produced little effect in the overall writing product of these students.

The author further researched writing strategies and skills that have been found to be the most beneficial for students with Learning Disabilities. From this research the author determined that the most beneficial interventions fell within the categories of: 1) writing strategies and skills (planning, writing, and revising), 2) technological supports for writing (word processing and dictation through speech-to-text software), and 3) Self-Regulated Strategy Development (SRSD) which teaches self-regulation as well as goal setting. The handbook is focused around these themes and provides steps and information to implement these themes into writing instruction.

All research was performed while focusing on the following research question: What writing interventions do educational researchers find most effective to increase writing abilities for elementary students with Learning Disabilities? The handbook will essentially answer this question.

Oftentimes general education teachers, especially new teachers, do not feel prepared to address the needs of students with disabilities in their classrooms (Idol, 2006). Given this data and her own experience, the author chose the creation of a handbook to provide specific interventions to be utilized with general education teachers who include students with Learning Disabilities in their classrooms. This handbook has been created to help bridge that gap for general education teachers and provide simple, step-by-step, interventions to utilize with those students, to increase their writing abilities.

## **Conclusion**

The methodology utilized to create *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* starts with an understanding of inclusive education. Inclusive education of students with disabilities in general education classes may be a

new trend. However, including all students within an inclusive classroom is right, necessary and more prolific each school year. The entire class benefits from inclusive education in many different ways and it's vital that our general education teachers be provided the tools necessary to address the needs of all students in her classroom. *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* is designed to help provided these teachers with some tools and strategies to successfully teach writing to students with Learning Disabilities.

In the next chapter, the author will describe in detail the contents of *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* included in Appendix A. This handbook provides detailed strategies and interventions to successfully teach writing to students with disabilities.

## Chapter 4 - Results

Historically, writing has been a difficult means of communication for many students, especially for students with Learning Disabilities. With each passing year, if these students do not receive the writing instruction they need, their struggles with writing are compounded. They have fewer skills to create higher-level writing and rely on rudimentary skills in writing by summoning information from their memory that may, or may not, pertain to the writing prompt. This can lead to a disorganized, undeveloped written product. Monroe and colleagues (2006) note that when asked to revise and edit their work, students with Learning Disabilities tend to only make superficial changes in spelling and word choice, having little to no affect on the final draft.

Research to determine the most effective writing interventions for students with Learning Disabilities has produced three approaches that yield the most benefit; namely, writing skills/strategies (planning, text generation, and revising), technological supports (word processing and speech-to-text), and the Self-Regulated Strategy Development (SRSD) approach to writing instruction. For this project, the researcher creates a handbook for elementary teachers who work with students with Learning Disabilities. The handbook focuses on the three writing instructional approaches identified above and answers the research question: What writing interventions do educational researchers find most effective to increase writing abilities for elementary students with Learning Disabilities?

### Project Presentation

*The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* was created to offer teachers simple, straight-forward information to use while

teaching writing to students with Learning Disabilities. The handbook is divided into three sections: writing skills and strategies, technological supports, and Self-Regulated Strategy Development. Although each of the interventions can individually provide support to writing instruction for students, the intention of the handbook is for teachers to use these interventions simultaneously, to maximize benefit to their students. Below is a summary of each section.

**Writing skills and strategies.** The first section focuses upon the writing skills and strategies of planning, text generation, and revising. (Graham and colleagues (2001) note that students with Learning Disabilities often spend little to no time in planning their writing assignments. Because of this, it is essential that students be taught effective planning skills. Research has shown the most effective way of teaching planning is through the use of graphic organizers. Several internet sources for accessing graphic organizers are offered here. The graphic organizers range from simple (main idea and details) to complex (sequencing and cause and effect).

Students with Learning Disabilities struggle with text generation, especially when they look at a blank page and don't have any writing ideas. Planning is a tremendous help in this area, but there is still difficulty. Another issue is the task of revising. Students with Learning Disabilities try to create a perfect first draft, not requiring revision. Using technology makes the task of revising much more manageable.

