A study investigated the role of writing apprehension in the writing competency and performance of college students. Specifically, the study examined whether high writing apprehensives would perform differently than low apprehensives on standardized tests of writing-related skills and on two different types of essays. Based on the results of a writing apprehension measure, 55 high apprehensive and 55 low apprehensive writers were chosen for the study. In addition to the writing apprehension measure, the students completed eight measures of writing competency and wrote one narrative/descriptive and one argumentative essay (in which they were not allowed to use personal experiences). The results revealed that high writing apprehensives scored lower than low apprehensives on tests of writing-related skills for all but two measures. The measures showing a significant effect for apprehension were two assessments of general verbal ability, a measure of reading comprehension, and two objective tests of writing ability. The high apprehensives also produced essays that were significantly shorter and less syntactically mature than did low apprehensives. However, differences in indices measuring syntactic development and in judgment of writing quality were observed only in the narrative/descriptive essays, not in the argumentative ones—suggesting that high apprehensive writers may be more anxious about expressing themselves than about arguing for a particular viewpoint. (FL)
The Role of Writing Apprehension in Writing Performance and Competence

Lester Faigley, John A. Daly, and Stephen P. Witte

University of Texas at Austin

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Running Head: Writing Apprehension
ABSTRACT

Writing apprehension is a subject-specific individual difference associated with the tendency of people to approach or avoid writing. The role of the apprehension in the writing competency and writing performance of 110 undergraduates was investigated. The hypotheses were that high writing apprehensives would perform differently than low apprehensives on standardized tests of writing-related skills and on two essays of different types. The hypothesis for writing competency was confirmed. However, the hypothesis for writing performance was confirmed for only one of the two essay types. Differences in indices measuring syntactic development and in judgments of writing quality were observed in the narrative/descriptive essays, but not in the argumentative essays.
Writing Apprehension

The Role of Writing Apprehension in Writing Performance and Competence

Writing apprehension is a construct associated with a person's tendencies to approach or avoid situations that require writing accompanied by some amount of evaluation. Highly apprehensive writers find writing unrewarding, even punishing. Consequently, they avoid, whenever possible, those situations that require writing (Daly and Miller, 1975b). When placed in such situations, they experience more than normal amounts of anxiety (Daly and Haley, Note 1). This anxiety is often reflected in the behaviors they display as they write, in the attitudes they express about their writing, and in their written products. Low apprehensives, on the other hand, tend not to avoid situations that demand writing, are confident in their abilities to write, and frequently enjoy writing.

Writing apprehension influences occupational and academic choices (Daly and Shamo, 1976, 1978). Highly apprehensive individuals prefer and choose occupations and academic majors believed not to require much writing. In contrast, low apprehensives like and select jobs and academic concentrations they judge to demand comparatively more writing. Within classrooms, apprehension affects student satisfaction in courses requiring writing. It also influences expectations of success in writing classes, enrollment patterns in advanced composition courses, and enjoyment of out-of-class projects ostensibly demanding some writing (Daly and Miller, 1975b). Classroom teachers also distinguish among students on the basis of levels of writing apprehension, indicating that highly apprehensive writers are much less likely to succeed in a variety of academic subjects than their low apprehensive counterparts (Daly, 1979). Research has also shown that deficits in skills training and poor or negative teacher responses to early writing attempts apparently affect later levels of writing anxiety (Harvley-Felder, 1978).

A limited number of studies have linked writing apprehension to differences in
written products and in levels of achievement in writing related-skills. Writing anxiety, for example, is associated with lower scores on standardized tests of writing aptitude and ability, tests such as the Scholastic Aptitude Test and the American College Test, as well as locally developed measures (Daly, 1978; Daly and Miller, 1975b). In addition, written products of high apprehensives have fewer words, less qualification, and lower intensity; and these products are evaluated less positively than those written by low apprehensives (Daly, 1977; Daly and Miller, 1975c; Garcia, 1977).

The present study is a further exploration of the effects of writing apprehension on both writing performance and writing competency. Writing competency reflects students' abilities to perform on standardized tests of writing-related skills. Measures of competency test how much a student can recognized as correct or incorrect in samples of writing—whether words or phrases, sentences divorced from a context, or passages of extended discourse. Previous research (Daly and Miller, 1975b), as well as the conceptualization of writing apprehension, suggests that highly apprehensive writers tend to avoid the practice necessary to develop and maintain competencies in writing-related skills measured by such instruments as those used in the present study (SAT, TSWE, ECT, and standardized tests of mechanics, comprehension, and sentence and paragraph patterns). The expectation in this study was that low apprehensives would perform significantly better on tests of writing competency than high apprehensives.

