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THE EFFECT OF MOZART SONATA (BACKGROUND CLASSICAL MUSIC) ON IRANIAN EFL LEARNERS' SPEAKING PROFICIENCY

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ABSTRACT

The present study aimed to investigate the effect of background Classical music (Mozart Sonata) on Iranian EFL learners' speaking proficiency. The main question this study tried to answer was whether using music as a background might enhance Iranian EFL learners' speaking proficiency at intermediate level. To answer the questions, 64 students from Shokoh institute of Tonekabon, Iran participated in this study. They were selected from among 100 students via an OPT (Oxford Placement Test) .32 of the participants were males and 32 were females and they were randomly assigned to four groups.16 males and 16 females for the two control groups and 16 males and 16 females for the two experimental groups. The experimental groups were taught and tested speaking patterns in a music background, but the subjects in the control groups were taught and tested in no music background over a period of two months. A t- test was run to see if there had been any significant differences between the speaking proficiency of groups in different condition. The results indicated that there was a significant difference between the speaking performance of the music groups and the non-music groups and the music groups outperformed the non- music groups on the speaking test.

Keywords: Speaking Proficiency, Music, Background music, Classical music, Mozart sonata

INTRODUCTION

Using music to facilitate language acquisition is taken for granted by many teachers and researchers. It is argued that music can contribute to acquiring the linguistic skills such as reading, writing, listening and speaking (Martin 1983; MC Carthey 1985). Merrell (2004) believes that "Learning a second language can be a stressful and difficult process" (Merrell 2004, p.7). "Krashen theorizes that in unfavorable circumstances individuals develop negative attitudes that result in a mental block or affective filter, that prevents them from using the input to internalize language" (Chastain 1988, p.98). Harwitz et al. (1986) have pointed out that learners may be good at learning other skills but, when it comes to learn to speak another language, they claim to have mental block against it. Na (2007) also indicated that Asian students indeed have high anxiety in English learning .Iranian student are not exception and have difficulty with the Language learning. According to Krashen (1982), highly stimulating and low anxiety producing environments are most conducive to learning. According to Lake (2006), the emotionally soothing and stimulating effects of music can provide this kind of environment. Merrell (2004) asserts that "Music can help to keep the levels of tension and stress to a minimum"(Merrell 2004, p.4).

On the other hand, in foreign languages there are many patterns that must be learned and memorized. Medina (2002) states that "The ability to memorize is critical to the language

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acquisition process, since it would be virtually impossible to acquire language without memory"(Medina 2002, p.3). According to Campbell (1992) cited in Adkins (1997), the more connections that can be made in the brain, the more integrated an experience becomes within memory. Combining music with language creates many connections, since language processes in the brain's left hemisphere and music in its right hemisphere.

However, in Iran the number of the studies that specifically examined the effect of using back ground music in second/foreign language learning is few, compared to the popularity of the assumption regarding the effectiveness of the using background music in language development. The purpose of this study was to examine the effect of using background music as an independent variable on students' speaking skills as a dependent variable. In other words, the researcher intended to see whether teaching speaking through using music might enhance speaking performance of EFL learners' in an Iranian private institute setting**.**

RESEARCH QUESTIONS

The present study attempted to answer the following questions

1. Is there any significant difference between the male subjects ' mean scores on the English Speaking proficiency due to the use of background music in classroom?
2. Is there any significant difference between the female subjects' mean scores on the English speaking proficiency due to the use of background music in classroom?

RESEARCH HYPOTHESES

H0.1. Listening to classical music has no effect on male students' speaking proficiency.

H0.2. Listening to classical music has no effect on female students' speaking proficiency.

REVIEW OF THE LITERATURE

Most of the previous research concerning the use of back ground music on foreign/ second language teaching supported the value of using back ground music for facilitating language skills. In one of the first experimental studies on the effect of music on language learning, Quast (1999) examined the effects of baroque music on students' language acquisition. Based on the finding of his study, Quast argued that music positively affects language acquisition even when implemented in a passive fashion, such as with background music. Wallace (1994) notes that text is remembered better when it is accompanied by music. De Groot (2006) found that studying a foreign language with playing music in the background can increase word recall by up to 11.6%with an average of 8.7%.

