THE IMPACT OF EFFECTIVE WRITING INSTRUCTION ON THE LEARNING ABILITY OF ELEMENTARY STUDENTS WITH DISABILITIES

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Abstract

This study describes challenges that children with learning disabilities face. The literature review examines current research focusing on effective writing practices and strategies intended to increase the writing ability of elementary students with learning disabilities. These studies provide insight on the possible positive effect intervention strategies, such as self-regulated strategy development (SRSD) and Ask, Reflect, Text (ART), can have on student performance. Additionally, the process approach to writing, resembling Writing Workshop, was reviewed. Further recommendations and possible future research are suggested and discussed in conclusion.
Chapter I: Introduction

Writing is a highly involved process requiring the use of a range of mental operations and skills to deliver meaning to the reader and meet the writer’s goals. Communication with others and developing a sense of community, especially in a classroom, are two results of the writing process. In education, writing is implemented into all subject areas, serving many purposes: to inform, persuade, or entertain, and students make choices while doing so. The definition of the National Council of Teachers of English states, “writing is the process of selecting, combining, arranging and developing ideas in effective sentences, paragraphs, and, often, longer units of discourse” (Shadiow, 1981, p.49). For children, writing is a difficult task, especially for those with learning difficulties like ADHD, Emotional Behavioral Disorders, or Autism.

For some students, writing is an overwhelming struggle, with the goal being simply to complete an assignment. Children with ADHD symptoms have difficulty with expressing and spelling during the writing process (Re, Pedron, & Cornoldi, 2007). A skilled writer will spend more time with the process of writing, not just mechanics and revisions. Self-regulated strategies for teaching writing are a systematic way of helping struggling writers improve. Setting goals can help children improve writing. Writing includes purpose, genre, and audience, not just form and conventions (Kissel, Hansen, Tower, & Lawrence, 2011). Students who can self-select their topics may connect easier with peers.

Writing is a part of our everyday lives, which includes emails, letters, lists, Facebook, texting, papers, essays, or journals- it is all around us. A multifaceted process for any age, especially, children, writing is a cognitively demanding task that involves an assortment of skills that flow together in a laborious process of self-reflective learning (Graham & Harris, 2000). Teachers educate young children about strategies to use for writing, the process, and how to
make revisions and edits to their work. Undergraduate classes and professional development for teaching writing are limited. Having a guide or strategies that are proven effective by research would be very beneficial. The research reviewed supports strategies that help children become better writers.

The Many Parts of Written Expression

There are various cognitive processes taking place during written expression, including lower-level transcription skills, such as spelling, grammar and its usage (capitalization and punctuation), and good handwriting. Students with learning difficulties tend to have to focus on these things and therefore do not spend as much time in the higher-level critical parts of the writing process (Mason, Graham, & Harris, 2011). They have a difficult time generating content, are not as successful with planning for specific genres, and have a harder time getting their thoughts to paper in time before it is forgotten. Their short term memory may be interrupted with the slowness of their writing, causing ideas to be lost. If spelling is a struggle, their vocabulary may be very basic, so they do not have to spell tougher words (Graham, 1990; Graham, Berninger, Abbott, Abbott, & Whitaker, 1997).

Planning and revising are important components of writing. An author, Carol Oates, will often write 4 times as many notes as pages printed. Students, especially those with learning disabilities, often spend very minimal time planning. As they write they try to think of things in their memory that are relevant to the topic they are writing on. When they retrieve and write they are often losing sight of the organization of the text and the goals of their writing piece. Their knowledge on the topic is also likely to be inadequate (Troia, 2002; Troia & Graham, 2002).

Students’ ability to write across subject areas is becoming more important in schools, including knowing the content of the topic, who their audience is, and how to organize their
piece. Students with learning disabilities describe good writing as using the low-level transcription skills well, for example, using good spelling, and being neat. Their peers described good writing as using brainstorming, text organization (which must be taught explicitly), and including stimulating words. Motivation is another factor considered in the writing process (Graham & Harris, 2009).

**Statement of Problem**

Numerous studies of research on ways to help improve teaching writing have been completed. Strategies have been studied to determine which ones are best to teach our struggling writers. The National Assessment of Educational Progress (NAEP) and the College Board both have stated that students are only reaching partial mastery of writing. Low writing levels will eventually affect upper grade levels, higher education, and eventually their jobs when students enter the workforce. At the 4th, 8th, and 12th grade levels three out of every four students proved partial mastery of writing skills and knowledge. Only 1 in 100 students demonstrated advanced writing skills, according to a study by the National Assessment of Educational Progress (Reid & Lienemann, 2006; Persky, Daane, & Jin, 2003). Research strongly supports early intervention, even if brief (Lienemann, Graham, Leader-Janssen, & Reid, 2006).

