

36
45

Writing in the Secondary Public Schools:
A Shared Responsibility

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY
COLLEGE OF HUMANITIES AND FINE ARTS

BY
KERRY LOUISE THOMPSON, B.A.

DENTON, TEXAS
DECEMBER 1989

ACKNOWLEDGEMENTS

Completing a project of this complexity requires the support and encouragement of dear friends.

Max, thank you for your love and selfless generosity. The hugs, late dinners, folded laundry . . . saved my sanity. I love you.

Mom and Dad, you have shown me the beauty of friendship. You are my life-long friends.

Dr. Bridges, words cannot express my gratefulness for your guidance, advice, and encouragement. I have benefited greatly from our personal conversations and time together in the classroom. You are a model person and teacher.

Dr. Thompson and Mrs. Parker, thank you for serving on my thesis committee. I have greatly appreciated your constructive criticism.

Brenda, one of the most beautiful experiences of my TWU experience is meeting you. Thank you for the the laughter, the lunches, and the learning. I cherish our friendship.

Emily, your technical assistance during the most intense stages of this project has been deeply appreciated. You are a true professional.

WRITING IN THE SECONDARY PUBLIC SCHOOLS:
A SHARED RESPONSIBILITY

KERRY LOUISE THOMPSON

DECEMBER 1989

ABSTRACT

The purpose of this study is to present a detailed, researched overview of the origin, purpose, workshop training, and practical applications concerning writing across the curriculum.

Procedures followed in this study included reviewing literature on the interdisciplinary nature of writing. In addition, workshop procedures and content area writing assignments were analyzed for effectiveness and practicality.

Major sources of data included books, periodicals, and audiotapes. Research of major writing scholars and interdisciplinary writing specialists was examined. Writing theory and practical application were of primary interest.

This study concludes that writing is a means of learning. Because of its educational value, writing can be naturally integrated throughout the secondary public school curriculum. When the principles of writing across the curriculum are practiced, the writing ability and cognitive skills of students increase. It is, therefore, the responsibility of content teachers to incorporate writing in their classrooms. Writing is a shared responsibility.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
Chapter	
I. ORIGINS OF WRITING ACROSS THE CURRICULUM	1
II. WRITING TO LEARN	11
III. WORKSHOP TRAINING FOR CONTENT TEACHERS	21
IV. A CONTENT TEACHER'S GUIDE FOR BUILDING WRITING ACTIVITIES	41
WORKS CITED	52
APPENDIXES	
A. Pre- and Post-Workshop Attitude Survey	57
B. The Writing Process	61
C. Box Outline	63
D. Peer Evaluation of Soap Assignments	65
E. Holistically Graded TEAMS Compositions	67
F. Symbols for Proofreading	76
G. Typical Oral Conference	78
H. Peer Evaluation Checklist	82
I. Partial Lesson Plan	84
J. Writing Assignments	86

CHAPTER ONE

ORIGINS OF WRITING ACROSS THE CURRICULUM

Writing across the curriculum is a contemporary issue which has its origins in past centuries. During the middle ages, grammar, rhetoric, and logic were considered language subjects incorporated into mathematics and the sciences (Tchudi 5). In addition, the National Education Association has supported interdisciplinary writing as far back as 1893, when the group considered the teaching of composition successful only if it concerned all teachers (Judy 69). Considering the opening facts, it is correct to infer that the writing across the curriculum program currently incorporated in American secondary schools traces its origins to past centuries. Specifically, European institutions of higher learning, primarily those in England, have played a vital role in the development of interdisciplinary writing programs.

During the 1960s, the British experience was fast becoming the most influential in writing across the curriculum. The structured origin of a writing across the curriculum program commenced in England in 1966. This movement, called Language Across the Curriculum, started in London when a group of secondary English teachers and writers including James Britton and Nancy Martin met to examine how the role of discussion could be best used in the classroom as a tool for learning. Soon, however, their focus expanded beyond the verbal.

We found ourselves talking about 'language in education' or 'language and learning,' and finally about language across the curriculum. We felt sure that language was a matter of concern for everyone, that if children were to make sense of their school experience, and in the process to become confident users of the language, then we needed to engage in a much closer scrutiny of the way in which they encountered and used language throughout the school day (Martin 3-4).

With Britton's view and the financial support of the Schools Council, the language across the curriculum movement in England became popular elsewhere. Language across the curriculum programs which spread to Canada and Australia during the mid-1970s are evidence of this popularity. In these countries, the development of advanced writing and verbal skills in the classroom was a primary objective. To meet this goal, leaders of the original British group visited Canadian school officials a great deal and served as influential role models (Parker 174).

At the time of Canada's experiment with interdisciplinary language, a transition was taking place south of the country's border. In 1971, a branch of the original language across the curriculum program, writing across the curriculum, was beginning in the United States (Parker 174). At this time, the term "writing across the curriculum" began to take on a specific meaning which remains today. In this context, the term suggests that composition is a school

wide concern - not just the domain of English teachers (Judy 69). As a branch of the language across the curriculum movement, emphasis of the present program is understandably placed on the ability to communicate by the student. In addition, the current movement offers substantial faculty development programs and instructional practices to extend the theory-based language across the curriculum philosophy. Unlike its predecessor, the practical-based writing across the curriculum program proposes specific teaching methods.

Examples of instructional programs that were first to recognize the need for interdisciplinary writing in the United States include four institutions of higher learning. Rutgers University, the University of Michigan, Beaver College, and Michigan Technological University may be considered catalysts of writing across the curriculum programs in the United States. Specifically, the first official training of writing across the curriculum in the United States occurred at Rutgers University in 1976. In 1977, a second, more thorough summer institute was held on the same campus attracting fifty college teachers from a variety of teaching areas. To support increased learning through writing, the institute was funded by the National Endowment for the Humanities. Later in 1978, "Writing Across the Curriculum" was chosen as the theme of the Conference on College Composition and Communication at its first annual meeting (Kinneavy 364-367).

Michigan State University students were among the first mandated to write essays as a part of entrance requirements. Still today, those performing below acceptable university standards are required to take remedial English. In addition, the students must pass an upper-level writing course taught by faculty members from a variety of disciplines. These professors are assisted by others

in their fields as well as an interdepartmental English Composition Board which conducts the program. Accordingly, teachers appointed to the board train fellow faculty members throughout a full semester. It is during this time that the board approves all course outlines before they are taught. Requirements of the syllabi include approximately 4000 words of writing completed in several assignments. Because emphasis is placed upon the writing process, drafts and conferences are encouraged. During a regular term, students in approximately 150 courses take part in the writing across the curriculum program at Michigan State University (Kinneavy 364).

Another forerunner of interdisciplinary writing in the United States is Beaver College. The faculty members at this college are trained in seminars and use textbooks and reading anthologies which support interdisciplinary study when possible. In addition, all freshmen must take two composition courses requiring 1000 words of writing per week. Four assignments are graded during the course. More importantly to the philosophy of the writing across the curriculum program, the topics of one of the graded compositions must relate to another course (Kinneavy 364-365).

An impressive writing across the curriculum program also takes place at Michigan Technological University, an institution easily contrasted to a large scale university such as Michigan and a small liberal college such as Beaver. At Michigan Technological University, the program is teacher-centered rather than examination-oriented requiring a certain level of proficiency on competency examinations. Teachers from all disciplines are trained during off-campus workshops to identify the functions of language and to incorporate teaching strategies such as journal writing to increase content mastery. This is

done in an effort to aid students in using language in a variety of ways. In addition, motivational classroom writing activities are examined in this informal setting. Moreover, follow-up workshops are conducted, a faculty newsletter presenting new information and ideas for writing across the curriculum is distributed, a university-wide language skill lab with emphasis on writing is available, and continued interdisciplinary writing is encouraged (Kinneavy 366).

Finally, a third institution to offer one of the first interdisciplinary writing programs in the United States is the University of Maryland. Unlike the previously discussed schools, this university centralizes the direction of the program in the English department. As required, freshmen take a regular composition course. In addition, during the junior or senior year, students must take another composition course conducted by an English professor. Throughout the class, individuals write themes based upon their fields of concentration. Methods of argumentation and ethical / political issues concerning particular fields of study are often the focus. Content-based writing is included in the 120 sections offered each semester (Kinneavy 367).

Similar writing across the curriculum programs have been initiated at the University of Texas, Penn State University, and Brigham Young University. Moreover, in a 1984 survey of 404 institutions in the United States, of the 194 respondents only 55 lacked a writing across the curriculum program on campus (Kinneavy 353). Further evidence of the popularity of the program is the 1985 study of the Modern Language Association which found that 47% of the four-year colleges and universities surveyed have some type of interdisciplinary program in progress (MLA Commission of Writing and Literature 66).

As evidenced above, interdisciplinary programs were developed initially

in colleges and universities. Not until the late 1970s did American secondary schools begin writing across the curriculum programs (Parker 174). The development was influenced by the research of James Britton. Directly related to the secondary school curriculum, Britton and associates conducted research proving that expressive writing is often absent from secondary school classes. Britton asserts that it is rare to read written communication characteristic of oral speech. Such writing invites the composer to share personal thoughts with the audience. An example is Anna's journal writing from middle school science; she includes evaluative comments and descriptions in her own words:

Today we did some experiments following on with last weeks. There were some good ones this week. One was Iodine. There was only a tiny bit of it in the test tube. When it was heated it made a deep mauve vapour up the tube with a glitter on the sides of the test tube. When it was cool the deep mauve vapour disappears and only the glitter was left. Another good one was Ammonium Dichromate. It started off as orange granules. But when heated it sparked, bubbled and began to blow out the tube. The powder began to turn a greeny black powder. When it was cool it stayed a greeny black powder. I think the best one today was lead metal. . . . There were some other things that we done today but they were not as good (Martin et al.146).

In addition to expressive writing, Britton notes that the poetic mode is often lacking in the majority of secondary classrooms. As a result, writing which focuses on the symbolic and even the visual is best modeled by young elementary school children such as Eleanor, age six.

The prince and the princess

Once upon a time there was a prince and he went for a ride on his horse, and he went past a castle and there the most beautiful princess in the whole wide world and the prince said please will you marry me. But the princess's mother would not let her marry the prince so one day the princess said I am going for a ride on my horse so off she went but really she went to go and collect the prince and they went to another country and got married and lived happily ever after.

The end (Martin et al. 25).

Instead of focussing on writing which requires feelings, moods, and opinions to be expressed, Britton found most writing to be transactional (Proett 33). This type of writing often informs by using a detached reporter's viewpoint. This is depicted below by Nigel, age twelve, from a piece of writing completed in a Local Studies class.

Greater London Council Ambulance was built in 1969. Before it was built for them there was a place called the Red Cross. The Red Cross was made into a private service for all over the country. But even before that there was a place called Cadogan Iron Foundry. There is a peculiar pipe system in the building now, it is a heating system. The pipes come from the RAF runway which they used these pipes for burning lots of paraffin to clear the fog and so the planes can see the runway (Martin et al. 25).

Britton's study of 2122 writing samples, including those above, were compiled from 65 schools in England. Writings from 21 differing content areas ranging from English to religious education are included in the research. The samples were analyzed based on three criteria: purpose such as transactional, expressive, and poetic; audience, primarily identified as the teacher; and age level of the children, ranging from 11 to 18 (Kinneavy 360).

In the book, Writing and Learning Across the Curriculum: Schools Council Project, author Nancy Martin and associates identify the four goals of the Schools Council Development Project on Writing Across the Curriculum. These objectives were first recommended by Britton and colleagues in 1966 in an effort to:

1. encourage teachers of all subjects to provide a variety of audiences for their pupils' writing so that they are not so often seen as the teacher-examiner who evaluates whatever the pupils write;
2. encourage teachers of all subjects to provide for their pupils a range of writing purposes (linked to range of audiences) so that pupils are given more opportunity to express their thoughts on paper in a variety of ways - expressive, transactional, and poetic;
3. encourage the use of written language as well as spoken for a wider range of thought processes: interpreting, reflecting, thinking creatively and speculatively, as well as recording, reporting, generalizing and classifying;
4. encourage teachers of all subjects to discuss together how

language (spoken and written) can most effectively help their pupils to learn (34).

As a result, Britton is one of the first to argue for full implementation of composition including the application of expressive writing in a variety of content areas. Following this suggestion, in the 1970s American secondary school began to incorporate various writing modes in an effort to increase comprehension.

Importantly, from the beginning, the writing across the curriculum programs in the United States have viewed a practical, experienced oriented-curriculum as the means to tie together differing subject matter (Weingartner 40). Through journals and group projects, for example, researchers, including Britton, are proving that subject area content can become more meaningful and memorable to the learner. Writing expert Herbert Kohl agrees:

Thinking and creating in science, the arts, and mathematics is not that different. Scientist and artist alike try to understand aspects of reality, to conceive of important problems posed by life or the world and then bring their human faculties, intuitive as well as rational, to bear upon producing a solution or creating an explanation or embodying a thought or a feeling. They may focus their attention upon differing aspects of reality, but their ways of thinking are not radically different. There are mathematicians whose thoughts are essentially poetic and poets whose words are mathematical. There are degrees on intuition, rationality, boldness, caution, grandness, or meticulousness in all creative thinkers. The

more schools separate areas of thought, the more they encourage young people not to think in any of them (8).

