Focusing on the relationships between performance, skills, and attitudes, a study conducted at the University of Arizona measured the effects of reading and writing apprehension on basic writers. Results from three survey measures and expository paragraphs and essays written by 59 college freshmen enrolled in a basic writing course provided the data. The instruments used were these: (1) the Reading Apprehension Measure (based on Daly and Miller); (2) Vocabulary and Comprehension on the Nelson-Denny Reading Test, Form D; and (3) the Miller-Daly Writing Apprehension Test. Results suggested that the course, designed to equip students with strategies for composing, helped students to gain the confidence necessary to increase writing skill. Results also indicated that students' writing skills were enhanced when they understood the connection between reading and writing, and that simply requiring students to read carefully and critically could be a detriment to student confidence. The significant positive relationship between grades and reading performance measures suggested that a student's role as reader and writer cannot be separated easily. In addition, the positive correlation found between course grade and the placement essay score suggested that the placement essay probably provided more finely scaled information than expected. Finally, results suggested that the course's critical reading demands may have driven students' perceptions of apprehension to extremes. (Three pages of works cited and a table of data are included.) (JD)
Reading-Writing Connections:
College Freshman Basic Writers' Apprehension and Achievement

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Abstract

This study examines reading skills and attitudes as well as writing skills and attitudes of 59 college freshmen enrolled in a basic writing course. Results of the study suggest that one-semester basic writing courses designed to equip students with strategies for composing may enhance students' confidence about their writing. While such confidence may develop more rapidly than skill in composing, increased confidence may be a necessary prerequisite to increased skill. Results of the study further suggest that basic writing courses may need to do more to develop novice writers' confidence and skills as readers. Merely demanding that basic writers read carefully and critically may erode those writers' confidence.
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As Sandra Stotsky has noted in her review of past research on reading/writing relationships, "studies correlating measures of reading ability or reading experience with measures of writing ability have appeared only sporadically through the years and at widely varying developmental levels" (627). Educators and researchers generally acknowledge that a complex relationship exists, but its exact nature is not at all clear. Some studies show no strong correlation. Piexetto found low but significant correlations between college freshmen's scores on a reading test and the English Essay test. Thomas concluded from a study of college freshmen's reading achievement and writing ability that the two variables are only negligibly related. Stotsky points out that several studies, such as those conducted by Fuller and Evans show no positive correlations between reading ability and syntactic complexity.

Studies with college freshmen have also shown positive correlations between reading and writing ability. A number of studies have shown significant relationships between students' reading ability and syntactic measures of writing. Thomas found a significant correlation between sentence maturity and reading ability. Heller showed a significant correlation between syntactic complexity of expository writing and reading level of college freshmen. Low-level readers expanded sentences by addition of T-units, while high-level readers wrote longer
T-units which were expanded by the use of more sophisticated elements: prepositional phrases, passive verb constructions and free final modifiers. Heller noted that although positive correlations have been found between syntactic maturity and quality of theme writing, syntactic maturity is not a direct measure of writing quality. Campbell in a study comparing evaluation of an in-class theme to a standardized reading test and a criterion-referenced test of specific reading skills showed a high positive relationship. In another study of college freshmen, Grobe and Grobe found that writing ability scores (based on written answers to essay questions and evaluated for grammar, mechanics, development, organization, style, and interpretation) correlated significantly with reading scores.

Spivey, in a study of college students grouped as able and less able comprehenders, found that able comprehenders synthesized texts that receive higher holistic quality ratings, required readers to make fewer connective inferences, and contained more information. In Spivey’s experimental study, which attempted to use writing to improve comprehension of college-level developmental reading students, prereading exercises which involved role-played writing activities did not contribute to gains in comprehension as measured by the Nelson-Denny Reading test, although the experimental groups did show significant gains in specific comprehension as measured by objective and essay question answers.

While previous studies have examined some relationships between college students' reading and writing, they have only
considered a few performance measures. None of the previous studies has examined both performance and attitudes for both reading and writing. Frank Smith notes in *Writing and the Writer* that we need to examine students' attitudes: "Writing is full of inhibitions for most of us. Instead of asking why so few people learn to write well and to enjoy writing, we might ask why so many come not to enjoy it, and therefore lose the desire to engage in it" (p. 17). Michael Smith notes that we need to examine attitudes for the purpose of improving instruction in writing courses.

Given the need to examine the relationships between performance and attitudes for both writing and reading, the present study attempts to measure reading apprehension and writing apprehension and to relate those measures to each other and to reading performance and writing performance. Also, given the need to assist basic writers, the present study uses a sample from that population.

