Drama and Drawing for Narrative Writing in Primary Grades

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ABSTRACT  This study compared the effects of planning activities involving drama and drawing with the traditional planning activity, discussion, on the quality of narrative writing. The subjects were 63 second- and third-grade students, randomly assigned to three groups: the drama group, the drawing group, and the control group. A repeated measures control group design with pretest was used. All three groups participated in 15 weekly sessions consisting of a 15-min discussion focusing on aspects of narrative writing, followed by 45 min of drama, drawing, or language arts activities, and 30 min of drafting. Drama activities developed individual ideas for stories through paired improvisations and individual role play. Drawing activities developed individual ideas through story boards showing characters, settings, and main scenes. The control group used a traditional question-answer discussion as the prewriting activity followed by a text-centered language arts program. Students' first drafts were analyzed as data for the effects of planning activities. Three trained raters assessed the quality of writing using a narrative rating scale devised by the authors. Repeated-measures ANOVA revealed that the writing quality of the drama and drawing groups was significantly higher than that of the control (discussion) group. It was concluded that drama and drawing are effective forms of rehearsal for narrative writing at the second- and third-grade levels, and that they can be more successful than the traditional planning activity, discussion.

Since the 1960s, writing research has focused on the process of writing rather than on the finished product, as such a perspective provides a more holistic view of the evolution of a piece of writing (Britton, Burgess, Martin, McLeod, & Rosen, 1975; Flower & Hayes, 1981a; Graves, 1983; Murray, 1984). In recent years, however, the emphasis has shifted from the physical processes involved in the act of writing to the cognitive processes. Whereas early models segmented the writing process into a number of discrete stages, such as prewriting, writing, and rewriting, current models use similar terms to describe cognitive strategies that are recursive rather than linear (Bereiter & Scardamalia, 1982; Flower & Hayes, 1981a). Because these strategies interact throughout the process of writing, the term planning is more appropriate than prewriting to describe the generation of ideas and writing goals (Flower & Hayes, 1981b). Prewriting or planning, it is argued, should occupy a major share of classroom writing time (Flower & Hayes, 1980a; Graves, 1983; Moffett, 1982; Murray, 1978; Rohman, 1983).

Although the importance of preparing for writing is recognized, preparation is seldom given the attention it rightfully deserves. Little of the process approach to writing has found its way into contemporary classrooms; the emphasis tends to remain on the teaching of isolated skills (Langer & Applebee, 1986). For example, an observational study of 25 elementary schools in the Midwest (Sunflower & Crawford, 1986) found that preparation for writing consisted of giving directions in 36% of observations and brainstorming in 31%. Applebee (1981), in an early landmark study, obtained similar results from a national survey of 754 secondary school teachers. Evidently, many educators questioned the validity of prewriting because the majority of students were expected to start writing within 3 minutes of the beginning of the lesson.

Recent research has investigated writing in a broader context as one of several available systems of communication (Karnowski, 1986). According to Vygotsky (1962), the origins of children's writing development lie in the relatively concrete symbol systems of play and drawing. Emergent literacy studies support a multimodal view of beginning writing by demonstrating the way in which young students spontaneously use alternative symbolic forms such as drawing, gesture, or talk, to add depth and meaning to their writing (Clay, 1979; Dyson, 1986; Harste, Burke, & Woodward, 1984; Karnowski, 1985).

Influenced by this line of thinking, a growing number of educators are calling for integration of the arts in schools (Dyson, 1986; Harste, Woodward, & Burke,

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drawing and drama with the effects of a planned teacher-run discussion on the quality of narrative writing by second- and third-grade students. To determine the effect of each form of language-processing media upon the resultant quality of student writing, we evaluated the texts of children's writing by using the Narrative Rating Scale (NRS). The development of the instrument is described in the Instrumentation section.

