

The Impact of Teaching Songs on Foreign Language Classroom Anxiety

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Foreign language classroom anxiety has been the topic of many studies conducted in the past three decades, especially after Horwitz, Horwitz and Cope (1986) developed the foreign language anxiety scale (FLCAS) to measure the foreign language classroom anxiety (FLCA). There is a general consensus among researchers that FLCA is linked with poor foreign language performance in the classroom (e.g. Gregersen, 2003). However, few papers (e.g. Young, 1991) tried to find a solution to this problem.

The following paper presents the first among several empirical studies that we conducted in order to assess the relationship between music and foreign language anxiety. The experiment tries to answer the question: Can teaching songs diminish the level of foreign language classroom anxiety?

1. Method

Participants

The level of English language classroom anxiety of 60 Romanian speaking seventh graders (age 13-14 years) attending 3 different classes (A, B, C) in the same urban middle school was assessed at the beginning of the school year (see procedure below). All students had had the same English as a Second Language (ESL) teacher in the previous year, they had all taken English since 1st grade, and in 7th grade were all taking 3 English classes per week.

Procedure

The anxiety level of students was assessed using a field-tested Romanian translation of FLCAS. The term “foreign language” used in the scale was replaced with “English” since students were also taking French as a secondary foreign language class. The test was administered at the beginning of a regular English class. The results ranged on a scale from 1 to 5, where 1 represents a low-anxiety level, and 5 represent a high-anxiety level. The class A ($n = 23$, 8 boys, 15 girls) had a significantly higher ($p < .05$) anxiety level ($M = 2.56$, $SD = .61$), compared with

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class B ($n = 20$, $M = 2.12$, $SD = .36$, 11 boys, 9 girls) and class C ($n = 17$, $M = 2.05$, $SD = .37$, 11 boys, 6 girls), but the difference in the anxiety level between class B and C was not significant ($p > .05$).

The FLCAS results also showed that 17 out of the 60 students scored higher than 2.53 points. The 2.53 score was chosen as a cutoff mark because it represented $\frac{1}{2}$ of standard deviation from the mean score. Thirteen out of the 17 qualifying students attended class A. The ESL teacher described the class as being different from the other classes in terms of an overall lack of motivation and a general apprehension for English language, but not in terms of a general poor performance due to lack of cognitive abilities. The previous school year's English grades class average on a scale from 1 to 10 was lower for class A ($M = 9.05$, $SD = 1.13$) compared with the English grades average of class B ($M = 9.34$, $SD = .64$) and class C ($M = 9.50$, $SD = .73$), but the difference between each of the three classes was not statistically significant ($p > .05$). The general class grades average of class A in the previous school year ($M = 8.96$, $SD = .92$) was lower than class B average ($M = 9.19$, $SD = .59$) and higher than class C average ($M = 8.75$, $SD = .82$). Again, the difference between the general performances of each of the three classes was statistically non-significant ($p > .05$).

The 13 qualifying students from class A were selected to participate in a 12 sessions (4 weeks) program called "English through Music" during their English hours, beginning one week after the initial FLCAS assessment. Students were told they would receive extra credit for their participation and they all agreed to participate. The program was conducted in collaboration with the foreign language department of the school at which the students were registered and had the declared goal to enhance students' vocabulary, reading comprehension and reading fluency through songs. Students did not expect to be reassessed with FLCAS at the end of the program.

Horwitz, Horwitz, and Cope (1986) identified three main components of FLCAS: communication apprehension, fear of negative evaluation, and test anxiety. In order to address the test anxiety component and to have an accurate simulation of regular English language lessons, the 13 participating students were informed that they would be tested and graded once every 2 weeks (as often as their non-participating peers) on the vocabulary words and expressions they learned during the program. In order to address the communication apprehension and the fear of negative evaluation, students were also told that the teacher would randomly ask each of them 1 question per session about the meaning of the words and expressions in the songs' lyrics. The frequency of oral communication was equal or slightly higher than in the regular classroom, since the regular English teacher declared that she attempts to listen to all students at least once in each class, but does not always succeed.

Students who participated in the program were excused to make up the reading comprehension, vocabulary, and reading fluency activities they missed in class, since the music program emphasized on those skills too. However, they were required to make up an abbreviated version of their missed grammar work two weeks after the program completion, as homework. Throughout the program, twelve

students had a perfect attendance (12 sessions out of 12), while the remaining student missed one session.

