THE IMPACT OF MUSICAL SKILLS ON FOREIGN LANGUAGE ANXIETY

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Abstract:

This research aims to research the impact of musical skills on foreign language anxiety. For this purpose, 158 English as Foreign Language students, 64 of whom engaged with music (48 of them were able to play an instrument and sing in front of people and 16 of them could only sing) were chosen for this study. The Foreign Language Anxiety Scale (FLCAS) was applied and the results were compared. The study revealed that participants who were able to play a musical instrument or sing in front of people had far lower levels of foreign language anxiety than those who did not. For the qualitative section of the study, 10 participants, 5 of whom could play an instrument and 5 of whom could not, were selected to get a more detailed picture of the participants' opinions and feelings related to the impact of engagement with music on foreign language anxiety. These interviews also supported the results of the quantitative study.

Keywords: English, foreign language anxiety, musical skills

1. Introduction

Foreign language anxiety, the anxiety felt when using a foreign language, is considered to be a significant affective variable in the ability to speak it. MacIntyre et al. (1998) state that worry and negative emotional reactions can be aroused when learning or using a foreign language in foreign language classrooms. This fear of communication in another language negatively affects the use of that language across various tasks (Kasap & Power, 2019; MacIntyre & Gardner, 1991). Fluent speech requires elements such as correct pronunciation, a large vocabulary, and knowledge of speech rules. However, many people who learn a foreign language state that they experience stress and anxiety while speaking the language, and note that, as a result of this, a 'barrier' like avoidance, or being unable to produce language has been established in their minds (Young, 1990). Price

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(1991) also revealed that students are concerned about making mistakes in pronunciation. Therefore, speaking a foreign language in front of other classmates becomes an activity that triggers anxiety. Several studies have been carried out to examine the link between foreign language anxiety and language learning, particularly related to the four basic skills (Brown, 2000; Cheng, 2002; Cheng, 1998, 2002; Cheng, Horwitz, & Schallert, 1999; Ewald, 2007; Horwitz et al., 1986; Horwitz & Garza, 1999; Kasap, 2021b; Kızıltaş, 2021; Sellers, 2000; Young, 1992). In these studies, the foreign language anxiety of students was measured using scales specific to different language skills. The common finding of the research is that foreign language anxiety prevents students from learning a foreign language effectively.

Much research has been done on ways to reduce the anxiety learners experience during their language learning. Some researchers (Johnson, Johnson, & Holubec, 1990; Oxford, 1997; Slavin, 1991) suggest that a means of reducing or eliminating the anxiety experienced by students in foreign language classes is for teachers to prioritize collaborative learning activities in the classroom. Furthermore, motivation to learn (Bandura, 1997; Ryan & Deci, 2002), the beliefs students hold about language learning (Gregersen, 2003; Horwitz, 1986), and students' personalities (Dewaele & Furnham, 2000; Ehrman & Oxford, 1990, 1995) should be taken into account to reduce anxiety. Other researchers (Frantzen & Magnan, 2005; Sparks and Ganschow, 2007) have stated that students' foreign language anxiety can be decreased if their language skills improve. Additionally, teachers also have a role to play in reducing anxiety, as the way a teacher interacts with students can help to reduce it (Deci & Ryan, 1985; Vygotsky, 1986).

2. Music and Language Learning

The relationship between music and language learning has been a prominent topic of research (Asaridou & McQueen, 2013; Besson, Chobert, & Marie, 2011; Chobert, J., & Besson, M. 2013; Francois & Schön, 2011; François et al., 2014; Richard-Amato, 2003 and Slevc, 2012), and studies have demonstrated that music has a positive effect on language learning. Music can be defined as a way of expressing and interacting with others and was likely used by humans since the beginning of civilization (Ferreira, 2002). It is also hypothesized that music appeared before oral communication (Thaut, 2005). So, if music came first and language came later, it can be said that human beings used music as a means of communication before language itself, and therefore, searching for the connection between music and language is worthwhile. Music motivates people to learn in general, especially to learn a language, and songs are a vehicle for doing so unconsciously. Music is an excellent didactic source because it is a way of transmitting ideas and information as part of social communication (Gold, 1985). Using music in the classroom makes content more dynamic thus bringing content to life, making it more meaningful; and, as was shown in studies by Murphey (1992) and Ferreira (2001), the use of music in the teaching of languages facilitates the learning process.