Students may struggle with writing because of disabilities in learning or poor handwriting skills. Various studies suggest handwriting automaticity and students’ ability to generate written text are closely correlated (Graham, Harris, & Fink, 2000; Jones & Christensen, 1999). Extra handwriting practice and interventions to improve written expression are supported in these studies.

A positive correlation exists between students who are taught self-regulated strategy development and improvements in writing, especially for students who struggle when writing
occurs. This strategy helps students monitor, evaluate, and revise their writing while at the same time promotes self-regulation skills, increases content knowledge, and improves motivation (Santangelo, Harris, & Graham, 2008). Middle and high school studies using SRSD also prove to show growth in writing. Constructivism is a theoretical framework based on the idea that learning is an active process and people create and construct their knowledge and representations of reality from what is already known (Learning Theories, 2012). New learning depends on current understanding. If children do not know the strategies for writing, the process becomes more challenging. Constructivist theories suggest a close association between writing and self-regulated strategy development, writing workshop, and self-talk amongst learners, which proposes the research question.

**Research Question**

To what extent does the quality of effective instruction in writing have on the learning ability of elementary students with disabilities?

**Definition of Terms**

**Self-Regulated Strategy Development (SRSD).** SRSD is a multifaceted intervention strategy where teachers educate students on genre-specific strategies for composition along with multiple procedures for regulating the use of the target strategies. Self-regulated strategy development incorporates six instructional stages as a guideline for how a student should learn to develop a strategic approach (Glaser & Brunstein, 2007).

**Emotional or Behavioral Disorders (EBD).** EBD include externalizing behavior (e.g. aggression) or internalizing behavior (e.g. anxiety) (Lane et. al., 2010).

**Paraeducator.** An adult who is helping to teach children in the school systems. If a paraeducator has instructional responsibilities, NCLB requires paraeducators to have: an
associate’s degree, two years of college education, or show knowledge and skills by taking a formal assessment (Lushen, Kim, & Reid, 2012).

**Self-Regulated Learning.** A sequence of cognitive actions where learners take careful note and look at cues for what needs to be completed to accomplish a task. They can adapt to decide what approach/strategy to use to achieve that task and then monitor their results and see how their progress is taking shape (Butler, 2002).
Chapter II: Review of Literature

Self-Regulated Strategy Development

An experimental study was developed (Tracy, Reid, & Graham, 2009) to show the importance of addressing writing needs at the primary levels. Three classes, 96% Caucasian, in a rural elementary school in the Midwestern United States were randomly assigned the SRSD treatment condition (n=64). The other three classrooms were the control groups taught basic-skills approach to instruction (n=63). There were almost an equal amount of boys and girls, students who received special education services, and those with free or reduced lunch prices.

To find initial writing level, all students took the Story Construction Subtest from the Test of Written Language, where the students’ writing performance was in the normal range. They also obtained reading scores from the California Achievement Test, where students’ scores were also in the normal range. Pretests, posttests, and maintenance tests recorded the number of story parts, number of words, and overall writing quality. Papers were typed removing identifying information, spelling, capitalization, and punctuation errors to minimize bias. The teachers delivering SRSD instruction were given a step-by-step lesson plan for each lesson. They checked off each step as it was completed. Examinations showed that 98% of the steps in all lessons were completed. With SRSD students were directly and systematically taught to use specific strategies (POW and WWW: 2 What and 2 How questions; TREE) to accomplish particular academic tasks, planning and drafting a story, in this case.

The control group was taught a traditional basic-skills approach to instruction. Much less emphasis was placed on teaching the writing process. Planning, text organization, and revisions ranged from being taught several times a month to several times a year. Teachers rarely conferenced with students about their writing, had students share their writing with others, or
shared their own writing (except one teacher who did it weekly). The SRSD instructed students wrote stories at posttest that were qualitatively better. Findings showed higher effect sizes for the SRSD treatment condition. Effect sizes for quality, story parts, and number of words written were as follows: 0.53, 0.73, and 0.53. They wrote longer stories than the control group with schematic structure and length effect sizes being moderate (ES=0.71, ES=0.55). The effect size for the SRSD group on the quality of students’ story writing was smaller (ES= 0.35). The maintenance test, two weeks following the end of SRSD instruction, showed students maintained the improvements they made. SRSD instructed students also generalized learning outcomes from story writing to a similar genre-personal narrative.