Method

Subjects

Subjects consisted of the available population of two second- and two third-grade classes in an elementary school in the Rocky Mountain region. The school is situated in a rural area and the student population is predominantly lower middle-class Caucasian.

Sixty-nine students, the entire population of two second- and third-grade classes, were divided into one control and two experimental groups, mixing gender and grade levels in a stratified, random designation. The three groups will be referred to as (a) the drama group (n = 22), (b) the drawing group (n = 20), and (c) the discussion or control groups (n = 21).

Initial Group Equivalency

All groups were given a writing assignment on the topic fears as a pretest. Planning consisted of a 15-min teacher-directed discussion followed by a 30-min composition. The writing prompt fears was chosen as the most successful topic used in the pilot study and because students were unfamiliar with choosing their own topic.

A one-way analysis of variance (ANOVA) was computed comparing the pretest scores of the drama, drawing, and control groups to establish that there was no difference in writing ability among the three groups at the outset of the study. These results indicate that there was no initial difference in writing ability, F(2) = 1.32, p < .05, among the drama, drawing, and control groups, as measured by the NRS.

Instrumentation

There are two main approaches to evaluating writing quality: holistic scoring, which assigns one overall score to a piece of writing based upon a global impression and analytic scoring, which assigns separate scores for a number of attributes considered essential to good writing. Cooper (1977) suggested that these forms of evaluation remain the most valid means of appraising writing quality.

Development of the Writing Evaluation Instrument

The Narrative Rating Scale (see Figure 1) developed for this study combines holistic and analytic scoring; it assigns one score representing overall impression and four additional scores representing organization, ideas, context, and style. This combination scoring approach
Figure 1. Narrative Writing Scale

OVERALL

Poor

1 Uninteresting or unoriginal
2 No sense of a whole
3 Disjointed and stilted
4 Too much/too little detail

Adequate

5 Somewhat predictable
6 Fairly coherent
7 Somewhat mechanical
 Uneven development and detail

Good

6 Original and compelling
7 A coherent whole
 Fluently expressive
 Well-developed and detailed

IDEAS

Poor

1 Obviously copied or simplistic
2 Ideas undeveloped or stereotyped
3 Overall purpose unclear
4 No depth

Adequate

5 Some signs of borrowing or predictability
6 Uneven progression of ideas
7 Overall purpose generally clear

Good

6 Original and intriguing
7 Fluently progressive of ideas
 Consistent overall purpose
 Depth of understanding

ORGANIZATION

Poor

1 Unclear of simplistic story structure
2 Little development
3 Confused internal logic
4 Abrupt transitions

Adequate

5 Loose story structure
6 Some development
7 Internal logic fairly sound
8 Readable, but lacks fluency

Good

6 Tight story structure
7 Story is worth telling (plot) and
8 Well developed
 Sound internal logic
 Smooth transitions

STYLE

Poor

1 Stilted sentences
2 Limited language
3 Little evidence of voice or tone
4 Ineffective use of dialogue/devices/description

Adequate

5 Simple sentences
6 Commonplace language
7 Inconsistent voice and tone
8 Conventional use of dialogue/devices/description

Good

6 Well-constructed sentences
7 Lively, expressive language
8 Consistent voice and tone
 Uses dialogue/devices/description well

CONTEXT

Poor

1 Little supporting detail
2 or confused
3 Difficult to visualize story
4 Characters barely represented
5 Vague sense of time or place

Adequate

5 Some supporting detail
6 Can visualize parts of the story
7 Characters sketchily represented
8 Some sense of time and/or place

Good

6 Rich supporting detail
7 Reader can visualize story
8 Characters well represented
9 Clear sense of time and/or place
considers that the overall quality of a piece of writing may represent more than the sum of various attributes, yet it allows for a more detailed investigation of the effects of planning activities on different aspects of writing.

