

Using the Expressive Writing Program to Improve the Writing Skills of High School Students With Learning Disabilities

Abstract: The complex nature of written expression presents difficulty for many students, particularly those with learning disabilities (LD). The literature in the area of written expression and students with learning disabilities indicates that explicit, rule-based instruction can enhance the writing skills of struggling students. Research in Direct Instruction (DI) writing programs is promising, but limited at this time to a small number of group design studies. The purpose of this study was to investigate the effects of the DI writing program, *Expressive Writing*, for high school students with learning disabilities using a single-subject design methodology. Results indicated that the *Expressive Writing* program improved the writing skills of the students in this study. Students also were able to generalize and maintain the writing skills learned during intervention.

Writing is a complex metacognitive activity that draws on an individual's knowledge, basic skills, strategies, and ability to coordinate multiple processes. Graham (1997) identified the following four vital areas in the writing process: (1) knowledge of writing and writing topics,

(2) skills for producing and crafting text, (3) processes for energizing and motivating participants to write with enthusiasm, and (4) directing thoughts and actions through strategies to achieve writing goals. Scardamalia and Bereiter (1986) also described the cognitive factors that influenced writing. These researchers noted factors such as the speed at which memory is searched, the amount of information stored in short-term memory, the speed at which information is placed in long-term memory, the number and nature of competing demands for attention, and the efficiency with which the writer can switch attention among competing demands have profound effects on the writing process. Less skilled writers consider a writing assignment as an opportunity to tell *everything* they know about a topic (Scardamalia & Bereiter, 1986). Skilled writers, on the other hand, demonstrate knowledge of text structure and the ability to fully develop ideas. The authors found this knowledge of text structure provides a "map" for writers to follow during text generation, resulting in more coherently organized writing.

Students with learning disabilities (LD) often find writing an especially challenging task. They struggle more than their peers without disabilities on a variety of written language tasks (Graham, Harris, MacArthur, & Schwartz,

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1991). These researchers found that students with LD often have difficulty with the physical demands and conventions of writing fluently. They also have difficulty with higher-level cognitive processes such as setting goals, generating appropriate content, organizing their writing, and evaluating and revising their products. They do little planning, revising, and other self-regulation strategies when writing (Graham, 1997).

Other researchers have also noted the numerous challenges experienced by students with written expression deficits. These include a lack of sensitivity to organizational patterns and text structures (Morocco & Neuman, 1986), as well as deficits in the mechanics of writing such as spelling, capitalization, punctuation, and handwriting skills (Houck & Billingsley, 1989). Moreover, Morris and Crump (1982) reported, when compared with typically developing peers, students with written expression problems used fewer word types in their writing. Similarly, Thomas, Englert, and Gregg (1987) found that students with LD frequently stop the writing process prematurely, indicating difficulty in producing multiple factual statements about familiar topics. Students with LD also tend to repeat information and generate irrelevant ideas pertaining to the writing topic.

Lack of organizational skills, sensitivity to text structure, and difficulties with the mechanics of writing are compounded by motivational problems due to repeated failure (Graham et al., 1991). However, expressive writing research indicates that instructional programs that provide explicit, teacher-directed, rule-based instruction and include specific strategies for prewriting planning strategies are effective for the writing achievement of participants with LD (Troia & Graham, 2002).

Direct Instruction in Written Expression

Direct Instruction (DI) is a research-validated method of instruction that has been repeatedly

shown to be effective in teaching students with a variety of LD (Adams & Engelmann, 1996). DI includes fast-paced, well-sequenced, highly focused lessons (Swanson, Hoskyn, & Lee, 1999). Students are usually instructed in small groups and are given several opportunities to respond in unison and individually, with immediate feedback using specific correction procedures. Teachers using the DI methodology follow specific stages of instruction. Teachers (1) *model* (provide the correct response), (2) *lead* (have students say the correct answer with the teacher), and (3) *test* (give immediate and delayed probe on the task initially attempted). Skills are taught until the students exhibit task mastery and are subsequently reviewed and practiced (Adams & Engelmann, 1996).