The learning of a second language, according to Krashen (1982), depends on a student's emotional state. For effective learning to occur, the individual must have an

affective 'down' filter, that is, they must be relaxed and motivated. The affective filter comprises emotional and attitudinal factors, such as motivation, self-confidence, anxiety, and fear. For Krashen, well-motivated and self-confident individuals achieve better than the ones having anxiety or are scared to join activities in the presence of their peers. The learners being able to express themselves shorn of distress of making mistakes are expected to learn and improve in a better way than learners who are unsure of themselves, and unsurprisingly, they lose the chance to practice and learn the language. Music creates a comfortable, fun, and stress-free environment that supports language learning by minimizing the psychological effects that prevent learning. In addition, making music can lower blood pressure and heart rate, reduce stress, and reduce anxiety and depression (Hansen, 2018; Riddiford, 1999).

Despite these positive influences, since foreign language anxiety has been documented just during the last few decades as a situation that potentially encumber foreign language learning there appear to be no studies that research the relationship between foreign language anxiety and engagement with music. Therefore, this study aims to analyze whether engagement with music; that is, singing or playing an instrument, has a positive effect on reducing foreign language anxiety. The study takes engagement with music as being deeply engaged in the music. As Long (2016) states, the term engagement being used on a macro time scale refers to people musically engaged over some time and during that time they learn to play an instrument or train their voice to sing in front of a crowd.

3. Methodology

In this study, a mix of quantitative and qualitative techniques was used, as this offers a comprehensive, complementary, and adaptable approach for the researcher when designing methods and research. Research questions can be more fully answered in this mixed-method format (Johnson & Onwuegbuzie, 2004). Moreover, mixed methods of research are especially useful in understanding contradictions between quantitative results and qualitative findings. Semi-structured interviews formed the qualitative part of the study, which is more concerned with gaining further insight into the situation (Yılmaz and Altınkurt, 2011). Semi-structured interviews are frequently chosen by researchers because of their certain level of reliability and flexibility, which overcome the limitations found in written responses, tests, and surveys, and aid in gaining in-depth knowledge on a particular subject (Yıldırım & Şimşek, 2003). In this study, the interpretation of the related findings between musical skill and FLA was considered as the most effective method for this study. Making the quantitative data obtained from the participants more concrete can also be achieved by understanding the views obtained from them through the qualitative method.

3.1 Participants
Criterion sampling, which is one of the most effective sampling methods, was used to determine the main group of the study. Criteria-based sampling is the creation of a

sample of people, events, objects, or situations that have specific qualifications associated with a problem (Büyüköztürk, Çakmak, Akgun, Karadeniz, & Demirel, 2009). Attendance of language courses to learn the English language was identified as the main criterion for the selection of participants in the study. Information about their gender, age, whether they played an instrument and whether they could sing in front of people were obtained with demographic information forms from the participants.

Table 1: Participants of the quantitative study

		Frequency	Percent	Valid percent	Mean age
Valid	Female	82	51.9	51.9	26.8
	Male	76	48.1	48.1	27.4
	Total	158	100.0	100.0	27.1

As can be seen in the table, 158 participants attending English level B1 (intermediate) courses, 82 females and 76 males aged between 18 and 32 (mean age: 27,1), were chosen to participate in the quantitative study. Most participants (91) were university students and the rest of them (67) were high school graduates.

Table 2: Participants of the qualitative study

Participants codes	Gender	Age	Able to play an instrument	Able to sing in front of people
P1	Female	21	Yes	Yes
P2	Male	26	Yes	Yes
P3	Female	24	Yes	Yes
P4	Male	25	Yes	Yes
P5	Male	28	Yes	Yes
P6	Female	23	No	No
P7	Male	22	No	No
P8	Female	25	No	No
P9	Male	18	No	No
P10	Female	24	No	No

Table 2 shows that 10 participants aged between 18 and 28, 5 of whom were male and 5 female, were randomly chosen from 158 participants for the qualitative part of the study. In addition, 5 of these participants could play an instrument and sing in front of a crowd and 5 participants could not.

