The Effects of Anxiety, Shyness and Language Learning Strategies on Speaking Skills and Academic Achievement

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Abstract: The purpose of this research was to investigate the relationship between foreign language anxiety, shyness, language learning strategies, speaking scores and academic achievement of university preparatory students learning German. In addition, it was aimed to determine how the independent variables predict the speaking scores and academic achievement. The research sample consisted of 110 students (75 female and 35 males). Three instruments used in the study were: Foreign Language Classroom Anxiety Scale; Strategy Inventory of Language Learning and Shyness Scale. The results of this study revealed that a moderate significant negative relationship (r= -.434) was present between the students' foreign language learning anxiety and academic achievement. Besides, a significant and negative relationship (r= -.290) was found between foreign language anxiety and speaking scores of students. According to the correlation analysis, no significant relationship was identified between shyness, academic achievement and speaking scores of students. According to the analysis, a significant positive relationship was found between the students' language learning strategies and their academic achievements (r= .275). Namely, these data showed that, the level of academic achievement increases as the use of strategy increases. Similarly, shyness and foreign language anxiety show a moderate positive correlation (r= .419). According to these findings, it may be stated that shyness increases as speaking anxiety rises. Besides, it was determined that students' shyness, foreign language anxiety and language learning strategies predicted 26.4 % of their academic achievement. The results indicated that independent variables were positive predictors of students' academic achievement. Finally, suggestions were made for German teachers to reduce the effects of shyness and anxiety in the process of foreign language learning.

Keywords: *Foreign language anxiety, shyness, language learning strategies, academic achievement.*

Introduction

Foreign language teaching process includes a few basic elements. These are: "teacher", "learner", "method", "material" and "evaluation". The use of foreign languages in communication situations is a result of the compatible use of these elements. Approaches to support the development of four basic language skills, methods, materials, the motivation of the learner, the individual language learning paths and the students' perspectives on the target language and culture are some factors that affect the language learning. Among the factors that affect the motivation of the students as a psychological factor foreign language anxiety plays an important role. Many researchers have investigated the relationship between this psychological factor and foreign language learning and reported that anxiety can impede foreign language production and achievement (Ely, 1986; Horwitz, Horwitz & Cope, 1986; Ganschow & Sparks, 1996; Krashen, l985; MacIntyre, 1995). Schwartz (2005) and Thornbury (2005) argued that "psychological factors such as anxiety or shyness, lack of confidence, lack of motivation, and fear of mistakes are the factors that commonly hinder students from speaking" (as cited in Juhana, 2012, p. 100).

As a productive skill, speaking is strongly affected by psychological factors such as anxiety. Therefore, numerous researchers have concentrated on speaking anxiety as the main component (Young, 1990; Horwitz, 2001; Phillips, 1992; Price, 1991). The speaking skill develops when the language is used in communicative situations. While the

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student is speaking, grammar, vocabulary, fluency, and pronunciation are used at the same time. At the time of speaking, a student tries to articulate language elements correctly and master the emphasis, intonation and rhythm in the language. However, there are some other critical factors that are assumed to affect language proficiency. One of those factors is speaking anxiety. The student thinks that he will make a mistake when talking to her/his teacher in the target language and he has a certain level of anxiety. Another factor that affects the speaking process is shyness. Shyness is regarded as a feeling of anxiety and restraint in places where others are (Jones, Briggs & Smith, 1986). Zimbardo (1982) defined shyness as "a heightened state of individuation characterized by excessive egocentric pre-occupation and over concerned with social evaluation, with the consequence that shy person inhibits, withdraws, avoids and escapes" (p.467-468). Shy students hesitate to speak, try to give short answers to questions asked in the target language and prefer generally to be alone. "Shy students have difficulty with small talk, are slow to share their feelings and typically do not reciprocate when feelings are disclosed by others" (Aron, Aron & Davies, as cited in Condon & Sahd, 2013, p.504). Additionally these students have difficulty in short conversations, do not want to participate in classroom activities and often avoid crowded environments. Although the students' speaking skills are advanced, they may not be able to show them in class because of shyness. Shyness can block a student like a barrier in the language learning process. Shy people often do not like being in the crowd, and have difficulty in meeting with someone new. They believe sometimes that everyone in social settings is looking at them, and thus they are worried.

In order to identify and eliminate the problems experienced by the students in the process of foreign language learning, factors such as anxiety, shyness, and foreign language anxiety should be addressed and the effects of such internal factors in terms of psychological and neurological perspective should be examined. Therefore, the current study aims to examine the effects of language students' anxiety, shyness as psychological factors and language learning strategies on their achievement of speaking scores and academic achievement.

