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ABSTRACT

Use of metacognitive strategies, creative problem-solving, and creative thinking techniques in intermediate grade writing instruction can promote students' thinking and creativity. Metacognitive strategies can help students attack the writing task in an orderly fashion. Answering specific questions for descriptive, expository, narrative, or persuasive writing, for example, can help students shape their verbalizations before, during, and after writing paragraphs. Prewriting verbalizations and composition planning worksheets can substitute for the formal outline. Creative problem solving as applied to written composition involves such prewriting activities as stimulation, recreation of impressions, selection of a creative problem, peer group consultation, and oral brainstorming, while writing and rewriting include writing consultation and sharing writing with an appropriate audience. Creative thinking techniques such as brainstorming, attribute listing, morphological synthesis, and synectics methods can help writers supplement their store of intuitive ideas. (Appendixes include composition planning worksheets, a completed descriptive paragraph, and creative thinking worksheets.)
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TO THE EDUCATIONAL RESOURCES
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COMPOSITION IN THE INTERMEDIATE GRADES: HOW TO PROMOTE THINKING AND CREATIVITY

Thinking, Creativity, and the Future

In 1962 the Educational Policies Commission asserted that the central purpose of American education "is the development of the ability to think" (Ragan, p.57). The future promises to bring rapid technological and cultural changes. For example, futurists predict that by 1986 seventy-five percent of the work force will be producing goods and services that were non-existent a decade before (Ragan, pp.486-87). With more rapid change, one must also expect an increasing number of new problems that will need to be confronted by mankind. The knowledge and solutions of the past will be of little, if any, use, and one's past life experiences will also be of doubtful utility. Alvin Toffler has characterized this period as being one of "future shock." Man's problem-solving capacity will be severely tested, and his successes and failures will determine the lifestyle of future society. The outcome may be an increasingly more convenient and leisurely way of life, or it may be a return to simplicity. Indeed, the very survival of mankind may depend on our children, the adult problem-solvers in the age of future shock.

The implications for today's education are evident. Schools must teach our children to think for themselves, but not all schools are presently meeting this challenge.

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Various obstacles stand in their way. All too often the teacher plays the role of fact-giver; all too often parents and teachers do the thinking for the children through protecting them and telling them what to do. The mass media, too, is guilty of undermining skills of communication, inquiry, and contemplation in our children (Lundsteen, pp.4-9, 12). The rise of the cognitive movement in education offers hope that these factors can be reversed or overcome in the near future.

The possession of thinking skills is a necessary but not a sufficient condition for the success of the problem-solver of the future. Creativity is also an essential characteristic; for unique and untried ideas, the products of creative minds, will be the source of solutions in a world where the ideas of the past are inadequate.

Some readers are probably thinking that creativity is something that cannot be taught, for they would contend that a person is either innately creative or he is not. The process definition of creativity, on the other hand, assumes that all people have creativity to some extent and that identifiable creative processes exist which can be taught in the schools. Studies by Gertrude M. Hildreth and by George I. Brown of college students participating in creativity training programs provide some evidence that creativity can be positively affected by instruction (Earp, pp.188-89). Likewise, E. Paul Torrance asserts that the

school has a strong environmental influence on the development of creativity, for he notes periods of increasing and decreasing creativity in children as they progress through school. Declines in creativity occur in kindergarten, fourth grade, and seventh grade. These drops in creativity are attributed to the novelty of teacher-imposed group conformity in kindergarten and to social pressures in the fourth and seventh grades (Barr, pp.179-80). In short, it is assumed by this author that the schools can encourage creativity through providing a non-threatening atmosphere, utilizing creative classroom procedures, and teaching creative processes.

In the intermediate grades, the composition component of the language arts curriculum is an ideal area in which to teach thinking skills and creative processes. Improving skills in communication necessitates fostering connections between spoken and written thought, and the great number of unknowns in both creative and practical writing tasks provide ample opportunities for creative thinking. Through employing metacognitive strategies, creative problem-solving, and creative thinking techniques, the composition teacher in the intermediate grades can do much to promote thinking and creativity, which in this author's opinion are the two main goals of American education.