According to Swanson et al. (1999), tenets of DI used to promote mastery learning include (1) stating learning objectives and informing the students of performance expectations; (2) reviewing skills necessary to understand the concept; (3) presenting information, giving examples, and demonstrating concepts/materials; (4) posing questions to the students and assessing their level of understanding; (5) correcting mistakes; (6) assessing performance; (7) giving immediate feedback; and (8) providing distributed practice and review.

However, the literature has very few published research studies regarding DI and the development of writing skills. One written expressive program that incorporates the tenets of DI is *Expressive Writing* (Engelmann & Silbert, 1983). *Expressive Writing* is an intervention program designed to accelerate the skills of students who are markedly behind in written expression. The program presents the key components of the writing process, including sentence and paragraph writing, drafting, revising, and editing for clarity. Writing skills are presented through a carefully designed spiraling sequence. Using a component skill to composite skill approach, students master pre-skills before applying

them to unpracticed tasks. Activities in the *Expressive Writing* program are designed to provide an introductory approach with many opportunities for practice and review over time. Student success is promoted through systematic presentation, practice, and review of grammar, usage, and punctuation that are necessary for effective writing.

Reasoning and Writing is another DI writing program that is developmental in design and may be used as a grade-appropriate curriculum for students with and without disabilities (Engelmann & Silbert, 1991). *Reasoning and Writing* is a DI writing program similar to *Expressive Writing* in that the stages of the writing process, including drafting, revising, and editing for clarity, are presented. However, *Reasoning and Writing* presents a wider array of genres of writing than *Expressive Writing*. For example, *Reasoning and Writing* introduces writing narratives, expository passages, essays, directions, summaries, critiques, and letter writing as developmental writing skills are advanced, whereas *Expressive Writing* presents narrative writing exclusively as an intervention for students struggling with written expression.

Three studies using *Reasoning and Writing* have been reported (Ginn, Keel, & Fredrick, 2002; Keel & Anderson, 2002; Roberts, 1997). Studies using *Reasoning and Writing* included participants with mild disabilities (Keel & Anderson, 2002; Roberts, 1997), and participants who were gifted (Ginn et al., 2002) receiving services in resource settings. These studies indicated significant gains between pre- and posttests in written expression as measured by standardized tests of written language.

Keel and Anderson (2002) conducted a study in which six elementary participants with LD, four with behavior disorders (BD), and one participant with both LD and BD, were instructed using the *Reasoning and Writing* program. Similarly, Roberts (1997) conducted a

study with participants with LD using the *Reasoning and Writing* program. Both studies used a pretest/posttest design to give selected parts of the *Test of Written Language, 3rd Edition (TOWL-3)* (Hammill & Larsen, 1996). Keel and Anderson found that participants with LD and BD made significant gains on the subtests of the TOWL-3. In addition, two fourth graders, who were administered the TOWL-3 at the beginning of the next school year, maintained gains, as demonstrated on norm-referenced measures, after treatment ended. Most notably, Roberts reported that after 7 months of DI in *Reasoning and Writing*, an LD eligibility analysis showed that only 2 of the 8 participants still qualified for LD services in the area of written expression.

Curriculum-Based Measures and Written Expression

The Elementary and Middle Schools Technical Assistance Center (EMSTAC; 2004) promotes the use of Curriculum-Based Measures (CBM) to facilitate student achievement across disabilities and content areas. Through the EMSTAC analysis of intervention research, researchers showed that students with LD could achieve growth rates comparable to their general classroom peers when the selected interventions, such as CBM procedures, are chosen and implemented with treatment integrity (Deno, Fuchs, Marston, & Shin, 2001). Fuchs and Fuchs (1991) found that CBM for the purpose of monitoring student performance enabled educators to make appropriate instructional changes. When CBM data are routinely collected, teachers can easily examine data related to student performance and make instructional changes accordingly (e.g., Allinder, Bolling, Oats, & Gagnon, 2000; Fuchs & Fuchs, 1990). Research has shown that CBM is an effective way of monitoring a student's progress, probing a classroom's curriculum, screening students who might have disabilities affecting learning, and providing guidance for appropriate instruction (Fuchs,

Fuchs, & Hamlett, 1990). Because CBM measures are often given regularly at short intervals, students' progress in achieving academic goals can be tracked over time. CBM measures, therefore, provided an effective method to assess students' gains in writing as they were taught the *Expressive Writing* program.