The final segment of this section concerns revising. Students with Learning Disabilities typically view revising as correcting spelling errors and minor word changes, essentially a thesaurus approach to revising (Berringer et al., 1995). Research has shown that the use of revising and editing checklists have been the most beneficial for these students. These checklists

help focus on more substantial, high-level editing changes to writing assignments. In this segment are several internet resources with links to revising checklists.

**Technological supports.** The second section focuses on the currently available technology that has been determined to be supportive of writing instruction for students with Learning Disabilities. The two supports are word processing and speech-to-text voice recognition. With the arrival of Smarter Balanced state testing, all schools are required to have the technology to support this activity. The added bonus is that students with Learning Disabilities will have more technology available to them to produce their writing assignments. Word processing provides visual feedback to potential misspelled words or grammatical errors. Additionally, word processing makes revising, a task typically one avoided by students with Learning Disabilities, much simpler, providing for more significant editing changes.

This section also discusses the benefits of speech-to-text voice recognition for students with Learning Disabilities. Research shows that for students who struggle getting any words on paper, the ability to translate their spoken words to written text is greatly valuable. More and more electronic devices come equipped with a digital microphone, and there are also speech-to-text software packages available.

**Self-Regulated Strategy Development.** Self-Regulated Strategy Development (SRSD) is an empirically validated instructional method to teach writing to students with Learning Disabilities. SRSD teaches the students not only the academic strategy or skills, but also creates self-regulation skills within the student. This self-regulation helps counter negative self-talk with positive messages of writing abilities, which leads to writing motivation and self-efficacy.

**Conclusion**

The ability to express oneself through writing is fundamental to the success and achievement of everyone. Students with Learning Disabilities have a greater difficulty as they struggle with academic skills and are also typically only taught lower-level writing skills. Early writing interventions can lead to a more successful future. *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* provides teachers with basic, easy-to-use writing interventions to be used with their students.

In Chapter 5 the author reviews the overall project and discusses the limitations of the project, determined through the research and project creation. Chapter 5 also discusses future plans for the use of this handbook, local implications of the project, as well as more global implications.

## Chapter 5 - Discussion

### Project Summary

The ability to express oneself through writing is paramount for success in school and throughout life. Many students with Learning Disabilities struggle in the area of writing. With each passing year, their writing deficits become greater, and their self-efficacy toward any writing assignment reduces. Although new multi-subject teachers are provided instruction in how to accommodate a curriculum for students with disabilities, research has shown that there are general education teachers who do not feel prepared to teach special populations.

In response to this need, the author has created *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* to help bridge the gap for elementary teachers in instructing the students with Learning Disabilities in their inclusive classrooms. The handbook provides simple to follow, researched based interventions for the teacher's use. Research has shown that the most effective writing interventions are to instruct students in specific writing strategies and skills using technological supports and using the teaching approach of Self-Regulated Strategy Development (SRSD).

### Limitations of Project

A limitation to this project is that the handbook only supports writing interventions for students with Learning Disabilities. There are 13 different disabling conditions that might qualify a student for special education services. Students who qualify under the other 12 disabling conditions may also have difficulties with their writing process. However, the research found by the author was directed solely towards students with Learning Disabilities. This handbook may be beneficial for other students, but there is no research to confirm this. Another limitation to this

handbook is that the individual psychological processing deficits identified with Specific Learning Disabilities are not addressed, as the research did not differentiate at this level. These limitations may warrant further research in these areas. And finally, a third limitation of this project is that this handbook has not yet been field tested by general education teachers in their inclusive classrooms.

### **Future Plans for Use**

The intended use of *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities* is to provide writing resources to elementary teachers who work with students with Learning Disabilities. The author will begin by providing copies of the handbook to all the elementary teachers at the author's school site, as well as in-service training. Additionally, with the understanding of the benefits of technology for students with Learning Disabilities, the author plans to meet with the technology department to discuss technology resource options for students. Further, the author plans to implement the writing interventions in the handbook with the students with Learning Disabilities that she works with.