Metacognitive Strategies

Metacognitive strategies help the learner to be aware of his own behavior, to organize information, and to monitor his own progress. Bonnie W. Camp's work with young, aggressive boys and Virginia I. Douglas' work with hyperactive children illustrate the utility of metacognitive strategies in maintaining student attention, in inhibiting impulsive responses, and in controlling student arousal.

Camp's "Think Aloud" program for young aggressive boys emphasizes the modeling of verbal mediation strategies, a type of cognitive strategy. As students engage in a specified game, problem, or task, they answer four basic questions:

1. What is my problem?
2. How shall I do it?
3. Am I following my plan?
4. How did I do?

Camp's work has a strong resemblance to that of Meichenbaum and Goodman (1971) (Camp, p.196).

Douglas' training program for hyperactive children has three main goals. First, Douglas wants the children to understand that the problems they are encountering at home and at school stem from their failure to "stop, look, and listen," a problem behavior that can be corrected. Secondly, the training program attempts to make children aware of the fact that they are problem-solvers and to convince the children of the importance of this problem-solving role. Thirdly, the program teaches children problem-solving strategies

that will hopefully transfer to academic activities (Douglas, p.303).

Douglas' training sessions stress four methods: modeling, self-verbalization, self-monitoring, and self-reinforcement. In the initial training sessions, the teacher models solving a problem. As he engages in the problem-solving task, the teacher describes outloud what he is doing and what he is thinking. Emphasis is also placed on checking one's work and on undertaking the formative and summative evaluation of one's progress. Then the child imitates the teacher's behavior. Students are encouraged to use their own words when verbalizing instructions and to devise their own strategies. Eventually, modeling is eliminated, and student use of the strategies becomes covert (Douglas, pp.303, 311).

Normal children can also benefit from training in metacognitive strategies, especially when these strategies are applied to the complexities of the writing task. Typically, students in the intermediate grades fall into three major writing traps. First, concerned with generating enough content to fill the page, they may give most of their attention to this problem. Overcoming the first problem leads to a second pitfall, for students then fail to stay within the boundaries of their topic. Composition becomes knowledge-telling. The student writes down everything that he knows about a given topic or that is even remotely related to a

given topic; thus, rambling prose results. Thirdly, overwhelmed by the number of decisions inherent in the writing task, the typical student makes many important decisions arbitrarily. He may even take the easy way out by devoting most of his attention to the problem of fluency and the generation of content as mentioned above (Bereiter, pp.23, 27-28).

Perhaps the writing difficulties students experience can best be attributed to the great number of variables one must simultaneously consider when writing and to the limited attentional capacity of the human brain. Daniel Kahneman describes this limit on attentional capacity as a "general limit on resources" and proposes that increased mental effort and arousal can boost the availability of these same resources (Norman, p.71).

Metacognitive strategies can help solve this problem of limited mental capacity or decision-making resources by maintaining the attention, inhibiting the arbitrary responses, and controlling the arousal of student writers. Also, by employing metacognitive strategies in composition assignments, students can systematically attend to the elements of the writing task both separately and in combination. In other words, the students can attack the writing task in an orderly fashion through the use of self-monitoring verbalizations or instructions.

Of course, different instructions and verbalizations

are appropriate for different kinds of writing. The questions below, designed for a sixth grade composition course, are meant to serve as guides for student verbalizations as they engage in descriptive, expository, narrative, and argumentative (or persuasive) writing. Note that the questions are in a form suitable for use in self-evaluation at the completion of a first or subsequent draft of a composition, but these questions should also be considered by the writer before and during the writing task. Knowing what constitutes an acceptable end product in writing helps one to employ appropriate means to achieve the desired outcomes. Thus, the following questions function as guides to shape student verbalizations before, during, and after the act of writing:

Descriptive Paragraph Writing (Painting a Word Picture):

1. Does my paragraph begin with a main idea sentence that tells what the whole paragraph is about?
2. Does the body of my paragraph include supporting details that are appropriately elaborated?
3. Does my paragraph end with a summary sentence that repeats the main idea?
4. Did I select specific and concrete words, rather than general and abstract words, from my personal observations?
5. Does my writing evoke images and emotions in the audience?

