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letters along with the procedures utilized to mail them and the
computer programming are described. University sponsored
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positive and desirable public relations technique. (Author/JEG)

Computer-managed Correspondence in Large Lecture Courses.

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Running head: Computer letters

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Computer-managed Correspondence in Large Lecture Courses

The Miami University campus has a computer facility which may be used as an academic resource. This resource is used to score objective tests using, standard IBM scanner sheets. All test results for a freshmen level large lecture section of an introductory educational psychology course have been stored and managed with the aid of this academic computer facility.[1] Because of the rapid processing time--approximately four hours for an individual test-- several tests are possible within the time frame of a 15 week semester. The introductory educational psychology course which is being examined here is divided into five discrete units of instruction and there are two mastery tests for each of the first four units of instruction, one being mandatory (primary test) and one optional (alternate). Further details on these unit tests and the course structure are described in Sherman (1975, 1976). Using the students' university identification numbers, all test results and other descriptive data regarding the students are accumulated and merged together to form a computer-managed gradebook file.

Miami University is primarily a residential campus and most undergraduates live in dormitories. This is especially true of freshmen. The university maintains a computer file of all campus and off-campus addresses for students and it is possible to obtain mailing labels for all the students attending any specific course. This address file can be selectively accessed and printed upon peel off labels which may be affixed to letters.[2] These labels may then be manually merged with computer generated personal letters and sent to students via the university campus mail system.

The students' test performances are managed with a package program known as Statistical Analysis System (SAS) (Barr, Goodnight, Sall and Helwig, 1976). The

SAS package is likely to be available and in use at most institutions having
IBM 370 compatible computer facilities. Using SAS it is possible to compose
individual letters which are compatible with students' test results in the
course. Within one week after all test results were completed for each of the
first four units of instruction, personal letters were printed by the computer,
merged with the address labels and mailed to the students. The composition
of the letters which was determined by a SAS algorithm took approximately 30
minutes of preparation time. The affixing of address labels and stapling of
letters, done by a graduate assistant, took approximately one and a half hours
for each of the four unit letters. All letters were personally signed by the
instructor and this took approximately 30 minutes for each mailing. (Examples
of the letters which are printed on 8½ x 11 white paper, as well as the SAS
programs which generated them are available from the author.) The three class
sections examined in this report include the Fall, 1976 section which did not
receive any of the letters, the Spring, 1977 section which received only two
of the letters, and the Spring, 1978 section which received four letters. In
the following description of the four letters note that the section receiving
only two letters received them after the first and fourth units of instruction.

The content of the letters contained information reporting test results
and letter grades of the student to whom it was personally addressed. The first
unit letters contained some brief remarks and value judgments by the instructor
regarding each student's performance. Verbal reinforcements were issued for
A and B scores and suggestions for improvement were provided for those scoring
C or below. In addition to all of this, a reminder regarding the instructor's
office hours and encouragements to stop in for a discussion were offered. The
last three letters contained no value judgments but simply reported cumulative

test results and some speculations on future grade prospects. Also, information reminding students of coming events in the class and additional brochures describing departmental and university programs were contained in letters.

At the end of the Spring, 1977 semester students were asked to voluntarily submit written comments regarding their perceptions of these letters. This,was an attempt to obtain their unstructured perceptions and receptivity to this innovation. Even though only 23% volunteered comments, the vast majority of their remarks were very positive. From these unstructured comments a seven item survey was constructed by the instructor and administered to the entire Spring, 1978 section. Responses to the seven items appear in Table 1.

Insert Table 1 here

Approximately 84% of the class felt that these letters were desirable, even if the test results contained in them were redundant with information posted on bulletin boards (item #1). The most helpful letter appeared to be the one sent after the first unit of instruction was completed (item #3). Nearly 80% of the students reported that they were aware of the instructor's availability for help at regularly scheduled office hours (item #2). Most students (78.5%) mildly to strongly agree that the letters were an incentive to do better on succeeding tests (item #4) and the vast majority (87.4%) mildly to strongly agree that the letters made them feel that the instructor cared and was concerned with how they were doing in the class (item #5). Most students (68.3%) mildly to strongly agree that the letters made them more interested in the course in general (item #6). The majority of the students (71.3%) agreed that the judgmental statements contained in the first letter were somewhat to very desirable (item #7).

