# SECOND LANGUAGE WRITING ANXIETY: CAUSE OR EFFECT?

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## Abstract

Writing is a demanding activity especially for learners of a second / foreign language and yet it is a skill that they have to master in order to do well in content courses especially at the tertiary level of education. Studies have shown that students' writing performance is related to anxiety. What is uncertain is whether anxiety is the cause or the consequence of poor writing performance. This study seeks to find how anxiety is related to performance using the deficit hypothesis as its guiding principle. The findings show that the subjects in this study suffered anxiety as a result of their lack of writing skills, and that the better students experienced less anxiety than the weaker ones.


## Introduction

Anxiety is said to be one of the factors that could affect the process of learning, and researchers such as MacIntyre (1995), Horwitz et al. (1986) and MacIntyre and Gardner (1989 and 1991) claim that language courses are very anxiety-provoking. Studies have also shown that students utilising productive skills, namely writing and speaking, are found to experience a considerable amount of anxiety in the process of learning

(Hilleson, 1996; Zhang, 2001). The issue to be addressed is whether anxiety is a cause or a consequence of poor achievement in second or foreign language learning.

**The Deficit Model and Anxiety**

One model that can be used to explain students' performance is the deficit model. This model claims that one fails to perform well due to insufficiently developed skill (MacIntyre, 1995; Musch and Bröder, 1999; Sparks and Ganschow, 1991; Sparks, Granchow and Javorsky 2000). Sparks, Ganschow and Javorsky (2000), for example, argue that it is the students' cognitive-linguistic disability that causes poor achievement, and this in turn causes anxiety. Horwitz (2000), however, disagrees with them, saying that anxiety can interfere with learning, and that the deficit hypothesis may be true of some but not of all cases of language anxiety.

To explain this theory, Naveh-Benjamin (1991) contrasts the deficit model with the interference model. The former is based on the argument that anxious students show low performance due to deficiency in the acquisition stage. In other words, since they are deficient they are more anxious. Musch and Broder (1999) claim that it is a consequence of inefficient study habits or a low ability level. The latter model claims that the anxious students' low performance is due to their difficulties in retrieving information and not because of unsuccessful learning or insufficient knowledge of the subject matter. Horwitz, Horwitz, and Cope (1986) suggest that foreign language anxieties are related to communication apprehension, fear of negative evaluation, and test anxiety. They also

believe that these factors have an adverse effect on the students' language learning process.

Most research on anxiety is based on the interference model and not on the deficit model (Musch and Broder, 1999). Horwitz (1986) comments that self-consciousness and anxiety of the language learner is caused by the mismatch between mature thought and immature foreign and second language proficiency. The dysporic effect of apprehension may intensify as language learners regard using the second language as a test rather than a means of communication.

Chapman (2002) examined the second language speaking anxiety relationship with oral performance of international learners of advanced English for academic purposes courses prior to entering university courses in Australia. The 275 participants were from multiple ethnic backgrounds. The subjects completed anxiety subscales and the International English Language Testing System (IELTS) interview was used to assess oral performance. The results revealed there was a significant negative relationship between second language speaking anxiety and oral performance. The level of anxiety experienced by the ethnic groups in and out of class also varied.

Onwuegbuzie et al. (2000) investigated cognitive, affective, personality and demographic variables to predict second language acquisition among 184 college students of Spanish, French, German and Japanese. It was revealed that all the four were important predictors

but overall, academic achievement was the best predictor followed by foreign language anxiety.

Many other studies on anxiety have been conducted and different conclusions reached. MacIntyre at al. (1997), for example, found that anxious students underestimated their competence relative to less anxious ones who on the other hand, overestimated their competence. Levine (2003) reports that students who come from monolingual backgrounds tend to feel more anxious than students who come from bi- or multilingual backgrounds. Other research that report a negative correlation between anxiety level and performance course grade are those by Aida (1994), Horwitz (1986) and Cheng (1999). All the studies associated language anxiety with a factor defined by self-rated proficiency or actual proficiency. The fact that different samples were used in different settings using different research designs may have influenced the mixed findings of the studies. Hence to see whether anxiety is in fact significant in a second language environment in the Malaysian context, the researchers see the need to conduct such a study in this setting. The research will only concentrate on writing as claims have been made that it is very anxiety-provoking.

