

**Table 2. Quantitative Results of the Learning Through Writing Project by Students**

	PRETEST		POSTTEST	
	Mean	S.D.	Mean	S.D.
Writing Apprehension***	72.09	15.12	70.84	16.30
Writing Skills****	3.95	1.05	3.75	1.25

No Significant Differences Between Pretest and Posttest Scores (Alpha = .05).

\*\*\* Possible range from 26 (low writing apprehension) to 130 (high writing apprehension).

\*\*\*\* Range from 1 (low) to 6 (high).

The writing assignments did indicate that those students completing the writing assignments were being evaluated as above average writing (►3) both before and after the initial program. (Table 2.)

Student comments from interviews provided additional insight to writing skill improvement:

“. . . I think it's (Learning Through Writing Program) a good idea when people really need it. I think it can be useful if you apply it correctly like we did . . . in our class I think it was really applicable. I think they did a good job with it.” (Student)

“. . . helped me to think faster. . . I have some books I use when I do write papers . . . I've been forced to look through those to get some ideas. . .” (Student)

“I don't really think they (writing activities) did (affect abilities), to be honest. I don't think they did.” (Student)

“I'm not really sure that my writing skills have changed overall. But, it did help me to condense, maybe, a lot of information into a small paragraph or maybe just one page.” (Student)

“. . . I never really thought about science, especially (subject matter), like an agricultural course in writing. . . it kind of helped me put it into a different perspective because I see that you can write a . . . I mean, writing and (subject matter) do mix.” (Student)

### Conclusion

The Learning Through Writing Project in Fall 1989 has expanded to include five graduate students and nine core faculty. This expansion has come about with increased funding from the Provost's Office and the Dean of the College of Agriculture, who has put this project as one of the top priorities of the College. As the Agriculture student was quoted at the beginning of the paper as saying, “I hope it is not too little, too late.”

Gray<sup>4</sup> (1988) suggests as a second reason for writing across the curriculum: “Like thinking, writing is recursive and moves with a deliberate pace. It makes a record that can be returned to, refined, and its parts

reconnected. Continual revisions make writing seem to be not the residue of thinking but a transcription of the act itself. Like the traces of atomic events in a bubble chamber, writing is a record of the mind in the act of knowing.”

### Footnotes

1. Fulwiler, Toby, “Writing is Everybody's Business,” *National Forum: Phi Kappa Phi Journal*, Vol. 65, No. 4 (Fall 1985), pp. 21-24 (Reprint: UMI).

2. Gray, Donald J., “Writing Across the College Curriculum,” *Phi Delta Kappan*, Vol. 69, No. 10 (June 1988), pp. 729-733.

3. Zinsser, William, *Writing to Learn*, Harper and Row, 1988.

4. Gray, 1988.

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## More On Writing In Agricultural Courses

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In the June 1986 issue of this *Journal*, David Cobia (6) discussed the potential benefits of student writing in agricultural courses. I suspect that many readers were convinced that more writing is desirable but failed to incorporate additional writing assignments into their courses because of the initial effort involved in rewriting course syllabi. Fortunately, agriculture faculty can increase the number of writing exercises and minimize aggregate effort by sharing ideas. Hansen (12) argued that economics faculty can encourage the acquisition of proficiencies by their majors if they a) develop and disseminate materials that can be helpful to instructors, such as sample assignments and evaluations of actual student responses, and b) develop a “sequence of materials that would be integrated across courses in the major.” Because agriculture majors are expected to possess certain proficiencies when they graduate, including an ability to communicate, Hansen's recommendations are as useful to animal science and plant science faculty as they are to agricultural economics and economics faculty.

The purpose of this article is unpretentious. I wish to address only the first part of Hansen's first recommendation, namely the development and dissemination of helpful materials, by providing some examples of writing assignments that may be useful in an introductory agricultural marketing course. The sample assignments may be used without modification by agricultural marketing instructors, but I hope that they will also stimulate ideas for more creative writing assignments in other agriculture courses. In addition to the sample writing assignments, the remainder of this article contains comments about student writing which complement the earlier article by Cobia.