Because scores on objective measures of writing-related skills differ in kind from actual writing performance, the present study also measured aspects of writing performance. In this case, the critical instruments were the actual written samples produced by student writers. Writing samples have typically been analyzed in two ways—by subjectively rating the essays for overall quality and by describing certain internal characteristics of the essays themselves. We have done both in this study. In addition to assessing quality, we examined three syntactic characteristics that have become widely used indicies of writing development. They were words per T-unit, words per clause, and the frequency of nonrestrictive modifiers. Given previous research with the writing
apprehension construct, the expectation in the present study was that low apprehensives would write essays rated higher in quality and different in internal characteristics than high apprehensives.

The present study provides a replication of previous research that has correlated objective indices of writing competency with writing apprehension. It extends previous research by examining the role of writing apprehension on certain syntactic features which have been used to measure writing development—measures that, to date, have not been related to apprehension.

Previous research relating apprehension to writing has typically ignored the particular kinds of writing assigned to students. Considerable work indicates that different kinds of writing tasks (e.g., narrative/descriptive vs. argumentative) result in texts having different internal characteristics (Britton, Burgess, Martin, McLeod, and Rosen, 1975; Crowhurst and Piche, 1979; Kinneavy, 1971; Seegars, 1933; Veal and Tillman, 1971; Witte and Davis, 1980). In the present study, we explored the role of writing apprehension on the production of different types of writing, one type demanding that students draw heavily on personal experience and another type demanding that students argue for or against a particular position without reverting to their personal experience. Up to now, no researchers have considered whether writing apprehension influences, in similar or different ways, writing of different types.

Method

Subjects

Subjects were 110 undergraduate students enrolled in 20 sections of the beginning composition course at a large university in the Southwest. They were selected from a pool of 161 students who had completed the Daly-Miller writing apprehension instrument (1975a) as part of an ongoing evaluation project at this university. Students who scored in the top third of the writing apprehension instrument (X=87.22, n=55) were selected as high apprehensives, and students who scored in the bottom third (X=52.80, n=55) were identified as low apprehensives. The decision to classify students into groups and limit the examination to the extremes was based on the entering hypotheses.
which emphasized differences in performances and competencies as a function of apprehension. Given the expected measurement error of any instrument like the writing apprehension test, selecting extremes was the best way to insure two nonoverlapping groups. The number of students who completed each measure varied slightly because of student absences on days when assessments were completed. These differences in sample size are noted in the analyses of data. All subjects were freshmen in their first semester of college courses.

Procedures

Subjects completed a number of standardized measures of writing competency before beginning classes. These are described below. During the first week of classes each subject completed the Daly-Miller writing apprehension measure (1975a) and wrote two essays to which performance measures were applied. Two writing topics were used for each kind of writing assignment. This was done to prevent a potential confound between topic and experimental effect. The first writing assignment elicited narrative and descriptive writing, which drew heavily on the writer's personal experience. The second writing assignment was designed to elicit argumentative discourse.

Half of the subjects wrote on one personal experience assignment addressing the topic of "escapes from reality," while the other half of the subjects wrote on a personal experience assignment addressing the topic of "changes in behavior." For the argumentative essays, about half of the students were directed to support or refute the idea of mandatory writing classes in high schools and half were directed to argue for or against the use of competency-based, basic skills tests to certify high school students for graduation. To defend the position adopted in the argumentative essays, students were directed to argue objectively without using first-person pronouns. The order in which students wrote the two kinds of essays was randomized so that half completed the argumentative task first followed by the narrative-descriptive exercise. The other half completed the essays in the opposite order. Preliminary analyses revealed no pattern of meaningful differences between the two topics within each type; thus, the
two topics were pooled for the analyses.

Measurement

Three types of measures were used in the study. They were the writing apprehension instrument, objective measures of writing competency, and text-specific measures of writing performance.

Writing apprehension. Subjects' apprehension towards writing was assessed by the twenty-six item version of the Daly-Miller writing apprehension instrument (1975a). This instrument has been found highly reliable and valid in previous studies.

Writing competency. Subjects completed eight measures designed to assess how much they knew about writing. These measures included the Test of Standard Written English (TSWE), the English Composition Test (ECT), and the verbal portion and vocabulary subtest of the Scholastic Aptitude Test. All of these have been developed by the Educational Testing Service. Also used were three subtests of the McGraw-Hill Writing Test assessing language mechanics, sentence patterns, and paragraph patterns, and the paragraph comprehension subtest of the McGraw-Hill Reading Test.