**Statement of the Problem**

Written assignments are normally a requirement in any academic pursuit. However, writing has long been claimed to be a very difficult skill to acquire and is dreaded by L2 students (Gupta, 1998). The notion of success in writing is associated with self-expression, flow of ideas, outsider expectations, growing confidence and enjoyment of

L2 academic writing, and L2 students are known to have problems coping with this (Basturkmen and Lewis, 2002).

Although writing can make a learner uneasy, studies have shown that it is related to their ability to succeed in the various academic subjects (Daly, 1979; Onwuegbuzie, 1997), which in turn influences academic and occupational choices (Daly and Shamo, 1976, 1978). This study intends to see whether the deficit model can be used to support students' poor performance in writing.

**Hypothesis**

In this study, the hypothesis underlying the Deficit theory is tested. It states that low performing students are more anxious than high performing students due to the deficiency in their writing skills.

**Methodology**

This research was conducted at the MARA University of Technology, Terengganu Branch. The subjects of this study were 186 third year students following Diploma in Accountancy and Diploma in Business courses at the University. The students' level of proficiency varied as students who obtained only a pass in the English paper were also admitted into the programme along with the better ones due to their good results in other relevant subjects. The heterogeneity would help to give a clearer picture of the relationship between the students' skills and their level of anxiety. The third semester students were chosen because of the heavy emphasis on writing in the teaching of English

at this level. Their English language proficiency level ranged from intermediate to upper intermediate. Of the 186 subjects involved in this study, only 36 were males. This uneven male-female ratio is consistent with the overall university population ratio with regard to gender.

This study utilizes a correlational research design as it seeks to investigate the degree of relationship between writing apprehension and writing performance, and uses the results of the observed relationship to make predictions about the nature of the relationship between the two.

In this study, the students' scores on Daly and Miller's (1975) Writing Apprehension Test (WAT) were used to measure their writing anxiety. It is a standard writing apprehension measure, and the reported Cronbach's alpha reliability for the test was .94. The Writing Apprehension Test has been widely used across time on diverse groups of respondents. This scale consists of 26 items dealing with students' tendencies not to write, attitudes towards writing tasks and feelings as they write. The test instrument was however, adapted in this research as the students' experience in writing in English is referred to rather than writing in other languages. The questionnaire also asked for the results of two other English language examinations that have been taken by the subjects to get other measures of their language ability. The two are the English result that they obtained in the Malaysian Certificate of Education (Sijil Pelajaran Malaysia) and the previous semester's English grade. To prevent the students from misunderstanding the items in the questionnaire, they were guided by their English teacher as they responded to the questionnaire.

Students' writing performance was based on the written test given as part of the final exam in the semester when this research was conducted. The rating was carried out using an adapted version of the Jacobs et al. (1981) rating scale. This scale assesses writing ability on 5 dimensions or traits: content, organization, vocabulary, language use and mechanics. Weighting or scores for the traits are Content = 4 (max.), Organization = 4 (max.), Vocabulary = 6 (max.), language use = 8 (max.) and Mechanics = 3 (max.). The total marks are 25 points.

**Research Procedure and Statistical Treatment**

The subjects in this study completed the questionnaire in March 2003. The responses to the items in the Daly-Miller Writing Apprehension Test were subjected to an internal consistency check using SPSS version 10.1. The subjects' final exam essay papers were collected at the end of the semester to be rated using the adapted version of the Jacobs et al. (1981) rating scale. All responses to the Writing Apprehension Test and scores of the essay test were coded using students' matriculation numbers. Then the responses to the questionnaires were analyzed using MINISTEP, a Rasch model computer program (Linacre, 1991-2002). The persons measures derived from the analysis provided an estimation of the level of writing apprehension for each individual subject. These measures were later entered into the SPSS program and correlated with the subjects' writing test scores.

**Results**

**Reliability of the Questionnaire**

An internal consistency reliability check was computed and it was found that the Cronbach's coefficient alpha for the Writing Apprehension Test used in this study was .83. Though the alpha value is lower than the one reported by Daly and Miller (1975), (0.94), it is well within acceptable range.

**Rasch Rating Scale Analysis**

Rasch rating scale analysis was conducted using MINISTEP, a Rasch model computer program (Linacre, 1991-2002). The use of the Rasch measurement model was based on two factors. The first was the need to assess the unidimensionality of the scale used. As the items in the scale were designed to measure a single variable, that is writing apprehension, it was crucial that all the items worked together, and were indeed measuring the variable of interest and nothing else.