In his study on the effects of music on children and language, Bygrave (1995) concludes that children who listened to music had significant improvements in learning new words and adds that music may be an effective learning medium for aspects of language development, especially students with reading problem.

Liapis, Giddens and Uhlenbrok (2008) tested the impacts of lyrical and non-lyrical music on reading comprehension. Participants were divided into two groups and each group was asked to read the same article under two different musical conditions, one while listening to a song with lyrics (lyrical condition) and the other while listening to the same song without any lyrics (non-lyrical condition). Participants in the non-lyrical condition had better scores; however, the difference was not significant (p= 0.552).

Rauscher, Shaw, and Kelly (1993) did an experiment on the effect of music and tested the effects of music on spatial task performance. They gave research participants one of three standard tests of abstract spatial reasoning after they had experienced each of three listening conditions: a sonata by Mozart, repetitive relaxation music, and silence. Their results showed that the IQ scores following the music condition were significantly (8-9 points) higher than the other two conditions. They speculated that the complexity of the music was a factor of the increased performance and suggested that music lacking such complexity or that was repetitive might, in fact, decrease performance. They also noted that this effect was temporary and did not last more than 15 minutes.

Rauscher, Robinson and Jens (1998) studied the "Mozart effect" on laboratory rats. These rats were exposed for two months postpartum to Mozart's piano sonata. The other comparison groups included rats that were exposed in the same time frame to minimalist music, white noise, or silence. The rats that were exposed in the Mozart group completed the maze considerably faster and with fewer errors than rats in the other three groups.

Hallam, Price, and Katsarou (2002) compared arithmetic performance and memory tasks of children aged 10-12 in the presence of music perceived to be calming and relaxing and silence conditions. Results showed children performed better on both tasks during the music condition compared to the silence condition. During the music condition, children completed more arithmetic problems although accuracy was not improved. Furthermore, this study also demonstrated that music perceived as aggressive and arousing impaired performance on the memory task.

Using background music as a tool to limit disruptions and behavior problems is also an effective strategy. Hallam and Price (1998) conducted a study on the effect of background music to emotionally and behaviorally disturbed children. The results indicated that the children were the most productive and became noticeably more calm and cooperative. Hallam and Price found that music was an effective method to lower behavior problems and increase performance.

In summary, research findings show that music can be included into the classroom to make the learning experience more effective and enjoyable.

METHOD

Participants

The study was conducted with 64 students enrolled at Shokouh English institute in Tonekabona-Iran. The individuals were comprised of both undergraduate and graduate students, with varying background of study. They ranged from 17 to 45 years old with a mean age of 25 years. All of the participants were at similar English proficiency levels (i.e., intermediate) at the time of the study based on an OPT test conducted by the researcher at the beginning of the study. 32 of the participants were males and 32 were females. Both male and female subjects were randomly assigned to four groups**.**16 males and 16 females for the two control groups and 16 males and 16 females for the two experimental groups.

Design

In this study a pre-test post-test experimental and control group design was used. The participants were randomly assigned to each groups, control groups or experimental groups. Control groups included students who take the task without background music, and experimental group with students who take the task with background music. Both the experimental and the control groups were pre-tested and post- tested in their speaking skills

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prior to and after treatment. All of the tests were given in a room other than the participants' classroom, avoiding interfering variables of institute background, intervention effect, peer interaction, and classroom distraction .This room was available in the building where students had their regular classes.