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## Writing to Learn

Teaching and learning are inseparable processes; students learn only when they make cognitive transformations and expand and reorganize knowledge in their "cerebral filing systems." (9) Writing, therefore, is a valuable pedagogy because it requires an emotional commitment from the student (7). It requires that the student get the facts and the information "right with the self." (3) Writing assignments which encourage "exploration and personal inquiry" are superior to lecture environments where information is simply presented to students (10). Ideally, instructors should provide writing assignments that encourage students "to see themselves as human actors who can make a difference in the world." (5)

Unfortunately, most instructors are products of an academic environment in which writing is seen as the "end product of learning" instead of "a process by which learning takes place." (11) Instructors read papers in order to assign grades, and they write comments on papers in order to justify the grades. Too frequently, papers are returned to students with a final grade and incomprehensible comments which are rightfully ignored. As a result, students view writing assignments as perfunctory exercises performed for the benefit of the instructor rather than themselves (19). In order to be an effective learning device, a writing assignment must be a personal experience for the writer, and there must be constructive feedback before the writing process is completed. Only then will writing be an aid to learning as well as an aid to grading.

### Responding to Students' Papers

When responding to students' papers, instructors should be knowledgeable of the causes of writing errors. As noted by Cobia, student writers often fail to live up to the instructor's expectations because they are asked to "write about a topic they know very little about in what amounts to a foreign tongue to an accomplished expert." Students are often unfamiliar with the academic discourse community for which they are writing (1), yet they attempt to write as if they are at ease with the vocabulary, the syntax, and the semantics commonly used by more educated and experienced individuals. Student writers are generally not deficient in writing skills, but they often lack the experience to use their skills in a socially acceptable manner. Instructors need to recognize that writing errors, particularly errors committed by students who are being introduced to a new discipline, may result from attempts to control an unfamiliar discourse.

The difficulty of controlling any discourse increases as higher levels of cognitive skills are required. Kiniry and Strenski (16) outlined a procedure for chronologically arranging writing assignments which is consistent with the intellectual hierarchies described by cognitive psychologists. The prescribed order of writing tasks is as follows: 1) listing, 2) definitions, 3) seriation (chronological listing), 4) classification, 5)

summary, 6) comparison/contrast, 7) analysis, and 8) academic argument. As the student progresses from listing to academic argument, greater emphasis is placed on invention, and higher cognitive skills are required. If instructors ask students to utilize upper level cognitive skills when writing for an unfamiliar discourse community, they should expect flagrant writing errors. Writing errors are minimized when cognitive skills are appropriately matched to the student's knowledge of the discourse community.

Instructors should also be knowledgeable of appropriate reactions to various types of errors when responding to students' papers. As a rule, writing instructors have responded to grammatical errors and errors of logic and organization with equal concern. Unfortunately, this approach confused students about the importance of each type of error to the detriment of logical and well organized papers (8, 19). Written comments often imply that students should correct errors in spelling, punctuation, and word choice while revising entire paragraphs. Not knowing how to approach such a dilemma, students follow the path of least resistance and correct the grammatical errors. When an instructor's comments are confusing or contradictory, students concentrate less on the message they are trying to convey and more on the instructor's commands (19). In order to avoid confusion, the instructor should respond to early drafts as a member of the audience to which the paper was written rather than as a policeman of good grammar (17).

While comments on initial drafts should focus on logic and organization, comments on later drafts may appropriately focus on grammatical errors (19). In order to place appropriate emphasis on grammatical errors, however, Haswell (14) has suggested a system of minimal marking in which surface errors (errors in spelling, punctuation, capitalization, and grammar) are noted only by a check in the paper's margin. The student is responsible for determining the nature of the error and correcting it. Written comment is strictly reserved for errors in logic and organization, thus focusing attention on the more significant errors and avoiding information overload.