Research supports the use of explicit instruction using scaffolding to teach strategies for writing. One such example was a study using self-regulated strategy development for students in writing. A randomized controlled quantitative study (Harris et al, 2012) compared story writing and opinion essays using SRSD instruction, with each condition being the control for the other SRSD condition. Practice based professional development was provided for 20 second and third grade teachers, with experience ranging from 1 to 21 years, located in three rural K-5 elementary schools located in a southeastern state. The 262 second and third grade students involved in the study were predominantly white ranging in age from 6 to 9. The economically disadvantaged rates amongst the three schools ranged from 12.1% to 32.9%. Exactly half of the participants were male and half female, and just over 5% of the total participants received special education services. The story writing intervention was given to 113 students and the opinion essay writing condition was taught to 149 students. There was no significant difference in cognitive abilities amongst both groups participating after being given the *Wechsler Intelligence Scale for Children –Fourth Edition* test and a district wide writing assessment.
Teachers were offered practice based professional development in 5 small teams over a two day period to prepare for the 24 class sessions they would teach the intervention. The purpose of small learning teams was to allow teachers with the same needs to learn together, it allowed the research team to get to know the teachers and their students better, and it was helpful for teachers to work together on the fairly complex SRSD instructional model. After the initial professional development training the teachers easily transitioned into meeting regularly in grade level and cross grade level teams. The teachers were introduced to 10 lessons that they would teach their students. They were detailed lessons; however, teachers were not encouraged to use it as a script, rather a guide in making their own personalized, briefer plans. An observer came to each classroom once out of three lesson periods to observe the teacher and give feedback while also checking for integrity of the treatment.

Both opinion essay and story writing prompts were typed before being scored to avoid surface level errors being mistaken for writing quality and content. Story writing was scored for number and quality of story elements, overall writing quality, the number of words, and the number of transition words. Results showed statistical significance for the number and quality of elements in the story prompts with an effect size of 1.82. The opinion essay prompts were scored for number of opinion essay elements, quality of opinion essay elements, overall essay quality, and number of transition words. Number and quality of elements (ES=2.02), overall quality (ES=4.00), and number of transitional words (ES=3.78) all improved. Harris et al. concluded by stating that the lack of overall story writing quality was unexpected and more research considering the importance of story writing in early primary grades would be valuable.

One way to address writing difficulties is by providing early supplementary writing instruction. A study involving 6 second grade students who were 7 and 8 years old from a
suburban school were taught, in pairs, the SRSD strategy as a writing intervention (Saddler, Moran, Graham, & Harris, 2004). The demographics of the school were: 77% African American, 12% White, 8% Hispanic, and 3% Asian, while just over half of the students received free or reduced lunch. Participating students were 3 male and 3 female African American children that came from classrooms where teachers had 6 and 7 years of experience. Their current writing instruction consisted of about 150 minutes per week of writing workshop style instruction.

The selected students scored below the 25th percentile on the Test of Written Language-3 (TOWL-3) and did not plan in advance when writing stories and personal narratives. Students were randomly assigned to pairs and taught step by step SRSD procedures using detailed lesson plans. Sessions were 25 minutes three times a week and the total varied between 9 and 12 sessions depending on student need. Pre and post instruction students were required to write three or more stories. Using the six stages of instruction for SRSD students were able to write personal narratives for the post treatment stories. The results displayed that the student’s stories became more complete, longer, and qualitatively better. Planning in advance increased from an average of 20 seconds to 4.21 minutes during post treatment. One student’s stories were almost 7 times longer after the intervention treatment. Stories were rated by the number of elements, total words and score on a 7-point quality scale. At maintenance testing the four students’ story quality was higher than at post treatment. However, planning time decreased to an average of 2.5 minutes and only one student overtly used the strategy. Overall this study showed that SRSD is an effective strategy to improve writing for even the youngest learners.

Saddler (2006) replicated Saddler et al. (2004) by using experimental design, instruments, and instructional materials and procedures. However, participants chosen for the current study had been identified with a learning disability in first grade. The study took place in a
Northeastern United States inner-city elementary school. Demographics included 50% White, 37% African American, 7% Asian, and 6% Hispanic, with a total of 48% of students in that school receiving free or reduced lunch. Participants were chosen from 5 second grade classrooms with teacher experience averaging 12 years. Writing workshop style learning took place for about 60 minutes per week. All 6 participants, 4 boys and 2 girls, were African American with full scale IQ scores ranging from 89-102.

Similar to the original study (Saddler et al., 2004), participants learned the POW and WWW, What=2, How=2 strategy as a “trick” for memorizing the seven measures included in a good story. All participants’ stories improved from merely simple descriptions at baseline to more complete stories after intervention. On average at baseline the length of stories were 25 words, with poor quality of 2.3 on the 8 point scale. After intervention stories averaged 4.8 on the 8 point scale, with length improving to an average of 47.3 words per story. Three of the students verbally planned using the mnemonics, but did not have written plans. Only one student in this study integrated all seven story elements in a story, even though they used them in the instructional stage. Results were not as strong as Saddler et al. (2004), however, results show evidence that children with LD and limited writing skills can succeed and learn with writing strategies like SRSD.

Reid and Lienemann (2006) conducted a multiple baseline across participants design, with multiple probes during baseline, study on the effects of SRSD on the length, completeness, and holistic value of narratives for three children with ADHD. The study took place in a rural elementary school in a Midwestern state during spring time. The demographic make-up of the school was 96% Caucasian, 2% Hispanic, 1% Asian, and 1% African American, with 8% of the
total population receiving free or reduced lunch. Instruction took place outside of the classroom in the hallway during the morning.