The university does make student-course-professor evaluations and this was done for the three sections being examined here. One item on this survey asked

students to respond from strongly disagree (0) to strongly agree (4) to the statement, "This instructor is concerned and available for help." A oneway ANOVA contrasting the responses to this item amongst the three sections was statistically significant, $F_{(2,549)} = 4.83$, $p < .008$. Students who received four letters (Spring, 1978) responded significantly higher ($p < .05$) on this item (mean = 2.97, n = 246) than the Spring, 1977 class who received only two letters (mean = 2.77, n = 176). The Fall, 1976 class where no letters were sent received the lowest rating (mean = 2.64, n = 130). Thus, a somewhat linear increase in the positive perceptions of students of their instructors "concern and availability" appears to be associated with an increase in frequency of computer-generated correspondence.

Discussion

One of the primary difficulties associated with large lecture pedagogical strategies in higher education environments is the impersonal human relations factor. The loss in affective personal relations between students and their instructors is a risk which may effect students attitudes regarding the University structure in general and even their perceptions and receptivity to specific departmental disciplines. Attempts to maintain positive relationships between students and their instructors may be highly beneficial. This report demonstrates how one might enhance the human relations factor in a potentially hazardous instructional structure: ie., the large lecture format.

The data do suggest that with computer-managed correspondence student needs for even indirect personal contact with the instructor are being met. The messages regarding instructor availability and individual academic progress in the class, appear to be making the impression upon the students that the instructor does indeed care for their academic welfare. The positive increases in the evaluation item, "...is concerned and available for help," is not surprising

and is congruent with the results of the instructor's own seven item survey.

One additional thought concerning these analyses has to do with much of the controversy surrounding student-course-professor evaluations. Several articles have been written on both the validity and reliability of these instruments and also the manner in which they are interpreted and used (Chandler, 1978). Though this report does not resolve any of the validity or reliability issues, it does shed some light on the potential use by instructors of their personal evaluation data. This whole project was a concerted effort on improving the human relations element between students and instructor, as evidenced by responses on a student-course-professor evaluation instrument. In this respect, the project is believed to have been quite successful and the innovation will be included in future offerings of large lecture sections. The positive increases in this survey item reinforce the perception of the instructor of his ability to competently effect change. By being responsive to student-course-professor evaluations, instructors may better be able to plan and improve their courses.

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Footnotes

[1] Dr. Joseph C. Simpson, Assistant Professor and Coordinator of User
systems for the Academic Computer Service, Miami University, deserves a special
note of thanks for his assistance in the programming of both the gradebook
file and the computer-generated letters.

[2] Mr. Gene Schuster, Assistant Registrar, Miami University, deserves
mention for his aid in providing the address labels for this project and his
assistance is most gratefully appreciated.

Table 1. Seven item survey of students' opinions of personal correspondence
from their instructor.

Percentage	Survey Items

1. Keeping in mind that all test results are posted on the
bulletin board, do you feel that the personal letters and
their "redundant" information concerning test results are
still desirable?

84.3%   a. yes
15.7%   b. no

2. Did the personal letters give you the perception that the
instructor was available for help at his regularly scheduled
office hours?

80.2%   a. yes
19.8%   b. no

3. Where would you have appreciated getting one of those letters
most? Which one was most helpful?

36.5%   a. after the first unit
18.9%   b. after the second unit
27.9%   c. after the third unit
16.8%   d. after the fourth unit

4. The letters provided incentive to do better on succeeding
units.

7.6%   a. strongly agree
33.8%   b. agree
37.1%   c. mildly agree
11.0%   d. mildly disagree
6.8%   e. disagree
3.8%   f. strongly disagree

5. The sending of personal letters made me feel that the instruc-
tor cared and was concerned with how I was doing in the class.

28.0%   a. strongly agree
38.6%   b. agree
20.8%   c. mildly agree
4.7%   d. mildly disagree
5.9%   e. disagree
2.1%   f. strongly disagree

6. The letters made me more interested in the course in general.

5.5%   a. strongly agree
17.8%   b. agree
44.9%   c. mildly agree
14.8%   d. mildly disagree
12.7%   e. disagree
4.2%   f. strongly disagree

Table 1 (continued)

Percentage	Survey Items
	7. Some of the letters contained "judgmental" statements about your test performance. Value judgments by the instructor are _____ feedback.
22.4%	a. very desirable
48.9%	b. somewhat desirable
20.3%	c. neutral (they didn't affect me one way or the other)
5.1%	d. somewhat undesirable
3.4%	e. very undesirable