Literature Review

Anxiety, Foreign Language Anxiety (FLA) and Shyness.

Anxiety is defined as uncertainty, fear, distress, restlessness, loss of control, and a state of emotion with the fear that something bad will happen (Reber, 1990; Sapir & Aronson, 1990). Anxiety is considered to be a normal, adaptive emotional response in individuals to a threatening or dangerous situation. "Anxiety is a normal part of life when it is occasional and temporary, but can become pathological or a dis-order when it is frequent or chronic and begins to interfere with daily activities such as work, school, and relationships" (Mah, Szabuniewicz & Fiocco, 2016, p. 29). In general terms, anxiety can be defined as a state of uneasiness or irrational fear in the human being as a reflection of the fear of any danger. Anxiety differs from fear because it is objectless. The object of fear is clear, whereas the object of anxiety is unclear (Budak, 2000). There are three main differences between fear and anxiety. The first one is the source. The source of fear is evident; the source of anxiety is uncertain. The second is severity. Fear is more severe than anxiety. The third is time. Fear is short and anxiety continues for a long time (Cuceloglu, 1991). There are some classifications related to anxiety. According to Spielberger, Gorsuch & Lushene (1970) "Anxiety research has typically divided anxiety into two categories based on whether researchers are interested in long-lasting or transient anxiety: trait anxiety and state anxiety" (as cited in Wilt, Oehlberg & Rewelle, 2011, p. 989). "Trait anxiety refers to either an individual's general disposition to become anxious or typical level of anxiety, whereas state anxiety is usually defined as a person's level of anxiety over relatively short time frames (seconds, minutes, and hours)" (Wilt, et al., 2011, p. 989). State anxiety is accepted as a normal feeling, while trait anxiety is defined as a personality, requiring treatment. According to MacIntyre (1999), distinction between state and trait anxiety is insufficient and the situation-specific anxiety, which is a third type of anxiety, should also be mentioned. Situation-specific anxiety involves being affected by a specific situation or event over time. This anxiety occurs when the student speaks to a foreign person in a foreign language or participates in classroom activities and oral exams in a foreign language. MacIntyre and Gardner (1994) define language anxiety as "the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning" (p. 284). Horwitz et al. (1986) define foreign language anxiety as "a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (p. 128).

Another psychological factor that affects the student while learning a foreign language is shyness. According to Crozier (2004), shyness can be considered an impression management concern and low self-efficacy beliefs about one's social performance. According to Henderson and Zimbardo (1996), "shyness may be defined experientially as discomfort and/or inhibition in interpersonal situations that interferes with pursuing ones interpersonal or professional goals. Shyness is a form of heightened self-focus, obsessed with one's thoughts, feelings and physical reactions"(as cited in Hosseininik & Lancy, 2012, p. 62). According to Tang and Schmidt, "shyness is as social withdrawal-related tendencies in social situations reflected by active avoidance and an anxious preoccupation with the self in response to real or imagined social interactions" (2017, p. 1). Shyness and anxiety have some physiological effects. Several of these physiological effects are cold sweats and shaking, accelerated heart rate, dry mouth, abdominal pain, feeling of dizziness or fainting.

An important problem that remains to be addressed in the learning process is how exposure to stressful situations affects learning and memory processes. Studies in the field of neurology have revealed that emotions such as anxiety, stress, happiness, astonishment impact learning and memory (Joels et al., 2004; Vogel & Schwabe, 2016). In every situation, the brain spontaneously links emotions and thoughts, leading to the formation of patterns. Additionally it has been suggested that chemicals are released in the brain that increase remembering of that activity or situation as a result of any activity or situation being associated with a feeling.