Expository Paragraph Writing (Explaining a Process)

1. Does my paragraph have a main idea sentence and a summary sentence?
2. Does my explanation present steps in a logical, sequential order?
3. Did I select the exact words needed to clearly identify the materials and actions involved?
4. Is my writing clear so that the audience can easily follow the process I am explaining step by step? Could members of the audience replicate the process?

Narrative Writing (Telling a Chain of Events)

1. Does my story present a big problem for the main character(s) to solve?
2. Does my story present several possible ways to solve the problem?
3. Does my story include a resolution to the conflict?
4. Did I choose adjectives and describe traits in such a way as to create interesting characterizations? Do I feel that I know the characters?
5. Does my story present a problem that holds the audience in suspense until the very end?

Argumentative or Persuasive Writing (Debating a Proposition of Policy or Expressing an Opinion)

1. Does my writing present an opinion followed by contentions and supporting evidence?

2. Are the best arguments placed at the beginning and end?
3. Did I select words with the connotations I wish to get across?
4. Do the contentions listed in my writing appeal to the audience's logic and value premises?

The questions above emphasize the importance of paragraph structure, word choice, and awareness of audience reaction. Note that none of the questions show a concern for correct grammar, punctuation, capitalization, or spelling. Again, consideration of these elements, especially during the first draft, would drain the already limited decision-making resources of the writer (Daigon, p.244). Attention to these mechanical and grammatical features of writing can wait until the proofreading phase of subsequent drafts.

A contrived verbalization may help the reader to better understand this technique as applied to the writing process. The following excerpt is an example of a pre-writing verbalization for a descriptive paragraph that can be modeled by the composition teacher and imitated by students:

When writing a descriptive paragraph, I must remember to include three things: a main idea sentence, elaborated details, and a summary sentence. I must also try to use specific and concrete words. Words like 'pretty' and 'beautiful' do not tell me much. I want my fellow classmates who will read my paragraph to be able to imagine the things I am writing about. If I keep all these things in mind, I will be able to write an organized paragraph.

that my audience will enjoy reading.

Before beginning to write, I first need to decide on what to write about. My teacher gave me the title, "What Makes Me Smile." I must think of something from my own experience that makes me smile. Let's see, there's getting presents and riding my bike. I know! I'll write about watching my grandmother make cookies. That will be the best choice because there's a lot to describe: sights, smells, tastes, and sounds.

Now, if I am going to write about watching my grandmother make cookies, that means my main idea sentence must mention two things: my grandmother's cookie-making and my smiling. All I have to do is to put these two things together in a sentence. 'A smile comes across my face when my grandmother makes gingerbread men' is a possibility. Yes, I've done a good job of thinking of a main idea sentence

The teacher or student would continue the pre-writing verbalization in this manner, developing a framework or plan for the entire composition which includes a listing of the details to be elaborated and an idea for the summary sentence. Composition planning worksheets, on which students write down brief reminders of these decisions, are helpful. (See the appendix to this paper for examples of composition planning worksheets). Such planning worksheets may serve as substitutes for the formal topic outline, which is of limited usefulness in writing. The topic outline tells what one is going to write about, but it fails to deal with what one is actually going to say in the composition (Bereiter, p.28). Composition planning worksheets, on the other hand, are more detailed and make students think about exactly what they want to say.

Creative Problem-Solving

The metacognitive strategies discussed above are ideal for use within a creative problem-solving framework. Sidney Parnes, Ruth Noller, and Angelo Biondi divide the creative process into five stages. Divergent and convergent thinking characterize the mental activity involved in each stage. In the first stage, facts about the problem are gathered. Secondly, a statement defining the nature of the problem is developed. The third stage consists of listing a variety of ideas for solving the problem, and the fourth stage consists of evaluating these ideas and coming up with a solution for implementation. Finally, the chosen idea is implemented and "sold" to the appropriate people (Davis, pp.41-44; Feldhusen, pp.60-61).

Sara W. Lundsteen outlines a framework of teaching-learning techniques for written composition that closely parallels the stages of the creative problem-solving process. The seven-part model offers a preferable alternative to the traditional "select the topic, correct the error, and expect improvement" model of instruction (Daigon, p.243).