**Method**

**Subjects**

Subjects were 59 college freshmen enrolled in five sections of English 100, taught by three different instructors. English 100, a basic writing course at the University of Arizona, focuses on the writing of expository paragraphs and essays. Criteria for placement in the course are low objective test scores (generally below 18 on the verbal portion of the ACT or below 40 on the TSWE portion of the SAT) and a score of 2 or 3 out of a possible 8 on holistically evaluated writing sample. (Generally, an ACT score
between 18 and 25 or a TSWE score between 40 and 58, combined with a holistic essay score between 4 and 6, will result in a 101 placement. An ACT score above 25 or a TSWE score above 58, combined with a holistic essay score above 6, will result in a 103 [Honors] placement.

Instruments and Materials

One instrument used in the study is the Reading Apprehension Measure (RAM). To develop this instrument, the investigators modified the 26 items in the writing apprehension test developed by Daly and Miller. These modifications consisted of changing the word writing to reading or the word write to read in each item. The investigators used a modification of the Daly-Miller instrument because it has been used extensively and consistently by composition researchers for more than a decade. To test the validity of the RAM, Brown et al. conducted another study, which is reported elsewhere.

Scores were obtained for students' performances for Vocabulary and Comprehension on the Nelson-Denny Reading Test, Form D, the Miller-Daly Writing Apprehension test, and the Reading Apprehension Measure (RAM). In addition to these tests, students wrote two impromptu paragraphs. Students were allowed ten and twenty minutes, respectively, for the Vocabulary and Comprehension sections of the Nelson-Denny Reading test, ten minutes each for the apprehension measures, and twenty minutes for each in-class paragraph.

Procedures

Testing occurred during regular class periods on two dates.
the first testing date, during the first month of the semester, the investigators administered the Nelsen-Denny Reading test, the Miller-Daly Writing Apprehension test, and the RAM. Within two weeks of this date, students wrote, in class, an impromptu paragraph based on the following prompt read by the instructor: "In one paragraph, describe one of your favorite places that you would recommend to a close friend."

On the second testing date, within three weeks of the end of the semester, the Miller-Daly Writing Apprehension measure and the RAM were administered again by the investigators, and within a week, the students wrote another in-class paragraph in twenty minutes, based on the prompt "In one paragraph, describe another, different favorite place that you would recommend to a close friend," read by the instructor.

Data Scoring

All paragraphs were evaluated holistically, with pretest paragraphs and post-test paragraphs mixed together, by two outside readers. To assess inter-rater agreement, the investigators calculated the percentage of times the two raters agreed on the scores of paragraphs. The raters agreed on scores for 114 of the 118 (96.6%) paragraphs they read. With a 4-point scale, the two scores on a paragraph were counted as in agreement if they were identical or if they were within one point of each other, the same procedure used for placement purposes at the University of Arizona.

Results and Discussion

Using Pearson Correlation coefficients, the investigators
determined the extent to which each of the various instruments used in the study related to success (a course grade) in Freshman Composition 100. Those coefficients appear in Table 1.

The investigators submitted apprehension scores to a t-test to determine changes in those scores during the semester. Results indicated that writing apprehension scores were significantly lower at the end of the semester \( (M = 62.39, SD = 18.81) \) than at the beginning \( (M = 68.50, SD = 18.77) \), \( t(58) = 2.60, p = .012 \). Results further indicated that reading apprehension increased substantially but not significantly from the beginning of the semester \( (M = 58.37, SD = 15.76) \) to the end \( (M = 67.36, SD = 72.80) \), \( t(58) = -.87, p = .386 \). (Note the size of the standard deviation in the posttest scores. A large standard deviation makes it more difficult for substantially different means to reach statistical significance.) The investigators further subjected pretest and posttest holistic paragraph scores to a t-test. Results indicated a small nonsignificant decrease in those scores, \( t(58) = .88, p = .382 \). The pretest mean was 1.66 \( (SD = .504) \); the posttest mean was 1.59 \( (SD = .487) \).

Several of the correlations between course grade and other measures employed here are intriguing. The significant positive relationships between grade and reading performance measures suggest that a student's roles as reader and writer may not be easily separated. Donald Murray (1982) reinforces this notion:
"[T]he act of writing is inseparable from the act of reading. You can read without writing, but you can't write without reading" (p. 141). Pearson and Tierney also note a close relationship: "The thoughtful reader, we will argue, is the reader who reads as if she were a writer composing a text for yet another reader who lives within her" (p. 144). Frank Smith, in "The Politics of Ignorance," asserts that the relationship is not only strong but also very important: "One inestimable advantage of writing is that it forces the writer to make statements which can then be examined, analyzed, and even evaluated. Criticism is inherently a literary mode" (p. 6).