As Kohl infers, most significant in the study of the origin of writing across the curriculum is the available evidence proving that the composing process increases the cognitive level of students.

CHAPTER TWO

WRITING TO LEARN

Writing is more than a frozen record of thinking. It is an action and a way of knowing

(Irmscher 6).

During the past ten years, there has been great emphasis placed in the classroom concerning the improvement of thinking skills. Writing scholar Stephen Tchudi considers composing one of the most exciting ways to use language as the medium through which content learning occurs. In addition, he states that teachers become aware of not only the language used by students but the accuracy of the content and the refinement of thinking skills (6).

Researcher Howard Johnston and colleagues define thinking skills as “the ability to accurately evaluate statements, understand their importance, and comprehend reasons for stated conclusions” (Hollingsworth 12). In addition, Russell Kenyon defines thinking as “adaptive control of thought.” Much of his particular definition concerns memory usage as it pertains to the thinking process.

Learning is the acquisition of knowledge and skills, where knowledge refers to the propositions, spatial images, and temporal strings stored in declarative memory, and skills refer to the

procedures stored in production memory (75).

Along with Kenyon, other writing experts associate increased memory retention with the personalization of the writing process. Much of the content retained results because writing is an act of discovery. In this sense, writing becomes personal; what is personal becomes meaningful and memorable (Howie 2). In his text Learning to Write / Writing to Learn, John Mayher stresses the importance of writings being perceived as purposeful by the writer. When done so, it is better retained in long-term memory (80).

Examples of personal writing often viewed as purposeful by the writer include journal entries. In this form, students must rethink the concept taught and relate it in their own words. Vincent does this in his chemistry journal:

Mrs. Thompson:

I understand it all, so here's a little story.

Once upon a time, in a land far, far away, there was this compound. One day this compound met another compound and it was love at first sight. So after a short engagement, they bonded. They weren't a balanced equation. A few years later, they had baby elements and after years of bliss, they decomposed (Mayher 84-85).

As evidenced above, writing to learn provides students a great opportunity to discover and develop their cognitive processes, especially memory development. World renowned composition expert Janet Emig supports the view of "personalizing" writing; she notes the writing act involves hand, eye, and brain in an unique, powerful, yet individual way (Huff 57).

In addition to personalizing writing, composition experts suggest

approaching the composition process as a type of problem solving. In order to increase thinking skills through problem solving, writing scholars agree that several prewriting techniques may be used in interdisciplinary settings to generate ideas. Specifically, brainstorming, first introduced in 1964, combines group oral response with rapid writing. In addition, freewriting introduced in 1973, emphasizes content in an effort to learn what is on the writer's mind and to solve the problem of beginning a piece of writing. The purpose of such prewriting activities is to let ideas incubate as well as to let the mind invent. This approach to writing identifies the beginning of thinking as the point when students pose problems that need solving (Hollingsworth 23-28). Moreover, according to renowned developmental psychologist Jean Piaget, when a child begins to problem solve, he begins to reason, to formulate hypotheses, and to deduce. In the formal operations stage occurring around age eleven, the adolescent is capable of deriving meaning from the abstract and better able to solve problems (Fulwiler 61).

Concerning problem solving and writing, six steps should be examined by teachers when attempting to increase students' cognitive learning skills. When taught in hierarchical order, each level is an outgrowth of the preceding level. Level one, sensing problems and challenges, involves being alert to situations and conditions needing improvement. The next step, fact-finding, requires information as an aid to understanding the situation. Problem-finding demands that students look at the whole puzzle to see how the pieces fit together. The fourth level of problem solving related to interdisciplinary writing is idea-finding wherein brainstorming is encouraged as students identify many ways to solve a problem. Level five concerns solution-finding. At this stage

students carefully examine ideas to see which one might best work. After this, the acceptance-finding step occurs. In level, six the students solve the problem by formulating and implementing a plan (Curriculum Guide for Gifted Students, 1989).

When utilizing the six problem solving steps which involve brainstorming and free writing as previously examined, it is important to remember that composing contributes to intelligence by requiring the analysis and synthesis of many levels of thinking (Howie 6). According to Johnston and associates referred to earlier by Helen Hollingsworth, general reasoning, logical discrimination, and application of ideas comprise the levels of critical thinking (13). In her book, Thinking for Yourself, Selma Wasserman separates the levels of critical thinking more specifically. Skills incorporated in her study include observing, identifying, assuming, collecting and organizing data, summarizing, coding, interpreting, problem solving, and decision making. Wasserman recommends that student projects, such as book reviews in the form of news reports, can serve as the vehicles by which higher level thinking skills may be utilized (Hollingsworth 12).

Carol Olson expands the aforementioned connection between writing and thinking. According to her research, the stages of processed-based writing which consist of prewriting, writing, rewriting, revising, editing, and publishing relate to the six levels of Bloom's taxonomy. These levels are identified as knowledge, comprehension, application, analysis, synthesis, and evaluation (Hollingsworth 13). The knowledge level focuses on memory questions. The level is mainly recall of facts; knowledge level questions produce the lowest level of learning outcome.

The Bloom's comprehension level requires students to exhibit knowledge. Unlike with the previous level, the student is required to restate the information in his own way.

Application, the next level on Bloom's taxonomy, requires the student to explain. Problem solving is often involved as the student generalizes from an abstract to a concrete.

The analysis stage is slightly more advanced than the previous application stage. The student is required to break down the information in parts. This requires an understanding of both the content and the structural form of the material.

The second highest level of Bloom's taxonomy is synthesis. This level requires a high degree of original thinking and ingenuity from the student. The formulation of new patterns and structures receives much emphasis.

Evaluation is the highest level of Bloom's taxonomy. Importantly, this level contains elements of all the previous levels; judgments are based on evidence and criteria.

Importantly, using the taxonomy to develop questions plays a vital role in students' learning and thinking at the higher cognitive levels. Moreover, teachers can model powerful questioning techniques in order that students may become adept in questioning themselves as they take on the role of the inquirer in their analysis and search for understanding. To aid in this process, teachers and students can easily identify the thinking skill level of a particular question by identifying key verbs. A sampling from the lowest to the highest level of Bloom's taxonomy includes:

1. Knowledge: define, list, name, label, cite, tell, know, memorize

- repeat, recall, specify;
2. Comprehension: restate, summarize, discuss, describe, locate
recognize, report, translate;
 3. Application: exhibit, solve, interview, demonstrate, illustrate,
operate, show, practice;
 4. Analysis: interpret, analyze, compare, contrast, distinguish,
arrange, diagram, survey;
 5. Synthesis: compose, plan, produce, formulate, predict,
imagine, hypothesize;
 6. Evaluation: judge, evaluate, infer, value, appraise, criticize,
determine, assess

(Verbs and Products, 1984).

In her study, "Fostering Critical Thinking Skills Through Writing," Olson asserts that students are given ample opportunity to function at the lower levels of Bloom's taxonomy. For example, classroom activities often require only knowledge level memory skills. Specifically, in one survey, writing researcher Arthur Applebee finds that notetaking is the most common type of writing done in science, mathematics, and social studies classes. According to the same source, students spend about 44% of their classroom time writing, but only 3% is actual paragraph writing. The other 41% is spent completing blanks, writing simple sentences, and performing calculations (Hollingsworth 9-19).

Representative of the questions responded to by secondary students include:

1. List the ways setting can affect a writing.
2. Name three countries which operate under democratic rule.

3. Cite five major parts of the microscope.

Question forms which use higher levels of Bloom's taxonomy often result in increased content mastery. Examples include:

1. Explain how Ancient Greece and Ancient Rome became empires.
2. Trace the events leading to the outbreak of the American Civil War.
3. Compare and contrast the setting in George Orwell's classic novels, Animal Farm and 1984.

(Curriculum Guide for Gifted Students, 1989).

In addition, the expressive, transactional and poetic writing modes, as examined in chapter one, compliment the varying levels of Bloom's taxonomy. To be specific, in the poetic mode, writing functions as art and imagination. There is no emphasis on rules or formulas (Fulwiler 23). In this form, the writer becomes a spectator often concerned with word-play or thematic patterns (Huff 8). Such writing requires students to incorporate the synthesis, analysis, or evaluation levels of Bloom's taxonomy.

Britton's second classification of writing, also discussed in chapter one, is transactional. Specifically, the purpose of such writing is to inform, persuade, or instruct a particular audience. Lab reports, term papers, essay examinations, book reports and the TEAMS skills test given students in secondary public schools require transactional writing. Bloom's lowest levels of thinking skills, knowledge and application, are often those developed in transactional writing.

According to Britton, a more important mode of writing is the expressive. Such writing reveals the speaker's thoughts as he verbalizes his

consciousness. Often this type of writing is addressed to oneself in the forms of diaries, journals, and personal letters. This writing, characterized by first person pronouns, is the closest to the thinking process. Britton notes that expressive writing, which utilizes the same thinking skills levels as the poetic mode, is the ongoing matrix for developing the skills required for mature writing and thinking.

Roland Huff, author of The Contemporary Writing Curriculum: Rehearsing, Composing, and Valuing, expands Britton's view:

Expressive writing's relationship to thinking . . . seems particularly direct and this suggests its importance as a mode of learning at any stage. It appears to be the means by which the new is tentatively explored, thoughts are half uttered, attitudes half expressed, the rest to be picked up by the reader, who is willing to take the unexpressed on trust (9).

In addition to incorporating certain modes of writing and higher levels of Bloom's taxonomy, experts suggest a variety of methods to increase thinking skills through writing. In her book, Teaching Writing in Every Class: A Guide for Grades 6-12, Helen Hollingsworth recommends the following suggestions for mastering this objective:

1. Assign students to write clearly;
2. Help students to write daily;
3. Teach students the process for completing their writing assignments;
4. Integrate writing assignments in all content area classes, not just English classes;

5. Teach students correctness in using writing by using their own sentences, not just sentences copied from a book;
6. Provide students with time to work together to improve their writing;
7. Shift the focus of writing instruction from the product to what students need to do to write, including generating ideas, finding ways to organize, revise and edit the rough draft;
8. Provide students with the time to revise their own work before grading it, just as professional writers revise before publishing;
9. De-emphasize grades; a strong emphasis on grades keeps students from progressing as writers;
10. Recognize that when students write, they are taking risks; reward their willingness by telling them what is right in what they do, make suggestions for improvements but do not focus on errors;
11. Accept that students will make errors when they are learning to write, grade positively, reward effort and progress, and
12. Make the classroom a comfortable place to write and share writing (22).

In closing, when writing is elevated from merely “testing” subject matter to “teaching” subject matter, the writer uses higher level cognitive skills which aid in the personalization and retention of content across the curriculum.

However, in doing so, writing to learn requires educators to approach composing in an active rather than passive manner. Therefore, in order to successfully teach interdisciplinary writing as a method of increasing thinking skills, organized, effective faculty training is recommended. The faculty workshop, featured in chapter three, is perhaps the most important step for insuring a successful writing across the curriculum program in the secondary school.

CHAPTER THREE

WORKSHOP TRAINING FOR CONTENT TEACHERS

We must remind content teachers that writing is not meant to replace course objectives but to enhance them

(Mayher et al. 87).

Although research exists proving that writing increases content mastery, educators may be reluctant to incorporate writing in their classes. The concerns of teachers may be classified into two issues: how to reinforce effective writing and how to evaluate it. Discussing the problem areas and offering a variety of solutions are the general objectives of any interdisciplinary writing workshop. The long-term benefit of a successful training session is to increase learning through the incorporation of writing in every class.

As in any educational setting, establishing an inviting environment is necessary to foster learning. Just as students appreciate colorful bulletin boards, clean surroundings, and a smiling teacher to put themselves at ease, content teachers respond more favorably to interdisciplinary writing if they, too, are made to feel welcome. Specifically, distributing a well-structured preliminary survey, as included in the appendix, encourages content teachers to voice their concerns about interdisciplinary writing. According to Alan Glatthorn, author of Writing in the Schools: Improvement Through Effective Leadership, it is the responsibility of the school administration to appoint an interdisciplinary task force representative of the faculty. The objective of this

group is to assess the faculty's practices and perceptions about writing. The survey, similar to that in the appendix, should include administrative objectives, a list of available resources, and existing constraints such as funding. Then, the results should be developed in a thorough, yet concise, report issued to teachers prior to the first day of the workshop (48-49). By valuing the ideas of the faculty, individuals will feel instrumental in the success of the workshop.