The second factor was the need to obtain real measures that are interval-scaled. As Rasch analysis provides a more accurate estimation of respondents' writing apprehension using real interval-scaled measures rather than averaging item responses, it was felt that this method of analysis was most appropriate. Using mean square values of 0.5 to 1.5 in diagnosing misfitting items (Linacre, 1989), it was found that all the items, except one (item 8) in the Daly-Miller Test, were productive for measurement. The descriptive statistics for the Rasch calibrated person measures are presented in Table 1.

**Table 1: Descriptive Analysis of Person Measures**

| Min | Max | Mean | Std Deviation | Kurtosis | Skewness |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| -.82 | 1.31 | .07 | .44 | .08 | .37 |

The skewness and kurtosis values are less than 1 indicating that the distribution of person measures does not differ significantly from the normal, symmetric distribution. The minimum, maximum and standard deviation (0.44) indicate that the spread of person measures is quite narrow. This narrow range of less than 3 logits is clearly depicted by the map of persons and items in Figure 1. However, the standard error of measurement is small (0.18 logits) compared to the range of person ability. In terms of item distribution, the spread is small compared to person distribution (1.41 logits). However, the standard error of measurement is small at 0.07 logits. The items are quite well spread out along the continuum but cluster at two points.

In this analysis, a subject with a low measure (e.g. -.04) is considered as having a high writing apprehension level whereas a subject with a high measure (e.g. 1.22) would be considered as having a low writing apprehension level. In other words, subjects with high measures are less apprehensive in writing in English (and therefore more confident) than those having low measures.

To assess whether the test covers the subjects' range of writing ability a map of persons and items was examined. Figure 1 below gives the distribution of the items and persons.