Eighty-five percent of composition activity occurs in the first four steps of the model before the actual writing begins. Stimulation of impressions and re-creation are the first two steps, and they parallel the fact-finding stage of the creative problem-solving process. Stimulation of impressions comes from several sources: "sensory ex-

perience; natural objects; vicarious (or indirect) experiences from pictures, photos, movies, from the talk of other children or from children's literature" (Lundsteen, p.285). In the re-creation step, the student writer draws upon his experiences to find out what he has to say about the stimulus, or the stimulus itself may provide a new experience from which the student can draw ideas (Lundsteen, p.287).

Creative problem selection and oral consultation are also part of the prewriting phase and constitute the third and fourth steps in Lundsteen's scheme. In step three, which parallels the problem-finding stage of the creative problem-solving process, either the child selects a creative problem on his own or the teacher selects a creative problem for the child based on his knowledge of the child's interests and needs. Composition problems may be derived from the three aims of discourse: to report, to persuade, and to entertain. If the teacher selects the problem, the teacher must work to ensure that the child values the given problem (Lundsteen, pp.288-89). Ideally, the problem should originate within the student writer, but there are still many other unknowns and choices in the writing process that provide opportunities for creativeness on the part of students. For instance, the child may still choose among alternatives related to experiential elements, mood or tone-setting details, event sequencing, word choice, sentence structure,

and compositional framework. Problem-solving becomes "the force that blends compositional elements in the creation" (Lundsteen, p.277).

Paralleling the idea-finding stage of the creative problem-solving process, oral consultation is the fourth step in the writing model. It consists of peer group consultation and oral brainstorming in small groups or with the entire class. Three things are accomplished through oral consultation. First, connections are fostered between the previous three steps; therefore, this step clarifies what the student is to do. Secondly, brainstorming composition ideas and vocabulary helps to ensure that the child writer will have no trouble generating content fluently. Thirdly, this step contributes towards audience awareness (Lundsteen, pp.290-91). Perhaps such tools as the composition planning worksheet can best be utilized in this last step of the pre-writing phase. Completing the worksheet forces the student writer to rehearse various writing elements separately and in combination.

As in M. C. Wittrock's model of generative learning, the student writer in the four steps of the prewriting phase of composition discovers the meaning or makes sense of a writing assignment by relating the stimuli presented to his past experience. Generation of imaginal and verbal elaborations facilitates this associative process, and composition planning worksheets are suitable for guiding the first

verbal elaborations. (Examples of such worksheets for descriptive, persuasive, and narrative writing appear in the appendix to this paper). In later steps beyond the prewriting phase, the student writer generates more complete verbal elaborations, and the rough draft gradually evolves into a finished composition as the necessary revisions are made. Thus, the teacher's role in the prewriting phase of the writing process is to facilitate the active construction of students' imaginal and verbal elaborations by providing appropriate stimuli, and the student's role is to attend to the stimuli so that he can actively construct imaginal and verbal elaborations in the prewriting, writing, and rewriting phases. (Wittrock, p.26).

Cognitive functioning in the four steps of the prewriting phase is characterized by perceptual analysis and memory retrieval. According to Fergus I. M. Craik and Robert Lockhart, several levels of information processing are discernable in perceptual analysis. The first levels involve the sensory analysis of the writing stimulus presented by the teacher. Possible stimuli include verbal information, sounds, sights, and smells. Later levels concern the extraction of meaning from the stimulus and the semantic or cognitive analysis of the stimulus. In other words, the stimulus is recognized, and then it is associated with images and stories from the student writer's past experience. Thus, "depth of processing" and "elaboration

coding" occur (Norman, pp.122-23).

When remembering past experiences, students transform the material or information stored in long term memory into an appropriate form, whether imagelike or semantic, for use in solving the selected writing problem (Norman, p.195). As proposed by Frederic Bartlett, these remembrances may not be entirely accurate. Remembering involves reconstruction, for present and past experiences are well integrated within an organizational scheme or framework of experiences in memory (Norman, p.223).