The significant positive relationships between grade and paragraph scores are perhaps not surprising, but they do suggest that the paragraphs examined in the study may have been representative of the writing students did throughout the course.

Since different subsets of students in the sample had taken the ACT and TSWE portion of the SAT, contrasting relationships of those scores to course grade may suggest two explanations. One is that the TSWE is a better predictor of success in a basic writing course like the one at the University of Arizona; the other is that one kind of student took one test and another type took the other.

The positive, nearly significant, relationship between course grade and the placement essay score is remarkably strong, given the fact that that measure partially defines placement in the course. With 82% of the students in the sample earning placement scores of 2 or 3 and 95% earning scores of 2, 3, or 4,
it is remarkable that the correlation had such a low p-value. The correlation suggests that the placement essay may provide more finely scaled information than expected. That is, if one were to compare these holistic scores across all three possible placements (English 100, 101, and 103), one might find that the scores predict course grades fairly accurately.

The significant and substantial decrease in writing apprehension is encouraging, especially since holistic paragraph scores did not change. In a one-semester basic writing course, it may be difficult to greatly improve the quality of students' writing. If such a course does lessen students' apprehension, though, it may be accomplishing a great deal. The decrease suggests that a course like English 100, a course that provides much practice in putting words and ideas on paper and emphasizes the process of composing, helps demystify writing. It may help to fulfill the responsibility that Murray, in *A Writer Teaches Writing*, says writing teachers have to "take our students backstage to watch the pigeons being tucked up the magician's sleeve" (p. 4).

The substantial increase in reading apprehension was not significant because of the large standard deviation in the posttest scores. What the size of the mean change and the size of the posttest standard deviation suggest is that the critical reading in the course may have driven students' perceptions of apprehension to extremes. Students in English 100 read essays closely and critically to gain models of high level abstract thought and language, to gain ideas and inspiration for their own
essays, and to learn to criticize texts. Students perhaps came into the course with relatively little experience in such close reading of texts. And, in fact, the teaching experience of all three of the investigators in the course seems to bear this out.

General Discussion

The results of the present study raise many questions about relationships between reading and writing, especially about the way that students think as they move between those two activities. We think that the results raise the most interesting questions about our efforts to increase students' confidence as they read and write texts, and we wish here to limit our discussion to those particular questions. A course like English 100 seems to provide basic writers with a repertoire of strategies for approaching the task of composing. In turn, the understanding of these strategies seems to make students feel more at ease as they compose. Is it possible in a writing course like English 100, then, also to provide students with enough strategies for reading texts so that they feel more at ease in their roles and critical readers? Hjelmervik and Merriman believe that it is possible simultaneously to develop students' confidence in their reading and writing skills. They describe a University of Pittsburgh six-credit course called Basic Reading and Writing, in which students get a lot of practice in reading, writing, and thinking. Hjelmervik and Merriman report that "[o]ur course exists to help troubled readers and writers imagine they can become competent. As their confidence in themselves increases, they begin to control reading and writing so that they
can first read well enough to talk about meaning and write enough to pass a threshold of fluency which allows them to generate writing with confidence" (111-112). They add that "[o]ur students ... are not stupid, inept, or devoid of ideas. They are, however, inexperienced in the very processes that would help them believe in themselves. By reading and writing, they learn to believe in their own abilities to think rationally" (112).

Perhaps we can best reflect on our study by noting the words of Mina Shaughnessy, who, in her classic Errors and Expectations, argued that we must work to help students understand the connection between reading and writing so that we can enhance students' skills and confidence:

writer from the text robs him of important insights and sensitivities, for it is only when he can observe himself as a reader and imagine that a writer is behind the print of the page that he understands his own situation as a writer. . . .

First, then, in what might be called a writing approach to reading is the fact of the reader's response. And then, not a correction of that response, but an effort to understand it, to discover what in the text or the reader's experience created it. Then the reader shifts perspective and tries to imagine the writer's intent, to decide why he used this word instead of that, moved in this direction instead of that, or chose to expand upon one point and not another. Using the text as his terrain, he tries, in
Reading-Writing Connections

short, to map the thinking of the writer and finally to see in relation to that map where he, as one reader, traveled.

Reading in this way, the student begins to sense that the meaning of what he reads or writes reside not in the page nor in the reader but in the encounter between the two. This insight makes him a careful writer and a more critical reader. (223)
Works Cited


Table 1

Correlations Between English 100 Course Grade and Other Variables

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*Almost all students placed in Freshman English 100 have a placement essay score of 2 or 3. In this study, the mean placement score was 2.82 (SD = .93); 82% of the scores were 2 or 3, and 95% were 2, 3, or 4.