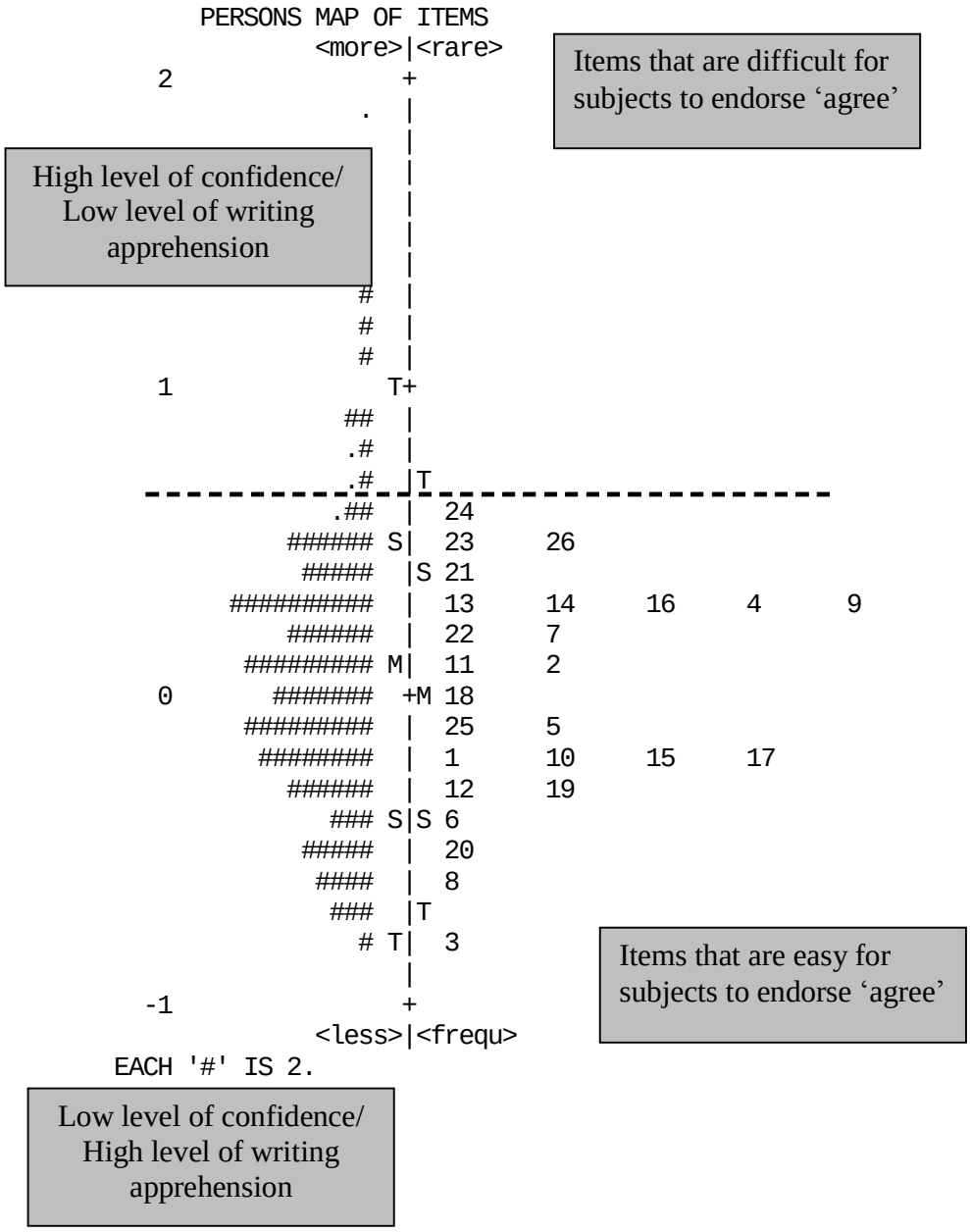


Figure 1: Persons by Item Map

The persons by item map indicates that the items in the Writing Apprehension Test (WAT) do not adequately cover the range of writing ability of subjects. There are no

items targeting subjects at the upper end of the scale. Hence, for this sample of students there is a degree of construct deficiency. More items are required to estimate precisely the level of apprehension of subjects at the upper end of the scale. However, the items in the writing apprehension test are well-targeted to the sample in this study. This is indicated in Figure 2, where there is an overlap (area between the dotted lines) between persons and items within two standard errors of measurement (SEM).

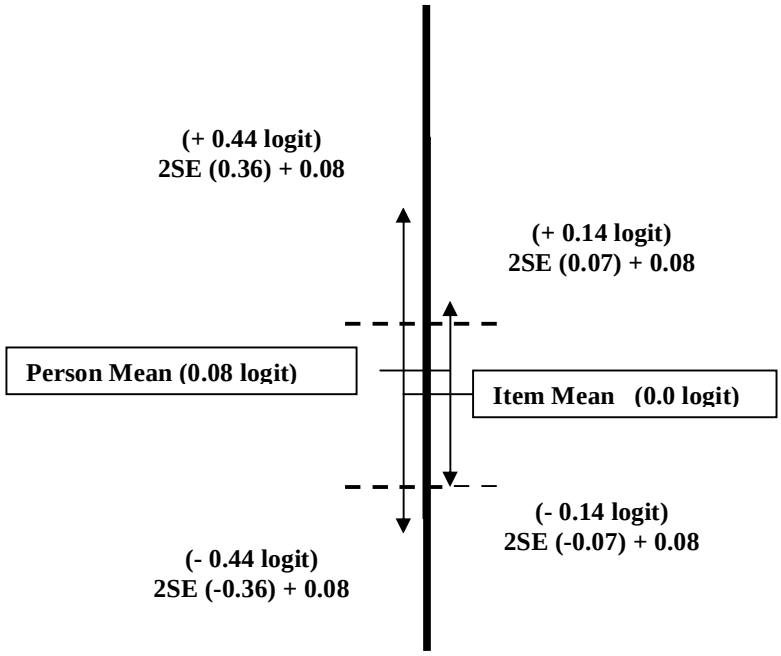


**Figure 2: Measures of Persons by Items within 2 SEM**

## Correlations

Using the SPSS version 10.1 software, the person measures derived from the Rasch rating scale analysis were correlated with the essay writing scores. This was to test the assumption underlying the Deficit theory which states that low performing students show more anxiety than high performing students due to their lack of writing skill.

The results in Table 2 show a significant and positive correlation between level of writing apprehension and language-related dimensions (namely, vocabulary and language use). This suggests that there is a definite relationship between level of writing apprehension and essay writing ability. In this case, the lower the level of anxiety (as indicated by a high logit measure) the higher the performance in language-related dimensions and the higher the anxiety level the lower the performance. It is interesting to note that there is a non-significant correlation between level of writing apprehension and aspects related to content, organization and mechanics.

