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Angella Powell, MS
and
Julie J. Masterson, PhD

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The Effects of Structured Writing Intervention for Elementary Students With Special Needs: A Systematic Review

Angella Powell, MS
Julie J. Masterson, PhD
Missouri State University

The American Speech-Language-Hearing Association (ASHA) 2006 Schools Survey indicated that literacy (reading and writing) was an area in which intervention was provided by 37% of SLPs in the schools. Because of their expertise in language and awareness of the relationship between spoken and written language, SLPs are particularly well-suited to provide intervention in writing (ASHA, 2001). For this reason, SLPs in schools should know the best and most current methods to facilitate the intervention process. The principles of evidence-based practice can guide the identification of such methods, and the approach to writing that is used for intervention should be supported by current, high-quality research (ASHA, 2005).

Nationwide statistics show that most students demonstrate poor writing skills. Deficient writing skills are evident by the middle elementary years, with over half of fourth graders demonstrating writing skills that are not adequate for classroom demands (Persky, Danne, & Jin, 2003). The 2007 National Assessment of Education Progress (NAEP) Report executive summary indicated that there has been some improvement (3% and 5% of Grades 5 and 8, respectively) in writing since the 2003 report; however, the majority of students are writing below proficiency level.

Because writing skills tend to be poor among many students in regular education, it is not surprising that students with special needs also experience difficulty with writing. The factors contributing to this difficulty are similar for students with and without special needs; however, special needs may exacerbate the difficulties students have with writing. Graham, Harris, and Troia (2000) suggested that students with learning disabilities (LD) may have weak writing skills because they do not sufficiently use strategies to accomplish a task. These students often do not plan or revise, and they might experience difficulty switching from one writing process to the next.

Others such as students with behavioral disorders find writing to be extremely difficult (Tindal & Crawford, 2002). Research also shows that students with emotional disorders struggle academically in core areas, including writing (Lane et al., 2008). Writing involves executive function components such as planning, organizing, and paying attention to the composing process—tasks that students with attention-deficit/hyperactive disorder (ADHD), for example, find problematic (Lienemann & Reid, 2008).

Individuals who are deaf or hard of hearing also find writing to be challenging. This population has difficulty writing effectively and fluently. They are deficient in lower order writing skills (such as sentence construction, grammar and vocabulary) and higher order writing skills (such as planning, organizing, introduction and addressing an audience). Teachers of students who are deaf or hard of hearing find it difficult to provide a balanced instruction related to content and form (Wolbers, 2007).

Children with special needs require well-structured writing instruction in the early years (Jasmine & Weiner, 2007; Lane, Graham, Harris, & Weisenbach, 2006). Several strategic approaches to writing have been proposed throughout the years, including self-regulation and teaching the process of writing. Other approaches focus on the metacognitive skills used in the writing processes and how they affect future writing. Zimmerman (1989) and Wong (1997) believe that an affective component to writing, such as verbal persuasion or verbal praise, should also be considered.

In this brief, we will explore the evidence for using strategic approaches to writing intervention among children with special needs. We will also identify and evaluate high-quality research used in writing intervention with elementary school students with special needs.

Method

Before searching for relevant research articles, we structured the research question according to the PICO model: **P**opulation, **I**nstruction mode, **C**omparison instruction, and **O**utcome variable (Boswell, 2005). We

questioned if elementary students with special needs (P) would show improvement in writing skills (O) after training involving structured approaches (I) when compared to those who did not receive structured approaches (C).

Inclusion Criteria

The criteria for including and excluding research articles were similar to those used by authors of previous EBP papers in speech-language pathology (e.g., Johnson & Yeates, 2006; McGinty & Justice, 2006).

1. Studies that established experimental control through use of a control group

2. Studies that included a method of instruction with identifiable procedural guidelines for composing an extended text specific to a particular genre and an outcome measure of writing at the macro level (paragraph length and depth, organizational structure, etc.)

3. Studies that focused on elementary school students who had been diagnosed as having special needs and exhibited writing deficiency when compared to their nonclinical peers.

4. Studies have been published in an English-language, peer-reviewed journal since 2003 (to prevent duplication of material provided by Graham and Harris in their meta-analysis of Self-Regulated Strategy Development [SRSD] studies prior to 2003).

