

PREDICTORS OF SUCCESS IN WRITING IN ENGLISH AS A FOREIGN LANGUAGE: READING, REVISION BEHAVIOR, APPREHENSION, AND WRITING.

SY-YING LEE

National Taipei University

STEPHEN KRASHEN

University of Southern California (Emeritus)

Multiple regression analyses revealed the following predictors of grades in an elective class in English composition for university level students in Taiwan: reading in English on a regular basis (positive), writing apprehension (negative), and a focus on organization during revision (positive). Focus on content during revision was positively associated with grades and focus on grammar during revision was negatively associated with grades, but the relationship fell short of statistical significance. Amount of writing done outside of school had no relationship with grades, but very few students reported writing in English regularly outside of school.

The goal of this investigation is to study the predictors of success in writing English as a foreign language for upper intermediate students at the university level. These students are at a crucial time in their English education. At this stage they are increasingly expected to write in acceptable academic English and many will soon be expected to write well in the public domain. An investigation of factors of success at this level is important if we are to provide students with the best preparation for these daunting tasks. Our hope is that once predictors can be identified, their efficacy can be further tested, both by the experiences of professionals and by controlled experiments.

In this study, we will consider success in an elective writing class (grades) as a measure of competence and attainment.

Previous research provides several likely candidates as predictors of grades. Only a few studies have attempted to relate these predictors to grades, and no studies have considered their independent contributions.

Free Voluntary Reading

No studies have been done attempting to relate reading to grades in writing classes, but there is evidence that free voluntary reading improves writing. Children who participate in free reading programs in school write better than comparison students (Elley and Mangubhai, 1983) and adult students of English as a second language who report that they read more write better (Kaplan and Palhinda, 1981; Janopoulos, 1986). International students who read more on their own also do better on the TOEFL test (Gradman and

Hanania, 1991; Constantino, Lee, Cho and Krashen, 1997). Lee and Krashen (1996) reported positive correlations between various measures of free voluntary reading in Chinese and scores on the composition section of the Senior High School Entrance Examination for high school students in Taiwan.

Writing Apprehension

Writing apprehension literally refers to anxiety about writing. We define it here operationally, as performance on the Writing Apprehension Scale (WAS), a questionnaire developed by Daly and Miller (1975). The questions on the WAS probe several anxiety-related factors. Included among the questions are several that refer to the fear of evaluation (e.g. 2,4,18,22,25), and some that refer to a fear of writing itself (1,5,7,13). Several items refer to enjoyment of writing, including the process (3,10,15, 17), the satisfaction in completing writing (6,9,19), and sharing writing with others (12,14,20). Other items refer to the writer's ease in writing (16, 21, 23).

Research has shown a consistent relationship between writing apprehension and a variety of measures of competence in English for native speakers of English. High apprehensives score lower on standardized tests of writing (Daly, 1985) and write essays that receive lower evaluations (Daly, 1985). Lee and Krashen (1997) reported that native speakers of Chinese in Taiwan with higher writing apprehension tended to receive lower evaluations on the composition section of the Senior High School Examination ($r = -.21$).

For native speakers of English, writing apprehension and grades are inconsistent-

ly related. Fowler and Kroll (1980) found no relationship between writing apprehension and grades in a college writing class and Fowler and Ross (1982) reported a modest correlation ($r = -.20$) between apprehension and grades, but this predictor did not survive the multiple regression analysis when measures of English competence were included. Powell (1984) reported a modest relationship ($\tau = -.27$) between writing apprehension and performance of students in a variety of writing courses at the university level.

Aspects of the Composing Process

We focus here on one aspect of the composing process: revision behavior. Poor writers tend to focus on aspects of form during revision, better writers focus on content and organization. Sommers (1980) compared students and "experienced writers" (journalists, editors, scholars, etc.). For student writers, revision was basically rewording. For experienced writers, revision was an attempt to "find the line of the argument"; experienced writers continued to "create meaning" as they revised. Faigley and Witte (1981) reported that advanced college writers made more content revisions and delayed mechanical and word choice changes until "they had satisfactorily dealt with their subjects" (p. 409). Perl (1979) reported that for five "unskilled" college writers she studied, revising was essentially editing, the application of conscious rules to small points of grammar, spelling, and punctuation.