Instructors need not feel guilty about relegating the importance of grammatical errors because research suggests that writing is improved more by active use of language than by instruction in grammar (13). Students, therefore, should be given ample opportunity to write, discuss, and rewrite. Once a first draft is completed, students should be invited to assemble in small groups and discuss their papers. Since knowledge is generated and authorized by the social setting in which individuals interact (4), students should be encouraged to speak in an academic setting according to academic standards so that they can learn to write according to academic standards.

## Efficient Use of Valuable Time

Instructors rightfully express concern about the amount of time required to read and generate beneficial responses to students' papers. Fortunately, short writing assignments can contribute as much to learning as long writing assignments, and benefits to students tend to increase as the volume of response from the instructor decreases. In addition, writing assignments can be beneficial to the students even though the instructor does not respond directly to each and every one.

In order to avoid burdensome stacks of paper, Bean, Drenk, and Lee (2) have suggested the use of microthemes: short (typed) essays that fit on a five-by-eight note card. The pedagogy is based upon a principle the authors refer to as leverage since a large amount of thinking is required for a small amount of writing. The size of the writing surface could logically be expanded to a single piece of typing paper if the subject matter so required or if students found that format more convenient.

Instructors can significantly reduce the amount of time spent responding to papers if they focus on errors of logic and organization and utilize minimal marking as suggested by Haswell. Instructors may also save time if they avoid correcting errors for students and overcome the temptation to rewrite students' papers (20, 15). In other words, instructors should view themselves as guides rather than editors during the reading and grading process. Horvath (15) has recommended that instructors limit their activities to asking questions, offering strategies for change, and assigning new tasks.

Other time-saving strategies include self-evaluation (11) and peer-evaluation (11, 6) of papers. These strategies can be utilized satisfactorily once instructors convince themselves that they do not have to be the sole authorities in the classroom. Papers can be discussed in small groups, and students can comment on their own or their peers' papers with or without guidelines from the instructor. Some students have reported that classroom discussions of papers provide more beneficial feedback than comments from instructors (2), therefore self and peer-evaluation can be beneficial to the student as well as the instructor.

## Sample Writing Assignments

The sample writing assignments that follow were developed for use in an introductory agricultural marketing course. The majority of the students enrolled in the course are sophomore and junior agricultural economics students, but a significant number of students are animal science or plant science majors who will take only one marketing course during their college careers. Most students have had a course in agricultural economics or economics, although an economics background is not absolutely necessary.

Writing assignments are distributed weekly with the exception of weeks reserved for examinations. This procedure provides for approximately 14 writing

assignments per semester. All first drafts receive written comments and are returned during the class period subsequent to submission in order to provide timely feedback. Written comments on first drafts focus entirely on content, while subsequent drafts may receive written comments on content or marks denoting grammatical errors. Grammatical errors are denoted by checks in the margins of the papers, and those checks appear only after the content of the paper is deemed satisfactory by the instructor. Students are solely responsible for correcting grammatical errors, and they may submit corrections as often as they wish. Final grades are assigned when the student requests that the paper be graded.

What follows is the narrative portion of each assignment. All completed assignments must fit on a single typed page, and with the exception of the first paper, all assignments are worth ten points. Final grades are based upon, in order of significance, clarity of meaning, accuracy of content, clear sentence structure, and grammatical correctness.

### Assignment 1

On one typed page (or equivalent):

- a. Describe agricultural marketing as you currently view it.
- b. Briefly explain why you are taking Agriculture Marketing. Include discussions of a) what you expect to learn, b) what you would like to learn, c) the occupation you would most like to have following graduation, and d) how you plan to utilize information learned in this course. Write your response in paragraph form rather than simply listing the requested information.

Assignment 1 is designed to personalize the course for the students. Students are required to describe agricultural marketing in their own words and formulate a relationship between their own lives and the subject matter to which they are being introduced. Assignment 1 is not graded, but minimal points may be assigned to encourage submission of the paper.

### Assignment 2

A student from Japan is interested in knowing more about the agricultural marketing system in the U.S. The student has lived in Tokyo for 20 years and knows very little about what happens to food products before they are sold in the supermarket. Carefully explain the stages of the marketing system (as illustrated in the text) by describing what might happen physically to soybeans and slaughter steers in each of the six stages. Please respond in paragraph form and limit your response to one typed page.