One CBM used to measure writing skills is Correct Word Sequences (CWS; Crawford, 2001). Using this method, the number of CWS produced by the student during the first 3 minutes of timed writing samples is calculated. Writing fluency is defined as the combination of (1) adherence to rules of grammar and mechanics and (2) rate of production of writing as measured through calculation of the number of CWS written during a timed writing session (Parker, Tindal, & Hasbrouck, 1991; Tindal & Parker, 1989, 1991; Videen, Deno, & Marston, 1982). In these studies, the use of CWS was empirically supported as a way of measuring growth in the area of writing for students with and without disabilities. CWS correlated highly with the number of words written ($r = .92$), the number of words spelled correctly ($r = .92$), teachers' holistic ratings on a writing sample ($r = .85$), and the TOWL-3 ($r = .69$) (Videen et al., 1982). CWS were shown to correlate with teachers' holistic judgments of regular education participants' writing skills ($r = .85$) (Parker et al., 1991), as well as participants in special education and remedial programs ($r = .73$ and $.75$, respectively) (Tindal & Parker, 1989). Parker et al. (1991) found that the metrics most appropriate for screening and eligibility for special education services were the percentage of correctly spelled words based on a study involving 2,160 participants in grades 2 to 11. At the secondary level, the use of the percentage of CWS and the percentage of words spelled correctly were shown to be good predictors of holistic ratings of students' writing (Parker et al., 1991; Tindal & Parker, 1989). The authors of these two studies cautioned against the use of the percentage measures for evaluating writing. The use of percentages

may mask student progress in writing (Parker et al., 1991; Tindal & Parker, 1989). Therefore, this study targeted, as the dependent measure, the number of CWS written rather than percentage of CWS written in order not to inhibit interpretation of writing skill acquisition for participants.

The purpose of the study was to investigate the effectiveness of *Expressive Writing* for the acquisition and maintenance of narrative writing skills for high school students with LD. This study was designed to answer the following research questions: (1) What effect does *Expressive Writing* have on the narrative writing skills of high school students with LD, when CWS is used to assess progress? (2) If gains are made, will the skills generalize to a standardized measure of narrative writing skills? (3) If gains are made in the area of writing, will the skills be maintained over time?

Method

Participants

This study was conducted in a public high school in a large metropolitan area of the southeastern United States. The school has 1,836 students of which 9 percent of the students qualify for special education services. Thirty-three percent of the school population received free or reduced-price meals. Forty-six percent of the students were African American, 39 percent were Caucasian, 12 percent were Hispanic, and 2 percent were Asian American.

Three high school students with LD participated in this study. The participants were identified as having LD according to state and local eligibility criteria. Demographic information about the students is provided in Table 1. The participants ranged in age from 14 to 16 years with intelligence quotients (IQ) ranging from 92 to 107. As shown in Table 1, each participant had IQ scores within or above the normal range and a deficit in achievement measures in written expression skills, as shown by their per-

Table 1
Information on Participant Demographics, IQ, and Writing Achievement

<i>Participant</i>	<i>Age</i>	<i>Gender</i>	<i>Race</i>	<i>IQ</i>	<i>DAB Writing Score^a</i>	<i>Other Areas of LD</i>
Kurt	16	M	AA ^b	92	68	Reading
Angellica	15	F	AA	107	69	Reading
Darren	16	M	H ^c	97	67	Reading

Note. ^aDiagnostic Assessment Battery, ^bAfrican America, ^cHispanic.

formance on the Diagnostic Achievement Battery subtest.

The students' Individualized Education Plans included documentation of a significant weakness in written expression and specified goals and objectives that addressed writing skills weaknesses. All participants received services in a special education setting for at least one 90-minute period per day. All phases of the study were delivered in a special education classroom physically similar to other classrooms in the school.