Second language acquirers with formal training appear to be especially likely to be concerned about grammatical accuracy. Because of their classroom experiences, they may be 'Monitor over-users,' over-

ly concerned about form, and likely to appeal to their conscious knowledge of language at all times during language use. Krashen (1981) described this phenomena with respect to oral language use. Jones (1985) noted that Monitor over-use occurred in writing. One of his subjects, Lianna, planned each "chunk of text" in her mind before she wrote it, and did not revise it once she had written it. Jones concluded that for Lianna, use of the conscious Monitor "caused her problems" - she felt she was not able to say what she wanted to say; "her reliance on the monitor prevented her from keeping track of her developing gist, because it drew her attention from content to form and because it left little processing capacity for evaluating her text against her content plan" (p. 112).

Writing Quantity

Studies show that for native speakers of English, better writers do more voluntary writing than poor writers (Krashen, 1984), but increasing writing in classes does not increase writing quality (Dressel, Schmid and Kincaid, 1952; Arnold, 1964). Hillocks (1986), after an extensive review that included unpublished dissertations, found that college writing classes that focused on free writing were not more effective than comparison classes. Gradman and Hanania (1991) reported that the amount of "extracurricular writing" international students reported that they did was not a significant predictor of TOEFL scores.

In this study, we look at the impact of all of these variables on success in a course in writing for university level EFL students in Taiwan designed for advanced inter-

mediate students. The use of multiple regression allows us to examine the impact of the each predictor independent of the rest, and to estimate the impact of all predictors combined.

Procedure

Subjects were 53 native speakers of Chinese who had recently completed a one-year elective English writing class at the university level in Taiwan. All had successfully completed their freshman English requirement previous to taking the elective class. All subjects completed a questionnaire probing their reading and writing habits in English, their revision behavior when writing, and their writing apprehension.

Writing and Reading Habits

We asked subjects "Do you read in English on a regular basis?" and "Do you write in English on a regular basis?" For both questions, a "yes" answer was coded as 1 and a "no" answer was coded as 0.

Revision Behavior

Students were asked "What changes do you make the most to revise your writing?" and were asked to circle one or more of the following categories: grammar, word choice, organization, and content.

Writing Apprehension

Students filled out the 26-item Writing Apprehension Scale (WAS) developed by Daly and Miller (1975a,b), reproduced in appendix A. Previous research with similar students showed high levels of reliability for this measure, with alpha coefficients above .90 (Lee, 1995).

Results

Table 1 presents the mean scores for the variables of interest. Subjects reported far less writing than reading. In fact, only five out of 53 subjects said they wrote in English on a regular basis, while nearly half said they were regular readers. Nearly three-fourths said they focused on grammar while revising, but only 25% said they focused on content.

Table 2 presents intercorrelations among the variables. More reading and lower writing apprehension are associated with higher grades. Surprisingly, those who write more appear to get lower grades, but the corre-

less apprehension. The correlation obtained was nearly identical to that found in previous research (Lee and Krashen, 1997), and fell just short of statistical significance at the .05 level, one-tail. There was also a weak tendency for those who wrote more to have more writing apprehension, an unexpected result.

Those with more writing apprehension also focused more on grammar in revision, a result similar to that of Lee (2001), who reported a significant .17 correlation between writing apprehension and a tendency to engage in premature editing when writing. Also, those who focused more on

Table 1
Descriptive Statistics

	Mean	Std. Deviation
GRADE	81.6	5.67
WRITING	0.09	0.3
READING	0.42	0.5
GRAM	0.72	0.46
WORD	0.38	0.49
ORG	0.51	0.51
CON	0.25	0.43
WA (maximum possible score = 130)	70.1	13.2

lation is low and not significant. More focus on grammar and word choice during revision is associated with lower grades, and more focus on organization and content is associated with higher grades.

In agreement with previous research, a modest correlation was obtained between amount of reading and writing apprehension, with those who read more showing

grammar and word choice during revision tended to focus less on content and organization.