It is to explain the effects of stress and anxiety on learning, it is necessary to first describe the limbic system. Limbic system is the most important part that controls the human emotion system. It is also vital for memory. The limbic system is composed of structures in the brain that deal with emotions (such as anxiety, happiness and concern) as well as memories. The emotional-processing brain structures historically are referred to as the "limbic system". Limbic system is the brain part where emotions are processed and long-term memory formation occurs. "The limbic cortex integrates the sensory, affective, and cognitive components of pain and processes information regarding the internal bodily state" (Lee, 2014, p.130). Emotions controlled by the limbic system serve as mediators between the events around us and our responses to them. Before each action, brain checks the physical and emotional experiences automatically. Based on previous experience, it evaluates the meaning of any action or situation for himself. Emotions come into play at this point, classifying and organizing experiences. Emotions, therefore, lead to the learning of information that allows us to react appropriately to the future situation. The amygdala is responsible for defensive behavior, aggression, the processing and expression of fear and it plays a crucial role with hippocampus in the formation of long term memories. Long-Term Potentiation (LTP) in neurons is required for learning. "LTP is widely considered one of the major cellular mechanisms that underlies learning and memory" (Cryan, 2010, p. 382). LTP formation is also related to synaptic plasticity. "A wealth of data supports the notion that synaptic plasticity is necessary for learning and memory, but that little data currently supports the notion of sufficiency" (Martin, Grimwood & Morris, 2000, p. 649). The corticosteroid levels in the brain increase in a stressful situation. This increase influences the memory formation and behavioral performance. "Over the past decades, it has become clear that a rise in corticosteroid level is also accompanied by a reduction in hippocampal long-term potentiation (LTP). Recent studies, however, indicate that stress does not lead to a universal suppression of LTP" (Joels & Krugers, 2007,p. 1). According to Alfarez, Wiegert and Krugers (2006) "exposure to stressful events has profound impact on hippocampus-dependent learning and memory processes. Traumatic and stressful experiences are remembered well in general, but have also been reported to suppress learning and memory processes"(p. 521).

Language Learning Strategies

Cognitive approach that emerged against behaviorism has generally changed the concept of learning in the 1960's. The learner is an active participant in the process of knowledge acquisition in this approach. The student no longer receives the given information as it is, interprets in his/her own way, forms and controls the process of generating new meanings and learning. In this theory, knowledge acquisition is defined as a mental activity that includes the student's internal coding and structuring (Derry, 1996). From a cognitive perspective learning includes creative processes and active participation of the learner. In other words, learning is a cognitive activity involving the mental processing of information and thoughts (O'Malley & Chamot, 1990, Chang, 2009). Language learning strategies (LLS) can be defined as several ways followed in the process of language learning in general. Oxford (1990, p. 8) defined language learning strategies as "… specific actions, behaviors, steps or techniques that students use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval or use of the new language".

According to Wenden (1991,p.18), it is "mental steps or operations that learners use to learn a new language and to regulate their efforts to do so". Stern (1992, p. 261) defines it as "the concept of learning strategy is dependent on the assumption that learners consciously engage in activities to achieve certain goals and learning strategies can be regarded as broadly conceived intentional directions and learning techniques". Language learning strategies have been classified by many researchers (Rubin, 1981; Fillmore, 1979; Naiman, Froanhlich, Stern & Toedesco, 1978; O'Malley, Chamot, Stewner-Manzanares, Kupper & Russo, 1985; Oxford, 1990; Wenden, 1991). Rubin (1981) proposed three kinds of strategies that contribute directly and indirectly to the process of learning a foreign language: learning strategies, communication strategies, and social strategies. Language learning strategies are classified by O'Malley et al. (1985) into metacognitive, cognitive and socio-emotional strategies. However, Oxford (1990) divides language learning strategies into two main categories: direct and indirect strategies. These two categories include six groups. Direct strategies (memory strategies, cognitive strategies and compensation strategies) apply skills for learning of new words and the recall of information contained in memory and include suggestions that involve direct control of language. Indirect strategies (metacognitive strategies, affective strategies and social strategies) aim to regulate language learning process and permit learners to plan and evaluate their own foreign language learning.

Studies on Shyness, Language Anxiety and Language Learning Strategies.

Beside negative psychological effects of internal factors, there are also negative results that affect the success of students in language learning. The relationship between shyness, anxiety and achievement as affective factors has been studied in many studies. Awan, Azher, Anwar and Naz (2010), and Cakici (2016) found a significant negative

relationship between academic achievement and foreign language anxiety. It has been revealed that students with lower anxiety are more successful than students with higher anxiety. Similarly, Chu (2008) found a moderately positive correlation between foreign language anxiety and shyness. "He also found a negative relationship between shyness and willingness to communicate in both first and second language" (as cited in Bashosh, Nejad, Rastegar & Marzban, 2013, p. 2099).