Writing Performance. The essays were evaluated in three ways. First, the overall length was computed by a simple count of total words. Second, a series of syntactic measures was computed. The syntactic measures included the mean number of words per T-unit, the mean number of words per clause, the ratio of T-units with final nonrestrictive modifiers to the total number of T-units (FT), and the ratio of words in final nonrestrictive modifiers to the total number of words (FW). The mean length of T-units as a measure of "syntactic fluency" or "maturity" was introduced by Hunt (1965). Briefly, a T-unit is an independent clause plus all the subordinate elements attached to or embedded in it. Several studies, reviewed by O'Donnell (1976, 1977), have demonstrated the sensitivity of the T-unit as a measure of syntactic development. A second measure of "syntactic fluency" used in the present study is clause length. Whereas T-unit length gives some indication of the amount of subordination attached to a given independent clause, average clause length refers to the length of full clauses, whether independent
or dependent. Hunt (1965, 1970) found clause length the most useful syntactic measure of adult writing performance. Two other syntactic measures also computed were the ratio of T-units with final nonrestrictive modifiers to total T-units and the ratio of words in final nonrestrictive modifiers to the total number of words. Christensen (1967, 1968) argued that final nonrestrictive modifiers are an indicator of skilled writing. Nold and Freedman (1977) and Faigley (1979) have shown final nonrestrictive modifiers to be significantly associated with judgments of writing quality.

Finally, two judges holistically evaluated each essay for overall quality. Essays of each type were pooled and independently rated on a one-to-four scale, using procedures similar to those developed by the Educational Testing Service (see Cooper, 1977). An initial training session was held where raters received general instructions for impressionistic rating and sample essays written on the test topics. The raters ranked the sample essays, in particular discussing essays that produced disagreements. Frequent breaks were scheduled during the rating sessions, and additional sample essays were read at the beginning of each session to maintain consistency of the rating standards. At the end of the rating sessions the scores of the two raters were summed to provide a single score for each of the two essays written by each subject.

Data Analysis

The data were analyzed in three interrelated steps. First, the reliability of the writing apprehension measure for the sample was computed using Cronbach's alpha statistic (1951), a measure of internal consistency. Also, the reliability of the judges who performed the holistic evaluation was computed using Ebel's intraclass procedure. Second, a series of one-way analyses of variance was computed for the competence measures. An alternative analysis would have been to compute a multivariate analysis of variance on the scores. Two factors argued against the use of this procedure. Because of inaccessible data, our sample would have been reduced by 33%, producing a sample size too small for a multivariate analysis. Also, the MANOVA procedure is typically used when the dependent variables are highly related. In these data the average correlation was
only .37. Third, two-way analyses of variances were computed for the performance measures. The first factor was writing apprehension (two levels: High and Low). The second was a repeated measure for essay type (personal experience versus argumentative). Statistical power, assuming a medium effect, was greater than .75 for all tests.

Results

Reliability

The internal consistency estimate for the writing apprehension measure for this sample was .94. The intraclass correlations for the essay raters ranged from .76 to .84. All reliability indices were judged sufficiently high for further analysis.

Writing Competency

The series of one-way analyses of variance between the high- and low-apprehensive groups revealed significant differences between the two groups on all but two measures. No significant differences were observed for the sentence patterns and paragraph patterns subtests of the McGraw-Hill Writing Test. Table 1 summarizes the important information for the effect. Note that for every measure high apprehensives scored lower than their low-apprehensive counterparts.

Writing Performance

The two-way analyses of variance on the performance measures indicated main effects for writing apprehension on the holistic scores of writing quality (F(1,108)=8.20, p<.07), on total length (F(1,108)=7.33, p<.008), on words per T-unit (F(1,108)=3.01, p<.08), on words per clause (F(1,108)=9.66, p<.002), on T-units with final nonrestrictive modifiers (F(1,108)=3.15, p<.07), and on words in final nonrestrictive modifiers (F(1,108)=3.37, p<.06). While not all reached the .05 level of confidence, all were significant at .07 or less. In every instance the pattern was for the low apprehensives to perform better than the high apprehensives.
There were also significant main effects for essay type on words per T-unit
\(F(1,108)=8.23, p<.005\), on words in final nonrestrictive modifiers \(F(1,108)=4.06, p<.04\), and on T-units with final nonrestrictive modifiers \(F(1,108)=37.19, p<.0001\). The number of words per T-unit was significantly lower for the personal narrative/descriptive essays than for the argumentative essays. But for the two indices which measured the occurrence of final nonrestrictive modifiers, the personal narrative/descriptive essays were significantly higher than the argumentative essays. Finally, there were significant interactions between writing apprehension and essay type on the number of words per T-unit \(F(1,108)=4.39, p<.03\) and on the number of words per clause \(F(1,108)=5.28, p<.02\). Table 2 summarizes the results.