Validity of the instrument. There were three sources of content validation for the NRS. First, a review of recent literature on children’s narrative writing was undertaken to ensure that the NRS was congruent with current views of children’s writing behaviors. Second, 30 rating scales designed to analyze elementary students’ writing or narrative writing were reviewed to assess the attributes currently considered essential to good writing. Finally, several hundred samples of writing collected during the study were analyzed to ensure that the scale accurately reflected the range of writing performance elicited during the study. The scale was therefore constructed deductively from the opinions of experts in the domain and inductively from actual samples of narrative writing of children. The scale was pretested by two experienced raters using samples of narrative writing from second- and third-grade students, and was subsequently revised.

However, the strongest rationale for the consensus validity of the rating scale is the inclusion of the scoring guide and anchor papers for each attribute of the scale. These items give precise criteria for particular dimensions of elementary students’ narrative writing, enabling trained raters to assess aspects of writing quality by matching writing samples with description and example.

Reliability of the instrument. After training, three raters independently score a set of 30 papers selected at random from the entire sample. The interrater reliability for each attribute of the scale was calculated independently. Overall interrater reliability was .97 on the analytic categories—ideas, style, and organization and context and was .96 over all areas. An estimate of the stability of ratings over time was calculated by correlating the ratings of samples used for prediction with the ratings of the same papers during the actual rating, showing an $r = .94$ over time.

Development of the Attitude Scale

We developed a 3-point attitude scale (positive, neutral, and negative) to be used at the end of the study to determine if changes in attitude toward the planning activities and the writing process activities could have impacted the quality of the student’s writing. Student attitudes toward drama, drawing, and discussion-planning activities, beginning writing, reading the first draft, seeing their writing in print, and sharing writing as a class were evaluated. Face validity was the criteria and the instrument was used in a pilot study first to determine usability and reliability (see Figure 2).

Design and Procedures

The study investigated treatment effects for three groups using a 15-week multiple group repeated-measures design. The control group and the experimental groups remained constant. After the treatment each week, a sample of each student’s writing was evaluated. The three teachers rotated among treatment groups weekly to eliminate the teacher variable. This was not unnatural for the students because the rotation of teachers for various curricular subjects in the upper grades is standard procedure in the school; it was extended downward for the duration of this study. The experimental environment was not highly artificial. Pretest-treatment interac-

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**Figure 2. Three-Point Attitude Scale**

Name ________________________________

MY FEELINGS ABOUT WRITING

Instructions: Answer each of the questions your teacher reads to you. For each question color in the face which shows how you feel.

1. When it is time to draw stories: ☺ ☻ ☻
2. When it is time to write stories: ☺ ☻ ☻
3. When I read my story draft: ☺ ☻ ☻
4. When I see my own story in a book: ☺ ☻ ☻
5. When we share class stories: ☺ ☻ ☻
tion was negligible due to the length of the study, and repeated testing did not create tension because it simply involved collecting writing samples. Thus, environmental threats to the validity of the study do not appear strong. Although the use of one school limits the potential to generalize from the study, the true experimental nature of the study and the avoidance of the teacher variable have strengthened the study’s validity and interpretability.

**Teacher Training**

The teachers participated in two 2-hour training sessions each week for 8 weeks at the beginning of the fall semester, while student teachers were teaching their classes. Training involved the theory and application of the process approach to teaching writing, as well as specific instruction in the drama, drawing, and discussion techniques to be explored in the study. During this training period, drawing exercises were introduced to teachers and students, concentrating on developing fluency and flexibility in drawing figures, actions and places, to begin building a graphic vocabulary for narrative compositions. Drama exercises such as poetic drama, story drama, narrative pantomime, drama games, movement and mime, and story improvisation were also explored. We anticipated that by the beginning of the study both teachers and students would be confident in using these techniques, as well as having established the writing process in their classrooms.

**Pretesting**

All three groups were given a writing prompt on the topic *fears* as a pretest. Planning consisted of a 15-min teacher-directed discussion followed by 30 min of composition. The writing topic *fears* was chosen because it had been the most successful topic used in the pilot study and because the students were unaccustomed to choosing their own story lines. Establishing a baseline for comparison was of prime interest in the pretest because pretest scores were used to measure initial group equivalence.