Writing consultation, the fifth step in Lundsteen's model, spans the writing and rewriting phases of composition and is comparable to the solution-finding stage of the creative problem-solving process. After writing a rough draft, the student first consults with himself, reconciling his prewriting plan with his initial writing effort in terms of content, form, and audience. As the writer revises his composition, there is much back and forth movement between the prewriting and writing phases, for writing is not a smooth, linear process. An initial concept from the prewriting phase may be abandoned in favor of a better idea developed during the writing of the first draft, or the writer may revise the first draft to better reflect a good idea originating in the prewriting phase. Thus, adding, cutting, and rearranging characterize the activity during this step of the model.

Additional revisions may occur after the student writer consults with other people about his writing. Again, small peer groups may be used for this purpose. In the peer group consultation, three or four students give feedback to the writer about his composition's strengths and weaknesses, and they offer suggestions for improvement. Of course, the teacher makes this session more productive by discussing beforehand the questions to be asked and the writing elements to be considered. The teacher's role during this step is to be a working editor as he moves from student to student. Indeed, excerpts or whole student compositions may be flashed on a screen for the entire class to view in order to discuss typical writing problems and possible solutions (Daigon, p.245; Lundsteen, pp.291-96). This large group revision activity is exemplified by the following treatment of a student's composition by an actual fourth grade class:

Student's Original Paragraph That Needs Improvement:

When I was a little girl, I liked to visit my grandfather's farm. The things I remember the most are the sounds. For instance, I remember the dog barking, the cows screaming, the birds chirping, the frogs jumping in the pond, the tractor, the little rippling waves in the pond, and the cats purring.

What was the assignment?

Each student was to write a well-constructed paragraph using many 'sound words' such as 'hooting,' 'purring,' and 'shrieking.'

What needs improvement in this paragraph?

1. The first sentence of a paragraph usually contains the main idea but does not in this paragraph. In this case, the first sentence should mention farm sounds since that is what the rest of the sentences in the paragraph are about.
2. A paragraph should ideally consist of many sentences, but this one has only three.
3. The student should have used more descriptive detail to add interest to the paragraph. The student could have told when the sound was made or the reason for the sound being made. Without this detail, the paragraph sounds more like a list of things.
4. The paragraph does not end well. It stops short. A good paragraph ending will repeat the main idea.
5. Be sure not to start every sentence with 'I heard' or with the name of the thing making the sound.

Paragraph Rewritten by the Class:

When I was a little girl, my favorite place to go was to my grandfather's farm because of all the different sounds I heard there. The dogs were always barking at the cats living beneath the farmhouse. I liked to hear the cows mooing for more water in their trough. They seemed to say, 'I'm thirsty.' Then grandfather would run to get the hose. When he turned it on, I could hear the bubbling of the water. At daybreak, I remember the birds chirping. They chattered at worms that swished through the thick, green grass. In the river which splashed beside the barn, gurgling frogs jumped across the water with a kerplunk. When I walked by the fields, I could hear the crashing of the tractor as it pushed its way through the soil. At night the farm went to sleep. I remember the crickets singing a sweet lullaby under my window. Then I would go to sleep. Even today, I still love to go to my grandfather's farm because of all the wonderful sounds that give me happy memories.

Acceptance-finding is the final stage of the creative problem-solving process, and oral and written display, the

sixth and seventh steps of Lundsteen's scheme, parallel this stage. In both of these steps, the student writers share their finished compositions with an appropriate audience; therefore, careful proofreading is necessary before "publication" of a finished oral or written product takes place. Towards the end of the preceding writing consultation step, it is a good idea for students to get help in proofreading for mechanical and grammatical errors from the teacher, student experts, student monitoring groups, or a class-constructed proofreading manual. Not every writing assignment should be taken to this polished state. If this was required for every composition, students would soon grow tired of writing. Nevertheless, children do need experience with revising, proofreading, and rewriting a finalized copy. Perhaps practical pieces of writing, such as stories and reports for display and notes to parents, are best suited for this purpose, for they are truly meant to be read by an audience (Lundsteen, pp.296-98).

Creative Thinking Techniques

Creative thinking techniques also have a place in composition instruction in the intermediate grades. Brainstorming, attribute listing, morphological synthesis, and synectics methods are among the techniques commonly taught in creativity training courses, and they can help the writer come up with new ideas and new idea combinations. Thus, these techniques serve to supplement the writer's intuitive

store of ideas, providing him with a greater number of alternatives from which to choose.