An additional step would be to include this information on the author's school based website. On her website she can also provide links to the internet sources as well as any new sources she may later discover.

### **Conclusion**

The population of our classrooms has become more diverse with each passing year. Most classes may include students in special education, specifically students with learning disabilities. Although credential programs include instruction in accommodating the needs of students in special education in their classroom, many teachers do not feel fully prepared to do so. Providing

these teachers with a compact, simple to use handbook providing researched based interventions is the most beneficial way to share this information.

W. B. Yeats reminds us all that “[e]ducation is not the filling of a pail, but the lighting of a fire.” As educators, our quest is to light as many fires as possible for our students. A big part of lighting their fire is to create as many educational opportunities as possible where students can feel accomplished in the work they do. Identifying and utilizing the most impactful writing strategies for students with Learning Disabilities can be instrumental in this process. By providing students a means to be successful with their writing, we are giving them a voice and an avenue to express themselves.

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Appendix A

*The Elementary Teacher's Handbook  
of Writing Interventions for  
Students with Learning Disabilities*

by  
Jane Weissman  
Education Specialist

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## **Introduction**

Writing and written expression is frequently a difficult task for students with Learning Disabilities. Identifying the most beneficial writing interventions for these students will help to create strong writing skills and benefit them through all aspects of their future lives. This handbook is designed for elementary teachers who work with students with Learning Disabilities.

This handbook is divided into three sections: writing skills/strategies, technological supports for writing, and Self-Regulation Strategy Development (SRSD). These writing interventions, although effective individually, are designed to be implemented simultaneously. The interventions included are based upon the most recent research and technological developments to date. As technology evolves and changes, new resources will be available to assist all students, but especially students with Learning Disabilities.

### **Writing Strategies and Skills**

Writing strategies and skills usually taught to students with Learning Disabilities generally focus on lower-level skills, such as grammar, punctuation and spelling, rather than higher-level skills, such as audience awareness, planning and content generation. The importance of teaching these students the higher-level writing skills is vital to a student's success in writing. This section focuses on planning, text generation, and revising. To receive the most benefit, these interventions are intended to be utilized simultaneously with technological supports as well as being taught using the Self-Regulation Strategy Development approach to writing instruction.

#### **Planning**

Students with Learning Disabilities spend little to no time planning before they start their written assignment (Graham et al., 2001). Teaching students with Learning Disabilities the skill of planning is essential to students' success in writing. Many online resources are available to assist students with planning. Most are free or might require a free subscription.

The most beneficial format to teach the skill of planning is through the use of a graphic organizer. Graphic organizers help to brainstorm, visualize, and organize one's thoughts in a prewriting exercise. Graphic organizers can be as simple or as complex as needed, based upon the grade level and complexity of the writing assignment. Additionally, graphic organizers can be completed by handwriting the information, or through an online program. As technological supports have been determined to be beneficial to students with Learning Disabilities, it is suggested that online graphic organizers be used, if available. If the technology is not available, then handwriting the information is advised.

Below is a list of websites that include numerous graphic organizers currently available on the internet. If the organizers below don't fit your specific needs, then an internet search could present more options.

#### Holt Interactive Graphic Organizers

<http://my.hrw.com/nsmedia/intgos/html/igo.htm>

Holt Interactive Graphic Organizers include over 35 different graphic organizers. Each organizer has the capability to enter data online, which could then be saved, shared, sent via email or printed out for a hard copy of the data. Additionally, each graphic organizer includes teaching notes to help in teaching how to use each graphic organizer. The graphic organizer topics include: generating ideas and organizing details, determining main idea and drawing conclusions, order and sequence, compare and contrast, and cause and effect.