3.2 Instruments

The research was conducted on a group of 158 participants attending language courses to learn English. The Foreign Language Anxiety Scale (FLCAS) was used as a measure to determine the level of anxiety felt when speaking a foreign language, which is a widely known scale (Horwitz, 1986). The FLCAS consists of 33 items and is scored on a 5-point Likert scale. The participants expressed their level of agreement with a certain statement by circling answers arranged as *'strongly agree', 'agree', 'neither agree nor disagree', 'disagree', and 'strongly disagree'*. The internal consistency of the scale, based on Cronbach's alpha

coefficient, is .93, and its test-retest reliability is .83. The data gained was analyzed using IBM SPSS Statistics 22.

Table 3: The criteria values to interpret the FLA scores

Order	Value	Range
1	33-66	Low
2	67-99	Middle
3	100-165	High

As seen in Table 3, three criteria were determined because the FLCAS consists of 33 items and is scored on a 5-point Likert scale. Total scores of the scale range from 33 to 165; accordingly, if the score is between 33 and 66 it is regarded as "low"; if it is between 67 and 99, it is "middle" and if it's between 100- 165, then the score is accepted as 'high'. The total scale, aiming to assess communication apprehension, test anxiety and fear of negative evaluation associated with language anxiety (Trang, 2012). The Likert type scale is defined as using the mean (combined) values of these questions in the analysis phase. The purpose of this is to determine the total scores gained by participants on specific issues from the combined values of all questions (Clason & Dormody, 1994). Likert scales are additive scales because the answers given by participants to the questions are collected one by one in order to reach the general view on a topic, which helps researchers to compare different scores.

In addition to the qualitative data tool, semi-structured interviews were used. When preparing the interview questions, care was taken to ensure that they were easy to understand, not multifaceted, and not influencing the respondents (Yılmaz and Altinkurt, 2011). The prepared interview sheet was submitted to subject matter experts to check its comprehensibility, applicability, and usefulness. The form of the interview was adapted according to the recommendations of the experts. After that, a preliminary application was submitted by two English as a Foreign Language (EFL) students and no problems were observed. The ten participants were asked the following two questions:
1) How do you feel while speaking English?
2) Do you think your passion for music helps you overcome your fear of a foreign language? How? (This last question was only asked of those involved in music.)

4. Results and Discussion

Descriptive analysis and thematic analysis were used to analyze the data gained from the FLCAS and the interviews respectively.

Table 4: Group statistics of participants with regards to playing an instrument

Group statistics					
	Playing instrument	N	Mean	Std. deviation	Std. error mean
FLANXIETY	Can play	48	75.7500	21.18159	3.05730
	Can't play	110	117.6182	29.90136	2.85098

Table 4 shows that 48 participants can play an instrument and the level of their foreign language anxiety is 75.75 The level of the 110 participants who could not play an instrument was 117. A difference between the anxiety level of the two groups can be observed, and to see if this is a meaningful difference independent sample t-test was used.

Table 5: T- test for the equality of variances of the groups

T- Test for Equality of Variances		F	Sig.	t	df	Sig. (2-tailed)
FLANXIETY	Equal variances assumed	9.132	.003	-8.780	156	.000
	Equal variances not assumed			-10.016	123.887	.000

As can be seen in the table, the difference between the participants who could play an instrument and those who could not is statistically meaningful. Playing a musical instrument, then, appears to lessen foreign language anxiety. Engagement with music, such as dancing, singing, or, playing an instrument, helps boost subjective well-being (Weinberg & Joseph, 2016), which includes emotions, moods, and the feelings a person has. Just as speech is carried out using verbal language, so musical activity is carried out using musical language (Kirnarskaya, 1988). If someone is not anxious while playing an instrument in front of other people, then this person will likely not be anxious while speaking a foreign language, or will at least be less anxious.

Table 6: Group statistics of participants with regards to singing in front of people

	Singing in front of people	N	Mean	Std. deviation	Std. error mean
FLANXIETY	Can sing	64	83.7813	26.90044	3.36256
	Cannot sing	94	119.2766	29,97504	3.09169

Table 6 illustrates that 64 participants with a foreign language anxiety level of 83,78 can sing in front of people, whereas 94 participants with a foreign language anxiety level of 119,27 cannot sing while people are present. The results show that there is a difference between the anxiety levels of the two groups. An independent t-test was applied to determine whether there is a statistically significant difference between the means in these two groups.

