

Effects of Anxiety on Grammatical Errors and Writing Performance

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Purpose of the Study

Anxiety has been an important topic in ESL/EFL studies. Krashen (1982) suggested that variables such as self-confidence, motivation, and anxiety play essential roles in second language acquisition. It has been observed that ESL students at PIE have complained about the high anxiety level when they took achievement tests. The present research project is about the effect of anxiety on grammatical errors and writing scores in ESL writing. This project started with a simple question: does second language writers' grammatical accuracy and analytic scores change under different test conditions? This study examined the grammatical errors and writing scores in two different writing conditions: test writing condition versus in-class writing condition. The former was considered as a high anxiety level condition while the latter was regarded as a low anxiety condition.

Research Questions

RQ #1: How do the two different writing conditions affect L2 writers' grammatical accuracy and overall quality?

RQ #2: What is the relationship between grammar errors and overall quality under two different writing conditions?

Participants and Their Proficiency Levels

There were 11 Saudi ESL students at Program of Intensive English at Northern Arizona University as participants for this study. Two of them were female and nine were male. They were in Level 3 which is considered as a high-beginner or low-intermediate level in the program.

Methods and Procedures

To see the anxiety levels in the 2 different conditions, students completed the Second Language Writing Anxiety Inventory (SLWAI) adapted from Cheng (2004) and Foroutan & Noordin (2012). Then the 30-minute academic writing samples from PIE Spring 2013 achievement test and in-class 30-minute writing samples from 11 students at Level 3 were collected for comparison. The essay structure used in both condition was compare/contrast. This structure was used for the first half of the reading and writing class so that the students were quite familiar with it. The writing prompt for the achievement test was "Compare and contrast the role of women in USA and your country." while the one for the in-class writing is "Compare and contrast the summer break and spring break." In terms of grammatical errors, 33 error classifications suggested by Kroll (1990) were used. To examine the overall quality of writing, the writing scores were used. Regarding writing scores, the same rubric used in the achievement test was used. Lastly, interrater reliability between 2 raters for writing scores was recorded.

Findings

Regarding the SLWAI survey results, students obviously felt more anxious under the test writing condition than the in-class writing condition. The SLWAI mean score of the test condition was 73.2 (SD=14.10) whereas that of the in-class condition was 62.9 (SD=14.88). The Wilcoxon Signed Ranks test showed that students' SLWAI scores in two different conditions were significantly different ($z = -2.81$, $p = .005$).

In terms of the overall quality of writing, the existing rubric for the Level 3 essay writing was used for consistency. The test writing mean score was 9.62 while the in-class writing mean score was 10.32 out of 12 full points. Interrater reliability of the writing scores in achievement test and in-class writing was .939 and .921, respectively, showing relatively high level of reliabilities. The Wilcoxon Signed Ranks test was run and showed that there was a significant difference between their scores under two conditions ($z = -2.59$, $p = 0.01$). Conclusively, there was a significant tendency that the participants' writing scores were higher under the in-class writing condition compared to the test writing condition. There was no one whose in-class score was lower than the test score.

Lastly, grammatical error possibility was 16.81% per word under the in-class writing condition and 14.75% per word in the test writing. There were 22 error types in the in-class writing while 18 error types were shown in the test writing. Spearman's rho was .775 ($p = .000$) showing that the error types shown in the two conditions were moderately correlated. As the correlation showed, there was a moderately similar distribution of the error types in the two conditions. Compared to the test writing condition, grammatical errors were found approximately 15% more under the in-class writing condition. In addition, 18 error types were found under the test writing condition while 22 types were found under the in-class writing condition. The Wilcoxon Signed Ranks test was run to see if there was a difference between these two writing conditions regarding grammatical errors. However, there was no significant difference between them ($z = -1.12$, $p = .262$). In other words, despite the fact that accuracy ratios differed, the differences observed were not statistically significant.

Relevance to PIE Teaching

The results partially showed that there might be a Trade-off effect between grammatical accuracy and overall quality of writing. In short, grammatical accuracy went down and overall quality went up under the in-class writing condition. This study can provide some teaching implications. If we can lower the anxiety level in the test writing situation, we can expect higher score of their writing including better organization and contents. At the same time, teachers can find more grammatical errors from their writing so that teachers can obtain valuable information about students' needs on grammar. It could also be possible for the students to provide better grammatical accuracy if teachers make their in-class writing condition more strict. At the same time, however, we may lose a great chance to improve the students' grammatical knowledge because it is possible for them to use avoidance strategy.