#### Houghton Mifflin Harcourt - Education Place

<http://www.eduplace.com/graphicorganizer/>

Education Place also includes over 35 interactive graphic organizers. The graphic organizer types include Story Maps, Fact and Opinion, Five W's (who, what, when, where, why), Sequencing and Venn Diagrams. Information and data can be entered online and either saved and shared or emailed, or a hard copy printed.

ReadWriteThink

[www.readwritethink.org](http://www.readwritethink.org)

ReadWriteThink is a website with many teaching resources. One of the many resources are interactive graphic organizers for student writing. The organizers available include: Essay Map, Compare and Contrast, Story Web, Narrative, Story Map, Haiku Poem, and Story Cube.

### **Generating Text**

Generating text is an arduous task for students with Learning Disabilities for numerous reasons. The first is that students have difficulty coming up with ideas for their writing. The planning supports listed above will help greatly with idea generation and should always be done before a student begins generating text. For generating texts, the methods described below are most beneficial if they are taught using technological supports and with Self-Regulation Strategy Development.

Another roadblock for students in generating text is the fear of creating imperfect text (Berringer et al., 1995). Students see the revising process of writing to be too difficult and time consuming. They want to create a perfect first draft, which then makes generating their writing assignment onerous. Using a word processing or speech-to-text program to generate a first draft makes the revising process easier. However, if technology is not available, then handwriting the first draft is necessary.

One method to help students with Learning Disabilities generate text is through the use of sentence and paragraph frames. A sentence or paragraph frame is a “fill-in-the-blank” format

allowing the students input their information in a pre-set frame of words that creates a sentence or paragraph. When a student with Learning Disabilities is staring at a blank page, unable to focus their thoughts or ideas on to paper, providing a framed format will give them an opportunity to organize their thoughts and create a first draft. Sentence and paragraph frames are also a valuable instruction tool when working with English Language Learners.

Below are some websites of sentence and paragraph frames. If these frames don't meet the needs of your assignment, an internet search will provide more varieties of frames. Activity specific frames can also be created as necessary.

#### Palm Beach Schools

<http://www.palmbeachschools.org/multicultural/documents/FramedParagraphs.pdf>

This website provides multiple paragraph frames to create paragraphs which include main ideas and details, cause and effect, predicting and compare and contrast.

#### Northwest Regional Educational Service District (NWRES D)

<http://ell.nwresd.org/node/164>

The NWRES D website provides several frames that consist of sequencing, persuasive and descriptive writing.

### Writing Frames for the Interactive Whiteboard

[http://rhondafriesen.weebly.com/uploads/2/9/8/7/2987791/writing\\_frames.pdf](http://rhondafriesen.weebly.com/uploads/2/9/8/7/2987791/writing_frames.pdf)

This website provides various types of paragraph frames as well as examples of how to use the frames. These frames include narrative and descriptive writings, how-to writings and opinion writing.

Another proven way to teach students with Learning Disabilities how to generate text is through direct modeling. While using a previously created planning graphic organizer, model text generation by verbalizing thought processes and transcribing sentences in front of the students. Inform students that any mistakes made while creating a first draft will be corrected during the revising process. Then, while generating text, make deliberate errors in spelling and sentence structure. (Brooks et al., 1999 & Bui et al., 2006).

An additional method that helps students build writing stamina, as well as creating less concern for producing perfect text, is daily journal writing. Journal writing can be in the form of free writing or providing a writing prompt (Graham, 2012).

### **Revising**

During the writing process, the revision stage should be the place where students read their work and revise to enhance the overall writing content. Historically, the revision process taught to students with Learning Disabilities focuses on handwriting, spelling, and grammar rather than actual revision or written work (Berringer et al., 1995).

Using the technological supports available is also an integral part of the revision process. The word processing programs of Microsoft Word and Google Docs include a “spell check”

feature which indicates a possible misspelled word as the student is typing. More information about these programs are included in the next section.