A simultaneous multiple regression was performed to determine the impact of each predictor on grades, uninfluenced by the others. Shavelson (1988) recommends that there be at least ten times as many cases or subjects as independent variables (p.

Table 2
Intercorrelations

TABLE 2 Intercorrelations							
	WRITE	WA	GRAM	WORD	ORG	CONTENT	GRADE
FVR	0.12	-0.21	-0.07	-0.18	0.21	0.32	.38*
WRITE		-0.13	0.06	-0.12	-0.07	-0.03	-0.1
WA			.26*	0.15	-0.07	-0.17	-.51*
GRAM				0.06	-.33*	-.23*	-.31*
WORD					-0.33	.44*	-0.22
ORG						0.12	.33*
CONTENT							.33*

593); we thus restricted each multiple regression analysis to five predictors. We included those predictors that had the most theoretical interest, in one case examining the impact of reading, writing, writing apprehension, focus on grammar in revision and focus on content. In the second, we substituted focus on organization in revision for focus on content. These three

foci of revision showed the strongest correlations with grades.

The results of the first multiple regression (table 3) are similar to the correlational results: the amount of reading done remains a strong predictor of grades, with those reading more doing better. In fact, those who described themselves as regular readers had grades about three points higher

Table 3

Multiple regression #1

Dependent variable = grade

predictor	b	beta	t	p
FVR	2.93	0.257	2.14	0.038
WRITE	-3.34	-0.174	-1.53	0.134
GRAM	-1.8	-0.144	-1.22	0.228
CONTENT	1.87	0.143	1.18	0.243
WA	-0.178	-0.414	-3.47	0.001

$r^2 = .40$; $F = 7.95$, $p = .000$

than those who did not (unstandardized $b = 2.93$), about one-half of the standard deviation for grades. Focus on grammar in revision is associated with lower grades and focus on content is associated with higher grades, but the betas were not statistically significant. The strongest predictor of grades is writing apprehension: Greater apprehension is associated with lower grades. As was the case with the bivariate correlation, more writing is associated with lower grades, but the beta was not statistically significant.

The combination of the four predictors was able to account for a substantial 40% of the variability in grades.

The results of the second multiple regression analysis are presented in table 4. Results for the four predictors included in the first multiple regression are nearly identical to the results presented in table 3. Focus on organization in revision is also a good predictor of grades, falling just short of the .05 level of significance, and the overall r^2 improved to .44.

We are unwilling to discard those pre-

dictors that did not reach statistical significance in the regression analysis, namely focus on grammar and focus on content during revision. Bivariate correlations between focus on content and grade and between focus on grammar and grade were statistically significant. When we ran subsequent multiple regressions using only focus on grammar without focus on content of organization, it was a significant predictor ($p < .05$). Entering only focus on content and not focus on grammar resulted in focus on content coming much closer to statistical significance ($p = .16$). In addition, at this stage in our research with so many additional factors yet unknown, and with relationships among factors unclear, we are more concerned with making type II errors than type I errors: It is, we feel, premature to reject these factors as possible predictors of grades in composition class. More sophisticated analyses with more sensitive measures could result in stronger results.

Table 4

Multiple regression #2

Dependent variable = grade

predictor	b	beta	t	p
FVR	2.91	0.255	2.22	0.031
WRITE	-3.18	-0.165	-1.48	0.145
GRAM	-1.65	-0.132	-1.15	0.257
ORG	2.38	0.211	1.85	0.07
WA	-0.182	-0.426	-3.66	0.001

$r^2 = .44$; $F = 7.40$, $p = .000$

Discussion

Methodological issues

Future studies of the success of students in writing classes at this level should consider the following methodological issues.

First, there was no control for previous knowledge of English. Fowler and Kroll (1980) found that measures of reading and scores on standardized tests of English were significant predictors of grades in a college composition course for native speakers of English, and in fact overwhelmed the effect of writing apprehension, which was not a significant predictor when other factors were considered.