Although a survey can serve as a catalyst for opening discussion concerning interdisciplinary writing, it will not automatically dispel the pessimistic views of all content teachers. For this reason, in his essay, "Cross-Disciplinary Writing Workshops: Theory and Practice," Randall Freisinger stresses that proper staffing is a key in the workshop's success. He notes that trainers must be aware of probable resistance by content teachers. To help alleviate stress due to specific concerns such as those examined throughout this chapter, Freisinger recommends conducting a question and answer period at the workshop's opening (165). Again, the faculty survey report may be an appropriate tool for eliciting conversation among workshop participants. Throughout the discussion, Freisinger notes that the staff should guide rather than dictate. By acting as mediators, ideas concerning interdisciplinary theory and application will not be forced. As a result, faculty members will feel less threatened and more open to discussion (165).

Following the question and answer period, John Mayher in, Learning to Write, Writing to Learn, recommends responding specifically to the content area teachers' feelings of ineffectiveness about "teaching" writing (88). Staff members should emphasize throughout this segment of the workshop that "teaching" writing will not occur. Instead, faculty member serve as guides who

reinforce basic composition skills taught in the English classroom. Because active involvement is required by interdisciplinary teachers as students write, it is imperative that all teachers become familiar with the writing process.

Perhaps surprising to many teachers is the idea that writing is more than an initial draft which is returned by the teacher with a grade and some remarks in red ink scribbled in the margins. In contrast, writing requires time, concentration, and revision. Like the football player who practices and develops his kicking technique for hours before the rivalry of the game on Friday night, composition must also be refined for its final presentation. When writing involves only an initial draft, the student and teacher are not active participants in the complete writing process. As a result, the writing exercise means little (Howie 7). Not surprisingly, on receiving the grade, the student will typically look at the red ink and toss the paper in the trash.

Because writing is an act of self-discovery, as explained in chapter two, teachers should allow students time to connect with their writing. The writing process allows composing to be:

. . . more than a service tool. It is more than a mechanical process. Writing involves language use and is integral to discovery. It is the means by which we learn about the world and the people around us and our place in this world (Schifsky, "Evaluating Content Writing").

As content teachers come to understand the importance of giving personal meaning to writing, the five stages of the writing process, as diagramed in the appendix, should be explored in detail during the interdisciplinary conference. The first component of the writing process is

prewriting. The purpose of this stage is to generate ideas and prepare to write them (MacMillan 1). Strategies used to formulate ideas are called heuristics. The term means “a way to find, a way to see, a way to know” (Furnish 24).

Heuristics assist the writer in finding what he wants to say, what he knows, and what he needs to know. When introducing heuristics to content teachers, it should be noted that many probably use prewriting activities without realizing it. One popular heuristic technique is brainstorming.

Brainstorming may be used to encourage each student to develop an individual plan for a paper. This activity requires students to formulate as many ideas as possible concerning a topic. The ideas below, from the sophomore level textbook English Writing and Skills edited by W. Ross Winterowd, exemplify this technique:

Brainstorming Topic: The Car of the Future

Brainstorming Responses:

Smaller than cars today	Supersonic
Rubber everything	Like a helicopter
Moves on tracks	Goes in water
James Bond	Recharging stations
Solar Energy	Perfectly safe
Silver bullet	Fuel Crisis (4-5).

The same source recommends making brainstorming a classwide activity. To encourage a teamwork approach, a content teacher can choose one student to serve as recorder. Using a board or overhead projector, the recorder may write down responses as classmates announce them (5-6).

Faculty members should practice the brainstorming technique before

using it in the classroom. Suggested topics for practice during the interdisciplinary workshop are as follows.

1. New courses for high school
2. Space travel in the year 2500
3. Increasing attendance at school-sponsored events,
such as games and dances
4. The ideal vacation
5. Part-time jobs

Because creativity is desired at the beginning of the writing process, workshop participants should be aware that the prewriting/learning stage requires more time than is often realized. In Teaching Writing in the Content Areas, Stephen Tchudi estimates that the prewriting stage may take an hour, a day, or more (15). Since prewriting is the stage when the student masters the basic idea of the paper, teachers should not view it as wasted time.

A fifteen minute method to generate writing ideas is the 5W plus H (Who, What, Where, When, Why, How). In Writing Skills: A Writing Course for Eighth Grade Students, Helen Hollingsworth suggests the following format when applying the 5W plus H heuristic:

1. Ask students to pick a topic for writing. Tell students to write their topic at the top of a sheet of paper. Then tell them to write questions (. . . 12 or more for older students) about their chosen topic. Each question must begin with the 5 Ws plus H (Who, What, Where, When, Why, How).

If students have trouble writing the number of questions

specified, the subject is too narrow . . . or they do not really have an interest in the subject. Another topic should be selected.

2. Tell students to answer their questions by reading, interviewing, or thinking about the answers. Put answers on a separate sheet from the questions . . . not particularly in complete sentences nor in any order. If answers come from printed material, the source should be noted.
3. Tell students if they find more information than anticipated, they must write more questions. They may write as many questions as they like (95).

After completing a prewriting activity, such as brainstorming or the 5W plus H questions, students may begin the writing stage of the process. As ideas become organized on paper, consideration of the introductory, body and concluding paragraphs should be recognized. Teachers can aid students in developing organized, supportive ideas. As a student completes an informal outline, such as the box outline diagramed in the appendix, content teachers can help keep the student focussed on the topic. Careful monitoring will encourage students to write coherent compositions. This will reduce the content teacher's fear of receiving poorly written work (Mayher 89). In addition to monitoring, Tchudi offers several practical ideas for teaching during the writing stage. Content teachers should:

1. Tell students not to worry about spelling, punctuation, and mechanics at the rough draft stage;

2. Provide assistance for students that get stuck with a writing block . . . by simply saying, 'Tell me what it is you want to write about';
3. Help students focus on the audience with whom they will be sharing their knowledge to help clarify their writing (16-17).

Furthermore, in "Teaching Rhetoric in High School: Some Proposals," Richard Larson offers a unique way of helping students during the writing stage. Consider his definition of rhetoric:

We can say that rhetoric is the art of adapting the ideas, structure, and style of a piece of writing to the audience, occasion, and purpose for which the discourse is written.

Larson applies this definition to what he calls the SOAP technique of writing:

S = subject--topic, content , ideas

O = occasion--the setting, the current situation at hand;
and the force that encourages actual writing to happen

A = audience--readers (one person, a small or large group, or a type of person/people)

P = purpose for the audience (informative, persuasive, descriptive, self-expressive . . .)

(1060).

Time should be scheduled during the interdisciplinary workshop for teachers to discuss and to develop SOAP assignments. Models, such as the one below, will greatly benefit teachers. From assignments developed,

teachers will visualize the important areas to emphasize when monitoring student writing:

“The Yellow Wallpaper” by Charlotte Gilman

You are the wife in “The Yellow Wallpaper,” and you have been told by the nurse that your favorite boutique is going to have a one-day sale next week. You want to go. Since your husband does not come in to see you very often and he will be away, write a letter persuading him that you are in the peak of health and that there are very reasonable explanations for your recent behavior--so you can attend the sale.

S = Your health and behavior

O = You want to go to the sale.

A = Your husband

P = To persuade him that you are not sick
so you can attend the sale

(Hernandez 1).

Dr. Tommy Boley of the University of Texas at El Paso offers an eight part evaluation guide for SOAP assignments. As noted in the appendix, this may be used as a peer evaluation technique. During writing across the curriculum training, teachers of all disciplines can, therefore, give feedback concerning the components of a good composition. This reinforces what takes place in the writing stage of composing.

After completing the writing draft, students can proceed to the revision stage. While revising, students may change words, rewrite sentences, delete

unnecessary information, add detail, reorganize paragraphs, etc. The focus of this stage is to express ideas in a clear, organized manner (Winterowd 16).

During the interdisciplinary workshop, teachers should recognize revision as a valuable tool. Write More. Learn More published by Phi Delta Kappa, provides suggestions for guiding students through the revision stage:

1. Help students to see that writing is a process made up of many stages and that writers continually refine their writing at each stage.
2. Provide suggestions for improving writing, such as additional detail, changes in organization, paragraph order, or title.
3. Provide dictionaries, grammar reference books, and thesauri in the classroom.
4. Provide opportunities for students to work with each other in revising/editing their papers (Furnish 40).

Sherry Howie, author of A Guidebook for Teaching Writing in the Content Areas, emphasizes that revision is not a form of punishment (15). Instead it is a natural, essential part of the writing process. Well-known writer James Michener agrees:

I have never thought of myself as a good writer. Anyone who wants reassurance of that should read one of my first drafts. But I am one of the world's greatest rewriters. I find three or four readings are required to comb out the cliché, line up pronouns with their antecedents, and insure agreement in number between subjects and verbs. It is, however, this hard work that produces

a style. You write the first draft really to see how it is going to come out. My connectives, my clauses, my subsidiary phrases don't come naturally to me, and I'm very prone to repetition of words; so I never write anything important in the first draft. I can never recall anything of mine that's ever been printed in less than three drafts (Murray 241-242).

Like Michener, when students are comfortable with their revised thoughts, the last step of the writing process may be incorporated. Once again, the publication stage requires teachers to be active participants in the writing process. Because publication can motivate students to do their best work, educators should provide opportunities for sharing to take place (Proett 28). Content teachers should encourage students to share their work with others. This can be done in partners as well as small or large groups. During the publication stage, teachers should provide positive feedback to students for their efforts in writing. Sharing writing is a positive response (Furnish 40).

Publication methods vary greatly as noted in an excerpt from Pat Edwards article "100 Ways to Publish Children's Writing."

Books of All Kinds

1. 'My Best Writing' - Individual Scrapbook
2. Riddle and Joke Books
3. A 'Group' Story

Newspapers

4. School News
5. 'Crazy Paper' - Nursery Rhymes Retold

Letters

6. To a person in the news

7. Teacher Writes Too - Personal letters to students

Notice Boards

8. Here's Good Work!

Miscellaneous

9. Form a Writers Club (18).

During the writing across the curriculum workshop, teachers can discuss publishing techniques appropriate for their school. In the book, Explorations in the Teaching of English, Stephen Judy gives an account of John Hart, former principal of Philadelphia Central High School. During the middle of the nineteenth century, he and his faculty determined that newspapers and magazines publications could best serve the needs of the student body. Within ten years, the high school published more than six newspapers and a variety of magazines. Today, more than a century later, the faculty at Philadelphia Central High School continues to recognize publishing as an essential stage in the writing process. As Hart recognized long ago, publication dramatically improves the content and clarity of student writing (221).

After completing an overview of the writing process, as examined above, content teachers will be more accomplished evaluators of students' writing. As evaluators, the purpose of assessment is to ascertain whether the student understands what is supposed to be learned or is "merely regurgitating a prescribed set of words which are not necessarily his own" (Mayher 122). Samuel Thurber of the Girls' Latin School in Boston, 1898 agreed:

Language is acquired only by absorption from contact with an environment in which language is in perpetual use. Utterly futile

is the attempt to give a child or youth language by making him learn something about language. No language is learned except as it performs the function of all speech--to convey thought, and this thought must be welcome, interesting and clear. There is no time in the high school course when language will be learned in any other way (Judy 27).

When evaluating for learning, Toby Fulwiler summarizes several techniques appropriate for content teachers. The most encouraging technique to be shared among teachers is holistic grading. This presents teachers the opportunity to respond to a paper's content rather than the structural mechanics (29). When evaluated holistically, a piece of writing is considered in its totality with respect to purpose and audience. Examples of holistically evaluated compositions include those produced by ninth graders for the Texas Educational Assessment of Minimal Skills exam. Samples, such as those in the appendix, may be distributed to the participants of the interdisciplinary workshop and to students in the classroom as models of holistic evaluation.

Because holistic evaluation encourages a global response to a piece of writing, papers will not "bleed" with red marks. Fulwiler asserts that less error marking is perceived as positive by the writer (29-30). In many cases, praise motivates more than marked red errors (Schifsky, "Evaluating Content Writing"). Unpopular to the evaluation philosophy of interdisciplinary writing is the 1898 comment from the Committee of Composition and Rhetoric of the Harvard Board of Overseers.

The province of the preparatory schools is to train the scholar, boy or girl, and train him or her thoroughly in what can only be

described as the elements and rudiments of written expression--they should teach facile, clear penmanship, correct spelling, simple grammatical construction, and neat, workmanlike mechanical execution. And this is no slight or simple task. . . . It demands steady, daily drill and drudgery of a kind most wearisome. Its purpose and aim are not ambitious--its work is not inspiring (Judy 27).

Undoubtedly, some teachers resist holistic grading simply because it does not require marking every error, and some teachers will find the old habit of constant marking difficult to break. If some papers exhibit multiple errors, Fulwiler recommends singling out only one or two problems (30). This encourages the writer to improve on specific areas.