The most effective strategy to teach revision is the use of a checklist. A revising checklist can be used for student or peer editing, which could then be followed up with a teacher conference. The use of a checklist is most successful when taught using the Self-Regulated Strategy Development.

Below are some websites that include revising and editing checklists. If these checklists don't meet the individual needs of the lesson, an internet search will garner more possibilities.

Worksheet Place.com for Educators

<http://www.worksheetplace.com/index.php?function=DisplayCategory&showCategory=Y&links=3&id=331&link1=43&link2=154&link3=331>

Worksheet Place.com includes over 10 different revising/editing worksheets that could be used based upon the specific writing assignment. The checklists include general written assignments, persuasive, expository, and narrative essays.

Wapakoneta City Schools

<http://www.noacsc.org/rsit/Writing%20Checklists.htm>

This website includes numerous revising/editing checklists created by teachers at the Wapakoneta School District. Checklists are separated by grade and genre, such as personal letter, reader response, informational report, and narrative.

Writingfix.com

[http://writingfix.com/PDFs/Process/SWG\\_Revision\\_Checklists.pdf](http://writingfix.com/PDFs/Process/SWG_Revision_Checklists.pdf)

The checklist from this website is a comprehensive list and could be used for most writing tasks. The areas it reviews is idea development, organization, voice, sentence fluency, word choice, and conventions. Additionally, the first page narrative includes information on how this checklist can be used, as well as a link to a website where a teacher can create their own checklist.

Reading Rockets

<http://www.readingrockets.org/content/pdfs/COPSChecklist.pdf>

This website includes a COPS editing checklist which focuses on Capitalization, Organization, Punctuation, and Spelling. This checklist could be used for general editing of a written assignment.

### **Technological Supports for Writing**

Technology changes on an almost daily basis. With the entire world moving toward a paperless, online environment, learning to use technology is a crucial part of all students' education. Technological supports available for students with Learning Disabilities have increased student motivation to write, their ability to create quality written assignments, and willingness to take risks with their writing (Montgomery et al., 2006). With the new Common Core State Standards and the Smarter Balanced online testing, most school have, or will soon have, the technology to support our students with Learning Disabilities in their daily writing tasks.

#### **Electronic Keyboard**

A low-tech option available for students is an AlphaSmart 3000. Although AlphaSmarts are no longer produced, most schools or school districts have a supply of them available. Additionally, AlphaSmarts can be purchased through online sellers for less than \$10 each. AlphaSmarts allow students to type in their notes, rough draft, or other information in a file, then download the information into a word processing file on a computer. The students can then edit their writing using the word processing program.

#### **Word Processing**

Word Processing applications are available on all types of desktop and laptop computers, ChromeBooks, iPads, and even cell phones. The most common applications are Microsoft Word and Google Docs. The Microsoft Word software package requires purchasing, however, Google Docs is a free program which more school districts are utilizing.

Microsoft Word is a word processing program that was created in the early 1980's. With each new generation, new features are added. MS Word includes a spelling dictionary as well as a thesaurus option providing alternative word choices. Google Docs was released in 2007 and is a relatively new program, compared to MS Word. Google Docs does have a dictionary feature, however it does not have a built-in thesaurus. The one great advantage Google Docs has over MS Word is that Google Docs is an online program. This allows users to log-in on any device and access your document for further editing. A student can begin a document at school, then access and complete the same document from home for homework.

Whichever word processing program is used, the greatest benefit is the ease of revision. If a student creates their first writing draft using a word processing program, edits and revisions can be easily applied to the document without the burden of rewriting the entire document. Simple edits, such as word changes, and more complex revisions, such as moving entire sentences or paragraphs, are done with little effort.

### **Dictation, Speech-to-Text, Voice Recognition Software**

For some students who greatly struggle with putting any words on paper, writing is an almost insurmountable feat. The ability to dictate a first draft of their writing assignment allows a student to translate their thoughts directly to text without having to do any actual writing or typing of their first draft.