Students had to score below the 20th percentile on the Test of Written Language-3 (TOWL-3) and be identified as a struggling writer by the teacher. Participants that qualified were all Caucasian, a 9 year old girl and two boys, ages 9 and 10. Students all wrote at least three baseline stories before starting the treatment. Instructors taught students the POW and WWW, What=2, How=2 strategy and the six stages of instruction for SRSD. Participants received 30 minute individualized instruction for 7-8 sessions. Once the participant met criterion level they worked on independent performance. Maintenance probes were given to the boys 3 and 6 weeks after their independent performance. Stories were typed before scoring to correct spelling and then scored for number of words, number of story parts, and holistic quality.

Results showed the mean number of 7 story parts percentage increased for the two boys and girl, respectively, at 215%, 200%, and 205%. The mean number of words percentage increased for the two boys and girl at 681%, 206%, and 323%. Finally, the holistic quality ratings all improved for the 3 participants at 407%, 186%, and 261%. For the baseline probe the two boys stayed above baseline, however one decreased slightly. Results indicate that student’s narrative writing can improve with the use of the SRSD model.

One single-subject study (Asaro-Saddler & Saddler, 2010) with multiple probes across multiple baselines design investigated the effects on three participants with ASD who were taught a strategy for planning and drafting a story using SRSD. The participants attended a school in New York with 350 Kindergarten through fourth grade students. Demographics of the students were 22% minority with 9% limited English proficiency, while 14% of students were free or reduced lunch candidates. Students took the TOWL-3 story construction subtest to verify
writing abilities. Participants were three males, two in second grade and one in fourth grade. Their ages varied between 6 and 9 while diagnosed with Autism since the ages of 2 and 3.

Instruction took place over six lessons lasting between 7 and 9 days, ranging from 2 to 4 weeks of intervention in an unoccupied room (different classroom or conference room, etc.). Thirty minute lessons were scripted for ease of instruction for the SRSD strategy and tape recorded to check for fidelity. Participants wrote a minimum of three baseline fictional stories and a personal narrative before starting the treatment phase. After treatment each participant wrote three fictional and one narrative story, and four weeks after post treatment each participant wrote a fictional story during the maintenance phase. Writing samples were typed to remove punctuation and spelling errors. Scoring was based on number of elements, holistic quality, and number of words.

Results showed an increase for all three students in number of fictional story elements and planning time. On average, number of elements went from 3.3 to 6.6, 2.5 to 6.6, and 1.6 to 6.5 out of 7 after treatment, with PND being 100% for all. Holistic quality improved from baseline to post treatment also: 3 to 4.5 of 8 points with 100% PND, 1.7 to 3.8 with 75% PND, and 0.9 to 3.6 with 100% PND. Improvement on average number of words was also evident from baseline to post treatment: 42.3 to 50.3 with 75% PND, 10.75 to 38.3 with 100% PND, and 8.2 to 27.3 with 100% PND. All three participants stayed above baseline in all story elements and often showed growth at maintenance. The transfer to personal narrative from fictional story showed an increase in number of elements and holistic quality, while number of words stayed the same for one but increased for the other two participants. Social validity was measured with a six question interview after the post treatment ended. A common answer amongst all three
participants was that the mnemonic device was the most important part of the strategy, helping them organize the story elements.

A multiple-probe across-subjects study to determine effectiveness of SRSD used for students with emotional/behavior disorders (EBD) to write persuasive essays was recently conducted (Mason & Shriner, 2008). The study took place at a Midwestern elementary school with 465 students. Demographics included 46% White, 44.7% African American, 6.2% Asian, and 3% Hispanic, with 49% of those children receiving free or reduced lunch. One percent of the entire population was classified with EBD. Six students in 2nd through 5th grade were put into two groups. The 8-9 year old group was three Caucasian males and the 10-12 year old group was two African American males and a Caucasian female.

The intervention was given one to one with help from an inclusive therapeutic program teacher. The amount of 30 minutes sessions ranged from 11 to 13. The four procedures for self-regulation, six stages of SRSD, and POW + TREE (topic sentence, three or more reasons, ending, examine parts) mnemonics were taught during each session. Students were educated until mastery of at least five parts was documented in a persuasive essay. Essays were untimed and collected during baseline, immediately after instruction, and at a maintenance follow up. To remove spelling and punctuation errors, essays were typed.

There were four scores taken from each essay including number of parts, quality, total words, and total transition words. Number of essay parts improved in group one from 1 during baseline to 4-6 essay parts after instruction. Percentage of non-overlapping data (PND) was 100% for instruction 77% during post-instruction, and 100% for maintenance for group one. At baseline performance group two included 2-4 essay parts, and grew to 5-8 parts after instruction. PND points were at 100% for all three tests for group two. The quality of essays for group one
improved from baseline (M=.07) to post-instruction (M=4.44) and maintenance (M=4.00).