Based on the discussion above, content area teachers should keep editing symbols to a minimum. Basic marks, as noted in the appendix, are easily learned by teacher and student. Importantly, evaluation marks should be consistent throughout the school. The conformity will help ensure unity among interdisciplinary writing teachers and lessen confusion among student writers (Fulwiler 30). Interdisciplinary workshop participants should realize they do not have to become like the educator in Richard Behm's essay, "Portrait of the English Teacher As a Tired Dog":

It is a November midnight, Johnny Carson has just ended, and throughout the block the last lights flick off--all but one that is. A single orange light blooms in the darkness. It is the English teacher, weary-eyed, cramped of leg, hand, and brain, sifting listlessly but doggedly through piles of themes, circling, marking,

grading, commenting, guilt-ridden because the students were promised that papers would be returned last week. The fifth cup of coffee grows cold and bitter. Just one more paper. And then one more. And then . . .

(Judy 208).

Because holistic evaluation and basic editing symbols eliminate excessive grading time, teachers have more time to evaluate orally through individual conferences, as modeled in a typical oral conference located in the appendix. Importantly, content teachers may feel more comfortable “talking” rather than writing comments. Such action is worthwhile; Mayher asserts that five minutes of “intense talk” with a student can equal up to twenty-five minutes used to write comments (138).

There exists a variety of specific conferential methods to compliment the preference of individual workshop participants. These vary from impromptu to scheduled. In addition, scheduling may be as informal as a sign-up sheet allowing students to fill in the most convenient meeting times or as organized as the conference model below.

The instructor sets up a triad at her desk. At the beginning of the period which is to be devoted to conferences, she (the instructor), generates two equal columns of student names on the board, one to her left and one to her right. Each list relates to the corresponding chair on either side of her desk. Students ready for conferencing come to the teacher’s desk, while others work in groups of individually. As a student finishes his conference, he erases his name leaving his chair open for the next.

In one class period, this teacher can talk with approximately ten students allowing every student a conference time at least once every two weeks. Using less than 20% of class time, students discuss their writing with their teacher on a regular basis (Mayher 139).

In an effort to prevent teachers from overteaching during conferences, Donald Graves proposes the PQS strategy. PQS (praise, question, suggestion) helps meet the conferential objective of “teach one thing, no more” (Graves 146). Specifically, the strategy first requires the teacher to praise something the writer is doing well (Furnish 81). Importantly, the comment should be sincere and related to the student’s particular writing stage.

Next, the teacher should ask a question only related to the stage of the writing process at hand (Furnish 81). For example, a comma question is not appropriate in the prewriting stage when the student is attempting to get first ideas on paper. Comma questions and the like are best asked during the revision stage.

Last, the teacher can conclude the conference with a specific suggestion (Furnish 81). Again, the comments should relate to the stage of writing currently being completed. Importantly, students should be able to sum up the conference. This allows the student to better retain the main idea of the oral evaluation (Walvoord 144).

Students may also learn by critiquing one another’s work. According to Roland Huff in The Contemporary Writing Curriculum: Rehearsing, Composing, and Valuing, critical distance does not often exist when evaluating one’s own work. It is often easier for a student to evaluate a peer’s piece of writing (Huff 183).

As implied by the last point, peer evaluation provides an opportunity for students to develop critical skills. Importantly, these skills may be applied to their own writing. This provides students with a realistic comprehension of what is effective (Howie 133).

Also, peer evaluation requires students to focus on a particular audience. Specifically, students may direct their focus to their peers rather than to the teacher as is usually the case. In "The Social Psychology of School Learning" David Johnson agrees with Howie.

Teaching and learning do not typically take place within a dyadic relationship between an adult and a child. Students' learning takes place within a network of relationships with peers, and it is these relationships that form the context within which all learning takes place (156-157).

In addition, research compiled by Huff suggests that peer response groups encourages greater completion ratios, longer motivation, and more positive relations with the teacher (136).

Furthermore, because writing may be considered a problem solving activity, as examined in chapter two, it is advantageous to work on a cooperative rather than a competitive level . In this setting, brainstorming during peer evaluation may allow students to work at various levels to solve the problems presented in writing (Huff 136).

According to writing scholars, a peer evaluation checklist, such as the one noted in the appendix, may be used in all classrooms. A peer group checklist places the responsibility of editing upon the students (Howie 144). As stressed throughout the interdisciplinary workshop, content teachers do not

serve as correction experts; they serve as content evaluators.

Whichever peer evaluation tool is utilized, it should be clearly understood by the students before writing. Moreover, to avoid frustration, they, like content area teachers, should recognize that not every element of composition will be considered (Howie 129).

As noted, a variety of guidelines exist for establishing peer evaluation groups. In relation, two major points should be emphasized during the interdisciplinary workshop.

1. Groups need to be large enough to provide a variety of opinions and talent, but small enough to control and keep focused on goals.
2. Groups must be involved in the various stages of the writing/ learning process not just the beginning or the end
(Huff 140-141).

Objectives concerning how to reinforce and evaluate effective writing across the curriculum are best achieved when combined with faculty-wide workshop training. In "Research in Writing Across the Curriculum," George McCulley offers four sequenced goals for faculty workshops.

1. Faculty workshops should change how participants view writing in the curriculum.
2. This attitude change should in turn lead to changes in how the teachers assign and respond to student writing.
3. These changes in classroom practices should produce changes in how students view writing.
4. These changes should positively influence students'

writing and learning abilities (50).

To better meet these goals, cooperation is required among three groups: teachers, as detailed throughout this chapter, administrators, and parents. Administrators are responsible for providing funds for workshop consultants. Because teachers will be more receptive to an interdisciplinary approach to writing if their budgets remain intact, funding should be obtained through administrative means (Tchudi, "Developing a Schoolwide Writing Program").

Along with administrative guidelines, Tchudi offers suggestions wherein parents can aid teachers in assuring the success of an interdisciplinary writing program in all classes. Specifically, as tutors and aides, parents can volunteer to talk with students about writing and serve as audience members during oral presentations. Away from campus, guardians should provide an atmosphere conducive to learning. This can be done by providing a writing/studying place equipped with necessary writing tools. These may include dictionaries, paper, pen, proper lighting, and perhaps a word processor. Last, parents can encourage students to complete composition assignments and to incorporate a variety of writing forms including diaries and letters (Tchudi, "Developing a Schoolwide Writing Program").

After completing initial interdisciplinary training, encompassing the above criteria, Anne Herrington, author of "Writing to Learn . . . Writing Across the Disciplines" stresses that regular monthly meetings reinforce faculty goals. An added benefit of organized meetings is the opportunity to share different assignments and evaluation techniques which have been practiced in the classroom (380).

As inferred, the objectives of a writing across the curriculum workshop

should be continually considered and questioned. If so, realizations of what participants learn from the seminar can emerge. The participants of the interdisciplinary writing seminar conducted at the University of Southern Alabama acknowledge new understandings constituted only after completing the seminar.

1. Writing comes easily to almost no one.
2. Writing is not a monolithic activity, one thing done in one way, with a single format.
3. Given the various reasons for writing, and given the differences among individuals, the very processes of writing may change, from one purpose to another, from one writer to another.
4. Faculty ask their students to write for a variety of reasons . . . so that what becomes important is not so much the answer obtained but the process of reasoning that leads to it.
5. Writing is an important way of knowing and an important tool for learning. . . . We find out what we know through language and in written language we find it in a form we can examine (Silverthorn 263).

The writing process and teacher/student evaluation techniques examined in an interdisciplinary workshop setting can be successfully implemented by the content teacher. As the faculty of the University of Southern Alabama testifies, concerns of how to reinforce quality writing as well as critique it, can be minimized through concentrated training. Perhaps, however, the most persuasive manner to encourage teachers of all subject areas to incorporate

writing in their classrooms is to offer practical applications -- tangible activities to guide them through assignment development.

CHAPTER FOUR

A CONTENT TEACHER'S GUIDE FOR BUILDING WRITING ACTIVITIES

I would like to start out by saying "I hate wrighting" But there one thing I like is Math. I like to play baseball. I was on a teem last year. I was on the KAWANIS club. But I don't do that good in it that much. I batted 200. Every body call me Babu so that's my nick name. Chess is a good game to play, I am good at that. I know how to cheek mant in 3 moves. I tell you, I hate wright. I have never wrote a letter to knowbody. But once I was going to wright to my brother in Kansas City to play chess by mail. It would tack about 3 months to play one game. Thats all I got to say (185).

The above sample of student writing from Explorations in the Teaching of English by Stephen Judy makes a shocking statement about perceptions many students have toward writing. Scott Bates, author of the opening words, has never written a letter, though at one time he was tempted. A perceptive teacher might note, however, that chess, baseball, and math interest Scott. Perhaps a paper about math would encourage this young man to compose with a purpose. Moreover, if his math teacher was trained in the writing process and holistic evaluation, Scott's writing skills would be improved. In addition, Scott's cognitive level, as researched in chapter two, would increase.

As inferred from the opening discussion, while in a particular classroom situation, the make up of the class and the teacher's own imagination largely determine how writing methods are implemented. Encouraging to the content teacher faced with incorporating writing are the practical and effective suggestions available to stimulate writing. Gathered from writing experts, English and content teachers, the applications reinforce the intent of the writing across the curriculum program: students will learn through the writing process.

Before the content teacher assigns major writing assignments, the students' abilities and needs must be considered. This can be accomplished by having each student complete basic questions concerning his writing history. A survey may include questions similar to the following:

1. What writing experiences have you had previously?
2. How often have you written?
3. What kinds of writing have you done?

letters	reports
exams	journals
essays	other?
4. Who did you write for and why?
5. Did you enjoy or dislike writing? Why?

(Hughley and Hartfiel 87).

After the content teacher has assessed the writing history of each student, assignments may be better developed. In The Profile Guide, Jane Hughley and V. Faye Hartfiel offer guidelines for content teachers preparing writing assignments. First, an important question to ask before deciding what to assign is--"What do you want your students to learn?" All assignments should be developed with a specific goal in

mind (88). In history, for example, a teacher's goal for a particular writing assignment may be to compare and contrast the events leading to World War I and to World War II.

Next, students should write about what they know. Writing across the curriculum can help students find opportunities for investigating subject matter of interest to them. A personal interest survey, easily developed by teachers, is a helpful tool to distinguish students' favorite hobbies, movies, etc.

Third, Hughley and Hartfiel stress that each writing assignment should be designed with a real audience in mind (88). As stressed in chapter three, students write more clearly when addressing a specific person or group. Moreover, the content teachers should vary the audience when possible. For examples, students can write to their favorite television actor commenting on a recent appearance or write to their superintendent persuading him to shorten the school day by one hour.

Perhaps suggestions most supportive of learning through writing are those incorporating the writing process throughout the assignment. To begin, heuristics including the brainstorming and the 5W plus H? methods, as examined in the previous chapter, help students find their own interests and identify their points of view (88).

A very effective form of heuristics is the journal. According to Toby Fulwiler in "Journals Across the Disciplines," journals exist as a continuum between diaries and class notebooks (17). In this context, diaries present the personal thoughts of the writer, and notebooks completed in class record the ideas of another. Like the diary, first person is used in the journal; like the class notebook, the journal focuses on a particular subject.

Writing scholars recommend that students write regularly in journals as a form of prewriting. This promotes expressive writing, which as noted in chapter two, is a unique mode of learning. Using the journal, the student often moves from confusion to clarity. A comment from an ethics student of Randall R. Freisinger's at Michigan Technological University supports this view:

The journal writing was a valuable tool to me as a way of clarifying my stand on ethical issues. Often I would start an entry in a rather confused state of mind, but by the time I finished it, I would have a better idea of what I really thought. The journal also helped me to think about applying principles in the book to my experiences. In that way I think I really learned the ideas. I could relate to them (164).

Roland Huff offers suggestions to the content teacher wishing to incorporate journal writing in the classroom.

1. Journals should not be graded.
2. A variety of functions: expressive, poetic, transaction (informative\persuasive) should be used.
3. Students should develop expressive responses to stimuli, event and ideas (34).

Because journals do not have to be graded, content teachers feel comfortable using them. During the interdisciplinary workshop, faculty members may brainstorm journal topics to be used in specific classes. Fulwiler notes journal ideas resulting from workshop training.

1. In an American government course students are asked to record their opinions about current events in a daily journal.

These are later compiled and discussed in groups to attempt a basic understanding of world problems.

2. A music teacher asks students to keep 'listening journals' in which they record their daily experiences of hearing music. She conducts classes at various times which rely on the content of the journals thus involving the students in her class content.

3. A drama coach suggests that his actors keep a journal to more fully develop their awareness of a character in a play.

Therefore, the actors write their way into a character through their journal (16).

Mary Lou Cutter, a secondary teacher in Hadley, Massachusetts, offers ten basic rules for journal writing. These can easily be applied to any content area.

1. Write continuously for ten minutes.
2. If thoughts go 'dry,' write the last word over and over or 'think,' or 'I don't know what to write' until you are ready to continue.
3. Apply . . . proper rules for penmanship.
4. Entries can be written during the ten minutes allotted in class, and anytime you want to write.
5. Diary entries . . . can be included in the journal.
6. If spelling a word is a problem, leave it alone, or spell the best way you can.
7. Journals will be collected at the end of each semester for one grade, on the basis of . . . volume.
8. Privacy will be respected. . . . You are writing for you.