Table 7: Levene's test for the equality of variances of the groups

Levene's Test for Equality of Variances		F	Sig.	t	df	Sig. (2-tailed)
FLANXIETY	Equal variances assumed	3.079	.081	-7.612	156	.000
	Equal variances not assumed			-7.771	144.557	.000

The results show that, as can be seen in Table 7, the difference between the participants who can sing in front of people and those who cannot is statistically meaningful, because

the p-value is less than 0.05 (≤ 0.05). According to this result, it can be said that those who can sing in front of others will have less foreign language anxiety than those who cannot. Creech et al. (2013) believe that active music engagement offers individuals such personal benefits as courage, self-exploration, emotional expression, self-esteem, and confidence. The people who can sing in front of a crowd have demonstrated that they can overcome anxiety, and this skill also seems to help reduce foreign language anxiety.

Table 8: Group statistics related to gender

	Gender	N	Mean	Std. deviation	Std. error mean
FLANXIETY	Female	82	105.1707	34.05399	3.76063
	Male	76	104.6053	33.30188	3.81999

The table shows that 82 female and 76 male participants joined the study. The foreign language anxiety level of the female participants was found to be 105,17, while that of the males was found to be 104,6. The difference is insignificant, and when an independent t-test has applied this difference was found not to be statistically significant, since the p-value was more than 0.05 (> 0.05).

Ten participants aged between 21 and 31, 5 of which were male and 5 female, were selected for the qualitative part of the study. Five participants could play an instrument and sing in front of a crowd and the remaining five could not. The following two questions were asked to the participants:

1) How do you feel while speaking English?
2) Do you think your passion for music helps you overcome your fear of a foreign language? How? (This last question was only asked of those involved in music.)

The data relating to the first question were collected under two themes, which are '*The views of participants engaged in music*' and '*The views of participants not engaged in music*'.

Table 9: Themes and sub-codes produced by 10 participants for the first question

N	Themes	Codes
1	*The views of participants engaged in music*	- Don't care about mistakes (P1, P2, P3, P4, P5) - Try to use what I know (P1, P3, P4) - Feeling comfortable ((P1, P2, P5) - Need practice (P4, P3) - Don't have to be perfect (P1, P2) - Don't care about others (P5) - Fear of being judged (P3) - Normal to be anxious (P2)
2	*The views of participants not engaged in music*	- Feeling uncomfortable (P6, P7, P8, P9, P10) - Afraid of making mistakes (P6, P7, P8, P9, P10) - The fear of being judged (P6, P7, P8, P9, P10) - Feeling inadequate (P8, P9, P10) - Prefer not speaking (P6, P7, P9) - Speaking for short durations and hiding (P9, P10) - Feeling stupid (P6)

As the table illustrates, participants engaged in music mostly produced positive codes related to their feelings about speaking English, and all said they feel comfortable while speaking.

"Actually, I know that English is not my mother tongue and it is normal that I might make some mistakes, so I am comfortable when doing so." (P1)

"My mistakes or my weak pronunciation do not prevent me from speaking English. I am a musician, and even I make mistakes while playing my baglama (a string instrument)". (P3)

"I am comfortable speaking English even though I know I am not very good at speaking because from my experience, I know that if you don't try you never succeed." (P2)

Three participants stated that they tried to use what they already knew about English.

"I know it takes time to learn a language but we should try to use the words we know. So, I generally try to speak with what I have." (P4)

Two participants who could play a musical instrument said that they needed to practice learning English.

"Speaking is an opportunity for me to practice my English, so I go and speak with people who can speak English. Music has taught me that 'practice makes perfect." (P4)

The code 'you don't have to be perfect' was produced by participants P1 and P2.

"I was not perfect when I started to play the guitar, but with practice, I became really good. Therefore, I know that I am not perfect at English, but I don't have to be, I need time to be perfect." (P2)

One of the participants engaged in music demonstrates that he does not care about others' thoughts while speaking English.

"I don't care what others think about me and my English. I am learning, so it is natural to make mistakes and to hesitate. I never mind others and I try to learn." (P5)

One participant (P2) states that it is normal to feel anxious while speaking a foreign language because it is a new language, and remembering vocabulary and constructing sentences is thereby difficult. However, as for the interviews with the non-musical participants, it can be seen that they are more anxious and less comfortable while speaking English.