Group two also showed growth for quality of essays with post-instruction (M=4.89) and maintenance (M=4.00) compared to a much lower baseline (M=0.90). Number of words also showed gains in learning for both groups from the initial baseline measure (M= 10.14 for group 1 and M=33.25 for group 2). Post instruction and maintenance number of words were as follows: M=68.11, M=52.00 for group one and M=65.78, M=54.50 for group two. During the baseline students did not use transition words. Post-instruction indicated students’ improved performance with transitional words (M=3.25 for group one and M=4.00 for group two). Overall, gains were comparable for both groups but absolute gains were greater for the younger group 1.

In a recent meta-analysis of writing instruction for students in the elementary grades (Graham, McKeown, Kiuhara, & Harris, 2012), a positive effect size resulted with 20 studies using strategy instruction to teach planning and drafting during writing. Most of those studies taught planning and drafting strategies and were genre-specific. The results yielded an average weighted effect size of 1.02. Using SRSD, specifically, there was an effect size of 1.17 in fourteen of the twenty studies. The analysis of 5 of 6 studies that involved teaching students to add self-regulated instruction to strategy instruction yielded an average ES of 0.50.

Another possible solution to help struggling writers is the use of paraeducators to teach writing instruction and deliver supplemental help for at-risk writers. A recent study (Lushen, Kim, & Reid, 2012) used SRSD with fidelity as an intervention for three, native English speaking fourth grade students, ages 9 and 10. The study took place in a Midwestern state during the spring semester of 2009 in an urban Title I elementary school. The school included 75% Caucasian, 13% African American, 7% Hispanic, 4% American Indian, and 1% Asian, with 67% of the population receiving free or reduced lunch. Participants were two girls and one boy, all
below the 25th percentile benchmark (identified as struggling) on the *Story Construction Subtest* from the *Test of Written Language-3*.

SRSD was used to teach story writing during this experiment in 30 minute individual lessons, ranging from 10 to 11 sessions, in the school’s media center. Lessons were highly structured to make it easier for the paraeducator to teach with fidelity. Fidelity of the treatment of SRSD when taught by this paraeducator was 96%. Students wrote at least three baseline probes before the instructional phase began, once there, independence was reached after including all 7 story parts. Maintenance probes were given at two and four weeks after instruction ended.

Stories were rated using number of story parts, holistic quality, and number of words. From baseline to independent phase the three students showed increases with the 7 total story parts: 0.25 to 3.6, 0.25 to 3.00, and 0.67 to 4.00. The scores for all three participants mean holistic quality improved by 170%, 154%, and 206%. The number of words was more variable. From baseline to post instruction there was an increase, however, it was not always kept at maintenance. Needing to be considered is one on one instruction was given and future research in whether small group instruction by a paraeducator would prove to be as effective is needed.

Self-regulated strategy development (SRSD) is a common theme among the literature presented that uses notes and text accompanied by mnemonic strategies to assist in writing. Ask, Reflect, Text (ART) is a similar motivational strategy, combined with SRSD that uses notes, text, mnemonic strategies, and art media to motivate students to write. Dunn, Tudor, Scattergood, & Closson (2010) initiated the use of the ART strategy with three special education teachers and their students. The project ran from March-April 2007 and participants were three Caucasian students with learning disabilities, all who participated in the free and reduced lunch program at their school. Students were taught the ART strategy in six sessions and given the
opportunity to use computer software in place of drawing on paper and word-prediction software for dictation of stories.

The female fourth grade participant in the study was writing 45 words per three minute writing probe before the intervention and 158 words after. Her correct writing sequence went from 4 to 156 from pre to post intervention. The male eight grade participant was at a 2.0 for curriculum-based measurement (CBM) pre-intervention and 2.5 post-intervention. His post-intervention CBM for reading was 2.5 at a second grade level text. After the intervention his CBM for reading was 2.9 at a third grade level text. Both pre and post-intervention words per minute reading rate was 60-80 minutes. The final participant, a seventh grade male, was administered a five-minute probe for spelling. At pre-intervention he wrote 81 words with 22 errors (errors were in spelling mostly) and post-intervention was 95 words with 14 errors (errors were in spelling). This strategy helped all three participants improve in quality, structure, detail, organization and flow, number of words, and/or few errors in spelling. Teachers that participated in the study expressed that their students showed an increase in motivation to write paired with elaborated story content.

ART allowed students to use art media as a visual story plan and reference for producing writing, as well as increased story length, content, and quality in a recent single subject design study (Dunn, 2011). The 25-day study included nine students from three separate second grade classes from a northwestern United States school district. The 3 teachers participating had between 10-20 years of experience. The demographics of the school were diverse: 74.7% White, 9.6% Hispanic, 6.9% Asian/Pacific Islander, 5.0% Asian, 2.3% African American, 1.9% Pacific Islander, and 0.7% American Indian/Alaskan Native. A total of 56% of the school’s population
was eligible for the free or reduced lunch program. The nine participants, three females and six males, were at the bottom 20% of their class in writing ability.