Materials

Materials included *Expressive Writing I* student book and the teacher presentation book. *Expressive Writing* focuses on the writing and the editing of basic sentences, paragraphs, and stories. Instructional strands included (1) mechanics, (2) sentence writing, (3) paragraph and story writing, and (4) editing. See Table 2 for a list of skills taught in *Expressive Writing*.

Independent and Dependent Variables

The independent variable was the writing instruction of Level 1 of *Expressive Writing* (Engelmann & Silbert, 1983). See Materials section for a complete description of *Expressive Writing*. Two dependent variables were used for this study. The first dependent

variable was writing fluency on narrative writing assignments as assessed by the number of CWS (Crawford, 2001) written. A CWS was defined as (1) two adjacent, correctly spelled,

Table 2
Overview of Skills Presented in Expressive Writing

Mechanics

- Writing sentences beginning with capital letters
- Using commas
- Using quotation marks
- Capitalizing proper nouns

Sentence Writing

- Writing and correctly punctuating sentences
- Using introductory phrases

Paragraph and Story Writing

- Using varied sentence types (e.g., simple, compound, and complex)

Editing

- Editing for punctuation and tense agreement
- Editing for run-on sentences

Research Design

This study used a multiple probe design across participants. The multiple probe design is a variation of the multiple baseline design, in which participants are probed intermittently rather than continuously during baseline (Horner & Baer, 1978). The design is a single-subject method that allows for demonstration and replication of a functional relationship between the dependent and independent variables (Barlow & Hersen, 1984). Maintenance probes were taken for each participant 2, 4, and 6 weeks after the completion of all 50 lessons of *Expressive Writing*.

Implementation Procedures

Placement and Pretesting. The first author administered the placement test for *Expressive Writing* and TOWL-3 in a group setting. All participants met the criteria for placement in *Expressive Writing*. Participants were given the TOWL-3 prior to implementation of the intervention to assess preintervention writing skills. The forms of the test were counterbalanced, so that all of the participants did not receive the same form of the test during pre- and posttesting.

Baseline Procedures. During baseline, participants were given topic sentences and directed to write passages about the topic. The writing completed by the participants during the first 3 minutes of writing time was scored using the CWS method (Crawford, 2001). Participants did not receive feedback on writing samples during baseline. The first participant began instruction in *Expressive Writing* when a stable baseline was achieved varying no more than 20 percent above or below the baseline mean (Wolery & Dunlap, 2001).

Intervention Phase. The participants were members of three different small instructional groups. Each group consisted of no more than four members. Each nonparticipant member also met the placement criteria of *Expressive Writing*. The participants were instructed daily

for 50 consecutive sessions, except when a participant was absent. Then a make-up session was necessary. As a part of the daily *Expressive Writing* lessons, participants were instructed to produce paragraphs with a topic sentence, supporting details, and a conclusion. The paragraph-writing component of each lesson was scored for CWS and served as the probe or dependent measure for the study. Only data from the first 3 minutes of writing were analyzed for CWS.

The first author presented lessons following a script and procedures in the program's teacher presentation book. The first author has 9 years' experience in teaching special education and had taught *Expressive Writing* five times prior to this study with students of various ages and disabilities. The first author was formally trained to implement DI programs and has trained other teachers in the use of the programs.

Each lesson took approximately 50 minutes. Lessons missed due to absences or school day scheduling conflicts were made up the following school day or later that same day. Each participant received instruction in all 50 lessons of the *Expressive Writing* program. Beginning on Lesson 12 and continuing through Lesson 50 of the program, students were required to write 3-minute written responses to a program-based prompt. The CWS calculated for each participant from these 39 timed written responses served as the probes in this study.

Because there has been no previous single-subject design research on DI writing, a decision rule established for this study was that the first participant had to achieve an increase of 30 percent in CWS above his/her baseline mean for three consecutive sessions prior to the implementation of the *Expressive Writing* intervention with the second participant. The second participant had to achieve an increase of 30 percent in CWS above his baseline mean for three consecutive sessions prior to the implementation of the treatment with the third participant.