9. No more than one day a week can be 'dry' where you write 'Think, Think, Think' the whole ten minutes (70).

Related to the journal is the learning log. In Learning to Write / Writing to Learn, John Mayher asserts that the learning log is one of the most effective ways students can use writing as an aid to learn. The learning log assists students in keeping an account of what they have learned in particular classes. Importantly, these records are written for the writer, but they may serve as an excellent opportunity to encourage dialogue between student and teacher. The content teacher can monitor what is being learned or what needs to be retaught. In addition, the student retains more of the content (82).

Writing Logs provide opportunities for students to:

1. React to class activities: What did you think of the lab test?
Describe oneself as a science, math, English . . . student.
3. Explain new concepts, etc. which were presented in class.
4. Explain these new ideas to a classmate with your assessment.
5. Explore the significance of what you've learned.
6. Question what you do not understand.
7. Explain or rewrite an assignment in your own words.
8. Describe what has been said in class.
9. Evaluate the teacher and course content

(Mayher 82).

Another popular heuristic is free writing. The basic idea of free writing is to provide occasions for students to reinforce knowledge of a particular matter with little worry about spelling, grammar, etc. The mind is "free" to let the words flow unhampered (Marcus 10). One free writing activity requires students to:

. . . write three words which they thought were of special significance to the day's assignment. The teacher then asks students to free write for two minutes on one of the words. The group shares the thoughts to generate class discussion questions (10-11).

Each content teacher will need to develop the form of heuristics which works best for the specific students assigned. The variety of methods, however, are easy to incorporate. Most importantly, such writing assignments encourage students to attempt other forms of writing. One teacher recalls the effects journal writing had on her student.

D. came to my class printing all capital letters pushed together looking like one big word. Writing daily gave me a chance to point out how to improve. Now he seems to have less fear of writing. He doesn't tremble when he writes, is beginning to separate words, and is writing more words (71).

Moving from prewriting activities to complete writing assignments, content teachers, according to Helen Hollingsworth, in Teaching Writing in Every Class, should inform the student of the given task, the audience, and the purpose (60). The writing assignment below utilizes these guidelines:

- I. In three paragraphs, write your response to the following ideas about immigrants:

The many immigrants who have come to the United States have made important contributions to the cultural richness of the country.

- II. Rewrite your response, as directed below, addressing it to one

of the following readers:

A newspaper reporter who had supported the Ku Klux Klan

A priest in the Roman Catholic Church

A principal of an elite private school

A president of a large labor union

First, select a reader and list a few of his/her possible attitudes toward your subject (even though you do not know the reader). Then write your new paragraph(s).

III. Repeat the same steps, and write to a second reader.

IV. Analyze your three statements, and describe the changes you made for each reader. Describe the reasons for those changes (Giroux 192).

For comparison, a partial lesson plan and detailed writing assignments for content teachers are located in the appendix. The content teacher can easily apply all steps of the writing process to the assignments included. Revisions can be made based on the needs of the content teacher's students.

The principles concerning the development of content writing assignments should be applied if students are to learn from writing. Tchudi advises the content teacher to:

1. Keep content at the center of the writing process, addressing yourself to what the writing says, allowing how it says it to be treated incidentally.
2. Make certain students know their material before writing: content understanding shines through student writing.
3. Design student activities that help students structure and synthesize

their knowledge, not merely regurgitate it.

4. Provide audiences for student writing.
5. Look for writing activities that allow the student to play the role of learner and researcher.
6. Teach the process of writing:
 - a. Spend much time with prewriting, helping students acquire a solid grasp of the material.
 - b. Provide assistance and support as students write, helping them solve problems as they arise, rather than waiting until they turn in the paper.
7. Let students revise one another's papers. Provide support through revision checklists and guidelines.
8. Don't confuse revising with copyediting.
9. Display or otherwise publicize student writing through shows, demonstrations. . . . Don't be the only reader of your own students' work.
10. Keep content at the center of the writing process (Tchudi 59).

In a closing comment about content assignment developing, English teachers must support the philosophy of interdisciplinary writing in order for it to be accepted by fellow faculty members. It is the responsibility of the English instructor to teach specific writing skills and mechanics rules (Tchudi 74). Although, there is a place for holistic grading in the English classroom, students must be accountable for all skills of written literacy. Cooperation between the English teacher and the content teacher, in this manner, insures that each faculty member is not responsible for "teaching" writing. The role of the content

teacher is “guide” and “reinforcer.”

As examined in detail throughout this thesis, a writing across the curriculum program is beneficial to students. It is, therefore, the responsibility of administrators and teachers to incorporate interdisciplinary writing in the secondary school. Considering the research proving that writing increases the cognitive level of students, one concludes that the program is justified.

What is required is the determination of administrators and faculty to succeed in implementing a writing program that requires cooperation from each faculty member. As outlined throughout this thesis, interdisciplinary training is the key to a successful program. Knowledgeable workshop consultants presenting practical ideas in a non-threatening manner will encourage content teachers to “try” this new idea.

Implementation of an effective writing across the curriculum program will not happen after one seminar. Content teachers will need the continual support of the administration and each English teacher if the program is to succeed. Faculty luncheons and other socials should be arranged to allow teachers the opportunity to discuss the incorporation of writing in their classrooms.

Finally, to integrate writing as a significant element in each course is to enrich a student’s learning. Moreover, the observant teacher can increase the cognitive level by giving careful attention to the types of writing students do, the purposes writing fulfills, and the way assignments are developed.

Also important to the philosophy of interdisciplinary writing, the teacher should act as a writing coach not as a judge of the written product. A wise teacher will not mark every error simply because it exists. Instead, the writing will be analyzed as a communication by writer to a reader. Moreover, in evaluating the

writing, the teacher should concentrate on the writing-learning process.

When the principles of writing across the curriculum are practiced, the quality of students' writing will be enhanced--and more significantly, the quality of learning. To experience this growth, all teachers, administrators, parents, and students must realize that writing in the secondary public schools is a shared responsibility.

WORKS CITED

- Ciner, Elizabeth. "Writing Across the Disciplines: A Faculty Development Program." Course for Change in Writing Eds. Carl Claus and Nancy Jones. Upper Montclair: Boynton\Cook, 1984. 260-269.
- Curriculum Guide for Gifted Students. English Department. Bridgeport: Bridgeport ISD, 1989.
- Cutter, Mary Lou. "Journal Writing is Only the Beginning." Ed. Betsy B. Kaufman. Flushing, NY: Queens College, 1979. 68-71.
- Edwards, Pat. "100 Ways to Publish Children's Writing." Better Reading/ Writing More! Epping, NSW: The Primary English Association of New South Wales, 1977. 15-19.
- Freisinger, Randall R. "Cross-Disciplinary Writing Workshops: Theory and Practice." College English. 42.2 (1980): 154-166.
- Fulwiler, Toby. "Changing Faculty Attitudes Toward Writing." Writing Across the Disciplines: Research Into Practice. Eds. Toby Fulwiler and Art Young. Upper Montclair: Boynton/Cook, 1986. 53-56.
- . "Journals Across the Disciplines." English Journal 69.9 (1980): 16-17.
- . "The Argument for Writing Across the Curriculum." Writing Across the Disciplines: Research Into Practices. Eds. Toby Fulwiler and Art Young. Upper Montclair: Boynton/Cook, 1986. 21-32.
- Furnish, Bob. Write More, Learn More: Writing Across the Disciplines. Bloomington: Monroe County Community School Corporation, 1984.

- Giroux, Henry A. "Teaching Content and Thinking Through Writing." Social Education 43.3 (1979): 190-194.
- Glatthorn, Allan A. Writing in the School: Improvement Through Effective Leadership. Reston: National Association of Secondary School Principals, 1981.
- Graves, Donald H. Writing: Teachers and Children at Work. Portsmouth: Heinemann Educational Books, 1983.
- Hernandez, Martha. "Original SOAP Assignments for Literature." Ed. Dr. Tommy Boley, University of Texas at El Paso, 1983.
- Herrington, Anne J. "Writing to Learn: Writing Across the Disciplines." College English. 43.4 (1981) : 379-387.
- Hollingsworth, Helen and Susan Eastman. Teaching Writing in Every Class: A Guide for Grades 6-12. Boston: Allyn and Bacon, Inc., 1988.
- Hollingsworth, Helen. Writing Skills: A Writing Course for Eighth-Grade. Bloomington: Monroe County Community School Cooperation, 1984.
- Howie, Sherry. Hill. A Guidebook for Teaching Writing in the Content Areas. Boston: Allyn and Bacon, Inc., 1984.
- Huff, Roland. The Contemporary Writing Curriculum: Rehearsing, Composing, and Valuing. New York: Teachers College Press, 1987.
- Hughley, Jane and V. Faye Hartfiel. The Profile Guide. College Station: Newbury House Publishers, 1987.
- Irmscher, William F. Write More. Learn More: Writing Across the Curriculum. Bloomington: Phi Delta Kappa, 1988.

- Johnson, David. The Social Psychology of School Learning. New York: Academia Press, 1980.
- Judy, Stephen N. Explorations in the Teaching of English. New York: Harper and Row, 1981.
- Kenyon, Russell W. "Writing Is Problem Solving." Writing to Learn Mathematics and Science. Ed. Paul Connolly and Teresa Vilardi. New York: Teachers College Press, 1989. 73-87.
- Kinneavy, James L. "Writing Across the Curriculum." Teaching Composition: Twelve Bibliographical Essays. Ed. Gary Tate. Fort Worth: Texas Christian University, 1987. 353-377.
- Kohl, Herbert R. "Some Notable Quotes on the Integration of All Curricula, Literacy, and Writing." Interdisciplinary Writing: A Guide to Writing Across the Curriculum. Ed. Irene M. Diamond. Madison: Wisconsin University, 1976. 8-9.
- Larson, Richard. "In Teaching Rhetoric in High School: Some Proposals." English Journal. 55.8 (1966): 1060.
- Macmillan English Teacher's Reference Book - Ninth Grade. New York: Scribner, 1986.
- Marcus, Stephen, "Any Teacher a Writing Teacher: The Value of Free Writing." Improving College and University Teaching. Washington: Heldren Publications. 28.1 (1980): 10-11.
- Martin, Nancy, Pat D'Arcy, Bryan Newton, and Robert Parker. Writing and Learning Across the Curriculum 11-16: Schools Council Project. London: Lock Educational and the Schools Council, 1976.

- Mayher, John S., Nancy Lester and Gordon M. Pradl. Learning to Write, Writing to Learn. Portsmouth: Boyton/Cook, 1983.
- McCulley, George A. "Research in Writing Across the Curriculum." Writing Across the Disciplines: Research Into Practice, 1986. 42-52.
- MLA Commission on Writing and Literature. "Survey of the Profession." 2 May 1985: 66. Rpt. in Teaching Composition. Ed. Gary Tate. Fort Worth: Texas Christian University, 1987. 353-377.
- Murray, Donald. A Writer Teaches Writing: A Practical Method of Teaching Composition. Boston: Houghton Mifflin, 1968.
- Parker, Robert. "The Language Across the Curriculum Movement: A Brief Overview and Bibliography." Language Across the Curriculum. May 1985: 174.
- Proett, Jackie. The Writing Process in Action: A Handbook for Teachers. Urbana: National Joint Council of Teachers of English, 1986.
- Schifsky, John. "Evaluating Content Writing." Audiotape. Talks with Teachers About Writing in the Content Areas. Ed. Stephen N. Tchudi. Washington: National Education Association, 1983.
- Silverthorn, Lana. "Writing Across the Curriculum." Eds. Carl Klaus and Nancy Jones. Upper Montclair: Boyton/Cook, 1984. 270-280.
- Tchudi, Stephen N. "Developing a Schoolwide Writing Program." Audiotape. Talks With Teachers About Writing in the Content Areas. Washington: National Education Association, 1983.

Tchudi, Stephen N. and Joanne Yates. Teaching Writing in the Content Areas: Senior High School. Washington: National Education Association, 1983.

Verbs and Products for Independent Study Based on Bloom's Taxonomy. Phoenix: Engine-Uity, Ltd., 1984.

Walvoord, Barbara Fassler. Helping Students Write Well: A Guidebook for Teachers in All Disciplines. New York: The Modern Language Association of America, 1982, 1986.

Weingartner, Charles. "Getting to Some Basics that Back-the-Basics Doesn't Get To." English Journal 66 Oct. 1977: 39-44.

Winterowd, W. Ross. "Discovering the Writing Process." English: Writing and Skills. San Diego: Coronado, 1985. 2-23.