### Assignment 3

As a campus function, you meet an old friend you haven't seen for several years. When the friend discovers that you are taking Agriculture Marketing, he begins to argue that agribusinesses are the cause of high food prices. Explain to your friend that agribusinesses are an integral part of the marketing system by describing a) the nine marketing functions of agribusiness and b) how food prices would be affected if agribusinesses were eliminated.

### Assignment 4

- a. Describe, in chronological order, the five stages of the consumer purchase decision.
- b. Compare the purchase of bread from a grocery store with the purchase of filet mignon from a restaurant, and describe the differences that might exist at each stage of the purchase decision. Please respond in paragraph form.

### Assignment 5

Trade barriers are often justified with one or more of the six arguments discussed in the text. Summarize the six arguments and discuss the validity of each.

#### Assignment 6

- a. Complete the following statement by selecting the response (fair or unfair) which you believe is most accurate:

Our food marketing system is (fair/unfair) to farmers.

In making your selection, make note of the following observation: "Of the average consumer dollar spent on food, in 1985 the marketing agencies got 75 cents and left only 25 cents for the farmer who produced the food. Sometimes the ratio is higher than that — the cereal manufacturers may spend more on the cardboard box than the farmer receives for the grains and other ingredients that fill the box." (18)

- b. Support your decision with evidence. If your only evidence is the statement above, say so.

You will have the opportunity to discuss this paper with your colleagues before you submit it to the instructor. During your discussion, you may edit your paper in any way you wish.

#### Assignment 7

Write an article for a commodity newsletter (select any commodity) that might be read by farmers, grain merchandisers, or processors. Describe the current price situation, provide a brief history of price developments, and give a prediction of price movements over the next six months. Provide all the support you can for the prediction you make in order to convince your reader that you are correct. This assignment will be graded by your peers.

#### Assignment 8

At a farm organization meeting, you are discussing the futures markets with a small group of farmers and local merchants. All the members of the group except yourself have agreed that the grain futures markets are price setting markets because local cash prices are set relative to futures prices. Inform the group that futures markets are not price setting markets by explaining the difference between price setting systems and price discovery systems. Provide examples of each type of pricing system.

#### Assignment 9

You have gone to the grocery store to pick up a few items for the weekend. At the meat case, you overhear a small group of people arguing vociferously about the pros and cons of food grading. Since the members of the group appear to have widely differing views based upon inaccurate information, it is your duty to give them an educated overview of the benefits and problems of food grading.

#### Assignment 10

You have been hired by the Corn Marketing Board to promote the use of corn-based products and your first assignment is to explain the importance of generic promotion to farmers. Farmers often question the use of checkoff funds for such purposes because they fail to see a link between the expenditure of funds and higher farm prices.

- Explain the potential economic impacts of generic promotion.
- Describe the structure of the corn market and explain why it is not feasible for individual producers to promote corn and corn-based products.
- Some farmers advocate a larger role for farm bargaining groups, farm marketing cooperatives, and marketing orders. List the pros and cons of each of these approaches in the context of the corn market.

You will have the opportunity to discuss this paper with your colleagues before it is revised and submitted to the instructor.

#### Assignment 11

You have a relative (or close acquaintance) who is a produce buyer for a vegetable processing plant in California. This individual claims that "procurement is procurement," therefore buying vegetables in California is no different from buying slaughter cattle in the Texas panhandle or buying grain in the Midwest. In response to your relative's (acquaintance's) claim, compare and contrast typical procurement procedures for the three groups of commodities.

#### Assignment 12

You have been hired by a large food firm to assist an advertising executive. Your superior wants to determine how much you know

about food advertising so she has asked you to a) briefly describe the 4 P's of marketing and b) illustrate how each of the 4 P's might apply to the marketing of Lucky Charms cereal and Florida grapefruit.