Instruments of this Study

The researcher used the following instruments to achieve the purpose of the study:

Five instruments were used to conduct this study. The first instrument that was used in this study was IELTS speaking test in the pretest and posttest. The speaking test consisted of three types of questions: biographical questions, guided questions and open questions. The reason of choosing this instrument was that it is accepted at international scale. Leading Universities in USA and Canada have recognized it as a reliable and valid test (See IELTS Teaching Resources, 2006) and it observed comprehensive criteria, including fluency, accuracy, lexicon, and pronunciation, to assess speaking skill. Regarding the reliability of the test, after the implementation of IELTS speaking in pretest stage, the recorded samples of the subjects' performance were assessed by four raters and three raters with the closest means of scores were selected for both pre and posttest assessment. Next, to guarantee the reliability of the rating process, inter-rater reliability was calculated. It was roughly 0.76 which was an acceptable value of inter-rater reliability. Regarding the validity of the test, since it was taken from IELTS, its validity was taken for granted.

The second instrument was Mozart Sonata (K.448, as used by Rauscher 1993), the third instrument was Interchange Text Book for teaching speaking patterns, the fourth instrument was a DVD-player to broadcast the music and the fifth instrument was a tape recorder to tape records the participants' responses.

Procedures

The study was carried out in the following manner:

Permission to conduct the study was obtained from the institute. An OPT (Oxford Placement Test) was employed as a homogeneity test to 100 students enrolling in English as a foreign language course. The 64 intermediate language learners were selected as the subject of the study and randomly assigned to four groups. Speaking test as the pre-test was run between groups. The subjects in the experimental groups listened to music in the background during all activities, but the subjects in the control groups take the task without music. The experiment lasted two month through which both experimental and control groups participated in their classes twice a week. At the end of the study speaking test was run for the second time. The results of both tests were statistically analyzed.

Data Collection

The data collected in this study were subjected to the following statistical analyses:

First a pre-test was run between groups. Then, the means, standard deviation, and variance of the each group in the pretest were calculated. After two months of treatment each group participated in the posttest. The means, standard deviation, and variance of the each group in the posttest were also calculated. After post-test, a t- test was run to see if there had been any significant differences between the speaking proficiency of groups in different condition.

RESULT

Results for Question 1

The first question tried to examine the effect of the using background music on the male students' speaking proficiency .To see the general distribution of the data and average score, the researcher conducted descriptive statistic on SPSS. The mean, standard deviation, and variance of the two groups in the pretest were calculated.

Table 1. Descriptive Statistics of the Result of pre- test

Groups	*N*	*Mean*	*Std. Deviation*	*Variance*
CONT.	16	15.7500	1.6227	2.633
EXP.	16	15.7188	1.7123	2.932
Valid N (list wise)	16			

As Table 1 reveals, the experimental and control groups had rather similar means, standard deviations and variances which prove the fairness of the selection and sampling process. After two months of treatment both groups participated in the post test. Table 2 provides the descriptive statistics for the post test.

Table 2. Descriptive Statistics of the Result of post- test

Groups	*N*	*Mean*	*Std. Deviation*	*Variance*
CONT.	16	16.2187	1.58081	2.499
EXP.	16	17.7500	1.54919	2.400
Valid N (List wise)	16			

As the data represent, the groups performed differently on the test. It seems that experimental group outperformed the control group. Then researcher conducted further analysis to see if one of the groups improved significantly better than the other .T- test was used for this purpose.

Table 3. Independent t-test for Both Groups in the Post-test

T-test Results	*Observed t*	*df*	*Sig. (2.tailed)*
Between the Post-test Scores of the Experimental and the Control Groups (Equal variances not assumed)	2.145	30	.04

As is indicated in table (3) the observed t value was calculated as to be 2.145 while the critical value of t determined on the basis of considering the 2-tailed significance level of 0.05 (P = 0.05) was 2.042 and the value of the level of significance was calculated as to be 0.04(p=0.04) which has been used in interpreting the data for the rejection or support of the first hypothesis of the study.

Results for Question 2

The second question examined the effect of the using background music on the female students' speaking skills test.

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The means, standard deviation, and variance of the two groups in the pretest were calculated.