**Writing Curriculum**

It has been repeatedly shown that children trained in aspects of story structure produce higher quality stories (Calder, 1984; Fitzgerald & Teasley, 1986; Mikkelsen, 1984; Stein & Trabasso, 1982). For this reason, we attempted to enhance all the students’ knowledge on the genre of narrative writing and to give them a basis for generating narrative ideas. To facilitate this attempt, we conducted a common discussion period for all three groups, focusing on elements of narrative writing such as plot, characterization, and setting. In addition, all students were provided with structured experience in the writing process, with emphasis on using the process strands. During this initial preparation period, all participants were encouraged to choose their own writing topics; however, prompts were available to those students who needed them. Thirty minutes were allocated daily for drafting, responding, revising, and editing their work. Throughout the study, the students’ compositions were returned to them in published form, typed, and bound in class books of stories. These books then provided a focus for sharing and discussing their work. The students believed that the purpose of the study was to compile class libraries of published stories.

**Treatment**

The research design was established to make a transmedia comparison of media, drama, drawing, and traditional question–answer discussion as rehearsal activities. The purpose of the study was to determine the effect of each form of language-processing media upon the quality of student writing. Part of the treatment, the discussion on narrative writing components and the training and use of the writing process, was the same for each form of media in terms of time, content, and means of presentation. We assumed that the 15-min period of structured whole class discussion described in the writing curriculum best represented a type of traditional planning activity for writing. Earlier studies dealing with the length of time used for prewriting indicated that the length of time ran from no time to 4 min (Emig, 1971; Mischel, 1974; Pianta, 1978; Stallard, 1974).

At the beginning of each week, all three groups (the drama group, the drawing group, and the discussion or control group) focused on aspects of narrative writing in a 15-min period of whole group discussion. These common discussion sessions presented the genre of narrative writing, centering on problem stories, heroes and villains, story settings, beginnings and endings, contrasting characters, personal narratives, dialogue, description and detail, and fantasy, supplemented by examples drawn from children’s literature.

The differences occurred after this discussion. The drama group participated in a 45-min drama session, the drawing group participated in a 45-min drawing session and then wrote for 30 min. The control group participated in the common discussion and then drafted their story for 30 min and the control group then participated in a traditional 45-min language arts lesson found in the school adopted text.

**Monitoring Procedures**

To ensure that the treatment was administered appropriately to each of the groups, we observed the treatments for 90 min each week.

**Classroom Environment**

The classrooms were comfortable for the students and for us. The teachers were confident and capable instructors, one of them having been recognized in the district and the state as Teacher of the Year. The room atmosphere was positive, and open interchange among teachers.
and between teachers and students was warm and conducive to interactive communication. At the beginning of the training, the teachers were apprehensive with the new teaching strategies that they would be using, particularly with creative drama, but they became more confident along with the students. As the study progressed, the teachers gradually developed ownership in the procedures. This research became, and presently is, their project.

Drama Activities

The drama sessions began with a warm-up activity building on the theme of the preceding discussion, designed to develop the students’ confidence and ability for using the techniques of drama in creating and expressing their own ideas. The warm-up activities involved narrative pantomime, paired improvisation, mime, sensory exploration, dialogue improvisation, group stories, movement, individual pantomime, and poetry dramatization. After the warm-up, students worked through their individual ideas for stories through discussion, individual role play, paired improvisations of main scenes, and presentations to the rest of the class.