**Table 2: Writing Apprehension and Essay Writing Dimensions**

| | Writing Apprehension |
|---|---|
| Content | .071 |
| Organization | .106 |
| Vocabulary | .231** |
| Language Use | .215** |
| Mechanics | .077 |
| Total Score | .172* |

** Correlation is significant at $p \leq 0.05$ (2-tailed).*
*** Correlation is significant at $p \leq 0.01$ (2-tailed).*

To further investigate the relationship between language ability and level of writing apprehension, the Rasch persons' estimates were correlated with other measures of language ability, namely the English result obtained in the Sijil Pelajaran Malaysia (SPM) and the grade obtained in the previous semester's English examination. Table 3 presents the correlation coefficients among these variables.

**Table 3: Correlation Coefficients Between Exam Results and Writing Apprehension**

| | Grade obtained in previous semester's English exam | English result obtained in SPM |
|---|---|---|
| Grade obtained in previous semester's English exam | | .192** |
| Writing Apprehension | .374** | .185** |

** Correlation is significant at $p \leq 0.05$ (2-tailed).*
*** Correlation is significant at $p \leq 0.01$ (2-tailed).*

As both measures of language ability show a positive and significant correlation with level of writing apprehension, there was evidence to confirm that a relationship between the two variables did exist. What was uncertain was whether it was anxiety that affected their performance or their lack of proficiency that made them anxious.

To see which of the two factors was affecting the results, the relationship between level of writing apprehension and writing performance was investigated by correlating the two variables for two subgroups: low proficiency and high proficiency groups. (This categorization was made based on the grade obtained in the English language proficiency exam).

**Table 4: Correlations between Writing Apprehension and Writing Performance**

| | Low Proficiency Group | High Proficiency Group |
|---|---|---|
| Content | .243 | .268 |
| Organization | .290 | .188 |
| Vocabulary | .611** | .172 |
| Language Use | .526* | .151 |
| Mechanics | -.203 | .264 |

** Correlation is significant at $p \leq 0.05$ (2-tailed).*
*** Correlation is significant at $p \leq 0.01$ (2-tailed).*

Results in Table 4 indicate that for the high proficiency group there was a non-significant relationship between the two items for all dimensions of writing performance. Conversely, for the low proficiency group a positively significant relationship was found between writing apprehension and the language-related dimensions of writing performance. It serves to show that poor performance was the cause for anxiety and not vice-versa.

**Discussion**

The study supports the Deficit model in that students with low proficiency were found to be more anxious, and their anxiety was caused by their lack of writing skills. Of the different dimensions studied lack of vocabulary knowledge and experience of language use were identified to be the causes for anxiety. This was also found to be the problem with minority children in the United States (Murphy, 2004). Limited exposure to the language and the print media was mentioned as the main reason for their lack of vocabulary and language skills. It seems that the problem is almost the same if not worse in Malaysia where English is not the official language of the country.

This study points to the need to expose students to more English, and a number of steps can be taken to do this. One is in the way it is taught. Instead of the lecture-based approach which is the practice in many language classrooms, the instructor may want to adopt other methods such as task-based or problem-based approaches. Students should be encouraged to use the target language in an authentic manner in completing the given tasks or in solving the given problems.

Other than that, teaching reading and writing concurrently may also be tried as it has been found that students' writing anxiety was reduced and their attitudes towards reading were more positive when this was done (Donelly, 1986). Various strategies to expand students' knowledge of vocabulary should be adopted to help them produce better written assignments and to comprehend texts.

In teaching writing itself a number of suggestions have been made to make it more effective. One of them is focusing on fluency rather than accuracy (Shin, 2002). Another is by identifying the errors in students' work and requiring the students to correct the mistakes themselves. Many other suggestions of the kind have been made and could be adopted by the teachers in their classroom.

**Conclusion**

This study has shown that low performing students were more anxious than high performing students due to their deficiency in certain dimensions of writing skills, particularly vocabulary and language use. This supports the deficit theory in that they failed to perform due to insufficiently developed skills. Realizing the problems, steps can be taken to improve the situation, and this can come in many different forms. The institution or the teachers may want to use other teaching methods, or they may want to modify the syllabus, or the focus may be changed to a specific skill within the teaching of writing itself. Findings of studies on the teaching of writing, vocabulary and language use can be employed as a guide in the attempt to improve students' writing skills.

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