There are some studies that show negative effects of shyness in language teaching. Paul (2013), Chishti, Amin & Yousaf (2018) and Namaghi, Safaee & Sobhanifar (2015) documented that shyness is significantly and negatively associated with English speaking scores and academic achievement. In another study, Keller, Troesch and Grob (2013) found that shy immigrant children learn second language more slowly and have lower proficiency of foreign language compared to non-shy immigrant classmates. Noormohamadi (2009) investigated the relationship between anxiety and the use of language learning strategy and reported a significant negative correlation between these two variables. According to research results, the more anxious the students are, the less they use strategies. In a similar manner, Chu (2008) reported that non-shy students used language learning strategies more effectively than shy students. Sadeghi and Soleimani (2016) conducted a study with more variables to determine the correlation among language learning strategies (LLS), shyness, anxiety, and ambiguity tolerance. The findings of this study indicate that "the most shy, the most anxious, and the least ambiguity tolerant learners use more strategies and advanced learners were moderately shy while pre-intermediate learners were the least shy" (p. 70). According to Del Angel and Gallardo (2014), language learning strategies together with other personal complementaries lead students to achieve academic success.

In the light of the literature review above, it is assumed that there is a positive relationship between foreign language anxiety and shyness and that these affective factors have negative effects on learning and academic achievement. In addition, it is observed that researchers mostly focused on the relationship between foreign language anxiety-academic achievement and shyness-academic achievement. There are few studies with three or more independent variables (Bashosh et al., 2013 ; Chu, 2008; Cakici, 2016)

Significance of the Study

This study examines the impact of three independent variables on oral performance and academic achievement. Whether the shyness of students in the process of foreign language learning, foreign language anxiety and LLS have effect on the academic achievement and the level of the speaking skills, and the relationship between these variables constitutes the subject of the study. It was also determined the predictive power of independent variables on academic success and speaking scores of students. It is thought that these findings will be beneficial for language teachers in arranging their programs in foreign language teaching, achieving their goals, reducing or eliminating the factors that may pose a problem in language teaching.

In order to fulfill the aims of this study, the following research questions were addressed:

1. Is there a significant difference between academic achievement, speaking speaking scores, foreign language anxiety, shyness and language learning strategies in terms of gender?

2. Is there a significant difference between students' levels of foreign language anxiety, shyness, language learning strategies according to their speaking scores and academic achievement?

3. Is there a relationship between students' shyness and foreign language anxiety?

4. What is the relationship between foreign language anxiety, shyness, language learning strategies, speaking scores and academic achievement of students?

5. Do shyness, foreign language anxiety and language learning strategies predict students' speaking scores significantly?

6. Do shyness, foreign language anxiety, and language learning strategies predict the student's academic achievement significantly?

Methodology

Research Goal

The purpose of the current study is to examine the relationship among shyness, language learning strategies, foreign language anxiety, academic success and speaking scores of students in German language teaching preparatory program, and to determine the prediction power of each independent variable on academic success and speaking scores of students.

Research Design

The current research is based on quantitative correlational design. The correlational method involves analyzing the relationships among multiple variables without manipulating independent variables. This research design which is a as type of non-experimental study tries to determine whether or not two variables are correlated.

Participants

The participants of the current study were 110 preparatory class students in the German teaching program, at Ondokuz Mayis University, in Turkey**.** Of the 110 participant students, 68 % (n:75) were female and the male students constituted 32 % (n:35). These students learn German as a second foreign language after English. The participants were randomly selected among the students learning German and they participated in the research willingly.

Research Instruments

Three instruments were used in the study: Foreign Language Classroom Anxiety Scale (FLCAS), Shyness Scale and SILL.

FLCAS: Foreign Language Classroom Anxiety Scale was used to measure the foreign language anxiety levels of students. The FLCAS was developed by Horwitz et al. (1986) to measure the students' foreign language anxiety level. The scale has 33 items, ranging from "strongly disagree" to "strongly agree." Students' scores ranged from 33 to 165, the higher score indicating greater anxiety. It has been determined by many researchers that the foreign language classroom anxiety scale is a highly reliable scale to measure foreign language anxiety (Chen, 2007; Toth, 2008; Aida, 1994, Price, 1991). This scale was translated into Turkish by Aydin (1999). The internal consistency of the original scale was found to be 0.93 (Horwitz, 1986). The internal consistency of the translated version of the scale was .91 and in terms of retest reliability, the coefficient was calculated as .83 (Aydin, 1999). "For this study 27. item "i feel more tense and nervous in my language class than in my other classes" was eliminated from the questionnaire because the subjects of this study were chosen among foreign language learners and since all the classes they participated in the program were "language classes" this item would not be appropriate for their situation" (Aydin, 1999, p. 54). This item would not be suitable for their situation. Therefore, possible scores of the translated version of FLCAS in the study ranged from 32-160. This scale was conducted to 110 students in the current study Cronbach's Alpha coefficient was found as .91.