One could argue that this variable is controlled to at least some extent in this study, because all participants had successfully completed freshman English, and chose to take the composition course, suggesting that they were among the more proficient and motivated English students and had lower writing apprehension than their peers (Daly and Miller, 1975b, discussed below). Nevertheless, including a measure of previous English competence would give us a clearer indication of improvement attributable specifically to the experience in the elective writing class.

Second, we acknowledge that our measures were crude. We asked only for yes/no binary responses with respect to reading and writing behavior, as well as with respect to revision strategies, and assumed that grades were a valid measure of writing competence. Our measures produced clear results, but more finely-tuned measures should be employed.

Relationships among predictor variables

Earlier research found a modest relationship between free reading and writing apprehension. This relationship was confirmed here. The correlation between reading and writing apprehension fell just short of significance, but was nearly identical to the size of the correlation reported by Lee and Krashen (1997). Lee and Krashen hypothesized that those who read more have more competence in the written language, which lowers apprehension.

Correlations between writing apprehension and aspects of the composing process were low, but in the direction predicted by previous research. Those who focused more on organization and meaning had lower writing apprehension and those who focused more on grammar and word choice had higher writing apprehension. These results are consistent with case histories showing that those with more writing apprehension focus more on form and less on organization while writing and revising. Selfe's subject, Bev, for example (Selfe, 1985) had a high score on the Writing Apprehension Scale and had a great concern for correctness throughout her writing, which interfered with the generation of ideas: "... at the sentence and word level she began attending to mechanical correctness rather than to organizational and logical soundness" (p. 87). Bev avoided organizational concerns while revising, focusing only on reworking phrases and single sentences.¹

Thus, as predicted by Lee and Krashen (1997), both amount of reading and aspects of the composing process were related to writing apprehension, but correlations were low. This suggests that either our measures

were not sensitive enough and/or that other factors contribute to writing apprehension. Negative correlations were found between a focus on form during revision (grammar, word choice) and a focus on meaning (content, organization), confirming suggestions that a focus on form during composing can inhibit the discovery of meaning (Perl, 1979, Sommers, 1980).

Relationships between predictors and grades

Reported free reading was a strong predictor of grades, a result consistent with research showing that free reading is an excellent predictor of writing competence, as well as other aspects of literacy.

A focus on form (grammar, word choice) was negatively associated with grades. This result is consistent with descriptive studies showing that poor writers are overconcerned with aspects of form and word choice, and that this affects their ability to focus on meaning. For them, revision is simply the process of making a neater version of the first draft. For experienced writers revision is an important part of the process of discovering meaning (Perl, 1979; Sommers, 1980). Experienced writers focus on content and organization during revision, and delay editing until all ideas are clearly expressed.

Previous research also showed only moderate and inconsistent correlations between writing apprehension and grades in writing classes. We found a very clear relationship, much stronger than in previous studies, and this relationship held even when we controlled for a number of other factors. Our results are also surprising in view of research showing that those in

advanced writing classes report less writing apprehension (Daly and Miller, 1975b). This should have meant an attenuated correlation, but our results were strong nevertheless ($r = -.51$). All previous studies relating grades and writing apprehension were done with native speakers of English. Perhaps the relationship between apprehension and grades is stronger in a second language. Recall also that Fowler and Kroll (1980) found no relationship between writing apprehension and grades when measures of academic English competence were included in the analysis; it will be of interest to determine if the apprehension-grades relationship holds for students of English as a foreign language when previous knowledge of English is controlled.

Because the relationship of apprehension and grades held even when amount of reading and revision behavior were controlled, our results suggest that aspects of apprehension unrelated to writing competence (gained through reading) and unrelated to aspects of the composing process (focus on form versus meaning in revision) are strongly related to grades.

Our results also confirmed that quantity of voluntary writing is not related to grades in composition classes, a result consistent with previous studies. The lack of relationship found here may be due to the fact that so few of our subjects reported writing outside of school. The fact, however, that so little writing takes place and yet students do attain considerable proficiency in written English is evidence that writing per se does not contribute a great deal to writing competence.