APPENDIX A

PRE- AND POST WORKSHOP ATTITUDE SURVEY

Writing Across the Curriculum
Pre- and Post-Workshop Attitude Survey

ID Code : _____

Your Sex : M F

Your Discipline : _____

Your Faculty Rank (if applicable) : _____

Please complete this attitude survey using the following scale:

- 1 - Strongly Agree
- 2 - Agree with Qualification
- 3 - No Opinion
- 4 - Mildly Disagree
- 5 - Strongly Disagree

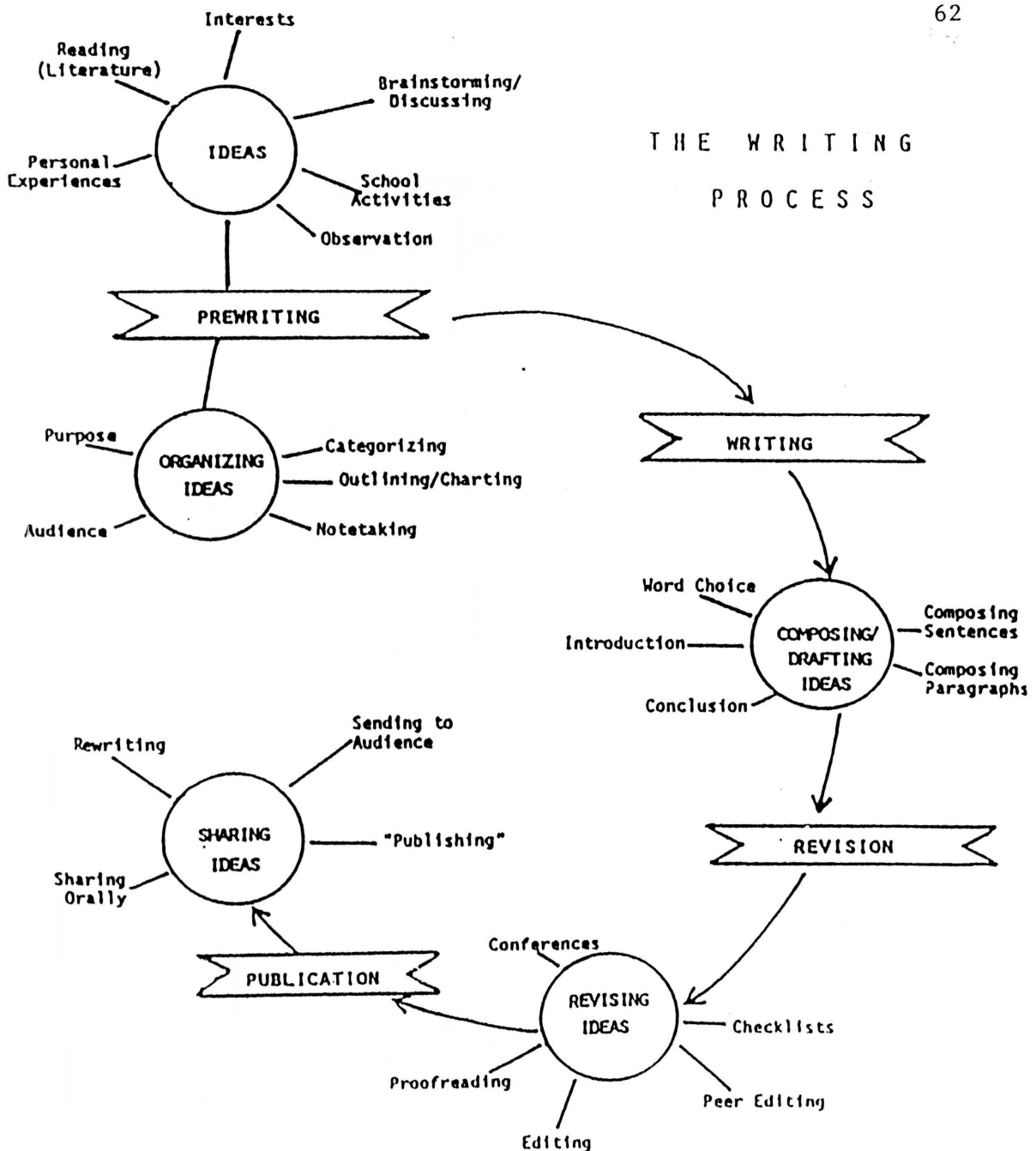
- _____ 1. Rigorous spelling and grammar instruction in writing classes will solve most student writing problems.
- _____ 2. Faculty members should grade rigorously every writing assignment done by their students.
- _____ 3. To encourage students to revise their writing, teachers should withhold letter grades from early drafts.
- _____ 4. Conscientious teachers who want to improve student writing will point out all errors on each student paper they read.

- _____ 5. Students should read and critique each other's writing to improve their own writing.
- _____ 6. Poor assignments from teachers often cause poor writing from students.
- _____ 7. A major cause of poor college writing is immaturity on the part of the writer.
- _____ 8. If teachers want to help their students learn to write better they should require several short papers spaced throughout the term rather than one long paper at the end of the term.
- _____ 9. Writing tasks actually required in business and industry provide good models for student writing assignments in college.
- _____ 10. Writing can play an important role in classes that enroll over 100 students.
- _____ 11. Teachers in disciplines other than English should give one grade for content and a separate grade for the quality of the writing.
- _____ 12. Poor readers are likely to be poor writers.
- _____ 13. Asking students to rewrite assignments does not help most students to improve their writing.
- _____ 14. Poor spelling and punctuation are the most serious writing problems of college students.
- _____ 15. Teachers should not show their own writing to students unless it has been carefully revised, edited and proofread.
- _____ 16. Many students write poorly because teachers have made them afraid to write.
- _____ 17. Many teachers are afraid to write because their writing has been severely criticized in the past.

- ____18. Writers should always make an outline before beginning to write.
- ____19. Before beginning to write, writers should know precisely what they want to say.
- ____20. There are fixed rules which govern all good writing.
- ____21. College students will improve their writing only when they are required to pass a writing proficiency examination in order to graduate.
- ____22. Writers should make sure they have their thesis clearly stated in the first paragraph before they write anything else.
- ____23. College students should always be required to write to a single audience-their teacher.
- ____24. Student journals should be evaluated according to the quantity of writing rather than the quality of ideas.
- ____25. Students learn bad writing habits when they read and criticize each other's writing.

Fulwiler, Toby. "Changing Faculty Attitudes Toward Writing." Writing Across the Disciplines: Research into Practice. Upper Montclair: Boynton/Cook, 1986. 66-67

APPENDIX B
THE WRITING PROCESS



Curriculum Guide for Gifted Students. English Department. Bridgeport, TX:

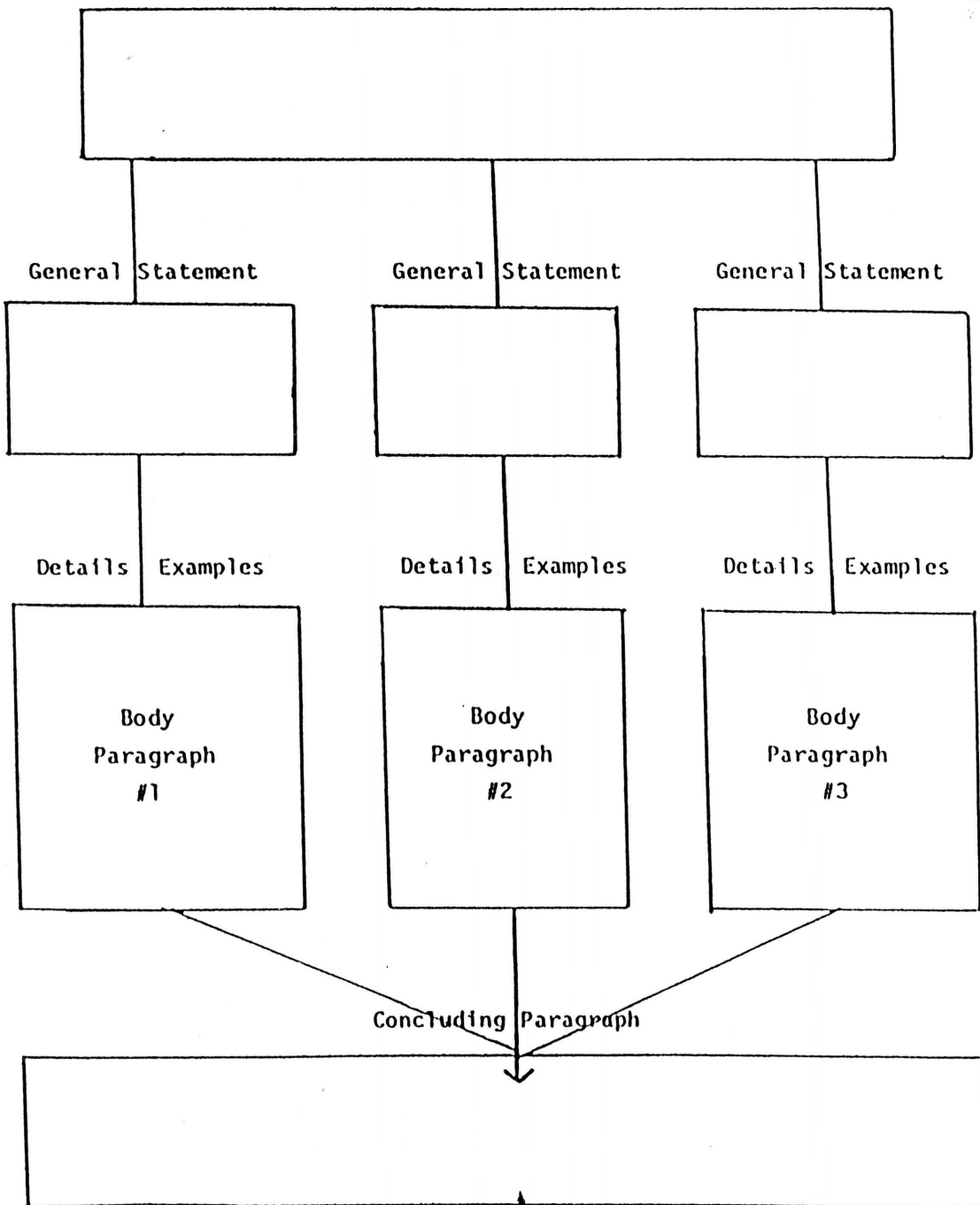
Bridgeport ISD, 1989. 227.

APPENDIX C
BOX OUTLINE

Box Outline

Introductory Paragraph

64



APPENDIX D

PEER EVALUATION OF SOAP ASSIGNMENTS

PEER EVALUATION OF SOAP ASSIGNMENTS

1. Is the Subject clearly stated? Is it restricted enough for one paper, or is it in need of further limitation?
2. Is Occasion (motivation) clear? Does assignment state the reason WHY the writer is writing?
3. Is Audience a logical person or a logical group of people to receive the information? Will Audience likely be informed or persuaded by the writing? (In the case of self-expression, the questions in #3 will focus on the writer himself/herself.)
4. Is the Purpose clearly stated as self-expression or information or persuasion?
5. Is the assignment appropriate for the age, the maturity, the abilities, the experiences, and interests?
6. Is the assignment stimulating for the writer's age, maturity, abilities, experiences, and interests?
7. Will the assignment help the writer to find an appropriate voice, persona, tone?
8. Is the assignment free of presupposition--free of hastily assuming that a writer will be able to handle the assignment when he/she might actually not be able to do it?

Boley, Tommy. "Original SOAP Assignments for Literature." Ed. Dr. Tommy Boley, University of Texas at El Paso, 1983. 31.

APPENDIX E

HOLISTICALLY GRADED TEAMS COMPOSITIONS

GENERAL CHARACTERISTICS OF PAPERS RECEIVING PARTICULAR SCORES

- 0 These papers are not scorable because they are blank or fail in other ways to respond to the assignment.
- . do not respond to required task
 - . word or phrase with no indication of attending to task
 - . incoherent responses
 - . "I don't know"
 - . illegible
 - . language other than English
- 1 These papers attempt to address the topic but merely include an unelaborated response to the topic.
- . respond to stimulus in skeletal and brief way
 - . attend briefly to task but do not remain on topic
 - . poorly organized or contain gaps
 - . do not respond to type of writing cued in stimulus
 - . inappropriate for audience (if applicable)
 - . lack of control of written language (confused syntax, extensive misspellings confused thoughts) so that communications is impaired
- 2 . These papers respond minimally to the task using the purpose and mode of writing included in the stimulus.
- . somewhat elaborated response to the topic

- . organization apparent, but gaps and/or repetitions
 - . limited control of written language (limited word choice, awkward syntax, errors in usage)
 - . awareness of audience is evident (if applicable)
- 3 These papers represent good attempts at responding to the assignment. The reader has no difficulty understanding what the writer was attempting to say.
- . moderately well-elaborated response to the assignment
 - . organizational strategy is apparent, although brief digressions may occur
 - . exhibit control of written language
 - . clarity of expression and effective word choice
 - . clear sense of audience is apparent (if applicable)
- 4 These papers are consistent, organized, and elaborated responses to the assignment. The few inconsistencies that may occur are overwhelmed by the excellent quality of the response.
- . specific and elaborated
 - . clear sense of order and completeness; consistent in organizational strategy
 - . absence of gaps, inconsistencies, digressions, or needless repetitions
 - . sophisticated syntactic constructions, varied word choice, and rich details
 - . clear sense of audience evident throughout response (if applicable)

Curriculum Guide for Gifted Students. English Department. Bridgeport:

Bridgeport ISD, 1989. 362.