These findings led us to examine more closely the dependent variables for writing performance in each essay type, even though not all of the interactions between essay type and writing apprehension were significant. Simple main effects for both essay types were computed. The results, summarized in Table 3, show a pattern of significant differences for the personal narrative/descriptive essays \(T^2(6,103)=26.33, p<.0008\) but virtually no effects for the argumentative essays \(T^2(6,103)=1.12, ns\). The analyses of writing competency and writing performance showed marked differences between high and low writing apprehensives. For all but two measures, high writing apprehensives scored lower on tests of writing-related skills. Measures showing a significant effect for writing apprehension were two assessments of general verbal ability, a measure of reading comprehension, and two objective tests of writing ability widely used for placement in college writing courses. Scores on the objective tests of writing ability reveal that high apprehensives have less command over matters of usage and written conventions than low apprehensives.
Apprehension also had a significant effect on writing performance. Highly anxious writers produced essays significantly shorter and less syntactically "mature" or "fluent" than their low-apprehensive counterparts. These findings provide insight into how writing apprehension affects actual writing behavior. Total length is one indication of the invention skills of a writer. High apprehensives were unable to develop their ideas as well as low apprehensives. Syntactic measures show that high apprehensives put less information into each communicative unit, whether at the T-unit or clausal level. Furthermore, high apprehensives use a more restricted repertoire of syntactic constructions. Final nonrestrictive modifiers, a characteristic of skilled adult writing, appear less frequently in the prose of high apprehensives.

The present study found an effect for essay type on syntactic complexity, revealing a pattern among college writers similar to that found with elementary and secondary students (Crowhurst and Piche, 1979; San Jose, 1972). Argument apparently invokes a more formal style, hence greater syntactic complexity. The nature of argument itself, with propositions joined by logical connectives, also leads to greater syntactic complexity.

Of critical importance may be the differing impact writing apprehension had on different types of essays written by the subjects. Significant interactions between writing apprehension and essay type were observed for T-unit length and clause length. Probes of the T-unit length and clause length interactions indicated that for the personal narrative/descriptive essays, high apprehensives wrote T-units and clauses with significantly fewer words than their low-apprehensive counterparts. On the argumentative essays, however, probes of the T-unit length and clause length interactions suggested that subjects performed no differently as a function of their apprehension. Perhaps most interesting was the analysis that examined separately the effect of writing apprehension on performance for each essay. Across almost all of the measures there were significant effects for apprehension when the essay was a personal narrative. No effects were observed for the argumentative topics, which specifically asked students not to use
personal experience. These differences fit with the theoretical speculations of Kinneavy (1971), Britton et al. (1975), Moffett (1968), and Jakobson (1960). All distinguish between types of writing on the basis of the proximity of writer, subject matter, and audience. The narrative-descriptive essay was an expressive exercise requiring an emphasis on self, while the argumentative task was more referential, allowing fewer opportunities for including personal experience. The high-apprehensive writers may have been more anxious about "expressing" their own feelings, attitudes, and experiences than they were about writing on a topic which demanded that they argue objectively for a particular point-of-view. These interpretations, however, need to be considered in light of the post hoc nature of the data analysis and the potential confound between content (topic) and essay type.

The present study has important implications for research in writing and writing apprehension. The results suggest that different instructional materials and methods may need to be used for highly apprehensive writers. The results also suggest new directions for research in writing apprehension. Previous work with the writing apprehension construct has drawn measures of writing performance solely from narrative-descriptive essays. The present study indicates that the effects of apprehension on writing performance should be measured for more than one essay type. A number of situational factors besides evaluation also remain to be investigated. Understanding of how writing apprehension affects writing performance will remain rudimentary until experiments have tested the effects of apprehension across a variety of writing types and situations. Further, while this study demonstrates that apprehension plays some role in writing performance and competence, it is important to note that no causality is assumed. Writing apprehension is not assumed causally to lead to poorer writing nor is poorer writing assumed causally to result in apprehension. Most likely the relationship is bidirectional; they reinforce one another. Future research may need to probe carefully the causal relationships. This may be done experimentally or by observing the development of competency, performance, and apprehension.
Reference Notes

References


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Table 1

Means and Standard Deviations for Writing Competency

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### Table 3
F Values for Simple Effects Analysis

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