"It's hard for me to understand when teachers speak English, and I think I progress more slowly. I feel uncomfortable when I try to speak or listen to English." (P6)

"The possibility of others noticing my mistakes worries me and I don't want to speak English with anybody." (P8)

"I feel my level of English is insufficient, and that worries me. It seems difficult for me to put two sentences together. I am always scared to make mistakes." (P9)

"Because of my anxiety to speak, I prefer to say just a few words and keep quiet when I am in class. It is better not to speak than to make a lot of mistakes." (P7)

Thus, those engaged in music had more positive thoughts about learning English, and those with no interest in music produced negative codes while answering the first question.

The second question was only asked the five participants who could play a musical instrument and sing in front of a crowd. The general themes produced by participants were; *'Music helps reduce anxiety', 'Thanks to engagement with music, I am experienced at performing in front of people, 'Calming effects of music', 'Thanks to music, I feel more comfortable with others'* and *'Using relaxation strategies we have learned in music classes.*

All five participants believed that engaging with music was helpful for them in lessening their foreign language anxiety. Three participants (P1, P2, and P4) stated that as a result of their involvement with music they are experienced in performing in front of a crowd, which helped them to speak English in front of others. Likewise, three participants stated that by employing the music sessions, they were generally more comfortable communicating in English with their teachers and classmates. This feature of dealing with music has also attracted the attention of other researchers. Their research indicates that a key contributor to positive musical well-being is the social dimension of music involvement (Joseph & Southcott, 2014; Southcott & Joseph, 2015). Similarly, other studies have shown that music has a positive effect on reducing anxiety and improving well-being (Khalifa, Bella, Roy, Peretz, & Lupien, 2003). Research has also shown that attending music with others is associated with stronger positive experiences (Lamont, 2011). Here are a few examples of participants' opinions:

"Music is in me. I find it helps me worry less when trying to speak English." (P1)

"If you can play or sing in presence of others, trust me, you can do anything in front of them. I have been playing guitar and singing for several years now so this experience helps me to feel more comfortable with people while I speak English." (P2)

"In my music education in college, we make a lot of mistakes in front of others when playing and singing, so I think I am accustomed to making mistakes and finding the accurate form of these mistakes in a gradual process of time." (P3)

"I certainly believe that music aids me very much when it comes to communicating in English with other people. For me, Music can be seen as a second language by the use of which I communicate with others and even with myself. Therefore, I might regard myself as a skillful language learner thanks to music." (P4)

"I'm comfortable performing in presence of people so for me making mistakes is normal and you learn from your mistakes. In addition, in college, we have learned some breathing techniques and relaxation exercises to stress, breathe and change posture. I believe they are also useful in language speaking." (P3)

One research related to anxiety treatment methods in a sample of 201 musicians who sang in semi-professional choirs found that some of the most widespread and efficient ways to deal with stress are meditation, exercise, and deep breathing (Ryan and Andrews, 2009). In our study, similarly, some participants (P2, P3, P5) believe, it may be helpful to use these types of coping techniques to get rid of language anxiety. A comparable study (Eğilmez, 2012) on music students lighted on the fact that the most common coping methods reported by participants were breathing and relaxation exercises to get rid of foreign language anxiety. Therefore, coping strategies used by participants engaged with music seem to have a positive power to lessen the overwhelming impact of foreign language anxiety.

The study also supports the result of research (Kasap, 2021a) on gifted students attending music and art classes. The quantitative part of his study shows that foreign language anxiety among students going to music and art classes changes statistically meaningful from students attending science classes. Likewise, the qualitative part of the same study demonstrates that participants attending music or art classes assert that music and art have a role in downgrading their FLA.

5. Conclusion

The study has demonstrated that playing a musical instrument helps to reduce foreign language anxiety. The results also show that those who can (play an instrument or sing in front of people have less foreign language anxiety than those who cannot. The results of this study correlate with other affirmative results of music shown by some other studies related to self-esteem and confidence, self-exploration, psychological well-being, motivation Kasap, 2021; Creech, Hallam, Varvarigou, McQueen, & Gaunt, 2013). The qualitative interviews also supported the results of the quantitative study. The participants who could not play an instrument and sing in front of people produced negative themes related to their English learning experience; however, those able to do so reinforced the idea that these individuals are more comfortable and less anxious while speaking English. This study has clearly identified a positive relationship between music and foreign language learning and this is expected to help better understand how to reduce FLA and in turn, help foreign language teachers to create a relaxed atmosphere in the classroom so as to aid students to learn a foreign language.