Brainstorming is one creative thinking technique used to generate numerous ideas for solving a problem. In a brainstorming session, criticism or evaluation of the ideas is not permitted, for the emphasis is on quantity. It is assumed that a long list of alternatives will contain some qualitative answers. Humorous and far-fetched ideas are encouraged because they help the participants to get away from commonplace answers. Also, participants may "hitch-hike" on each other's ideas in order to combine or improve ideas. Evaluation of the lengthy list of ideas occurs only after the brainstorming session has ended (Davis, pp.60-61; Feldhusen, pp.39-40).

Brainstorming contributes greatly to the planning of both individual and group compositions. For example, the class can brainstorm topics, experiences, supporting details, appropriate vocabulary, and figures of speech for use in writing a descriptive paragraph. Generating analogies also stimulates descriptive writing. Consider the following questions for use in the construction of analogies:

How is a turtle like a tank?

How is a bull like a steam locomotive?

How is a water hose like a snake?

How is a steam shovel like a dragon?

Elaborations of the analogies that are produced can be for-

mulated into interesting paragraphs. When planning a persuasive paragraph advertising a product, the students can brainstorm product ideas, information that will convince consumers to buy, and words that appeal to the senses. Again, these ideas may be listed on a composition planning worksheet. - (See the appendix to this paper for examples). Experience with group brainstorming will hopefully transfer to individual writing efforts, for group brainstorming effectively models a strategy that individuals can employ in supplementing their store of ideas:

Attribute listing is a second creative thinking technique useful in composition planning, especially when writing stories. First, story attributes, such as characters, settings, and problem plots, are listed as column headings. Secondly, ideas or ways to improve each attribute are listed under the corresponding headings (Davis, pp.61-62; Feldhusen, pp.40-42). Finally, the best ideas from each column are combined and become the elements of an original narrative. (See an example of an attribute listing worksheet for story writing in the appendix to this paper). This attribute listing technique can be employed by individuals as a basis for independent stories or by the class as a whole as a basis for dictated group stories. Also, attribute lists generated by a group can be used by individuals as a source of story ideas. If this procedure is followed, individuals should be encouraged to add some of their own

favorite thoughts or ideas to each attribute column.

Morphological synthesis is a third kind of creative thinking technique, and it involves producing original ideas by putting problem components or attributes together in new and different ways (Davis, p.63; Feldhusen, p.42). In story writing, unique ideas for characters can be generated through this technique. A simple matrix is constructed, with ideas for one attribute placed along the vertical axis and with ideas for a second attribute placed along the horizontal axis. In developing ideas for story characters, nouns identifying possible heroes and heroines are listed along one axis, and adjectives describing possible qualities of the major character are listed along the other axis. Therefore, new idea combinations result in the cells of the matrix. (See an example matrix designed for this purpose in the appendix to this paper).

The attribute lists described previously in this paper are easily transformed into a form suitable for morphological synthesis. The ideas for two of the story attributes (ideas for characters and settings) are placed along the axes of the matrix, while one idea for the third story attribute (one plot idea) is held constant.

Synectics is a fourth creative thinking technique and is made up of several different methods. Like attribute listing and morphological synthesis, it is also usefully employed in formulating ideas for writing. In this tech-

nique, the participants construct analogies or metaphors in order to help them analyze and solve a problem. Thinking about how similar problems are solved in nature or real life is one synectics method for deriving analogies. Such direct analogies can be explored in depth in the form of a descriptive paragraph, for example. In constructing a personal analogy, the problem-solvers imagine that they have become the problem object; in constructing a fantasy analogy, the problem-solvers create crazy, ideal solutions to a problem. Obviously, such analogies can serve as unusual plot ideas for narrative writing. Analogies produced through synectics methods thus stimulate creative writing. Although synectics was obviously not designed with this purpose in mind, creative writing can be a purposeful by-product of a synectics session (Davis, pp.67-68; Feldhusen, pp.45-46).