The Shyness Scale: Shyness Scale form, which was originally developed by Cheek (1990) as 13 items and examined in terms of validity and reliability and adapted to Turkish by Gungor (2001), was used in this study in order to identify the level of students' shyness. Scale used in the research was a 20-item Likert-type revised "Shyness Scale" with 5-point response format. The scale has no sub-factor. The lowest score from the scale is 20 and the highest score is 100. High scores from the scale point to high levels of shyness; low scores point to low levels of shyness. In terms of retest reliability, the coefficient was calculated as .83 and the Cronbach's Alpha coefficient regarding the internal reliability consistency as .91. Cronbach's Alpha coefficient in current study was calculated as .94.

Strategy Inventory for Language Learning (SILL): Strategy Inventory of Language Learning (SILL) developed by Oxford (1990) was used to measure the language learning strategy use of students. Oxford divided strategies into two main classes as direct and indirect strategies and which are subdivided into 6 groups (memory, cognitive, compensation, metacognitive, affective, and social). The scale consists of 6 subscales with 50 items. Strategy levels are rated as "high", "medium" and "low" use. According to Oxford (1990, p. 300) "mean scores that fall between 1.0 and 2.4 are defined as "low" strategy use, 2.5 and 3.4 as "medium" strategy use, and 3.5 and 5.0 as "high" strategy use". The SILL has a high reliability. Reliability (Cronbach's Alpha) of the inventory is .96 based on a 1.200-person sample (Purdue University) and .95 based on a 483-person sample (Altan, 2004). Similarly, the translated versions of this strategy inventory also have had a high reliability. In these studies, the alpha coefficients have been between .91 and .95 (Watanabe, 1990; Oh, 1992; Park, 1994; Khalil, 2005). The internal consistency reliability of SILL in this study was found as .89.

Data Collection and Analysis

Three instruments were used for this study. The SILL, The FLCAS and The Shyness Scale were administered to 110 students. Participants were given the FLCAS along with SILL and it took about 30 minutes. The Shyness Scale was applied to the students on another day. In this study, foreign language anxiety, shyness and language learning strategies have been taken as an independent variable and academic achievement and speaking scores as dependent variables. SPSS (Version, 22.00) was used for data analysis. Descriptive analysis was used for calculating the means and standard deviation. T-tests were used to determine if there were any differences in language anxiety, shyness, and language learning strategies between female and male students. Pearson Correlation analysis was performed to analyze the correlation between the variables. Additionally, linear multiple regression analysis method was used in order to examine in what level the points that the students get from speaking scores and academic achievement are predicted by the independent variables.

Findings

The first research question to be answered in this study if there is a significant difference between the variables: gender, language learning strategies, shyness, foreign language anxiety speaking scores and academic achievement. The findings are indicated in Table 1.

Table 1. The t-test results for LLS, shyness, FLA, speaking scores and academic achievement according to gender.

	Gender	N	Mean	SD	t	p
Language Learning Strategies	Females	75	3.23	.443	5.777	.000*
	Males	35	2.73	.377		
Shyness	Females	75	52.97	18.07	-1.689	.094
	Males	35	59.60	21.33		
Foreign Language Anxiety	Females	75	88.58	19.26	-1.417	.159
	Males	35	94.62	23.89		
Speaking Scores	Females	75	69.82	10.93	.559	.577
	Males	35	68.57	11.05		
Academic Achievement	Females	75	72.18	7.84	4.126	.000*
	Males	35	63.17	15.10		

*p<.05

As illustrated in Table 1, it was found that female students use more language learning strategies *(M=3.23, SD=.443)* than male students *(M=2.73, SD=.377)*. There was a significant difference, *t(108) =5.77, p=000,* in favor of women in terms of gender in use of strategy. When academic achievement scores of students are examined, it is observed that female students have a higher academic achievement average than male students. The mean of academic achievement of students was *72.18 (SD=7.84)* in females and *63.17 (SD=15.1)* in males. In the analysis, was found a significant difference, *t(108) = 4.12, p=000,* in favor of female students. Taking the results into consideration, it can be reported that female students are more successful than male students. According to the gender variable, it was determined that female and male students were moderately shy. However, the shyness scores of male students *(M=59.60, SD=21.33)* are higher than those of female students *(M= 52.97, SD=18.07)*. According to this result, male students are a little more shy than girls, but a significant difference between the students' shyness levels in terms of gender was not found *(p= .094>0.5)*. Regarding the levels of foreign language anxiety in terms of gender, it is observed that female and male students have moderate foreign language anxiety. However, it was determined that male students had more language learning anxiety than female students. Males showed more foreign language anxiety *(M=94.62,* SD=23.89) than females *(M=88.58, SD=19.26).* A significant difference *(p= .159>0.5)*between these averages was not found. Analysis of the avarage scores of speaking skills indicated that female and male students have a very close average. The mean of the female students' speaking exams was *69.82 (SD=10.93)* and the male students' was *68.57 (SD=11.05).* No significant difference *(p = .577>0.5)* was found in terms of gender according to the scores on speaking exam.