Conflict of Interest Statement

The author declares no conflict of interest in conducting and reporting the findings of this study on the impact of musical skills on foreign language anxiety. All research and analysis were conducted in an objective and unbiased manner, and the authors have no financial or personal relationships that could have influenced the study's outcomes or interpretation of the data.

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References

Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. The Modern Language Journal, 78, 155-168.

Allwright, D., Allwright, B., & Allwright, K. (1991). Focus on the language classroom. London. Cambridge University Press.

Alpert, R., & Haber, R. N. (1960). Anxiety in academic achievement situations. Journal of Abnormal and Social Psychology, 10, 207-215.

Asaridou, S. S. and McQueen, J. M. (2013). Speech and music shape the listening brain: Evidence for shared domain-general mechanisms. *Frontiers in Psychology* 4DOI: https://doi.org/10.3389/fpsyg.2013.00321

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.

Besson, M., and Faïta, F. (1995). An event-related potential (ERP) study of musical expectancy: comparison of musicians with non-musicians. J. Exp. *Psychol. Hum. Percept. Perform*. 21, 1278–129

Besson, M., Chobert, J. and Marie, C. (2011). Transfer of Training between Music and Speech: Common Processing, Attention, and Memory. *Frontiers of Psychology* 2(94): 1–12, DOI: https://doi.org/10.3389/fpsyg.2011.00094

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö.E., Karadeniz, Ş. ve Demirel, F. (2008). *Bilimsel araştırma yöntemleri* (14. Baskı). Ankara: Pegem Yayınları

Campbell, C. M., & Ortiz, J. (1991). Helping students overcome foreign language anxiety: A foreign language anxiety workshop. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety: From theory and research to classroom implications* (pp. 153-168). Upper Saddle River, NJ: Prentice-Hall.

Casado, M. A., & Dereshiwsky, M. I. (2001). Foreign language anxiety of university students. College Student Journal, 35, 539-550.

Celce-Murcia, M. (2001). Teaching English as a second or foreign language (3rd ed). Boston: Heinle & Heinle.

Chastain, K. (1975). Affective and ability factors in second language acquisition. Language Learning, 28, 55-68.

Chen, Y. (2002). *The relationship between foreign language anxiety and English proficiency of EFL learners in Taiwan.* Unpublished master's thesis, National Kaohsiung First University of Science and Technology: Kaohsiung, Taiwan.

Chobert, J., & Besson, M. (2013). Musical expertise and second language learning. *Brain Sciences, 3*(2), 923–940. https://doi.org/10.3390/brainsci3020923

Clason, D. L. ve Dormody, T. J. (1994). Analyzing data measured by individual Likert-type items. *Journal of Agricultural Education,* 35(4), ss. 31- 35.

Cohen, Y., & Norst, M. J. (1989). Fear, dependence, and loss of self-esteem: Affective barriers in second language learning among adults. *RELC Journal*, 20, 61-77.

Creech, A., Hallam, S., Varvarigou, M., & McQueen, H. (2014). Active aging with music. London, UK: Institute of Education Press.

Curran, C. A. (1976). Counseling-learning in second languages. Apple River, IL: Apple River. Deci, E. L., & Ryan. (1985*). Intrinsic motivation and self-determination in human behavior.* New York: Plenum

Dornyei, Z. (1994, Autumn). Motivation and motivation in the foreign language classroom. *The Modern Language Journal*, 78, 273-284.

Eğilmez, H. O. (2012). Music students' views related to the piano examination anxieties and suggestions for coping with students' performance anxiety. *Procedia - Social and Behavioral Sciences*, 46, 2088-2093

Ehrman, M., & Oxford, R. (1990). Adult language learning styles and strategies in an intensive training setting. *The Modern Language Journal*, 74, 311-327.

Ehrman, M., & Oxford, R. (1995). Cognition plus: Correlates language learning success. *The Modern Language Journal*, 79, 67-89.

Ely, C. M. (1986). An analysis of discomfort, risk-taking, sociability, and motivation in the Language classroom. *Language Learning*, 36, 1-25.