Sweat and Toil

Thinking and creative problem-solving are not easy tasks. Stephen Spender expresses this viewpoint in an article on poetry writing:

Inspiration is the beginning of a poem and it is also its final goal! It is the first idea which drops into the poet's mind and it is the final idea which he at last achieves in words. In between this start and this winning post there is a hard race, the sweat and toil (Spender, p.68).

Metacognitive strategies, the creative problem-solving process, and creative thinking techniques cannot make these tasks

any easier, but perhaps they can lead to better solutions on the part of problem-solvers. The successful search for better solutions, now and in the future, depends heavily on the promotion of thinking and creativity in the schools.

APPENDIX

Composition Planning Worksheets:

Descriptive Paragraph p.25

*Completed Descriptive Paragraph p.26

Persuasive Paragraph p.27

Narrative (Short Story) p.28

Creative Thinking Worksheets:

Attribute Listing (Story Elements) p.29

Morphological Synthesis (Characterization) p.30

*The descriptive paragraph was composed jointly by the students in a sixth grade classroom using a composition planning worksheet in the prewriting phase.

COMPOSITION PLANNING WORKSHEET:
The Descriptive Paragraph

Experience: something that makes me smile--watching my grandmother make cookies

Main idea sentence: A smile always comes across my face when my grandmother bakes gingerbread men.

Senses to use: sight, touch, hearing, smell, taste

Things to describe (supporting details): grandmother, ingredients (flour), cooking utensils (spoon), dough, unbaked cookies, tray, sound of the oven timer, baked cookies, sound of my stomach, taste of the cookies

Words to use: industrious; precise; thin layer of snow white flour; old wooden spoon; stiff brown dough; little brown men; smooth, sparkling, sandy beach; fat, sunburned men; buzz of the oven timer; crisp, warm gingerbread men; tangy, spicy smell; sweet cookie

Figures of speech or unusual descriptions: like an artist who has painted this scene many times before; white flour covers her arms like long evening gloves; cookies look like sunbathers on a beach

Idea for summary sentence: I will tell why watching my grandmother baking cookies makes me smile.

Summary sentence: I smile, for my grandmother's cookies are filled with her love for me.

COMPLETED DESCRIPTIVE PARAGRAPH

How Grandmother Makes Me Smile

A smile always comes across my face when my grandmother bakes gingerbread men. She goes about her work with great industry and precision. Like an artist who has painted this scene many times before, she knows exactly what to do by heart. A thin layer of snow white flour covers her arms like long evening gloves as she mixes the ingredients with an old wooden spoon. Before long, it is time to roll out the stiff brown dough and cut out the cookies. Grandmother places the little brown men in the oven. I cannot help but think that they look like sunbathers on a smooth, sparkling, sandy beach. Inside the oven, the men grow fat and sunburned. With the buzz of the oven timer, Grandmother pulls out the crisp, warm gingerbread men. A tangy, spicy smell delights my nose, and my stomach growls rudely with impatience. Finally, Grandmother hugs me and gives me the first sweet cookie. I smile, for my grandmother's cookies are filled with her love for me.

**COMPOSITION PLANNING WORKSHEET:
Advertising a Product With a
Persuasive Paragraph**

Introduce the product (main idea sentence):

Provide information which persuades the reader to buy the
product (contentions and supporting evidence):

1.

2.

3.

Select words that appeal to the senses:

Make your final sales pitch to the consumer (summary sentence):

Illustrate the paragraph with a poster advertising the product:

COMPOSITION PLANNING WORKSHEET:
The Short Story

Triangle Plot

Main Character: boy

Object: mule ride (to the bottom of the Grand Canyon)

Issue: manliness, bravery, determination

Big Problem: A young city boy strives to prove his own manhood while on an outdoor adventure.

Minor Problems (Middle of Story):

What if the boy doesn't want to go on the trip, but his father insists?

What if a thunderstorm hampers the mule ride?

What if the boy can't get his poncho loose?

What if the boy's mule slips and falls?

What if the boy decides to make the return trip with a throbbing head from his fall?

Big Problem's Solution (End of Story): The boy proves his manhood by successfully completing the return trip despite his head injury.