Secondly, it was examined whether there is a significant relationship between academic achievement and speaking scores according to the level of foreign language anxiety, shyness and language learning strategies of the students. Table 2 shows related findings.

Table 2. Tukey HSD comparison for language learning strategies, shyness, foreign language anxiety levels of students according to speaking scores and academic achievement.

			Speaking Scores			Academic Achievement		
	Level (I)	Level (J)	Mean Difference (I-J)	Std. Error	p	Mean Difference (I-J)	Std. Error	p
Language Learning Strategies	high	medium	7.007	2.34801	.010*	7.179	2.48036	.013*
		low	-1.800	4.21133	.904	2.621	4.11047	.800
	medium	high	-7.007	2.34801	.010*	-7.179	2.48036	.013*
		low	-8.808	3.89113	.065	2.621	4.11047	.800
	low	high	1.800	4.21133	.904	-9.800	4.44872	.075
		medium	8.808	3.89113	.065	-2.621	4.11047	.800
Shyness	high	medium	-1.809	2.87451	.804	.9319	3.00648	.948
		low	-1.184	2.96995	.916	1.388	3.10629	.896
	medium	high	1.809	2.87451	.804	-.931	3.00648	.948
		low	.625	2.34850	.962	.456	2.45631	.981
	low	high	1.184	2.96995	.916	-1.388	3.10629	.896
		medium	-.625	2.34850	.962	-.4561	2.45631	.981
Foreign Language Anxiety	high	medium	-3.913	2.50116	.265	-5.333	2.51062	.090
		low	-10.60	3.34573	.006*	-14.92	3.35839	.000*
	medium	high	3.913	2.50116	.265	5.333	2.51062	.090
		low	-6.694	2.85779	.054	-9.588	2.86860	.003*
	low	high	10.60	3.34573	.006	14.92	3.35839	.000*
		medium	6.694	2.85779	.054	9.588	2.86860	.003*

*p< 0.01

This table presents the results of multiple comparison tests of students' strategy, anxiety and shyness levels (high, medium, low). According to Tukey HSD multiple comparison test, a significant difference was found between students' speaking scores who used language learning strategies at high level and speaking scores of the students who used language learning strategies at medium level $F(2, 109)=6.092, p=.010$. This important difference indicates that there is a positive relationship between language learning strategy use at high level and speaking proficiency. According to levels of shyness, there was not found significant difference between speaking scores of students. A significant difference $F(2, 109)=5.053, p=.006$, was found between students' speaking scores with high foreign language anxiety and speaking scores of students with low foreign language anxiety. Speaking scores of low-anxious students were significantly higher than high-anxious students. The relationship between independent variables and students' academic achievement scores was analyzed. According to the findings of this analysis a significant difference $F(2, 109)=5.053, p=.013$ was detected between academic achievement averages of students who use language learning strategies at a high level and the academic achievement averages of students who use language learning strategies at medium level. Accordingly, these findings indicate that students using high level language learning strategies are more successful than students using medium level language learning strategies.

There was no significant difference between the students' academic achievement averages according to their level of shyness. A significant difference $F(2, 109)=9.954, p=.000$ was found between the academic achievement averages of high-anxious students and the success scores of low-anxious students. Similarly, there was a significant difference $F(2, 109)=9.954, p=.003$ between the academic average of students with moderate foreign language anxiety and the academic average of students with low anxiety.

The third research question aims to identify if there is a positive relationship between student's shyness and foreign language anxiety. In Table 3, the results of Pearson correlation tests is displayed.

Table 3. The results of Pearson correlation for shyness and foreign language anxiety of students

		Shyness
Foreign Language Anxiety	Pearson Correlation	.419**
	Sig. (2-tailed)	.000
	N	110

∗∗p< 0.01   ∗∗. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient was calculated between students' total scores on the shyness scale and their scores on the FLCAS. The Pearson correlation test was performed to determine whether there was a significant correlation between shyness and foreign language learning anxiety. In order to determine this relationship, the total scores of the students on the scale of foreign language learning anxiety and shyness were evaluated statistically. Pearson correlation coefficient was determined as the statistical method. According to this analysis, there is a moderately positive correlation $r (109) =0.41, p<0.01$ between foreign language anxiety and shyness. According to these data, it may be pointed out that shyness increases as speaking anxiety rises.