Posttesting and Maintenance. Participants were given the alternate form of the TOWL-3 upon completion of all lessons of the program to assess generalization. Maintenance probes also were conducted to determine if the participants continued to perform the writing behaviors at a consistent rate over time. The first maintenance measure was taken 2 weeks after the conclusion of the intervention for each participant. The second and third measures were taken 4 and 6 weeks, respectively, after the conclusion of the intervention for each participant.

Treatment Fidelity. An independent graduate student who was formally trained in DI methodology conducted treatment fidelity measures. The graduate student observed 20 percent of the sessions. The observer measured treatment fidelity of the DI groups using a modified version of the Teacher Monitoring Program (Bird & Fitzgerald, 1992) with measures for signaling, number of responses reinforced, and appropriate implementation of correction procedures. The desired percentages of 90 percent student response to teacher signaling, teacher praise of 25 percent of correct responses, and proper correction procedures followed for 80 percent of mistakes made were obtained.

Social Validity

Social validity is important for establishing acceptability and usefulness of the assessment and intervention procedures (Kazdin, 1982; Wolf, 1978). Social validity was addressed at the conclusion of the intervention phase. Participants completed a survey containing four questions in a yes/no format that assessed whether participants felt their writing skills improved during the intervention period and whether they enjoyed the instructional writing program.

Results

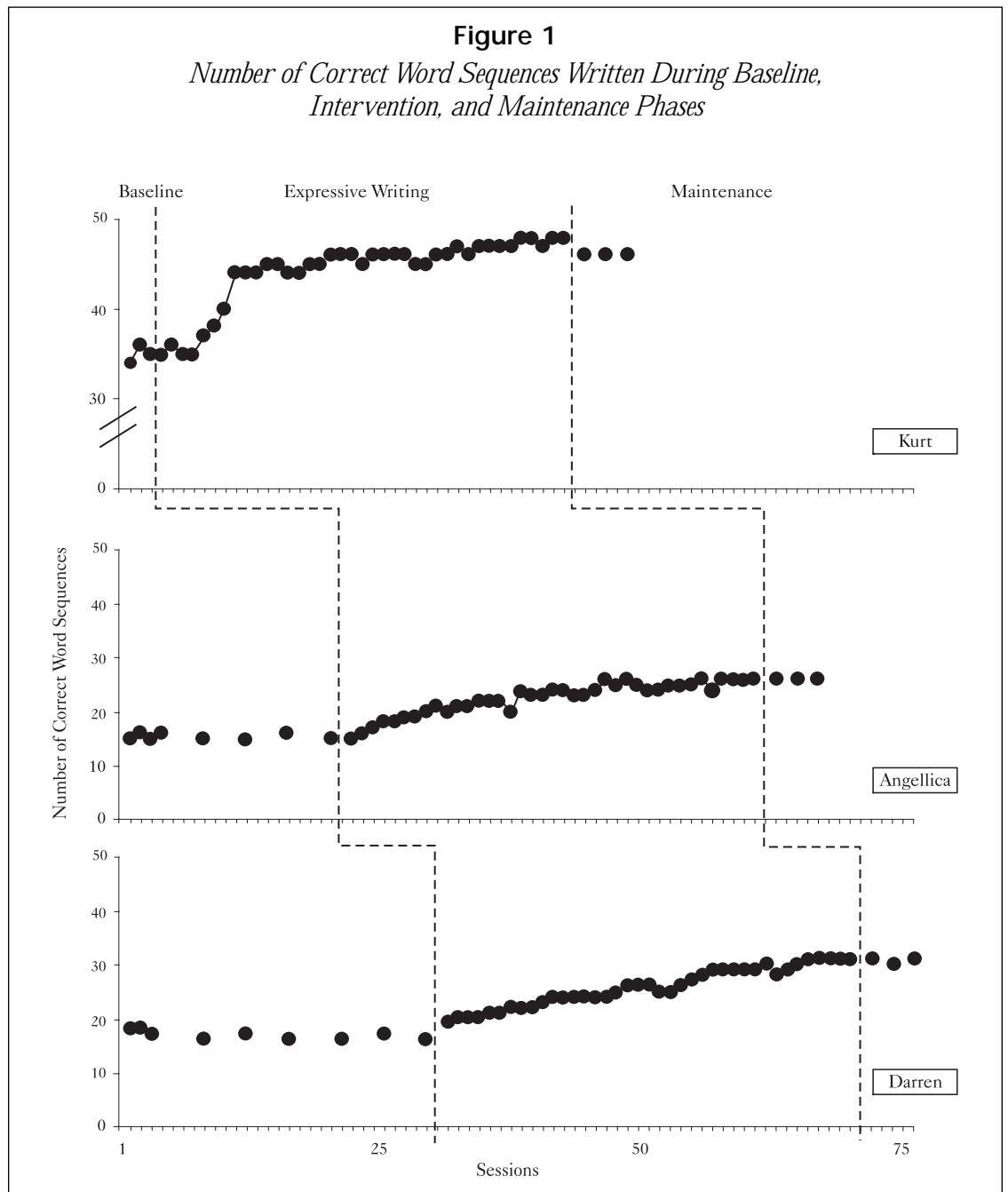
To determine the effect of *Expressive Writing* on the writing skills of high school students