Drawing Activities

The drawing sessions also began with a warm-up activity based upon the theme of the preceding discussion; these activities were designed to develop confidence and fluency in drawing, helping students to gain a stronger graphic vocabulary. They included drawing characters, caricature, imaginary places, beginning and ending scenes, facial expressions, x-ray pictures, interior spaces, unusual viewpoints, personal experiences, fantasy experiences, and action scenes. Following the warm-up, students worked on developing individual ideas for stories by drawing a story board showing characters, setting, and main scenes. The drawing activities took place in a relaxed atmosphere, with students seated in groups around tables so that they could discuss their ideas freely while drawing.

Control Activities

All three groups followed the same lesson plans for that initial discussion, focusing on aspects of narrative writing such as plot, characterization, and setting, illustrated by examples from children’s literature. To produce an experience comparable with those of the drama and drawing groups, we had the control group follow the initial discussion and 30-min writing period with a 45-min lesson taken from the adopted language textbook. This text focused on the following strands: nature of language, speech sounds, word formation, sentence structure, conventions and dictionary skills, composition (both oral and written), and poetry. The teaching format was to present the language concept or skill, discuss the skill, apply and practice the language concept as a class, and then apply the skill or concept in independent practice.

Drafting

Following drama, drawing or discussion, each group spent up to 30 min writing the first draft of narrative composition. These drafts were analyzed as data for the effects of planning activities.

Data Analysis

Data from the main study consisted of writing samples from the 63 students in the three groups collected weekly over 15 weeks. The data analysis was carried out using the GLM (General Linear Model) procedure for unbalanced designs in the SAS (Statistical Analysis Software) computer program. Pretest scores for the three experimental groups were compared using one-way ANOVA to test initial group equivalence.

Means and standard deviations, computed for all groups each week, were displayed as a line graph for analysis of results over time. The weekly means of the groups were compared according to the dependent variables overall score, organization, ideas, style, and context.

Repeated-measures analysis of variance procedures were used to test the hypothesis that there would be a difference in the quality of narrative writing among students who had participated in drama, drawing, or discussion control-planning activities dealing with the elements of narrative writing illustrated from children’s literature. We chose the repeated measures analysis design because it enabled weekly comparisons of the three treatments over time, as well as comparison of the overall effects for the three treatments averaged across the entire study. In the experimental group analysis, the dependent variables were overall score organization, style, ideas, and content scores. The independent variables were treatment and time.

Rating Procedures

Writing samples were collected from all participating students each week during the 15-week treatment period. Approximately 1,200 samples were rated in all. To ensure a high level of interrater reliability, we had all samples typed and coded using the same format, and spelling errors were corrected. Each sample was rated independently and blindly by three raters. The final score for each sample was the average of the three ratings. We adjudicated any discrepancies of 2 or more points. Approximately 8% of the sample received a third rating. As stated earlier, an estimate of the consistency of the rating over time was calculated by correlating the ratings of samples used for prediction with the ratings of the same papers during the actual rating, showing an $r = .94$ over time.
The three raters were all experienced elementary school teachers, familiar with both the narrative writing genre and the criteria used in evaluating the quality of writing sampled. All the samples were rated during a 1-month period. At the beginning of this period, raters familiarized themselves with the rating scale, the scoring guide, and the expanded scoring guide. When it was evident that all the raters had internalized the elements of the scale according to a common framework, they agreed on a set of papers representing the upper, middle, and lower sections of the scale to be used as anchors throughout the rating.

Additional training sessions were held weekly to minimize rater drift. To strengthen the consistency of the rating, we had three test papers from each batch of 40 writing samples rated and discussed, and discrepancies that arose from particular problem papers were resolved. Approximately 30% of the papers were rated under controlled conditions; the remainder were rated individually in the rater’s own time. Samples were rated in randomly grouped batches of 40, without discussion or interruption.

Results and Discussion

Descriptive Statistics

Each writing sample was scored separately for organization, ideas, style, and context and also summarized with an overall score. Analysis showed there was little difference among the mean scores on the attributes or between these means and the means of the overall scores. In view of the similarity of these scores, the overall score was used as the basis for weekly comparisons among groups. The overall score means for each group from Weeks 1 to 15 are summarized in Figure 3 and Table 1.