Information Retrieval and Search Strategies

We searched the following databases:

Academic Premier

Communication and Mass Media Complete

ERIC

Google Scholar

PsychINFO

Social Work Abstract

SocINDEX with Full Text

Primary Search

HighWire (a search engine that enables access specifically to ASHA-published journals)

We used terms such as "writing instructions," "writing intervention," or "writing strategies" and participant terms such as "elementary students" and "special needs" as the search criteria in each of the databases.

Results

The initial search of the databases yielded 341 hits that appeared to meet the initial inclusion criteria. Of the 341 initial citation hits, 307 were eliminated because the title clearly indicated that the study did not meet at least one of the inclusion criteria. Of the remaining 34 studies, abstracts were further examined to see if they met selection criteria. Eighteen of the articles were rejected because they did not meet the inclusion criteria: (a)had a narrow focus (e.g., only measured spelling); (b) did not relate to writing; (c) related to reading more than writing; (d) were informational articles rather than experimental research studies; (e) were not conducted among elementary school age populations; or (f) were conducted before 2003.

Complete texts of the remaining 16 articles were retrieved. Seven additional studies were rejected because of an insufficient research design (e.g., simple comparisons between pre- and post-instruction performance without a control group, both control and experimental groups received treatment, or there was no clear indication of the duration of the study). The remaining ten studies were retained for inclusion in the systematic review as they met all of the inclusion criteria indicated above.

These ten studies were analyzed according to criteria suggested by Irwin, Pannbacker and Lass (2008), Melnyk and Fineout-Overholt (2005), and Troia (1999) for a systematic review. Studies were coded according to (1) research design, (2) outcome measurement, (3) participant characteristics, (4) descriptions of instructor training, and (5) instructional approach and measures. Five studies included separate treatment and control groups and provided measurements of effect size. Five studies used single-subject designs and established experimental control via comparisons of baselines and treatment conditions.

Design and Participants

The participants and treatments included in the studies are provided in Table 1. Five studies employed an experimental or quasi-experimental design in which a comparison was made between the writing performance of the experimental group and a control group. These studies

included a total of 499 elementary students in second, third, fifth, and sixth grades, ranging between 7 and 12 years old. Two studies were conducted in Spain and focused on Spanish-speaking children who were classified as having low achievement or learning disabilities. The other three studies were conducted in the United States and followed children who demonstrated emotional-behavioral disorder, had ADHD, a learning disability, a speech-language difficulty, or other health impairment. Although this brief focuses on findings about children with special needs, we note that some of the studies also included typically developing children.

The five remaining studies employed multiple-probe baseline designs with smaller numbers of participants (4 in one; 6 in each of the rest). Performance probes were taken and treatment was initiated at different points in time across participant cohorts in order to ensure an adequate baseline for comparison. Participants in both experimental and control groups were in grades 2–5 and classified as having ADHD, emotional-behavioral disorders, language delay, orthopedic impairment, a general difficulty learning to write, or were considered at risk for emotional-behavioral disorders and writing problems.

Treatment Programs

The duration of the intervention programs ranged from 2 weeks to 5 months. Sessions lasted between 20 and 30 minutes, three to five times per week. Some participants in the experimental groups received explicit instructions in writing, using a structured intervention program in their regular classroom or in small group settings. Others received instruction in an isolated area, in addition to regular classroom writing instructions. Participants in the control condition received regular classroom program as dictated by the curriculum.

Eight of the studies included in this review focused on the self-regulated strategy development (SRSD) approach developed by Graham, Harris, and Troia (2000). In this program, students were taught to write using a genre-specific strategy. SRSD includes six stages:

Develop Background Knowledge

Discuss It

Model It

Memorize It

Support It

Independent performance

Students were provided general information regarding the writing process and the use of the strategy, including the use of mnemonics to generate ideas and scaffold their writing. They also were taught self-regulation methods such as how to set goals, monitor their performance, use self-instructions and reinforcement to monitor their behavior, and use the strategy to become successful independent writers. The SRSD method was extended to include peer collaboration or a positive behavior support model in two of the studies.