Table 4. Descriptive Statistics of the Result of pre- test

Groups	*N*	*Mean*	*Std. Deviation*	*Variance*
CONT.	16	15.8125	1.73085	2.996
EXP.	16	15.8437	1.68046	2.824
Valid N (list wise)	16			

As Table 4 reveals, the experimental and control groups had rather similar means, standard deviations and variances .This finding demonstrated that both groups were similar prior to the treatment. After two months of treatment both groups participated in the posttest. Table 5 provides the descriptive statistics for the post test performance.

Table 5. Descriptive Statistics of the Result of the Post-test

Groups	*N*	*Mean*	*Std. Deviation*	*Variance*
CONT.	16	16.0625	1.72119	2.962
EXP.	16	18.6875	1.63172	2.663
Valid N (list wise)	16			

As the data represent, the groups performed differently on the test. To see if the difference between the means of the experimental group and the control group was meaningful, an independent t-test was computed. The result of the computation is presented in table 6.

Table 6. Independent t-test for Both Groups in the Post-test

T-test Results	*Observed t*	*df*	*Sig. (2.tailed)*
Between the Post-test Scores of the Experimental and the Control Groups (Equal variances not assumed)	3.054	30	.04

As is indicated in table (6) the observed t value was 3.054 while the critical value of t determined on the basis of considering the 2-tailed significance level of 0.05 (P = 0.05) was 2.042 and the value of the level of significance was 0.04 which has been used in interpreting the data for the rejection or support of the second hypothesis of the study.

DISCUSSION

The first question of this study investigated the effect of the using background music on the male students' speaking proficiency. The related hypotheses which claimed that Listening to classical music has no effect on male student's speaking proficiency were rejected. Evidence from various sources of data could help to verify the rejection. The results of the T-Test of the study (see table 3) could be employed to confirm this analysis, accordingly, the observed t value calculated by the SPSS was 2.145 while the critical value of t determined on the basis of considering the 2-tailed significance level of 0.05 (P = 0.05) was 2.042 and value of the level of significance was 0.04.Thus, the observed t exceeded the critical t and the value of the level of significance was less than 0.05 ($p<0.05$), the difference between the means of the posttests of the study could not be by chance so the result of computed independent t-test is

convincing enough to reject the null hypothesis. In other words, the result confirmed the difference between the two groups and the positive effect of music. Therefore, the answer to the research question is positive, that is, there is a significant difference between the male subjects' mean scores on the English speaking proficiency due to the use of background music.

The second research question attempted to examine the effect of the background music on the female students' speaking proficiency. Considering the data shown in table 6, since the observed t (t ==3.054, DF=30) was higher than the critical t of 2.042, and p<0.05,the result of computed independent t-test is convincing enough to reject the null hypothesis .The finding for the second research question showed that there was a significant difference between the female subjects' mean scores on the English speaking proficiency due to the use of background music so, the related hypotheses was rejected.

The findings of the current study indicated that teaching speaking with music even in the background improves both male and female students' speaking skill .Music breaks down barriers and creates an environment that assists language acquisition so students learn second language more effectively.

The result of the present study showed consistency with Krashen (1982, p.32)"The affective hypothesis implies that our pedagogical goals should not only include supplying comprehensible input, but also creating a situation that encourages a low filter".

The results of this study are also in line with Richards and Rodgers (2001, p.102) that: The musical background helps to induce a relaxed attitude, which Lozanov refers to as concert pseudo-passiveness. This state is felt to be optimal for learning; in that anxieties and tension are relieved and power of concentration for new material is raised .There is some limitation to this study. This study was limited to Iranian EFL learners at intermediate level at Shokouh institute in Tonekabon and to the use of background music. The study was also limited to investigating speaking skills. According to the result of the study, English teachers can use music as an effective tool to facilitate language learning and performance. It is recommended that other researchers to conduct additional studies to examine the effect of using background music on developing the speaking skill of EFL learners in different levels. In addition, it is recommended that other researchers to conduct additional studies to examine the effect of using background music on developing other language skills.

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