As indicated in Figure 1, the overall mean scores of all three groups showed an initial gain from pretest to Week 1 (drama group gain 1.69, drawing group gain 1.55, control group gain 0.81). After Week 1, however, the control groups’ scores remained fairly stable, with a gain of only 0.69 from pretest to Week 15. But the drama and drawing groups’ gain scores from pretest to Week 15 were much higher, averaging 3.1 and 2.47, respectively. The drama groups’ mean scores were considerably higher each week between Weeks 1 and 15; the drawing groups’ mean scores were consistently higher between Weeks 5 and 15.

Repeated-measures analysis of variance (ANOVA) was used to test the hypothesis that there would be a difference in the writing quality of the three groups over time. The overall score within subjects compared over time revealed that there was a significant interaction between the times and group variables, $F(30) = 4.16, p > .001$, indicating that the changes across time were different according to group effects. Figure 1 shows that this interaction occurred during the first 5 weeks of the study. During this time, there was some fluctuation in the writing quality of the drawing group.

The results of the overall comparisons of scores between subjects over time, together with the planned orthogonal contrasts comparing the drama, drawing, and control groups, are summarized in Table 2.

The data in Table 2 identify a statistically significant difference between the overall score means of the control group and the overall score means of the drawing and
Table 1.—Overall Score Means and Standard Deviations Comparing Drama, Drawing, and Control

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drama groups averaged across time (p = .007). They also indicate that there was no statistically significant difference between the overall score means of the drama and drama groups averaged across time (p = .52). Comparisons between subjects over time for the remaining attributes of the writing scale produced similar results: organization, F(2) = 6.5, p > .002; style, F(2) = 6.38, p > .021; ideas, F(2) = 7.42, p > .001, and context, F(2) = 7.12, p > .017. These results all indicate a significant difference between groups, with the significance level set at .01 to control for the planned orthogonal contrasts.

Comparison of Effect Size

The data in Table 1 and 2 indicate that the anticipated difference did occur and that the difference was significant. However, the existence of a significant difference becomes more meaningful in view of a comparison of effect size. Comparisons were made between mean scores of the drama and drama groups and the mean of the control and divided by the standard deviation of the control mean. When this comparison effect size was completed between drama and control, the z score was 1.97; between drawing and control the z score was 1.96. This comparison indicates that when high writing quality scores for drama and drama were compared with scores for the control groups, scores were almost two standard deviations apart. The implications for classroom application are strong.

Comparison of Drama and Control

We anticipated that there would be a difference in the quality of narrative writing produced by students who participated in drama as a planning activity and students who participated in a traditional language arts discussion as a planning activity, as measured by the NRS. Table 2 indicates that there was a difference in the writing quality of the groups averaged across time (p = .028). The contrast of drawing plus drama versus control suggests that the major difference was between the two experimental groups versus the control group (p = .007). This result is in keeping with the data in Figure 1, which show that the overall score means of the drama group were higher than the overall score means of the control group throughout the study. This supports the original theory that participation in drama would lead to a positive difference in writing quality over equivalent participation in traditional discussion.

Comparison of Drawing and Control

We projected that there would be a difference in the quality of narrative writing produced by students who participated in drawing as a planning activity and students who participated in traditional language arts discussion as a planning activity, as measured by the NRS. The contrast drawing plus drama versus control in Table 2 reveals a difference between the two experimental groups and the control group (p = .007). This is in keeping with the data in Figure 1, which show that the overall score means of the drawing group were consistently higher than the overall score means of the control group after Week 4. This supports the premise that participation in drawing would lead to a positive difference in writing quality over equivalent time periods of participation in traditional language arts discussion.

Weekly comparisons supported this conclusion by revealing statistically significant differences between the overall score means of the drawing group and those of the control group at Week 10 (p = .001), Week 12 (p = .001), Week 13 (p = .001), Week 14 (p = .003), and Week 15 (p = .001).