The fourth research question examines if there is a significant relationship between foreign language anxiety, shyness, language learning strategies, academic achievement and speaking scores of students. The related findings are as follows.

Table 4. The results of Pearson correlation for foreign language anxiety, shyness, language learning strategies, academic achievement and speaking scores of student

		Academic Achievement	**Speaking Scores**
Foreign Language Anxiety	Pearson Correlation	-.434**	-.290**
	Sig. (2-tailed)	.000	.001
Shyness	Pearson Correlation	.042	-.028
	Sig. (2-tailed)	.332	.388
Language Learning Strategies	Pearson Correlation	.275**	.115
	Sig. (2-tailed)	.002	.116
	N	110	110

∗∗p< 0.01   ∗∗Correlation is significant at the 0.01 level (2-tailed).

Pearson correlation analysis was performed to determine whether there was a relationship between foreign language learning anxiety, shyness, language learning strategies, academic achievement and speaking scores of students. According to the correlation analysis, a significant and moderate negative correlation $r (109) = -.43, p <0.01$ was found between the students' foreign language learning anxiety and academic achievement. Besides, a significant and negative relationship $r (109) = -.29, p<0.01$ was found between foreign language anxiety and speaking scores of students. The

relationship between "shyness" and "students' academic achievement" and "speaking scores" were also examined. According to the correlation analysis, no significant relationship was found between "shyness", "academic achievement" and "speaking scores" of students. When the relationship between students' language learning strategy usage, academic achievement and speech scores is investigated, the results revealed that a significant positive correlation was found between the students' academic achievements and their language learning strategies $r (109)= .27, p< .05.$ These data show that as the use of strategy increases, the level of academic achievement also increases. However, there was no significant relationship between language learning strategies and speaking scores.

In the fifth research question, it was determined how shyness, foreign language anxiety and language learning strategies predicted students' academic achievement. Table 5 demonstrates the results of the multiple regression analysis.

Table 5. The results of the multiple regression analysis between academic achievement as dependent variable and shyness, foreign language anxiety and language learning strategies as predictor variables

Predictor variables	B	SE	β	t	p
Constant	75,547	7.189		10.508	.000
Shyness	3,993	1.148	.254	2.816	.006*
Foreign language anxiety	-,250	.050	-.458	-5.004	.000*
Language learning strategies	4,206	1.895	.198	2.219	.029*

Note. R= .514, R^2=.264, F=12.698, *p < 0.001

As it is viewed in Table 5, it was determined in the multiple regression analysis that students' shyness, foreign language anxiety and language learning strategies predicted significantly students' academic achievement *[B=75.547, t(110)= 10.508, p<0.001].* In this case, it may be put forward that shyness, foreign language anxiety and language learning strategies significantly predict the variances of the results of students' academic achievement *[R^2=.26, F (75.547)=12.698, p< 0.001].* Because the coefficient of determination (R^2) is greater than 14 %, it may be interpreted as that independent variables have a profound effect on the dependent variable (Cohen, 1988).

In the sixth research question, it was determined how shyness, foreign language anxiety and language learning strategies as independent variables predicted speaking scores as dependent variable. Table 6 represented the results of multiple regression analysis.

Table 6. The results of the multiple regression analysis between speaking scores as dependent variable and shyness, foreign language anxiety and language learning strategies as predictor variables

Predictor Variables	B	SE	β	t	p
Constant	79.720	7.645		10.427	.000
Shyness	1.351	1.508	. 090	.896	.373
Foreign language anxiety	-.161	.053	-.308	-3.026	.003*
Language learning strategies	.835	2.015	.041	.414	.0680

Note. R= .303, R^2=.092, F= 3.566, *p < 0.001

In the multiple regression analysis, it was determined that the students' shyness, foreign language anxiety and language learning strategies predicted 9,2 % of their speaking scores *[R^2=.09, F(79,720) = 3.566, p< 0.001].* The results of the correlation analysis with these results show compatibility with each other. Further, it was determined that, among other independent variables, foreign language anxiety only explains the variance of speaking skill results significantly but at a low level *(p =. 003< 0.001).*

Conclusions and Discussion

In this study, it was aimed to investigate the correlation between foreign language anxiety, shyness, language learning strategies, speaking scores and academic achievement of preparatory class students in the German teaching program. The study also examined the effects of foreign language anxiety, shyness and language learning strategies on students' speaking scores and academic achievement and predictive power. Anxiety has an negative influence on foreign language learning and many researchers have concluded that anxiety level is one of the most important criterion criteria predicting the success of foreign language (Aida, 1994; Horwitz, 1986; Young, 1986). As mentioned earlier, there were numerous are studies reporting the negative effects of shyness. However, no significant effect of shyness on dependent variables was found in this study. Based on the results of the research, female students use more language learning strategies than male students in terms of gender. Besides a significant difference was found in the use of strategy in favor of female students. Female and male students are moderately anxious, but females are less anxious than boys. In addition, the average of academic achievement of female students is higher than the average of male students. There was no significant difference in shyness, foreign language anxiety, and speaking scores according to gender.