Intervention training for students consisted of twenty-five sessions discussing and modeling ART, memorizing the strategy, supporting ART with examples, and finally, independent practice. The experiment used a multiple baseline across participants design to measure the effects of the ART strategy (independent variable) and WWW, $W=2$, $H=2$ (dependent variable). Over a twenty-five day time period, students attended daily 45 minute sessions to learn and use the ART strategy. After two sessions of instruction all students improved their number of WWW, $W=2$, $H=2$ (7 total) resulting in 100% of non-overlapping data points. Post intervention writing scores from a Woodcock-Johnson Achievement test indicated scores improved. The study needs direct and systematic replication by researchers to see if ART is an evidence-based practice for schools.

**Process Writing: Writing Workshop and Allowing Young Learners to Talk During Writing**

Wagner, Nott, and Agnew (2001) authored an article on the basics of teaching first grade writing through a journal workshop. The writing workshop daily schedule consisted of a mini lesson, group rehearsal for writing (brainstorming), individual rehearsal for writing, individual writing and peer discussion, and lastly, sharing of writing by several students. The authors described one first grade student’s work from her assessment portfolio and discussed the gains they saw from the beginning to end of a school year. The female student showed increased development of topic by adding details to her writing, invented spelling was replaced with transitional representations, and the use of punctuation was more prevalent in her writing. Many benefits of a journal writing workshop were described by the authors at the end of this article.
Fu and Shelton (2007) described Shelton’s teacher researcher experience adapting writing workshop for students with learning disabilities in her fourth grade classroom. The study took place over four and a half months in a K-5 school in the southeastern United States. The majority of students in the school were African American (85%) and 93.4% of the students qualified for free or reduced lunch. The focus of the study was on nine fourth grade students with learning disabilities who were placed in the regular education classroom setting for the first time that year. Writing workshop occurred daily for 50 minutes. They stressed the value of the workshop model to meeting students’ learning needs, no matter what their level.

Through observation, interviews, data analysis, and collection of student work they tracked development of writing skills and social/learning behaviors. One female student was highlighted who was far below grade level. At the onset of the implementation of writing workshop this student would not write more than a sentence in twenty five minutes of writing time. After two months she completed her first story that showed her desire for writing. This young participant in the study improved her mechanical skills and tried techniques her teacher taught in mini lessons. Of the 9 students with learning disabilities 6 of them achieved passing scores on the state writing test, while becoming writers next to their peers.

Jasmine and Weiner (2007) used a mixed methodology design with qualitative and quantitative analysis in a classroom of 21 five and six year olds, consisting of 12 boys and 9 girls. The study took place at a Northeastern K-5 elementary school with 361 students. A classroom teacher, as action researcher, was trying to determine the extent to which writing workshop empowered first graders to grow into self-assured, dependent writers. Writing workshop was held starting on January 26, 2004 to March 8, 2004 for 35-40 minutes; 2-3 times a week.
Quantitative analysis was given in the form of pre and post writing surveys. They were scored with a four point Likert scale. A second quantitative method was systematic surveillance of observed practices by participants. Student portfolios were also analyzed for additional information and scored using a rubric. The qualitative portion of the study included interviews by 7 randomly selected participants. They were recorded being asked 6 open ended questions. Results indicated the mean scores for enjoyment of writing increased from 2.39 to 2.89 after instruction. For ease of writing students pre survey data showed a mean of 2.34 and post survey of 3.32. Students also showed an increase in data for wanting to share their writing from pre to post survey with 2.37 to 3.32. Writing samples were scored for adding sentences with pre and post score means at 2.11 and 3.84 out of 5 as the highest number. Standard deviation increased in this category from 1.10-1.38. In the capitals and punctuation category the mean increased from 2.0 to 3.95, with standard deviation high at 1.39. Unclear of how to effectively revise and edit and the variable writing abilities of the participants could be reason for high standard deviation.

Peer talk amongst students during writing workshop can affect the intellectual growth of learners to become students, writers, and people, according to a yearlong case study (Bomer & Laman, 2004). The six children involved in the study were in a first/second grade split classroom from a small city in the United States. Forty-nine percent of the school’s population was free and reduced lunch. Two children are represented in the data, though they shadowed six focal children. Throughout the year, two phases of data collection and comparative analysis occurred.

Phase one, conducted September through December, included field notes of participant observation, videotaped lessons, and interviews with the teachers and principals. Phase two, conducted January through April, incorporated field notes of non-participant observation, and interviews with teachers and principals. Categories were formed for comparative analysis in the
room. Their analysis suggested that writing facilitated relationships and relationships were intervened with the writing process. They recommended that positioning of students in the room was a valuable tool for teachers to take into consideration.
Chapter III: Results and Analysis Relative to the Problem

There is a vast amount of research that pertains to writing instruction and students with learning disabilities, including the focus of this review, SRSD and ART, and the process approach, specifically, writing workshop. Written expression is challenging to teach because it is a complex form of communication. The following research articles provide awareness and understanding on the impact effective writing instruction can have on students with learning disabilities in the elementary classroom. By introducing and teaching students the strategies listed above, teachers may see improvements in student accomplishments.