Comparison of Drama and Drawing

We suggested that there would be a difference in the quality of narrative writing produced by students who
participated in drama as a planning activity and students who participated in drawing as a planning activity, as measured by the NRS. According to the contrast drama versus drawing in Table 2, there was no significant difference between the writing quality of the drawing and drama groups (p = .52). Thus, the theory that participation in drama leads to a positive difference in writing quality over participation in drawing was not supported. Figure 1 indicates that although initially drama appeared to be more successful than drawing as a planning activity, from Week 7 to Week 15 both planning activities displayed a similar rate of consistent progress.

**Student Attitudes Toward Writing**

We used a 3-point attitude scale (positive, neutral, and negative) to determine the attitudes of participating students at the end of the study. Students were asked to reflect their feelings toward planning activities involving drawing, drama, and the preliminary discussion of narrative writing illustrated from children's literature and toward the initial elements of the writing process: drafting, reading the first draft, seeing their writing in print, and sharing their writing.

The majority of students in the drawing, drama, and control groups had a positive attitude toward the planning activities in which they were involved. All groups had a positive attitude, on the whole, toward writing in general and toward aspects of the writing process such as drafting, sharing, and publishing. Thus, the attitudes of students toward various aspects of the study were not different enough to affect the differences found in the writing quality of the three groups.

**Summary of Analysis of Data**

The findings of this study were significant when comparing the writing quality of drama and drawing groups with the writing quality of the control or discussion group. The difference in effect size of the writing quality mean scores between experimental groups and the control group was almost two standard deviations. The writing quality of the drama and drawing groups remained constant after Week 7 of the study (see Figure 1 and Table 1). Thus, according to our data, the writing quality of drawing and drama groups was consistently and significantly different from the writing quality of the control group. Attitude did not appear to be a factor influencing the quality of writing.

**Discussion of Treatments and Implications**

The results from this study suggest that drama and drawing are more successful than traditional language arts discussion as planning activities for writing for second- and third-grade students. Although the students were enthusiastic about drama from the beginning, 3 or 4 weeks elapsed before they “gelled” as a group, and there were a number of students who continued to find drama difficult. Both teachers and students, it appeared, needed time to develop a confidence and familiarity with drama techniques before they could successfully use drama as a planning activity for writing. The drama activities used during this study tended to concentrate on paired improvisations as a process for developing ideas for the written narratives. An alternative that merits further investigation is whole group drama (Heathcote 1980), in which

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**Table 2.—ANOVA Comparison of Between-Subjects Comparisons Over Time and Planned Orthogonal Contrasts Comparing Drama, Drawing, and Control Groups**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>M²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>195.13</td>
<td>97.56</td>
<td>6.50</td>
<td>.0028</td>
</tr>
<tr>
<td>Within</td>
<td>60</td>
<td>900.74</td>
<td>15.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrasts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing + drama vs.</td>
<td>1</td>
<td>190.54</td>
<td>190.54</td>
<td>12.69</td>
<td>.0007</td>
</tr>
<tr>
<td>control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing vs. drama</td>
<td>1</td>
<td>6.36</td>
<td>6.36</td>
<td>0.42</td>
<td>.52</td>
</tr>
</tbody>
</table>

**Table 3.—Comparison of Attitudes Toward Planning and Writing in Percentages**

<table>
<thead>
<tr>
<th>Group</th>
<th>Drawing</th>
<th>Drama</th>
<th>Discussion</th>
<th>Writing</th>
<th>First draft</th>
<th>Publishing</th>
<th>Sharing writing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ 0</td>
<td>+ 0</td>
<td>+ 0</td>
<td>+ 0</td>
<td>+ 0</td>
<td>+ 0</td>
<td>+ 0</td>
</tr>
<tr>
<td>Control</td>
<td>86 14 0</td>
<td>45 41 14</td>
<td>64 27 9</td>
<td>83 17 0</td>
<td>64 18 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drama</td>
<td>70 17 13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing</td>
<td>95 4 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. + = positive; 0 = neutral; - = negative.
students write upon individual topics within a general theme developed by the entire class.