We do not wish to conclude, however,

that writing itself makes no contribution. Krashen (1984) hypothesizes that actual writing does not contribute to competence, that is, mastery of the conventions of writing. Most of our knowledge of the written language is acquired from reading, and formal instruction also makes a small contribution. Actual writing, however, can lead to cognitive development: writing helps problem-solving and "makes you smarter" (e.g. Elbow, 1975). For this to happen there must be a real problem to be solved.

Pedagogical implications

We were able to account for about 40% of the variability in grades using only a small set of predictors. This suggests that we can have a substantial effect on the development of writing by focusing on increasing reading, teaching the basics of the composing process, and reducing apprehension. The results also suggest that increasing writing per se will not have a positive impact on writing development.

Research on reading suggests that a great deal of reading over a long period of time is necessary in order for reading to have a significant effect on writing (Krashen, 1993). It takes a great deal of input to absorb the conventions of writing. Thus, a few "model essays" will not have a substantial impact on writing quality.

Our results confirm suggestions that writers should delay issues of form until the final editing stage of the composing process. Perhaps the most important aspect of teaching writing is convincing students that revision is a powerful means of coming up with new ideas, that in writing,

"meaning is not what you start out with but what you end up with" (Elbow, 1975, p. 15). When writers focus excessively and prematurely on grammar and word choice, and do not focus on matters of content and organization in revision, they miss the opportunity for new learning and new insights.

It is a safe recommendation that teachers should attempt to reduce anxiety, but it is unclear precisely what aspects of writing apprehension predict better performance in writing classes. A look at the questions in the writing apprehension questionnaire reveals some likely candidates: As noted earlier, several questions dealt with a fear of evaluation when writing in academic situations. This suggests that writing and evaluation of writing in school situations can place a great deal of pressure on student writers and can hurt their progress, a suggestion supported by Power, Cook and Meyer (1979), who reported an increase in writing apprehension among students after they took a composition class. At least some aspects of writing appear to improve when there is less pressure, e.g. the process of coming up with new ideas ("incubation"; see Krashen, 2001). As Smith (1994) notes, "composition is not enhanced by grim determination" (p. 131).

Our data does not allow any firm conclusions about writing frequency. Our suspicion, however, is that writing itself can make strong contributions to cognitive development when writers are dealing with problems that are challenging and of real interest to them.

These conclusions, however, are tentative. They await confirmation from

controlled studies and from the reports of experienced practitioners.

Note

Lee and Krashen (1997) hypothesized that a poor composing process is a cause of writing apprehension. Selfe, however, argues that Bev's fear of writing influenced her composing process. Put simply, her lack of planning and revision was because she wanted to spend as little time writing as possible: "When Bev began to compose in response to the assignment, her initial apprehension encouraged her to abbreviate her composing efforts, to write quickly, and to 'get it over with' as soon as possible" (p. 86); her failure to do extensive revision was motivated by her desire to avoid "prolonged involvement" with the writing task. The relationship between writing apprehension and the composing process may be reciprocal.

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Appendix

**The Daly-Miller Writing
Apprehension Scale**

I have no fear of my writing being evaluated.

I look forward to writing down my ideas.

I am afraid of writing essays when I know they will be evaluated.

Taking a composition course is a very frightening experience.

Handing in a composition makes me feel good.

My mind seems to go blank when I start to work on a composition.

Expressing ideas through writing seems to be a waste of time.

I would enjoy submitting my writing to magazines for evaluation and publication.

I like to write my ideas down.

I feel confident in my ability to clearly express my ideas in writing.

I like to have my friends read what I have written.

I'm nervous about writing.

People seem to enjoy what I write

I enjoy writing.

I never seem to be able to clearly write down my ideas.

Writing is a lot of fun.

I expect to do poorly in composition classes even before I enter them.

I like seeing my thoughts on paper.

Discussing my writing with others is an enjoyable experience.

I have a terrible time organizing my ideas in a composition course.

When I hand in a composition I know

I'm going to do poorly.

It's easy for me to write good compositions.

I don't think I write as well as most other people.

I avoid writing.

I don't like my compositions to be evaluated.

I'm no good at writing.

From: Daly (1985)