with LD, the number of CWS written in the first 3 minutes of writing sessions was examined. The number of CWS per instructional session is illustrated in Figure 1. Each student's number of CWS increased in a nonvariable upward pattern. There was little overlap across baseline and intervention phases. According to Richards et al. (1999), a small percentage of overlap provides assurance to the researcher that a change in behavior has occurred between phases. The percentage of overlap between baseline and intervention phases for Kurt, Angellica, and Darren were .07, .05, and .38, respectively. During baseline, Kurt wrote a mean of 35 CWS. This increased to an average of 42 during intervention. Maintenance probes were taken at 2, 4, and 6 weeks after completion of the intervention. Each of Kurt's maintenance probes was 46 CWS. During baseline, Angellica produced a mean of 16 CWS. This increased to a mean of 24 during intervention. All three maintenance probes taken at 2, 4, and 6 weeks after completion of the intervention were 26 CWS. During baseline, Darren wrote a mean of 16 CWS. This increased to a mean of 26 during intervention. Maintenance probes taken at 2, 4, and 6 weeks after completion of the intervention were 31, 30, and 31 CWS respectively. A functional relationship was demonstrated between the *Expressive Writing* program and the number of CWS.

Overall gains in narrative writing skills and generalization to a standardized measure were assessed through pre- and posttest administration of the spontaneous writing components of TOWL-3. Each participant's scores on this measure indicated an improvement in writing skills demonstrating the generalization of writing skills from narrative paragraphs to standardized assessment. Table 4 provides a summary of overall TOWL-3 and composite scores for the three students. Kurt's overall TOWL-3 quotient score improved from a pretest score of 76 to a posttest score of 79. His Contrived Writing quotient score improved from a pretest score of 74 to a posttest score of 77. His

Spontaneous Writing quotient score improved from a pretest score of 81 to a posttest score of 85. Angellica's quotient score improved from a pretest score of 72 to a posttest score of 81.

Her Contrived Writing quotient score improved from a pretest score of 73 to a posttest score of 79. Her Spontaneous Writing quotient score improved from a pretest score of



74 to a posttest score of 85. Darren's quotient score improved from a pretest score of 74 to a posttest score of 79. His Contrived Writing quotient score improved from a pretest score of 73 to a posttest score of 77. His Spontaneous Writing quotient score improved from a pretest score of 79 to a posttest score of 85.

Social validity measures indicated that all three students felt they were better writers after completing the program. Two students enjoyed the program. Two would recommend *Expressive Writing* for students next year. All three students indicated they believed they will remember what they learned in *Expressive Writing* next year.

Discussion

This study addressed the effect of *Expressive Writing I* (Engelmann & Silbert, 1983) on the writing skills of high school students with LD. Results support and extend the existing literature on the effectiveness of DI (Adams & Englemann, 1996) to teach writing skills to students. The use of the multiple probe design to assess the effects of writing instruction with students with LD extends the existing body of literature to include the single-subject experimental design.