#### Assignment 13

Write a resume and letter of application to be forwarded to a food firm (the firm may be involved in any combination of assembly, processing, wholesaling, or retailing). Assume that the position for which you are applying is an intern position available only during the summer. Be sure that the letter of application and resume are appropriate to the position that is available, and stress the strengths and qualifications that you believe make you the ideal candidate for the position. You may also want to convince the employer that you understand the importance of his firm to the food marketing system.

#### Assignment 14

Your father (mother, uncle, aunt, brother, sister, etc.) is a producer of corn and soybeans. The relative in question constantly complains about the riskiness of farming, but he or she refuses to use the futures market to manage risk. The reason most often given is that futures markets involve gambling, therefore utilization would increase risk rather than reduce it. Explain to your relative:

- how the futures market functions;
- the usual relationship between cash prices and futures prices;
- how the futures market can reduce price risk (Does hedging reduce cash price fluctuations?).

You will have the opportunity to discuss this paper with your peers before you submit it to the instructor.

The sample assignments above may be modified in many ways, including increased occurrences of self or peer-evaluation, increased opportunities for student discussion, and rearrangement of the chronological order of assignments. While students should be encouraged to discuss all writing assignments outside the classroom, assignments that address publicly controversial issues — such as assignment 6 — offer excellent opportunities for educational discussions within the classroom. If the chronological order of assignments is rearranged to accommodate presentation of materials, the instructor must remain aware of the relationships among writing errors, required cognitive skills, and student familiarity with the discourse community.

## Concluding Comments

Writing assignments can be effective learning tools if the assignments are appropriately structured and the instructor's response is constructive. The instructor should be aware of the causes of writing errors commonly committed by students, and grammatical errors should be subordinated to errors of logic and organization. Writing assignments do not require excessive amounts of time if assignments are restricted to a single page and written comments are limited to the most important types of errors.

Sample writing assignments were provided in this article so that agricultural marketing instructors might increase the number of writing assignments in their classes without expending the time to create totally new assignments. Writing can be a valuable learning tool for students, but creation of writing assignments is a time consuming task. All agriculture faculty are urged to share writing assignments so that students can

acquire proficiencies in their major subject areas as well as in writing.

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## Agricultural Curriculum: Whether an International Dimension

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Agriculture, like other industries, is facing the challenges of rapid innovation and technological change. Agricultural science educators have come to feel comfortable knowing that technology will change, and that practices which are state of the art today may well be replaced by newer, bigger, better processes tomorrow. Historically, much of the ability to adapt to the exigencies of this dynamic industry has been due to the research, education, and extension provided by the Land Grant system. Change has gradually been the norm.

This paper discusses the crucial educational mission of the Land Grant colleges with a predominant focus on the social sciences. Are educators keeping pace with the changing needs of our clientele? There is much that could, and indeed, should be done to improve higher education curricula to better serve students and potential employers. In particular, has the time not come to give a top priority to the international dimension of agriculture in our undergraduate and graduate curricula? To ignore this critical dimension of the industry is to ignore our future. Global interdependence is a fact of life. Dealing with it is a responsibility we cannot escape.

Most observers agree that U.S. agriculture has undergone two fundamental structural changes in the

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past 15 years, and that our educational mission has not fully come to grips with either. The first change occurred around 1972/73 when United States agriculture first significantly entered the arena of commercial world trade. The second change occurred around 1980/81 when public concern for U.S. agriculture came to include not just the vagaries of the weather, but also the vagaries of monetary and fiscal authorities. As a result of these shocks, the business of agriculture encompasses a considerably broader range of issues than it did prior to 1970.

The origin of each of these shocks was external to the agricultural sector, though in retrospect most agricultural leaders seemingly did not feel that either was much more than a production problem. In the mid-70s the perceived solution was to produce more, and in the early-80s the perceived solution was to produce less (the PIK program).

On the positive side, we continue to do an excellent job of training in the technical fields. Clearly, the Land Grant system has had a significant role in advancing production efficiency worldwide. Examples abound. This will probably continue given the current interest in biotechnology. However, it is important that we realize that the United States is not the only nation working on these new techniques. If we do not work more closely with our foreign counterparts, we may fall behind even in this area.

Further, some social science researchers have responded to this new environment by thoughtfully