Other approaches included the Demand Writing Instruction Mode (DWIM) and Social Cognitive Model of Sequential Skill Acquisition (SCM). The DWIM targeted semantic and procedural knowledge. Semantic knowledge involved information on narrative structure and the six traits of writing. Procedural knowledge required children to analyze a writing task, plan, and use writing strategies.

The SCM model had four sequential levels: observation, emulation, self control and self regulation. The instructor provided background information and modeled aloud how to perform the writing process. Students were taught self regulatory statements, coping models to identify and eliminate errors, and mastery models to set standards for performance. In addition they were given models to emulate during individual writing. Finally, they were provided graphic organizers or self regulated lists to guide their writing.

Outcome Measurement

Outcome measures reported most frequently were length and quality of the student's writing and the inclusion of critical elements for each genre of text. As shown in Tables 2 and 3, length referred to the total number of words, number of specific kinds of words, number of paragraphs, etc. Quality referred to a rater's general impression of overall writing quality based on ideation, organization, word choice, sentence structure, interesting details. Elements referred to the pertinent components of each genre targeted in instruction. That is a story or narrative was expected to include characters, setting, and an episode (event, response, actions, and consequence). A persuasive piece was to include a topic sentence, reasons, explanations, etc. Additional outcome measures were reported in some studies; however, they will not be included in this brief because of space constraints. These included planning and writing time, coherence, paragraph writing, types of sentences used, links, relevance, and thread of the plot.

One study used performance on the statewide assessment as an instrument of outcome measure. Finally, some studies documented whether the intervention resulted in increased knowledge of the writing process and self-efficacy.

Quality of Evidence

All studies were judged to have established sufficient control either by equating participants in control and experimental groups or by adequate baseline measures. Overall descriptions of the intervention procedures were considered sufficient for replication. All studies incorporating the SRSD models followed a set pattern of intervention. Slight adjustments (not affecting procedure) were made to fit the target genre or population (e.g., some elements of the writing process were not emphasized for students who would find this additional attention to detail problematic). In addition treatment fidelity was ensured by recording sessions and having instructors use a checklist to verify that elements were taught. A percentage of these recordings were rated by a second observer to ensure fidelity. In addition to providing a description of the program, the two studies conducted in Spain provided samples of the graphics used (Garcia & de Renondo, 2004) and tables mapping each session of the intervention program.

Presentation, treatment, and interpretation of findings were judged to be appropriate and sufficient for most of the studies. That is, studies involving a comparison group reported inferential statistics as well as measures of effect size comparing either the pre-post performance of the experimental group relative to the control group or comparisons between the control and experimental group(s) pre–post instruction and in some cases maintenance. However, the two studies conducted by Garcia and colleagues were somewhat challenging to interpret. Some results were presented in graphic form and the specific data points were not provided. In some cases there were discrepancies between the data reported in the text and the graphs. Finally, in the Garcia-Sanchez and Fidalgo-Redondo (2006) study the only measure of effect size provided consistently was associated with the main effect for group (two treatments, one control). Select pair-wise effect sizes were given as examples of findings the authors wished to highlight. Consequently, it was not possible to determine whether the ones that were not reported were not significant or simply not used as examples.

Effects of Structured Intervention

Two measurements were used to determine effect size and consequently the impact of intervention on outcome measure: Cohen's d (Graham, Harris & Mason, 2004; Harris, Graham & Mason, 2006) and η^2 (Bui, Schumaker & Deshler, 2006; Garcia & de Renondo, 2004; Garcia-Sanchez & Fidalgo-Redondo, 2006) both of which express components of the difference between the treatment and control group's average performance. According to Cohen (1977) a d of .25 is a small effect size, .50 is a medium effect size and .8 is a large effect size. An effect size based on η^2 is considered large if η^2 is > 0.14, medium if > 0.06–0.14 and small if between 0.01–0.06 (Cohen, 1988).

Length of Written Text

Results for outcome variables related to length of the texts written by participants in the studies employing a comparison group are shown in Table 2. Five of the 14 measures in the control group studies resulted in large effect sizes, three resulted in medium to small effect sizes, and five indicated no significant change as a result of instruction. Two of the outcomes indicating no change were in the study conducted by Bui et al. (2006), in which the experimental intervention was administered within the context of a general education class to all of the students in the class.