Dear Principal:

70

I think a cosmetology class would be a good course to add.

I think it would help us learn to take care of our skin and how to use make up correctly. It could also help us on what proteins, vitamins and iron could do for us to keep us healthy.

Sincerely

SCORE: 1

This response presents a sparse list of unelaborated reasons.

I am suggesting that you start a financial ~~management~~ ^{management} class, where all kids work outside the school, get money + learn how to manage it. They would pay for rent, food, and other necessities out of what they made. This could help unemployment, + help the kids get an edge on life. They wouldn't really pay for rent or necessities, it would just be taken away + put into a savings account until the end of the year. This course is geared for Jrs + Seniors who are about to graduate. They could keep the money which is left so that they could learn how to manage it.

SCORE: 2

This response presents one reason elaborated through the illustration of course content and participants.

I've given a lot of thought on the matter of the new course the school wants to add to our schedule. I strongly feel that we need a beginners and intermediate computer course. With the advancing of technology, and the many different computer-related jobs, I feel it's only logical to add the computer course.

Many students enter college without any computer knowledge at all, they have to take these courses in college whereas they could have taken them in high school and saved a lot of time and money.

Many of my friends take summer computer courses at colleges, but since we don't have a college in our city, it's very costly and time-consuming.

But then, there's always the question on how we're going to get the money to buy these computers. Well, I've thought about that too. The student council could arrange it so that the 9th and 10th grade classes could join together in the selling of trashbags. Since trashbags are useful and economical, customers wouldn't mind as bad supporting our fund raising activity.

The school could start out just allowing the

gifted and talented to participate until
we can raise enough money to buy some
more computers.

I would be very grateful if you
would take my opinions and think about
them, because I really would like to help
expand the horizons of our school

Sincerely,

SCORE: 3

This response is well organized and moderately well elaborated. The
writer's solution for the cost problem may be viewed as an elaboration
of one of his/her reasons.

STOP

I feel that architecture should be the course added⁷⁴ to our high school courses. I feel this way for four main reasons. By taking architecture, the student has a background for a career. Architecture also could take the role of advanced drafting. Architecture is used in everyday life. Finally, coaches wouldn't need to teach drafting. In this letter, I hope to explain and convince you of my reasoning.

By taking architecture, the student has a background for a career. Other courses give this background also but I feel that architecture would give a total of more students a good chance at a good living after graduation. Architecture is an outstanding career background.

Architecture takes the role of Advanced drafting. Some students still wish to take drafting after the given 2 years. I am not saying that architecture is a "Drafting III" but instead, a way to put drafting to use. Students would enjoy taking architecture as they do drafting.

Architecture is used in everyday life. People read house blueprints every day. New buildings seem to always be going up. Architecture is in demand and courses in it would greatly help.

Finally, coaches wouldn't be needed to teach drafting. Teachers could be hired to teach drafting and architecture. In actuality, coaches wouldn't have enough time to teach both courses. With 4 periods of drafting and 2 of architecture, when would he get to coach? I am merely suggesting that drafting and architecture

if allowed, be taught by the same teacher.

In conclusion, I would like to state that architecture would be a good course to add because of its career involvement, importance, and employment solutions. Thank you for your time.

Sincerely,


SCORE: A

The response is fluent and specific. The reasons are convincing and well elaborated and the organizational strategy is effective.

STOP

APPENDIX F
SYMBOLS FOR PROOFREADING

Symbols for Proofreading

Symbol	Meaning	Example
<i>Cap</i> 	Capitalize	<i>Cap</i> Justice Sandra O'Connor
<i>lc</i> /	Lowercase letters	<i>lc</i> a new Justice
<i>P</i>	New paragraph	<i>P</i> Justice Sandra O'Connor is the first woman to be appointed to the Supreme Court of the United States.
<i>no P</i>	No new paragraph	<i>no P</i> In addition to having been a representative in the Arizona State Legislature, Justice O'Connor also served as a federal judge.
<i>^</i>	Insert letter, word, or phrase; called a caret; also used to indicate where a change is to be made	Justice ^{Sandra} O'Connor has a reputation as being a highly qualified judge.
<i>stet</i>	Leave as is (from the Latin phrase meaning "let it stand"); used to indicate that a marked change is not to be made.	Justice ^{stet} Stewart Potter resigned, leaving the vacancy that was filled by Justice O'Connor.
<i>~</i>	Transpose	Justice Sandra O'Connor's swearing-in ceremony was not open to the public. After the ceremony her follow justices and Justice O'Connor posed for a photograph historic.
<i>()</i>	Close up space	Justice O'Connor appeared in magazines and newspapers once again when she announced that she would begin an exercise program in the gymnasium of the Supreme Court building. The new justice invited other women who worked in the building to join her.
<i>#</i>	Insert space	Justice O'Connor appeared in magazines and newspapers once again when she announced that she would begin an exercise program in the gymnasium of the Supreme Court building. The new justice invited other women who worked in the building to join her.

APPENDIX G
TYPICAL ORAL CONFERENCE

TYPICAL ORAL CONFERENCE

TEACHER: How do you feel about the paper?

STUDENT: Well, I think I understood the experiments, but I don't know if it's if they're written very clearly.

TEACHER: OK, let me read and see whether it seems clear to me. (Pulls near so that both can see the paper.) "The purpose of this study was to examine the role of activity in prey selection." Now that's clear, for sure. I know exactly what the experiments were for. (Student chuckles. Teacher reads first paragraph.) Now I'm lost. I don't understand the difference between the three experiments. (Teacher reads paragraph over again, aloud.) I think what I'm missing is--or, what I don't know at this point is, um, whether the two animals were the same size in experiment 1. And, uh, in experiment 2, you don't tell me whether one of the animals was more active. They are both large, but do they differ in activity?

STUDENT: Well, I say that later on, in here (points to paragraphs 2 and 3).

TEACHER: OK, let me read on (reads paragraphs 2, 3, and 4). OK, now let me see. Paragraph 2 makes the first experiment clear to me, but in paragraph 3 I'm still not understanding what happened in experiment 2. (Reads it again aloud.) I think maybe that "if" clause on the end comes too late. Maybe I need that information earlier in the sentence. Or maybe I need some of this information still earlier, when you first discuss experiment 2.

STUDENT: Yeah, I see. OK

TEACHER: In fact, why do you break up the discussion of each experiment into two parts?

STUDENT: Well, I don't know, but the first part sort of sets it up, you know, and the second part tells the results.

TEACHER: So first you tell how all three were set up and then you tell the results of each one?

STUDENT: Yeah, I guess.

TEACHER: (Reads first three paragraphs again silently.) OK, now I see what you're doing. But still, I was confused when I read it. How do you think you can fix the confusion?

STUDENT: Well, I have to give you more information up here at the top.

TEACHER: How about giving me all the information on experiment 1, then all on experiment 2, and then on experiment 3?

STUDENT: You mean each experiment, I talk about it just in one place, like in turns, all three?

TEACHER: Um-hum. I think you could also follow your old plan, but you'd need to give more information in the earlier section. Why don't you just fiddle with it both ways, maybe have some other people read it, and see if you can get it so every reader understands and nobody feels confused on the way through.

STUDENT: OK, yeah, that's fine.

TEACHER: Your last sentence is a summary of the results, and that's good, but the sentence is clumsy. Can you fool with it to make it smoother?

STUDENT: Let's see. (Reads last sentence aloud.) Yeah, I think I can get it better.

TEACHER: Try. And if you can't I'll try to tell you more specifically how you could fix it. OK. Do you think you can go back now and rewrite it? Do you think you know what to do?

STUDENT: Yeah, I do. This is good.

The teacher, during the conference, tries to do several things, some of which wouldn't be possible in written comments: to ask questions, to get information about the student's recognition of problems, and to ascertain the student's ability to remedy difficulties. For example, the teacher merely says the last sentence is "clumsy"--a word that one would hesitate to use in a written comment, lest the student not know what to do with such a vague prescription. Yet here, in the conference, there is a way to determine whether the student at least thinks he can remedy the problem on the basis of that much guidance.

Walvoord, Barbara E. Fassler. Helping Students Write Well: A Guide For Teachers in all Disciplines. New York: The Modern Language Association of America, 1986. 153 - 158.

APPENDIX H
PEER EVALUATION CHECKLIST

Peer Evaluation: Composition

Student Editors

Scale

4 Excellent

3 Good

Author _____

2 Needs Work

Paper Title

1 Inadequate

Thesis Sentence: _____	4	3	2	1
<u>Thesis</u> , or Central Idea (one sentence) <ol style="list-style-type: none"> 1. Indicates purpose 2. Has point of view 3. Is limited 				
<u>Organization</u> <ol style="list-style-type: none"> 1. Ideas logically follow 2. Transitions used 3. Has introduction, body, conclusion 				
<u>Development</u> <ol style="list-style-type: none"> 1. Important points emphasized 2. Opinions backed by fact, details 3. Introduction is appealing 4. Body has insight into topic 5. Originality 6. Conclusion summarizes without being repetitious 				
<u>Voice</u> Appropriate to audience				
<u>Mechanics</u> <ol style="list-style-type: none"> 1. Punctuation 2. Spelling 3. Sentence variety/clarity 4. Grammar 5. Proper word usage 				

APPENDIX I
PARTIAL LESSON PLAN

Course design for Beginning Algebra

Instructional Objectives \ Topics	From Arithmetic to Algebra (2 weeks)	Simplifying Algebraic Expressions (3 weeks)
Knowledge of basic algebraic computations for more advanced study of algebra	<p>Discuss and have students write order of operations for all arithmetic problems.</p> <p>Discuss and have students write procedures for evaluating expressions.</p>	<p>Discuss and have students write rules for addition of algebraic terms.</p> <p>Discuss and have students write rules for multiplication of algebraic terms</p>
Ability to identify problems and select proper computational technique.	<p>Identify the arithmetic operations in a multi-step problem.</p> <p>Write the proper order of operations that apply to a problem before completing solution</p>	<p>Discuss the importance distinguishing multiplication from addition in the simplifying of algebraic expressions</p> <p>Have students write a detailed procedure for simplifying any and all algebraic expressions. TEST #1</p>

Connolly, Paul and Teresa Vilardi, eds. Writing to Learn Mathematics and Science. New York: Teachers College Press, 1989. 150-151.

APPENDIX J
WRITING ASSIGNMENTS

Formulas for Success

87

Math, 9-10

Objective	Relate math to daily living
Materials	paper, pen, butcher block paper, list of jobs requiring mathematics (see Resource Materials), one copy per student
Time	2 class periods
Directions	<ol style="list-style-type: none">1 Give students a list of occupations which involve almost daily use of mathematics.2 Tell students they are to find a person who has a job on the list and to politely arrange for a three- to five-minute interview. Tell students they may interview in person or by telephone. Remind them that the person being interviewed will give more useable information if told the purpose of the interview before it is held.3 Tell students that the purpose of the interview is to discover specific ways in which math is essential to the person's job. Using the blackboard or overhead projector, brainstorm with the class a list of questions which would help gain relevant information during the interview. Remind students that questions beginning with the 5 Ws plus H (WHO, WHAT, WHERE, WHEN, WHY, HOW) or statements beginning, "Tell about a time when. . . ." usually elicit more useable information. Have students generate a list of questions for the interview.4 Establish a due date, a date when students must bring questions and answers to class. On that date, provide students with butcher block paper and markers. Tell students they are to select the most interesting or vivid parts of the interview to create a "math quote scroll."5 Provide time for selecting the quotes, creating the scrolls, and printing the quotes on the scrolls. Have students share their work and post it on the class bulletin board.
Evaluation	Give points for successful completion of interview and scroll. Give bonus points for especially effective quotations and scrolls.

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 277.

Impact of Inventions

88

Social Studies, 9-10

Objectives	Gain a better understanding of a particular period in history Consider the impact of major inventions
Time	1 or 2 periods
Directions	<ol style="list-style-type: none">1 Begin by giving an example of how an invention changed the course of history and daily lives. Then, on the blackboard, brainstorm with students a list of inventions from a given time period (e.g., 1880s) which made life easier (typewriter, elevator, telephone).2 When students have made an extensive list, tell them to pretend that they lived during this time period. They are to select one invention and describe how this invention changed their lives.3 Tell students they may write a story, tell an anecdote, draw a cartoon strip, write an ode, write a letter, compose a testimonial, or put together a skit (with the help of others).4 Provide time for students to write, share, revise, and edit. Have them share their final work in small groups. Volunteers may read and/or perform for the whole class. Display written products on the class bulletin board.
Evaluation	Give grades or credit for work completed.