The program was conducted in an empty classroom of the school attended by the participating students. The program instructor was an ESL teacher with 15 years of K-12 level teaching experience and 6 years experience in teaching students English through music. He used a flipchart to display the lyrics every time he introduced a new song, and posted the previously learned lyrics on the classroom walls.

The methodological steps used for introducing of new songs and their frequencies are presented below:

- Step 1. Teacher model reading and group translation (1 time).*
- Step 2. Group reading (as often as necessary).*
- Step 3. Rhythmic group reading (2 times).*
- Step 4. Teacher model singing (1 time).*
- Step 5. Repetitions (2-3 times).*
- Step 6. Reading in a row individually (2 times).*
- Step 7. Final repetition (1 time).*

The instructor used a guitar for accompaniment while performing steps 4 through 7. Except for the first session of the program, every session started with a 10 minutes repetition of the songs the students had learned the previous session(s). The repetition sessions were accompanied by the guitar as well. During the 12 sessions, students learned 15 songs in total. During one session, students would learn 1, or 1 and $\frac{1}{2}$ songs, depending on their length and difficulty of words.

During the program, the rest of the participating students' classmates ($n = 10$), took English in their classroom with their regular English teacher. On different times of the week, students from classes B and C also took regular English classes with the regular English teacher. Based on data from the lesson plans and English teacher's self-evaluation, the control groups were working on group translations of texts (10%), individual and group reading comprehension activities (20%), individual and group grammar exercises (30%), reading out loud/answering questions (30%) and small group collaboration on projects on specific topics finalized with a Power Point presentation (10%).

One week after the completion of the program, all 60 students were asked to complete the FLCAS again, without prior notice, at the beginning of their regular English class.

Materials

The repertoire of "English through Music" contained 15 songs. Most of these songs ($n = 12$) were unfamiliar to students (ESL teacher's original composition and songs selected from 3 CD's with children's music unavailable online for downloading (only the actual CD was available for purchase, but not in the music stores in Romania). Three songs were familiar to some students (e.g. *Bare Necessities*), and those who recognized them were able to sing fragments (no longer than 2 verses) or hum the tunes, but none of the students could accurately and

completely sing the songs prior to the learning session. The familiar songs were taught last (during the 4th week) in order to minimize the probability that some of the students would be able to practice more by retrieving the lyrics at home and rehearse them in their free time. Students were explicitly requested not to repeat any of the songs outside the program sessions. In total, the 15 songs contained 31 words and expressions that the participating students were assumed to be unfamiliar with. The number of words in each song varied from 80 to 347 ($M = 179$, $SD = 88.26$). All songs were played in major keys. The songs were medium paced and fast paced (above 120 beats per minute).

2. Results

Descriptive statistics representing the FLCA scores of the participating group and their non-participating peers (control ABC) from the same classroom (control A) and the other classes (control B and control C) are represented in Table 1. Data shows the scores before (T1) and after (T2) the intervention program, as well as the difference (Dif) between them.

Table 1. Descriptive statistics of FLCA scores before (T1), after (T2) the intervention

	Experimental N=13	Control ABC N=47	Control A N=10	Control B N=20	Control C N=17
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
T1	2.93 (.29)	2.08 (.41)	2.08 (.60)	2.12 (.36)	2.05 (.37)
T2	2.24 (.40)	2.01 (.45)	1.89 (.54)	2.02 (.43)	2.08 (.42)

A 2 (time) \times 4 (group) mixed analysis of variance (ANOVA) was used to compare the anxiety level of the experimental and each of the control groups (A, B, and C).

Overall, results indicated a significant main effect for time $F(1,56) = 24.15$, $p < .001$, $\eta_p^2 = .301$, and for group $F(1,56) = 6.87$, $p < .001$, $\eta_p^2 = .269$. Post-hoc pairwise comparisons with Bonferroni correction indicated a significant difference between the experimental group and control group A ($p < .01$), control B ($p < .01$) and control C ($p < .01$), but no significant difference ($p > .05$) between any of the control groups.

Results also indicated a significant interaction effect between the time and group $F(1,56) = 10.88$, $p < .001$, $\eta_p^2 = .368$ (see Table 1).