Results from baseline studies (see Table 3) show that most of the participants evidenced increases in average length of writings collected during the baseline to those collected post-instruction. There were a few exceptions. One of the most noteworthy was Samuel, a participant in the study by Saddler et al. (2004). The authors described his writing as becoming more "concise" (p. 15). That is, although the length of his stories decreased, there was an increase in the quality and completeness of his stories. Performance of a majority of participants decreased during the maintenance phase, however: performance rarely returned to baseline levels.

Quality of Written Text

Results for outcome variables related to quality of the text written by participants in the control group studies \are shown in Table 4. Nineteen total comparisons were made and a large majority (12) of these resulted in large effect sizes. The noteworthy exceptions came from the second graders studied by Harris et al. (2006), whose quality

ratings improved in persuasive writing (instructed genre), but not in the other three genres (i.e. story, narrative and informative writing) for those trained only in SRSD.

Results from baseline studies (see Table 5) indicated that the majority of participants' mean performance increased from baseline to post-instruction. Most of the participants either stayed the same or decreased to levels higher than baseline during maintenance. Even more noteworthy exceptions were the 3 students with emotional-behavioral disorders studied by Mason and Shriner (2008) whose quality of writing increased during post-instruction measurements but decreased to levels lower than baseline during maintenance.

Genre Elements Included in Written Text

The studies of SRSD with and without peer support conducted by Graham, Harris and Mason (2004) reported the inclusion of genre elements pre- and post-treatment (Table 6). All effect sizes were large, with the exception of narrative elements used by the group receiving only SRSD. Results from baseline studies are shown in Table 7. The four participants followed by Lienemann and Reid (2008) included all eight essay elements by the end of the instructional phase. All participants studied by Lane et al. (2008) included more basic story elements post-instruction; however their performance during maintenance varied. Two participants continued to add elements, the performance of two participants decreased but still remained above baseline, and the performance of two participants returned to baseline.

Conclusion

The evidence indicates that, for the most part, a structured approach will improve the writing of children who experience writing difficulties. These programs provide explicit instructions in the process of writing as well as models (appropriate text as well as teacher/ peers talking through the process of writing) and scaffolding. This scaffolding can be in the form of planners, graphic organizers or mnemonics that provide students with a guide or a reminder of the requirements of good writing. With a strategic approach, students' writing not only improved in terms of length and inclusion of required elements of a particular genre, but also in overall quality. When compared to less structured approach, such as the Writing Workshop, children with writing difficulty seem to benefit more from a structured approach to writing.

It is not clear if one structured approach was more effective than the other. Most studies highlighted in this brief used the SRSD approach for intervention. Although studies have been conducted using other approaches such as the Writer's Workshop, they lacked the rigidity in terms of design and consequently were not included in this brief.

The two approaches designed for research (DWIM and SCM) have not been tested in subsequent research to provide further comparison. What is clear is that there was an increase in most outcome measures regardless of the approach used. This would seem to reinforce Graham and Perin's (2006) view that no single approach will meet the needs of all the students and approaches are often inter-related. In addition there is need for further research so that the most appropriate strategy might be chosen for classrooms, small groups or individuals. The necessary emphasis on fidelity of treatment in the SRSD studies results in implementation that likely will be different from actual implementation in typical classrooms, and this issue will need to be addressed in future studies.

When compared to regular instructions or the Writer's Workshop, Harris et al. (2006) highlighted some differences that would indicate why the SRSD (and by extension other structured approaches) provides better outcome measures.

1. The explicit and systematic nature of these approaches seems to provide more clarity, guidance and model and a better framework to scaffold the process of writing than the regular classroom instructions. When considering that writing is a complex skill, this "mapping", as highlighted by the approaches, seems to regulate writing and makes it less exacerbating for struggling writers. Furthermore there is a thrust towards mastery and independence.

2. Programs like the SRSD are adaptable to different populations and settings. For example, Lienemann and Reid (2008) excluded elements of the writing process such as editing, revising and publishing because of the demand for attention to detail: an inherent deficit already experienced by children with ADHD. All studies excluded lower order skills such as handwriting, spelling, grammar, in their outcome measures. This allowed for greater emphasis on higher order skills and less metacognitive drainage. Inclusion of these skills as outcome measures as students progress through the educational system, is an area for further research.