The old practice of dictation, when a person speaks into a recording device, which is then typed out by a typist, is now updated with digital dictation. Many devices, such as iPad 3, and most Smart Phones, have dictation abilities allowing the user to speak their thoughts into the

digital microphone which then produces a transliteration of digital text into the user's document.

This provides an instantaneous display which can be edited as necessary (Lee et al., 2008).

Another option is to purchase a speech-to-text software package or "app", such as Dragon Naturally Speaking. This program allows the user to speak their thoughts, which are then automatically typed into a file, which can be saved, shared or emailed. Dragon Naturally Speaking offers a free app so the user can try the program capabilities before purchasing the entire software package.

### **Self-Regulated Strategy Development**

Self-Regulated Strategy Development (SRSD) is an empirically-validated teaching method to teach students writing strategies, while creating higher-level writing processes, writing independence, positive attitudes towards writing and writing self-efficacy in students.

SRSD is taught through a series of stages. Each stage builds on the previous stage, supporting a student's development of the writing skills with the thought that the skill is then internalized and generalized for future writing assignments. The steps below are adapted from ThinkSRSD.com.

#### **Stage 1: Activate Prior Knowledge**

The first stage in SRSD is activating prior knowledge. In this stage the teacher introduces the type of writing assignment in which the class will be embarking, and discusses any previous writing experiences in this area. The teacher also reviews some examples of this writing genre as well as teaching genre-specific vocabulary to the students.

#### **Stage 2: Discuss It**

In the second stage the instructor teaches the specific strategy, such as generating a first draft from a completed graphic organizer. The instructor displays exemplars of the strategy (previously written first drafts from graphic organizers) and reviews non-exemplars with the students. The teacher then presents information regarding the benefits of using this strategy and discusses where and when the strategy could be used.

**Stage 3: Model It**

In this stage the instructor, through self-talk, models the strategy. The instructor verbalizes her thought process aloud, while demonstrating the strategy. During this stage the instructor also models the self-regulation process by verbalizing negative self-talk and countering with positive comments. For example, a teacher might say “I’m thinking this is too hard and I can’t do this. But what I can tell myself is that I’ve done hard stuff before and I just need to try my best until I figure it out.” It’s important to let students know that everyone has negative thoughts that sometimes get in their way of doing work. Modeling positive self-talk to students helps give them a tool to change the negative messages into positive ones (SRSD Teaching Strategies, n.d.).

**Stage 4: Memorize It**

In Stage Four the student memorizes the strategy and internalizes the process. This is through repetition or a mnemonic device, if available. The student practices this strategy multiple times so he becomes fluent with the strategy. The student also practices the self-regulation process, creating his own positive messages.

**Stage 5: Collaborative Practice**

During Stage Five, students collaborate in small groups or pairs to practice the strategy. Students also practice self-regulation aloud to reinforce positive self-talk. Practice in generalizing the strategy across genres is provided. For example, the strategy of creating a first draft from a graphic organizer is utilized for a story, a persuasive essay, and an informational

report. The instructor provides assistance in both the strategy and self-regulation when necessary, but fades supports when the student is ready.

**Stage 6: Independent Use**

The last stage is where the student can independently utilize the strategy as well as independent self-regulation. The teacher continues to provide multiple opportunities for the students to practice the strategy, and monitors for correct use. Individual conferences to review the strategy may be necessary at this time, however it is recommended that this stage not be reached until students can independently perform the strategy.

### **Conclusion**

Writing and written expression, which are frequently difficult tasks for students with Learning Disabilities, can be taught using research-based writing interventions. For teachers who work with students with Learning Disabilities, having the information contained in *The Elementary Teacher's Handbook of Writing Interventions for Students with Learning Disabilities*, will provide them with vital teaching interventions. These interventions can be used to create long-lasting writing habits for students with learning disabilities, which will benefit them in all phases and stages of their education, and throughout their lives.

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