Post-hoc paired samples t-tests were conducted to compare the level of foreign language classroom anxiety in T1 and T2 for the experimental and each of the control group (non-participating students from classes A, B and C). The anxiety level decrease between T1 and T2 was significant for the experimental group, $t(12) = 5.47$, $p < .001$, no significant for the control group A, $t(9) = 1.79$, $p > .05$, and no significant for the control group B, $t(19) = 1.23$, $p > .05$. The results for the control group C showed a no significant increase in the anxiety level $t(16) = -.45$, $p > .05$ (see Table 1).

Overall, the participants' anxiety level after 12 sessions dropped by 23.55%, while the anxiety level of control group (non-participating students from classes A, B and C) dropped by 3.27%.

3. Discussion

This quasi-experimental study aimed to establish whether teaching songs in FL classes would diminish the foreign language anxiety level of students. Results indicated that the experimental group and 2 out of 3 control groups decreased their average anxiety score between the two testing sessions. This suggests that over time, students probably gained more experience in their English classes and felt more comfortable with the language. However, the only group who showed a significant ($p < .001$) decrease in anxiety level was the experimental ($n = 13$) group (see Table 1). The results indicating a significant self-reported anxiety decrease after 12 foreign language lessons consisting mainly in singing songs, suggest that there might be a causal relationship between the two variables.

The relatively small number of students from the experimental group ($n = 13$) might raise the question whether the class size constitutes a significant factor in the decrease of anxiety level. The anxiety level results of control class A group ($n = 10$) helped answer that question, indicating that experiencing regular English lessons in a similar (or smaller) size class with the experimental group was not sufficient to determine a statistically significant decrease of anxiety.

The generalizability of these findings needs to be treated with caution. The study has several limitations due to the fact that the school project ("English through Music") was aimed strictly to students with high FL anxiety. One of the limits is the small number ($n = 13$) of participants in the experimental treatment. A replication study with a larger number of participants will minimize the random error and give us a better understanding of the outcomes of the first experiment. Second, this quasi-experiment might raise questions regarding its internal validity, because the anxiety level of participants from the experimental and the control group was not similar at baseline. Therefore, a randomized controlled trial will address those issues. Third, even though the experimental program was conducted in the same school that students attended regularly, the participants were taken out of their regular English class, making the experiment less ecologically valid. A replication study with all treatments conducted during the actual FL classes will address this issue. Forth, the students who took part in the intervention program had a higher than average anxiety level. It is unclear whether a similar program would be beneficial to students with a rather low anxiety level. A study that would include two experimental treatments (a group with high anxiety and a group with low anxiety) would help clarify this question. Fifth, the experimental group had a different teacher than the control groups, which may suggest that a part of the variance can be attributed to the new circumstance caused by the presence of a new teacher. Also, it is unclear whether the anxiety decrease was mostly caused by the use of the new teaching method or by teacher's personal and/or professional qualities. Another study having the same teacher engaged in both experimental and control treatments would help dismiss this possible confounding variable. Sixth, the

use of a musical instrument in the experimental treatment could (at least partially) explain the decrease in anxiety of participating students. A replication study is necessary to assess the impact of teaching songs on FFLCA, without the accompaniment of a musical instrument. Seventh, it is unclear whether the anxiety lowered because of the use of music in the lessons, or because the music lessons helped improve fluency (Patel, Laud, 2007) and/or increased the well-being of students due to the fact that interpersonal synchrony increased affiliation among the participants (Hove, Risen, 2009). Finally, even though the students from the experimental group thought they were studied for something else, they did not know they would be asked to complete again the FFLCAS, and they did that at the end of the program together with their classmates, since they were taken out of their regular classes, we cannot discount the possibility of Hawthorne effect. Further research conducted in students' regular classrooms would help clarify this potential limitation of the study.

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Foreign language classroom anxiety was the topic of many studies conducted in the past three decades but little is known about the strategies that classroom teachers can use to diminish it. This article presents the first among several empirical studies that assess the impact of music on foreign language classroom anxiety. Sixty middle school children divided in two groups (experimental and control) received two treatments for six weeks. The experimental group learned English through music (by learning songs) and the control group learned English through regular lessons. Results indicated that the anxiety of students from the experimental group diminished significantly compared with their peers from the control group. Implications and limitations of this study are being discussed.