As yet, it is unclear how strong generalization of skills occurs across genres. Both studies (Graham et al., 2004, Harris et al., 2006) that examined instructed and uninstructed genres showed a transfer in genre elements from narrative to story writing; possibly a result of requiring the same genre elements. Graham et al. (2004) showed significant effect size for transfer in length and quality. In Harris et al. (2006), there was either no significance or significance was shown only among SRSD+ (Self Regulated Strategy Development Plus Peer Support) peers group. This would seem to indicate that peer support helped those with writing disability, but they had yet to acquire independence in generalization.

Generalization on a long-term basis also affects interpretation of maintenance data, because most of the reported maintenance scores were recorded a few weeks after intervention. It is not uncommon for teachers to review the writing process and to reuse strategies or materials, prior to introduction of a new genre in regular classrooms. Like their peers, children with writing difficulty will need reinforcement and additional practice to maintain performance on and across genres.

Implications for SLPs

Writing is an important communication skill that all students, including those with a disability, have to master. As more SLPs are required to provide services to struggling writers, they can implement programs that have some support as effective treatment. These programs should allow for success despite confounding factors of a disability. Examining the characteristics of the disability and the associating writing problems is important. Adaptable and available structured approaches to writing, such as the SRSD and SCM, make intervention more systematic and concurrent to need. Early intervention has proven to be effective and may offset long term deficit.

Treatment setting also is important. One study was conducted in a regular classroom setting. This had noticeably the smallest increases in outcome measures. This is a limitation of the available research. The fact that treatment delivered to small groups, meeting for 20 to 30 minutes per session, tended to provide strong outcome measures is good news for SLPs who usually provide therapy in a similar context. While there is need for further research among different populations and using different measures, SLPs can use available programs and their knowledge of language to foster evidence based writing intervention.

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Table 1. Characteristics of Populations and Treatments

Study	Grade Age	Sex	Race	Disability classification	Design	Treatments	Context
Bui, Schumaker, & Deshler (2006)	Grade 5 10–12 years	LD: Males: 11 Females: 3	Caucasian African American Hispanic Asian American Native American Indian	LD, ED, OHI	Control Group	DWIM	Within general education classroom
Garcia & de Caso (2004)	Grades 5–6 10–12 years	Males: 84 Female: 43	Not specified	Writing LD	Control Group	EPPyFPE	Small groups in standard group setting
Garcia-Sanchez & Fidalgo-Redondo (2006)	Grades 5–6 10–11 years	Males: 78 Females: 43	Native Spanish	LD, LH	Control Group	SRSD SCM	Small group extracted from regular classrooms for writing intervention
Graham, Harris, & Mason (2004)	Grade 3 M = 8 years	Males: 44 Females: 28	Black, White, Hispanic, Asian	LD, SLD, ADHD, ED	Control Group	SRSD SRSD +	Location outside the classroom
Harris, Graham, & Mason (2006)	Grade 2 M = 7 years	Males: 37 Females: 26	Black, White, Hispanic	SLD, LD, BD	Control Group	SRSD SRSD +	Location outside of the regular classroom
Lienemann, Graham, Leader-Janssen, & Reid (2006)	Grade 2 7–8 years	Males: 2 Females: 4	European American, African American, Hispanic	1–ADHD, (and other impairment) 1 OHI	Multiple baseline Multiple probe	SRSD	Not specified
Lane, Harris, Graham, Weisenbach, Brindle, & Morphy (2008)	Grade 2 7–8 years	Males: 5 Females: 1	Caucasian African American	At risk for behavioral problems and poor writing skills	Multiple probe	SRSD	Space outside the classroom
Lienemann & Reid (2008)	Grades 5–6	Males: 2 Females: 2	Caucasian	ADHD also 2 OHI 1 BD 1 reading & writing	Multiple baseline	SRSD	Hallway outside the classroom
Mason & Shriner (2008)	Grades 2–5 8–12 years	Males: 5 Female: 1	Caucasian African American	EBD –4 At risk for EBD –2	Multiple baseline	SRSD	Resource room + regular classroom writing instruction
Saddler, Moran, Graham, & Harris (2004)	Grade 2 7 years	Males: 3 Females: 3	African American	Difficulty with writing	Multiple baseline	SRSD	Outside of the classroom + regular classroom writing instruction

Status Classifications: LD–Learning Disability; BD–Behavioral disorder; ED–Emotionally Disturbed; EBD–Emotional/Behavioral Disorder; SL–Speech and Language Difficulty; ADHD–Attention deficit and Hyperactive Disorder; LA–Low achievement.