Eysenck, H. J., & Eysenck, M. W. (1985) Personality and individual differences: A natural science approach. New York: Plenum Press.

François C., Jaillet F., Takerkart S., Schön D. (2014). Faster sound stream segmentation in musicians than in nonmusicians. *PLoS One* 9:e101340. 10.1371

François, C. and Schön, D. (2011). Musical expertise boosts implicit learning of both musical and linguistic structures. *Cerebral Cortex* 21(10): 2357–2365, DOI: https://doi.org/10.1093/cercor/bhr022

Frantzen, D., & Magnan, S. S. (2005). Anxiety and the true-beginner-false-beginner dynamic in beginning French and Spanish classes. Foreign Language Annals, 38, 171-190.

Ganschow, L. Sparks, R. L. (1996). Anxiety about foreign language learning among high school women. *The Modern Language Journal,* 80, 199-212.

Ganschow, L., Sparks, R. L., Anderson, R., Javorsky, J., Skinner, S., & Patton, J. (1994). Differences in language performance among high-, average-, and low-anxious college foreign language learners. *Modern Language Journal*, 78, 41-55.

Gardner, R. C., Lalonde, R. N., Moorcroft, R., & Evers, F. T. (1987). Second language attrition: The role of motivation and use. *Journal of Language and Social Psychology*, 6, 29-47

Gregersen, T. S. (2003). To err is human: A reminder to teachers of language-anxious students. Foreign Language Annals, 36 (1), 25-32.

Gunderson, B., & Johnson, D. (1980). Building positive attitudes by using cooperative learning groups. Foreign Language Annals, 13, 39-43. Duxbury 15 International Journal of Instruction, January 2010, Vol.3, No.1

Hackett, S. L. (1995). *Toward a causal model of affect, cognition, and achievement in ESL. Unpublished doctoral dissertation*, Storrs Mansfield: The University of Connecticut.

Hallam, S., Creech, A., Varvarigou, M., & McQueen, H. (2012). Perceived benefits of active engagement with making music in community settings. *International Journal of Community Music*, 5, 155–174

Hansen, S. (2018). 4 Ways Playing Music Helps Reduce Stress https://www.musicabilitylessons.com/blog//4-ways-playing-music-helps-reduce-stress

Horwitz, E. K., & Young, D. J. (1991). *Language anxiety: From theory and research to classroom implications*. Upper Saddle River, NJ: Prentice-Hall Johnson

Horwitz, E. K., Horwitz, M. B., Cope, J. A. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70, 125-32.

Johnson, R. T., & Houbec, E. J. (1990). *Circles of Learning: Cooperation in the classroom. Edina,* MN: Interaction Book.

Joseph, D., & Southcott, J. (2014). Personal, musical and social benefits of singing in a community ensemble: Three case studies in Melbourne (Australia*). Journal of Transdisciplinary Research in Southern Africa*, 10(2), 125–137.

Kasap, S. & Power, K. M. (2019). Anxiety in the EFL Speaking Classrooms. *The Journal of Language Teaching and Learning*, 9(2), 23-36.

Kasap, S. (2021a). Foreign language anxiety of gifted students in Turkey. *Page Journal of Education and Instruction*, 11(4), 169–176. https://doi.org/10.47750/pegegog.11.04.16

Kasap, S. (2021b). Mental Well-Being and Foreign Language Anxiety. *Multicultural Education.* 7(4), 226-2230.

Kirnarskaya D. K. (1988). Musical-linguistic ability as a component of musical giftedness // *Psychology Issues*. No. 2. - S. 47 - 57.

Kitano, K. (2001). Anxiety in the college Japanese language classroom. *The Modern Language Journal*, 85, 549-567.

Kızıltaş, Y. (2021). İki dilli öğrencilerin ikinci dil ediniminde etkili olan faktörler ve dezavantajlı gruplaradönüşmeleri: Kuramsal ve derleme bir çalışma. Trakya Eğitim Dergisi, 11(2), 1012-1036.https://doi.org/10.24315/tred.775100

Kleinmann, H. H. (1977). Avoidance behavior in adult second language acquisition. Language Learning, 27, 93-107.

Long, M. (2016). Music Education Now. https://jfin107.wordpress.com/1654-2/

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44, 283-305.