Self-Regulated Strategy Development

The research in this review of the self-regulated strategy development (SRSD) instructional model demonstrated student writing outcomes increased. During lessons, four basic strategies for self-regulation are highlighted: goal setting, self-instruction, self-monitoring, and self-reinforcement. Additionally, to satisfy the needs of the students, SRSD was based on criterion mastery, rather than time based (Graham & Perin, 2007; Santangelo et al., 2008). The similarity between studies was that teachers used the four basic strategies and demonstrated and guided students through learning six stages: develop background knowledge, discuss strategies, model them, memorize them, support each, and finally practice independently performing each element as explained below (Saddler et al., 2006; Saddler, 2006; Reid & Lienemann, 2006; Asaro-Saddler & Saddler, 2010; Mason & Shriner, 2008; Lushen et al., 2012; Dunn et al., 2010; Dunn, 2011).

First Stage. Develop Background Knowledge-Students gained knowledge, skills, and vocabulary to successfully apply the POW and TREE mnemonics.

Second Stage. Discuss It-Teacher and learners discuss the importance of the new strategies and how to transfer them to other areas of writing.
Third Stage. Model It-Teacher models and discusses out loud while taking student ideas into their discussion. Graphic organizers, planning, self-evaluation and self-reinforcement, coping, and goal setting were all included.

Fourth Stage. Memorize It-Memorizing mnemonics POW and TREE and discussing their meanings.

Fifth Stage. Support It-Teacher and learners reviewed the 7 steps of POW and TREE and then wrote an essay together. The use of these strategies helped learners reach their goals to ensure their paper made sense.

Sixth Stage. Independent Performance-Learners independently performed a writing task without using charts, graphs, or strategy step visuals. Some would write the mnemonics down for their information and take notes initially.

Small sample sizes, including 9 or less participants, occurred in the majority of the SRSD and ART studies reviewed (Saddler et al., 2006; Saddler, 2006; Reid & Lienemann, 2006; Asaro-Saddler & Saddler, 2010; Mason & Shriner, 2008; Lushen et al., 2012; Dunn et al., 2010; Dunn, 2011). Small sample sizes do help to improve the instructional procedure, however, generalizability of the results are then limited. Results of these studies indicated improved results of student writing. The use of SRSD and ART would be effective for improving student growth if schools had the capability to pull out one to two students at a time to teach this strategy.

A commonality of the above studies was that all participants had a learning disability and 49% or more of the student populations in these schools were free and reduced lunch with participants being mostly African American and Caucasian. Each study found benefits of the use of this strategy. Given the population, this strategy would most likely work in classrooms where learning disabilities were not as present and free and reduced lunch percentages were not as high.
More research is necessary to replicate these studies and focus on students with learning disabilities included in the regular education classroom, not just pulled out.

Studies in this review indicated the importance of criterion mastery of the phases of SRSD, instead of being restricted to set time restraints. Specifically, Harris et al. (2012) was limited to 24 class sessions, knowing some students may not have been ready nor met criterion. This may have been the reason behind a smaller effect size. Effective partnership and time amongst teachers and any paraprofessionals helping in the classroom is important to implementing this strategy. Whether the teacher or a paraprofessional teaches the strategy proper training must take place. It is important to point out in the study by Lushen et al., 2012 the paraprofessional that administered SRSD instruction had abundant experience in her educational background. This paraprofessional had more than the two years of college education that was minimally required. Schools may or may not see as great of results if their paraprofessionals do not have the same ample level of experience. Providing training for teachers and paraprofessionals in elementary schools could help bridge the gap of struggling student writers and those that are at benchmark.

As schools move to increased classroom sizes, teachers may be interested to see how these strategies would apply to a whole class scenario. Two studies looked at larger sample sizes of 127 and 262 participants (Tracy et al., 2009; Harris et al., 2012). Both studies involved schools with a percentage of 8.5 or less of students with free and reduced lunch. Another difference between participants of these two studies was fewer students had learning disabilities and the participants were predominantly white. Findings showed positive results, however, not as strong as previous research studies. Teaching two students at a time may have provided more time for students to learn the strategies being taught, giving way for greater retention and
improvement in their writing. Another factor for the smaller effect size is that students in the previous studies had lower skills at the start of instruction, allowing for bigger gains in learning.