All three high school students responded very positively to the DI writing program. Results for all three participants were similar, with remarkable gains in the number of CWS written. Each of the participant's data showed steady, upward trends rapidly emerging after instruction of *Expressive Writing*. Existing literature measuring the writing performance of students with and without disabilities indicates that students generally make gains of approximately 10 CWS per academic school year, given typical writing instruction (Parker et al., 1991; Tindal & Parker, 1989, 1991; Videen, Deno, & Marston, 1982). In this study, Kurt acquired and maintained gains of 9 CWS and Darren acquired and maintained gains of 14 CWS. The progress of students in this study, which occurred in a relatively short period of time (50 daily instructional sessions), matches or surpasses expected gains for an entire school year. These results indicate the effectiveness of *Expressive Writing*.

The effectiveness of the intervention also was apparent in the generalization measures. All students made gains in the overall and composite standardized measure of the TOWL-3 (Hammill & Larsen, 1996). The gains in student performance in writing when provided instruction through *Expressive Writing* may provide practitioners with guidance in choosing an

Table 4
Overall and Composite Scores from the TOWL-3

<i>Result</i>	<i>Kurt</i>	<i>Angellica</i>	<i>Darren</i>
Overall TOWL quotient pretest	76	72	74
Overall TOWL quotient posttest	79	81	79
Contrived writing composite quotient pretest	74	73	73
Contrived writing composite quotient posttest	77	79	77
Spontaneous writing composite quotient pretest	81	74	79
Spontaneous writing composite quotient posttest	85	85	85

effective intervention for students. Still, caution should be taken in interpreting the results of the study, as the design of the study does not control for other factors (i.e., factors other than the DI program) that might have contributed to the students' progress in writing.

The demands placed on students in academic tasks requiring written expression are particularly challenging for students with LD (Graham et al., 1991) and thus create an essential need to provide these students with the best tools possible for effective writing performance. *Expressive Writing* is a program teachers can use to help students acquire such tools. By providing struggling students with clear, explicit instruction, teachers work to close the gap between the writing skills of students with LD and those of normally achieving students. Such instruction might help students meet the demands placed upon them to write inside and outside of classroom settings.

While the effectiveness of DI programs is well documented in some content areas (Adams & Englemann, 1996), research on DI writing programs is emerging, with a few group studies supporting the effectiveness of DI writing programs with students in general education classes (Cross, Rebarber, & Wilson, 2002) and with LD (Keel & Anderson, 2002; Roberts, 1997). The present study supports existing literature that explicit, rule-based interventions are effective for students with LD.

Limitations and Future Research

One limitation of this study was the composition of instructional groups. Groups were composed for this study rather than in naturally occurring class schedules. That is, students were pulled from a Studies Skills class to receive instruction in *Expressive Writing*. A more naturalistic environment would have involved the intervention taking place in pre-existing instructional groups or classes, taught by the student's typical teacher.

Another limitation was the use of different stimuli to generate writing across phases. Similarly, during baseline and maintenance phases, participants were given topic sentences and directed to write passages about the topic. During the intervention phase, probes were generated through the paragraph writing section of *Expressive Writing*. During the maintenance probes, the writing program also provided the participants with a topic sentence. In addition to the topic sentence, vocabulary words and story boxes, with and without picture prompts, were provided. Future research should provide prompts for student writing samples consistently across phases.

Additional limitations of this study involved generalization measures. In this study, the generalization probes were taken from a standardized writing test and therefore involved contrived writing assignments for the purpose of this study. Ideally, generalization measures should be taken from content completed in a general classroom setting to assess whether students are retaining and applying the skills taught in *Expressive Writing* over time and across settings. Given these limitations, the reader should be aware of the tentative nature of the conclusions.

Future research in written expression is needed to continue to explore the effectiveness of DI in writing for students with LD. The results of the present study add to the rather limited current research results by suggesting that explicit, rule-based, teacher-directed programs, such as *Expressive Writing*, have a positive effect on the narrative writing skills of students with LD.

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