MacIntyre, P., Clement, R., Dornyei, Z., & Noels, K. (1998). Conceptualizing willingness to communicate in an L2: A situational model of L2 confidence and affiliation. The Modern Language Journal, 82, 545-562. [Online] Available: http://www.jstor.org/stable/330224

Oxford, R. L. (1990). *Language learning strategies: what every teacher should know.* New York: Newbury House.

Oxford, R. L. (1997). Cooperative learning, collaborative learning, and interaction: Three communicative strands in the language classroom. *The Modern Language Journal*, 81, 443-456.

Oxford, R. L. (1999a). "Style Wars" as a source of anxiety in language classrooms. In D. J. Young (Ed.), *Affect in a foreign language and second language learning: A practical guide to creating a low-anxiety classroom atmosphere*. Boston: McGraw-Hill.

Oxford, R. L. (1999b). Anxiety and the language learner: new insights. In Jane Arnold (Ed.) *Affect in language learning* (pp. 58-67). Cambridge: Cambridge University Press.

Peretz, I. (2003). *The Cognitive Neuroscience of Music*, Oxford University Press; Reprint edition

Richard-Amato, P. A. (2003). *Making it happen: From interactive to participatory language teaching: theory and practice*. White Plains, NY: Longman

Rogers, C. (1983). *Freedom to learn for the '80s*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Ryan, C. ve Andrews, N. (2009). An investigation into the choral singer's experience of music performance anxiety. *Journal of Research in Music Education*, 57, 108-126

Ryan, R. L., & Deci, E. M. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-33). Rochester, NY: University of Rochester Press.

Scovel, T. (1978). The effect of effect on foreign language learning: A review of the anxiety research. *Language Learning*, 28, 129-142.

Slavin, R. E. (1991). Synthesis of research on cooperative learning. *Educational Leadership*, 48, 71-82.

Slevc, L. R. (2012). Language and music: Sound, structure, and meaning. *WIREs Cognitive Science* 3(4): 483–492, DOI: https://doi.org/10.1002/wcs.1186

Southcott, J., & Joseph, D. (2015). Singing in La Voce Della Luna Italian women's choir in Melbourne, Australia. *International Journal of Music Education,* 33(1), 91–102. doi:10.1177/0255761414546244

Thaut, M. H. (2005). Rhythm, Music, and the Brain: Scientific Foundations and Clinical Applications. *Studies on New Music Research* 3(6): 18–49

Tobias, S. (1986). Anxiety and cognitive processing of information. In R. Schwarzer (Ed.), *Self-related cognition in anxiety and motivation*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Trang, T. (2012). A review of Horwitz, Horwitz and Cope's theory of foreign language anxiety and the challenges to the theory. *English Language Teaching:* 5/1: 69. https://doi.org/10.5539/elt.v5n1p69

Trylong, V. L. (1987). *Aptitude, attitudes, and anxiety: A study of their relationships to achievement in the foreign language classroom*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN

Vastfjall, D., Juslin, P. N., & Hartig, T. (2012). Music, subjective well-being, and health: The role of everyday emotions. In R. MacDonald, G. Kreutz & L. Mitchell (Eds.), *Music, health, and well-being* (pp. 405–423). Oxford, UK: Oxford University Press

Vygotsky, L. S. (1986). Thought and language. Cambridge, MA: MIT Press.

Weinberg, M. K., & Joseph, D. (2016). If you're happy and you know it: Music engagement and subjective wellbeing. *Psychology of Music*. doi:10.1177/0305735616659552

Weinberg, M. K., & Joseph, D. (2016). If you're happy and you know it: Music engagement and subjective wellbeing. Psychology of Music. doi:10.1177/0305735616659552

Wentzel, K. R. & Watkins, D.E. (2002). Peer relationships and collaborative learning as contexts for academic enablers. School Psychology Review, 31, 366-377.

Wentzel, K. R. (1999). Social-motivational processes and interpersonal relationshi8ps: Implications for understanding students' academic success. *Journal of Educational Psycholog*y, 91, 76-97.

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does anxiety research suggest? *Modern Language Journal*, 75, 426-439.

Young, D. J. (1992) An investigation of students' perspectives on anxiety and speaking. *Foreign Language Annals*, 23, 539-53.