Assessment/Treatment Methods: SRSD–Self Regulated Strategy Development; SRSD+ –Self Regulated Strategy Development Plus Peer Support; SCM–Social Cognitive Model of Sequential Skill Acquisition ; DWIM–Demand Writing Instruction Mode; EPPyFPE–Assessment of Writing Planning Process and other Psychological Factors.

Table 2. Findings Regarding Measures of Length From Studies Involving a Control Group

Study	Measure	Finding
Bui, Schumaker, & Deschler (2006)	Length (Students with LD)	NS (No significant difference)
Garcia & de Caso (2004)	Links (description, essay, narration)	η^2 range .03 to .079
	Paragraphs	η^2 range .16 to .096
	Function Words Content Words	η^2 = .001 η^2 = .000
Garcia Sanchez & Fidalgo Redondo (2006)	Number of Words	d = .36
Graham, Harris, & Mason (2004)	Number of Words–Persuasive (instructed)	SRSD : d = 2.15 SRSD +: d = 1.83
	Number of Words–Narrative (instructed)	NS
	Number of Words–Story (noninstructed)	SRSD : d = 3.23 SRSD +: d = 2.29
	Number of Words– Informative (noninstructed)	SRSD : d = 1.57 SRSD +: d = 1.58
Harris, Graham, & Mason (2006)	Number of Words–Persuasive (instructed)	SRSD : d = 1.41 SRSD +: d = 1.27
	Number of Words–Narrative (instructed)	NS
	Number of Words–Story (noninstructed)	SRSD : NS SRSD +: d = .94
	Number of Words–Informative (noninstructed)	NS

Table 3. Findings Regarding Measures of Length From Studies Involving Multiple Baselines

Study	Measure	Finding
Lienemann, Graham, Leader-Janssen, & Reid (2006)	Number of Words	5 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, 1 P increased; the other 4 decreased but did not return to baseline levels. 1 P stayed the same following instruction, but decreased during maintenance sessions.
Lane, Harris, Graham, Weisenbach, Brindle, & Morphy (2008)	Total Words	All 6 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, 1 P increased; the other 5 decreased but did not return to baseline levels.
Lienemann & Reid (2008)	Number of Words	All 4 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, 1 P increased; the other 3 decreased but did not return to baseline levels.
Mason & Shriner (2008)	Number of Words	All 6 Ps had higher means for post-instruction sessions than baseline sessions. During maintenance, 1 P increased, 2 Ps decreased but did not return to baseline levels, and 3 Ps decreased to performance levels lower than baseline.
	Number of Transition Words	All 6 Ps had higher means for post-instruction sessions than baseline sessions. During maintenance, 1 P increased, 3 Ps decreased but did not return to baseline levels, and 2 Ps decreased to baseline levels.
Saddler, Moran, Graham, & Harris (2004)	Number of Words–Story	4 Ps had higher means for post-instruction sessions than baseline sessions; 2 were followed during maintenance and their performance continued to increase; 2 Ps with highest baseline means decreased at post-instruction and 1 continued to decrease during maintenance. The other increased during maintenance to a level higher than baseline.
	Number of Words–Narrative	4 Ps had higher means for post-instruction sessions than baseline sessions; 2 were followed during maintenance and their performance continued to increase.; 2 Ps with highest baseline means decreased at post-instruction and continued to decrease during maintenance.