Mnemonics are a great way to teach children to remember skills, strategies, and just about anything. Constructivism theorists suggest learning is an active process, where social interaction facilitates learning. Ask, Reflect, Text (ART) is a great strategy to help students with the SRSD strategy and make learning active (Dunn, 2011; Dunn et al., 2010). The research suggests the use of ART to combine creativity and drawing with the writing process to make learning meaningful and have an authentic purpose while creating narrative stories.

**Process Writing: Writing Workshop and Allowing Young Learners to Talk During Writing**

Writing workshop is becoming a popular interactive process approach to teaching writing. Writing workshop includes a mini-lesson given whole group, independent writing time, where students interact with each other, one on one teacher conferencing with students, and students sharing work on an author’s chair at the end of the writing period. Children learn the importance of drafting/revising and editing their pieces, while having a choice of topic based on personal interest. Students write for an authentic audience, and most importantly, use their peers for guidance throughout the process. The concepts taught make for more confident and independent writers. A downfall of these strategies is that they will be time consuming to familiarize to children. Overall, however, educators would probably see a benefit in using these teaching strategies in their classrooms.

Research for writing workshop is limited, however, in one study (Jasmine & Weiner, 2007) researchers found a slight increase in the enjoyment of writing, including increased enthusiasm. Editing and revisions did not show huge gains from pre to post survey answers,
perhaps because of the difficulty of questions and understanding the questions at this age young age. Interviews with students displayed data that students did like helping others and revising. The use of writer’s workshop could provide quality writing instruction to students in schools willing to implement this approach. Two more studies (Wagner, Nott, & Agnew, 2001; Bomer & Lamen, 2004) stressed the benefits of journal workshop and positioning in the classroom during a writing workshop. However, there is no concrete data backing these ideas besides what the teachers observed. Without providing data, Fu and Shelton (2007) reported the positive impact of adapting writing workshop for including students with learning disabilities. Though results were positive, more studies are needed with data to back their conclusions.
Chapter IV: Conclusion

Recommendation

Research suggests implementing strategies for writing in the elementary classroom is beneficial for children. SRSD and ART help children independently write stories and essays. Writing workshop sets a specific schedule and time for peer and teacher conferencing. Allowing children to discuss their writing during this time can improve the social and emotional aspect of their intellectual growth. One of the most important recommendations suggested from this literature review is the importance of understanding the variability of students’ skills when learning to write, with or without learning disabilities. There is no one answer to perfect writing instruction. None of these strategies or approaches should be used as a panacea, rather, the teacher decides what the needs of the students are and the best combination of instruction they can provide to help young writers gain the skills to succeed in this writer’s world.

An important recommendation from the current research is for teachers to plan how to use these strategies and approaches in their classrooms. This planning requires professional development and time. Little to no time is focused on the professional development of teaching writing in elementary schools. The significance of preparation for the teaching of writing and an increased amount of time for planning implementation of the strategies into their curriculum may be most valuable for teachers. Working with grade level teams can alleviate some of the intense management it takes to put these strategies into practice. In order for teachers to be teaching high quality writing instruction, they need to be given the opportunity to learn from a high quality offering of professional development where they practice as their students will.

The research recommends more time be devoted to daily writing instruction. Writing can no longer be relegated to the end of the day or if there is time. Using evidence-based practices in classrooms along with a tier support system for intervention based on needs, frequent progress
monitoring may be a necessary addition to writing instruction. Results from these studies reported writing instruction occurred 30-45 minutes daily, as opposed to only a few days a week or smaller amounts of time each day. Increasing student’s time with a pencil in hand is one of the first steps to helping children with their writing needs.

**Areas for Further Research**

Additional studies to investigate the use of a process approach including strategy instruction are needed. Future research on long-term effects of SRSD across the grades and into other areas is desirable. Effects of SRSD when teaching more than two genres may also be another topic of research to study. With less funding in schools for supplementary help in the classroom, additional research is needed to further explore applying these strategies to small versus whole group and inclusion versus pull out settings. Research has identified a positive effect with each of the studies in this review. Continued investigation of student thinking throughout the writing process is needed. Interviews may determine their thinking and internal planning before writing. Incorporating revisions into the strategies studied in the future would make the process of writing a more complete model. More studies are needed in the area of writing workshop.

**Conclusion**

Students with disabilities can learn writing strategies and processes that will provide them with the needed support to master the writing process. Strategies exist to help writing instruction become more effective in the classroom for elementary students with disabilities. Professional development that addresses these strategies will enable teachers to more effectively teach these strategies. Practice-based professional development for SRSD suggested improved writing outcomes viewed as socially valid by teachers and students (Harris et al., 2012). Once these
strategies are learned, students are capable of transferring knowledge from one genre of writing to another (Tracy et al., 2009). The research and future research on the writing strategies and processes focused on in this review will provide helpful information to teachers and members of school populations. For students with learning disabilities, these research based approaches may help them write stronger compositions, including setting goals, brainstorming and organizing their thoughts, making revisions, and sharing what they wrote. Ultimately, this will help students become prepared for the future as literate young members of society.
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