Mental Picture of Major Characters:

Name--boy

Age--14

Intelligence--average

Size--small, not athletic

Looks--handsome, no tan

Dress--tennis shoes, no hat, city clothes

Behavior--reluctant, hostile, determined

Voice--soft, high, immature

Walk--fast, steady

Name--Jeb Forrest

Age--old timer

Intelligence--knowledgeable of outdoors, expert wrangler

Size--short, muscular

Looks--tanned, leather-like skin, white hair

Dress--boots, cowboy hat, jeans

Behavior--kind, helpful

Voice--loud, booming, cowboy dialect

Walk--quick, bounding

(Use the back of this sheet for additional characters.)

**CREATIVE THINKING WORKSHEET:
Attribute Listing (Story Elements)**

Directions: Let's invent some story ideas. First, list different kinds of characters, settings, and problem plots under the column headings below. Be imaginative. Then choose one item from each column. Combine these three items to get a story idea. Try different combinations until you get a unique story idea that you wish to develop on your own.

<u>Characters</u>	<u>Settings</u>	<u>Problem Plots</u>
boy	moon	gets lost
princess	forest	becomes trapped or stranded
butterfly	prairie	can't make friends
cat	house	is always forget- ting things
horse	underground	becomes invisible
cowboy	lab	telle lies
scientist	school	is afraid of some- thing
time traveler	sea	gets into a fight
athlete	desert	is accused falsely
sailor	mountains	tries to solve a mystery or crime
_____	_____	_____
_____	_____	_____
_____	_____	_____

CREATIVE THINKING WORKSHEET:
Morphological Synthesis (Characterization)

Directions: Let's create some interesting story characters by combining different ideas for heroes/heroines with different ideas for the main character's personality.

CHARACTER TRAIT

MAIN CHARACTER

shy	smart	funny	sneaky	brave	impolite	talented	clairvoyant	---	---	---	---
-----	-------	-------	--------	-------	----------	----------	-------------	-----	-----	-----	-----

boy
princess
butterfly
oat
horse
cowboy
scientist
time traveler
athlete
sailor

BIBLIOGRAPHY

- Bersiter, Carl, and Swardmalia, Marlene. "Does Learning to Write Have to Be So Difficult?" In Learning to Write: First Language/Second Language, pp.20-33. Edited by Aviva Freedman, Ian Pringle, and Janice Yalden. Essex, England: Longman, 1983.
- Camp, Bonnie W. "Two Psychoeducational Treatment Programs for Young Aggressive Boys." In Hyperactive Children: The Social Ecology of Identification and Treatment, pp.191-219. Edited by Carol K. Whalen and Barbara Henker. New York: Academic Press, 1980.
- Daigon, Arthur. "Toward Righting Writing." Phi Delta Kappan 64 (December 1982): 242-46.
- Davis, Gary A. Creativity Is Forever. University of Wisconsin, Cross Plains, Wisconsin: Badger Press, 1981.
- Douglas, Virginia I. "Treatment and Training Approaches to Hyperactivity: Establishing Internal or External Control." In Hyperactive Children: The Sociology of Identification and Treatment, pp.283-317. Edited by C. K. Whalen and B. Henker. New York: Academic Press, 1980.
- Earp, N. Weeley. "Creativity as It Relates to Educational Practices." In Improving Instruction of the Experienced Teacher, pp.174-205. By R. C. Bradley. Wolfe City, Texas: University Press, 1974.
- Feldhusen, John F., and Treffinger, Donald J. Creative Thinking and Problem Solving in Gifted Education. Dubuque, Iowa: Kendall/Hunt Publishing Co., 1980.
- Lundsteen, Sara W. Children Learn to Communicate: Language Arts Through Creative Problem-Solving. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1976.
- Norman, Donald A. Memory and Attention: An Introduction to Human Information Processing (2nd ed.). New York: John Wiley and Sons, Inc., 1976.
- Ragan, William B., and Shepherd, Gene D. Modern Elementary Curriculum. New York: Holt, Rinehart and Winston, 1977.

Spender, Stephen. "The Making of a Poem." In Creativity: Selected Readings, pp.61-76. Edited by P. E. Vernon. New York: Penguin Books, 1970.

Wittrock, M. C. "The Cognitive Movement in Instruction." Educational Psychologist 13 (1978):15-29.