Table 4. Findings Regarding Measures of Quality From Studies Involving a Control Group

Authors	Measure	Finding
Bui, Schumaker, & Deschler (2006)	Paragraph Writing Score (Students with LD)	d = .72
	Theme Writing Score (Students with LD)	d = .01
Garcia & de Caso (2004)	No specific measure for quality reported	
Garcia-Sanchez & Fidalgo-Redondo, (2006)	Quality	d = .38
Graham, Harris & Mason, (2004)	Quality–Persuasive (instructed)	SRSD : d = 2.80 SRSD +: d = 2.14
	Quality–Narrative (instructed)	NS (No significant differences)
	Quality–Story (noninstructed)	SRSD : d = 1.90 SRSD +: d = 2.42
	Quality–Informative (noninstructed)	SRSD : d = 1.08 SRSD +: d = 1.15
Harris, Graham, & Mason (2006)	Quality–Persuasive (instructed)	SRSD : d = 1.31 SRSD +: d = 1.63
	Quality–Narrative (instructed)	NS
	Quality–Story (noninstructed)	SRSD : NS SRSD +: d = .87
	Quality–Informative (noninstructed)	SRSD : NS SRSD +: d = 1.08

Table 5. Findings Regarding Measures of Quality From Studies Involving Multiple Baselines

Study	Finding
Lienemann, Graham, Leader-Janssen, & Reid, (2006)	All 6 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, performance of 3 Ps increased and 3 Ps decreased but did not return to baseline.
Lane, Harris, Graham, Weisenbach, Brindle, & Morphy (2008)	All 6 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, performance of 2 Ps increased, 3 Ps stayed the same, and 1 P decreased but did not return to baseline.
Lienemann & Reid (2008)	All 4 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, performance of 1 P increased, and 3 Ps decreased but did not return to baseline.
Mason & Shriner (2008)	All 6 Ps had higher means for post-instruction sessions than baseline sessions. During maintenance, 1 P increased, 2 Ps decreased but did not return to baseline levels, and 3 Ps decreased to performance levels lower than baseline.
Saddler, Moran, Graham, & Harris (2004)	Story: 5 Ps had a higher mean for story quality ratings for post-instruction sessions than baseline sessions. Performance of the 3 Ps followed during maintenance continued to increase. 1 P's mean for story quality ratings slightly decreased from baseline to post-instruction; however performance increased during maintenance to levels higher than baseline. Narrative: 5 Ps had a higher mean for narrative quality ratings for post-instruction sessions than baseline sessions. Performance of 2 Ps followed during maintenance continued to increase and 1 P decreased. 1 P's mean for story quality ratings slightly decreased from baseline to post-instruction; however performance increased during maintenance returned to baseline.

Table 6. Findings Regarding Inclusion of Genre Elements From Studies Involving a Control Group

Study	Measure	Finding
Bui, Schumaker, & Deschler (2006)	No measure of elements taken.	
Garcia & de Caso (2004)	No measure of elements taken.	
Garcia Sanchez & Fidalgo Redondo (2006)	No measure of elements taken.	
Graham, Harris, & Mason (2004)	Elements– Persuasive (instructed)	SRSD : d = 2.04 SRSD +: d = 1.46
	Elements– Narrative (instructed)	SRSD : NS SRSD +: d = 1.28
	Elements–Story (noninstructed)	SRSD : d = 1.79 SRSD +: d = 1.76
	Elements–Informative (noninstructed)	NA
Harris, Graham, & Mason (2006)	Elements–Persuasive (instructed)	SRSD: d = 1.68 SRSD +: d = 1.64
	Elements–Narrative (instructed)	SRSD: d = 1.15 SRSD +: d = 1.50
	Elements–Story (noninstructed)	SRSD: d = 1.52 SRSD +: d = 1.79
	Elements–Informative (noninstructed)	NA

Table 7. Findings Regarding the Inclusion of Genre Elements From Studies Involving Multiple Baselines

Study	Finding
Lienemann, Graham, Leader-Janssen, & Reid, (2006)	No measures for genre elements taken.
Lane, Harris, Graham, Weisenbach, Brindle, & Morphy (2008)	All 6 Ps had a higher mean for post-instruction sessions than baseline sessions. During maintenance, performance of 2 Ps increased and 2 Ps decreased but did not return to baseline levels. 2 Ps did not change from baseline through maintenance.
Lienemann & Reid (2008)	All 4 Ps had a higher mean for post-instruction sessions than baseline sessions. No maintenance measures were taken.
Mason & Shriner (2008)	No measures for genre elements taken.
Saddler, Moran, Graham & Harris (2004)	No measures for genre elements taken.