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 292.

Cross-Cultural Dialogue

89

Foreign Language, 9-10

Objectives	Develop cross-cultural understanding Write a dialogue between an American and a foreign peer
Time	20-40 minutes
Directions	<ol style="list-style-type: none">1 Teenagers are concerned with self-image; they are reluctant to accept concepts of cultural differences and may consider foreign habits or interests in a negative light. This exercise is designed to help them overcome fears or anxieties about such differences.2 At the beginning of a cultural unit, tell the class about a personal experience with a foreign custom — an embarrassing moment abroad, surprise at a foreign behavior, discomfort over not understanding a custom or ritual. (If the teacher has no personal experiences to share, present a foreign custom that is quite different from American custom.)3 Have students write a dialogue in English in which two students talk to each other about the custom, behavior, or habit the teacher shared. One student is the Reluctant American, the other the Helpful Foreign (German, French, Spanish) Student. Specify the minimum number of lines (four each, for example).4 Have students share the dialogues, making their anxieties public and thereby defusing them.5 When the cultural unit under study is over, have the students write a second dialogue, this time in the target language, this time with the American showing greater acceptance and understanding of the custom.
Evaluation	The teacher may check to see whether attitudes improved and award points or grades for originality of the dialogue and correctness of spelling and grammar in the finished dialogue. If this is a journal writing assignment, give points to each speaker for completing the assigned number of lines.

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 271.

Cinquain as a Learning Tool

Any Subject, 9-10

Objectives	<p>Practice selecting main ideas</p> <p>Record main ideas in cinquain form</p> <p>Use cinquain as a mnemonic device and learning tool</p>
Time	<p>10-15 minutes</p> <p>Note</p> <p>Students often find it difficult to recognize and remember the main idea of something they have read. Use this lesson as a follow up to help them remember what they read and to teach them a poetic form.</p>
Directions	<p>Give students the cinquain form (a five-line poem that does not have to rhyme):</p> <p>line 1 — introduces the subject by naming a thing associated with the reading material.</p> <p>line 2 — contains two words that define or describe the subject introduced in line 1.</p> <p>line 3 — consists of three words that describe an activity or action relating to the subject given in line 1.</p> <p>line 4 — presents four words that express the writer's attitude toward the subject.</p> <p>line 5 — gives one word which summarizes or emphasizes the key concepts of previous lines.</p> <p>Example</p> <p>based on a news magazine article about human rights in Russia:</p> <div><p>Repression</p><p>Gorbachev, Sakharov</p><p>Slowly lifting penalties</p><p>For speaking your mind</p><p>Freedom?</p></div>
Evaluation	<p>Give five points for each successful cinquain.</p>

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 239.

Flex Your Vocabulary

91

Any Subject, 9-10

<i>Objectives</i>	Increase ability to define vocabulary specific to a content area Use newly learned vocabulary in original writing
<i>Time</i>	5-10 minutes each day
<i>Directions</i>	<ol style="list-style-type: none">1 Teacher has students designate a section of their journals for word collecting. Here they will note vocabulary words assigned to the entire class, as well as words which catch their interest or fancy. Students will write the words, and give part of speech, definition, and a sentence which demonstrates understanding of the word's usage as that part of speech.2 Students may be assigned a certain number of "independent" words; time may be set aside for occasional "word swaps" to increase the vocabulary entries in the word collection part of the journal.3 Students will incorporate a predetermined number of words from the journal lists into reports or stories they write. Have students underline the words as they use them.
<i>Variations</i>	<p>Assign a student task force to cull important vocabulary from reading for the class. The task force changes so that each person in the class eventually contributes.</p> <p>Have students keep a notebook of new words, along with root words, suffixes, and prefixes. At the end of the year, they will have their own personal word books filled with words they have learned.</p>
<i>Evaluation</i>	Assign points for words on the list and correct use of the words in original writing.

Furnish, Bob. Write More, Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 240.

Then and Now: A Community History

Social Studies, 9-10

Objective	Discover the social and cultural history of the community through historical research
Materials	textbooks, library and community resources
Time	4 to 6 weeks
Directions	<p>1 Tell students that the long-range product of this unit will be the writing and assembling of a community history. The completed project will contain interviews, commentaries, articles on community traditions, photographs, news clippings, and other memorabilia.</p> <p>2 Have students begin by generating a list of questions about the history of their community.</p> <p>Examples</p> <ul style="list-style-type: none"> • Who were the first settlers in the area? • Where did they come from and why? • What part of the town/area/city was first settled? • How did the early settlers earn their living? • What factors caused the community to grow and prosper to the point where it is today? • What events in the history of the community were so memorable that either firsthand or secondhand stories are handed down? • What are the most interesting features of the town? What is the history behind these? • What famous or notorious people have come from this community? <p>3 When students realize what kinds of information they need, help them brainstorm a list of possible resources for finding the answers they need to complete the project.</p> <p>4 Teach interviewing skills, as students will need to do considerable interviewing to gain information. Suggest that students interview long-time, older residents to gain information on the ways things used to be in their youth, community traditions, festivals held in the past, the way the community looked, and changes that have taken place. Suggest that students may want to tape the interviews, take pictures, draw maps, and collect photographs. Suggest that they get prior approval from the interviewees for taping, picture taking, or borrowing photographs.</p>

- 5** Students might wish to identify and research historical periods and events and find out what the community was like during earlier times.

Examples

- What did the center of town look like at the turn of the century or in the 1920s?
- How was the community affected by the Great Depression?
- How did local residents cope during this period?
- What was life like for young people during the 1950s?
- Where did teenagers hang out?
- What were the local schools like then?

- 6** After students collect data, have them develop a plan for organizing and presenting their information.

- 7** Have students organize and write a draft of their community history. Then, in small groups, have them present the information. Have the group members ask questions and suggest revisions.

- 8** Have students revise and edit their work. Have them suggest ways to make the projects public. For example, projects might be displayed in a hallway display case or in the school or public library. Perhaps students could share their work in a meeting of the local historical society or genealogical society.

Evaluation

Award points or grades based on effort, organization, variety of information, and presentation of the project.

Objectives	Demonstrate knowledge of principles in physics Practice writing description
Materials	copies of the law of gravity for each student
Time	1 or 2 class periods
Directions	<p>1 Ask students to consider why the stars, moon, and planets stay up in the sky, seemingly moving around our heads, without flying away into space. Ask them to consider why a leaf falls to the ground on a windless day and to consider what force is involved and how it works.</p> <p>2 Ask students to think of other objects and events similar to the ones already discussed. List several on the blackboard. Have students pick a favorite.</p> <p>3 Let students try to explain in a written description why the listed events happen. Then pair each student with a partner or put students in small groups so that students may read, discuss, and finally reach a consensus as to which description written by the students best explains the events.</p> <p>4 Let someone in the group read the consensus version to the entire class. Have the members of the class suggest changes, additions, or improvements.</p> <p>5 Give each group a copy of the law of gravity:</p> <p>The force of gravity between two objects is proportional to the product of their masses divided by the distance between them squared. In this equation G is the gravitational constant.</p> $F = \frac{G \times M_1 \times M_2}{D^2}$ <p>6 Instruct students to change their descriptions to reflect the class suggestions and the insight provided by the law of gravity.</p>
Evaluation	Give points or grades based on how well students give evidence of grasping the principle and on how well they organize their original descriptions.

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 340.

Objectives	<p>Think analytically and metaphorically about a literary text</p> <p>Make inferences and judgments based on examination of a text</p>
Materials	<p>story or novel</p>
Time	<p>15-20 minutes</p>
Directions	<p>1 This activity will help students make inferences and judgments about a text that they might not otherwise see. Discuss with them a vivid metaphor or two from the text under study, pointing out the variety of connotations metaphors invite.</p> <p>2 Have students deepen their thinking about the novel or story by creating original metaphors prompted by the following questions:</p> <ul style="list-style-type: none"> • If the characters in the novel were flowers, what kind would they be and why? • If this work were a medicine, which medicine would it be? What is the disease, its symptoms, and its cure? • If this novel were a machine or an appliance, what would it be? • A person? • An animal? • Weather or climate? • A tool? • A color? • An emotion? • A historical figure? • A time? <p>3 Discuss the students' answers with the class, pointing out rich metaphors and their associations to specific situations of plot, setting, tone, and characterization.</p>
Variation	<p>In lieu of a standard book report, have students write out the answers to one or more of these questions and, in a paragraph or two, explain the associations that led to their responses.</p>
Evaluation	<p>Check to see that each student develops something for his/her writer's journal, or make this activity part of the prewriting requirement for an upcoming analytical paper on the novel or story.</p>

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 322.

Support Your Local Thesis

96

Any Subject, 11-12

Objectives

Write a thesis statement
Develop support for the thesis statement
Write a clear, cohesive essay

Time

3 to 5 days

Directions

- 1** Explain that an essay is writing that expresses a main idea and supports the main idea with examples and details. Tell students they will write an essay. Give them the following assignment:

Write an essay on a topic of your own choosing. The essay should be three to five pages and accompanied by a bibliography of sources.

Audience	- classmates and adults
Purpose	- to inform or persuade
Requirements	- hand in prewriting, rough draft(s), final draft, and bibliography
Grading	- prewriting 20 points
	rough draft 60
	final draft 100
	bibliography 20
	TOTAL 200 points

- 2** If you decide to assign topics for the essay, it is best if they are open-ended and involve choices, allowing room for students to develop a personal perspective and work with a subject that interests them.

If no specific topics are assigned, then class time should be devoted to identifying topic possibilities. Students might work together in groups to brainstorm a list of topic possibilities. The groups might then share lists, perhaps developing a master list. Discuss the list. Which topics are too narrow? Where could information be found? Which topics would need to be restricted? Which seem to have the most inherent interest? For whom? Which seem dull?

- 3** Have students select a tentative topic for an essay. Have them do a cluster, a looping, a cubing, or answer the questions for classical invention. Directions for these activities are found in the section Process-based Writing. If research is necessary, provide adequate time for researching.

- 4** By the time students have generated a good deal of information on their topic, they should be ready to generate a tentative thesis. To do this, have them first discuss the needs of the audience in relation to the topic and their purpose in writing. Will their writing explain, define, describe, compare, predict, analyze, or persuade? How will these purposes affect their thesis? Emphasize that their thesis is tentative, that they may change it as more information surfaces.

Inexperienced writers may need a good deal of help in formulating a thesis statement. As they gain practice in writing essays in your class, they will find it easier to do. Examining thesis statements which are clear, restricted, and unified may help student writers.

Examples

Poor thesis	Television news isn't as good as it used to be.
Better thesis	Television news offers viewers more entertainment and less information than in the past.
Poor thesis	The vending machines in the school cafeteria are a rip-off.
Better thesis	The vending machines in the school cafeteria encourage poor nutrition by offering only snacks that are high in sugar, fats, and sodium.

- 5** When students have tentative thesis sentences, have them read each other's statements and predict in writing what the content, purpose, and direction of the essay is going to be. Have them share the predictions with the writer of the thesis. This feedback will tell students whether their thesis communicates their intent.
- 6** Have students generate all they know about their topic. Then have them eliminate any details that do not directly relate to the thesis and decide on a logical arrangement for the remaining ideas. Help students see that the organization of an essay often grows out of their purpose.
- 7** When students have an organizational plan, have them write a rough draft. Provide time for them to write, share, revise, and edit in class. Monitor their work in progress. See formative procedures in the section Evaluating Student Writing. It is easier to prevent errors than to correct them.
- 8** When students have produced a draft, have them work together in groups and read each other's papers, making suggestions for revisions. You might have students write two experimental introductions to their essay and two experimental conclusions. The group might then consider which introduc-

tion and which conclusion are the most effective. Tell groups to read the rough drafts with special attention to organization and clarity. (What seems out of place? Which parts of the essay are confusing? Which sentences are too long, too short, incomplete, or otherwise unclear?) Insist that students revise; do not allow them to make a final copy in ink with no revisions in the rough draft.

- 9** Have students work together to edit their essays. Provide students with a list of commonly used transition words or phrases (photocopy a page from an English textbook). Have the group determine whether items from the transition list will lend clarity and cohesion to the essay. Have students exchange papers within the group and circle every misspelled word in the essays. Have the author look up all words circled. Have peer editors check for capital letters and end punctuation. Have them check for complete sentences and correct usage.
- 10** Provide time for writing the final draft and sharing the final essay. Essays may be shared in small groups, with volunteers reading to the whole class. Display completed work on the class bulletin board.

Evaluation

If class time is devoted to all parts of the writing process, then the papers may be evaluated for the presence of a thesis that sets forth the purpose and direction, quality of information, and organization. Consider using the scoring sheet described in the section Evaluating Student Writing.

Furnish, Bob. Write More. Learn More: Writing Across the Disciplines.

Bloomington: Monroe County Community School Corp., 1984. 313-315.