Students participating in art-related planning activities needed time to develop a graphic vocabulary to use a tool for developing ideas, and their initial concept of drawing as a "frill" seemed to be a barrier during the first weeks of the study. With time and with teacher and student modeling, the drawing group developed distinctive styles of annotated drawings that were successful forms of rehearsal for writing. The integration of written notes and pictures as an outline for writing, which emerged spontaneously during the study, seems to have considerable potential for further development.

Because of the necessity of imposing experimental constraints, both the drawing and the drama curricula suffered from inflexibility. The teachers felt that students would have benefited from more time to explore drama and drawing without being required to produce a first draft at the end of the lesson. Teachers would have liked to have been able to deviate from lesson plans and time limits to respond to the enthusiasm of their students; they would have also liked to combine aspects of the drama, drawing, and discussion activities.

Implications

Implications can be drawn from this study that affect what the teacher knows about the writing process. The value of planning or prewriting has been questioned by some; the results of this study support the position that prewriting or rehearsal has an impact on writing quality. As they involve a descriptive process in themselves, drama and drawing allow the writer to test out, evaluate, revise, and integrate ideas before writing begins. Thus, drama and drawing are more complete forms of rehearsal for writing than discussion. This is consistent with the problem-solving models of the writing process that suggest that higher-quality writing results from elaborate and integrated writing goals, and that it is important for students to assimilate recursive composing strategies (Bereiter & Scardamalia, 1986; Flower & Hayes, 1980a).

The results are also consistent with the concept that different media affect the way students process information in writing. According to dual code information processing theories (Arneheim, 1969; Paivio, 1979), nonverbal modes of representation can enhance creativity during the early stages of composition by increasing the speed, flexibility, and depth of processing before the individual uses written language to stabilize and organize the ideas.

The results suggest mutual support between forms of symbolic representation that mature at different rates. In keeping with emergent literacy studies (Calkins, 1980; Gardner, 1981; Harste, Woodward, & Burke, 1984) that identify drama and drawing as the developmental precursors of writing, this study suggests that drama and drawing have impact for writing beyond the first grade, and that subsequent writing may be enriched by the distinctive features of these symbol systems.

The findings of this study also support theories relating to the logical properties of different symbol systems (Gardner, 1981; Owen, 1986; Sinatra, 1986). The presentational symbol systems of drawing and drama allow the writer to shape ideas into a more fully conceived whole, and then to revise them in relation to a whole. Rehearsal in such alternative media may, therefore, help to overcome some of the problems encountered by novice writers, because such rehearsal will enable them to gain more potential control of the processes of generating and organizing content prior to writing.

Practically, the findings of this study highlight the importance of rehearsal for writing and suggest that more time may be needed for rehearsing than is traditionally assumed. This study also shows that teachers can influence the quality of students' writing through their choice of planning activity. The difference in the effect sizes suggest that planning activities using drama and drawing planning can significantly improve the quality of students' narrative writing; the significance of that difference would warrant use of these activities, even when both students and teachers are unfamiliar with specific drama and drawing techniques. Drama and drawing are resources that are available to every classroom teacher. Although drama is often thought of as an impractical and drawing is sometimes used merely as a time-filling activity, both have the potential as simple, effective strategies for increasing students' motivation to write and enhance the quality of their work.

Drama and drawing are exciting means of rehearsing for children as they prepare to write. When the teacher becomes acquainted with these strategies, personal apprehension over using them will decrease. Prewriting or rehearsal is a most important component of the writing process, and when drama and drawing are used as planning vehicles for writing, the quality of the child's writing will improve.

REFERENCES


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