In this study, it was determined that foreign language anxiety negatively affected both speaking skills and academic achievement of students. Correlation tests showed that there was a significant and moderate negative correlation *(r= -.43)* between foreign language learning anxiety and academic achievement. This finding of current research is consistent with previous studies (Awan et al., 2010; Bozdogan & Demirdas, 2013; Horwitz, 1986). Similarly, Horwitz (1986) found significant negative correlation between foreign language anxiety and English achievement of students. In the same context, Wilson (2006), Hewitt and Stephenson (2011) investigated the correlation between oral performance and foreign language anxiety of students. According to the results, a significant, moderate inverse relationship was identified between speaking skill achievement and foreign language anxiety *(r= -.49, p= .001)*. In addition, it was found that, male students have higher foreign language anxiety than female students. However, the difference in anxiety level was not significant. Students with lower foreign language anxiety have higher academic achievement and students with higher foreign language anxiety have lower academic achievement. Foreign language anxiety also had negative effects on students' speaking skills *(r= -.29)*. This finding is compatible with researches investigating the effects of FLA on speaking skills of learners (Horwitz &Young, 1991; Aghajani & Amanzadeh, 2017; Liu, 2006). In the same context, the findings of the study by Phillips (1992) revealed a significant, moderately negative relationship between foreign language anxiety and oral performance in general *(r= -.40)*. High anxiety students' speaking scores were low, low anxiety students' speaking scores were high. The difference between the scores of the students according to their anxiety levels is significant.

According to the findings of current study, no statistically significant relationship was found between shyness and academic achievement and students' speaking scores. Contrary to common belief that shyness would have a negative effect on speaking, shyness did not affect academic achievement or speaking skills significantly. There was no significant difference between students' speaking scores and their level of shyness. Likewise, D'Souza (2003) examined the effect of shyness on academic achievement among high school students. The results of this study revealed that shyness did not affect the academic achievement of students. Similarly, Pazouki and Rastegar (2009) found no relationship between shyness and EFL proficiency in their study. However, Chishti, Amin and Yousaf (2018) reported different results on this issue. The results indicated that there was a significant and negative relationship between shyness and academic achievement *(r= -0.38, p=0.01)*.

Speaking scores of students with low shyness and those with high shyness are very close to each other. Similarly, no significant difference was found in the academic averages of these students. Results also indicated that there was a correlation between shyness and foreign language anxiety. Shyness and foreign language anxiety showed a moderate positive correlation *(r= .41)*. Likewise, a positive relation was found between foreign language anxiety and shyness in the studies conducted by Chu (2008), Ordulj and Grabar (2012) and these results coincide with the results of current study. According to findings, it is clearly obvious that shyness increases as speaking anxiety rises.

It was determined that there is a positive and significant relationship between the use of language learning strategies and academic achievement. These results show that the more the language learning strategies are used, the higher the academic achievement will be. This finding is compatible with previous studies (Del Angel & Gallardo, 2014; Oxford & Ehrman, 1995; Macaro, 2001; Uslu, Sahin & Odemis, 2016). Academic average of students using high level language learning strategies were found to be significantly higher when compared with students using low and medium level strategies. However, the same positive correlation was not observed on speaking ability. The correlation test showed that the use of language learning strategy has no significant influence on students' speaking scores. However, there was a significant difference between speaking scores of students using high strategies and speaking scores of students using medium level strategies according to their language learning strategies usage levels.

Multiple regression analysis was also implemented to explore predictive impacts of language learning strategies, shyness and foreign language teaching on academic achievement of students. This analysis showed that using language learning strategies, shyness and foreign language anxiety can predict the 26,4% of the academic achievement in significant manner. However, the same analysis indicated that these independent variables do not predict students' speaking scores.

Suggestions

The findings of the study present that anxiety of learning a foreign language generally impacts both academic achievement and speaking skills negatively. Therefore, for achieving educational goals, teachers should provide the students with the atmosphere to practice speaking in the classroom and perform group activities in target language to improve the self-confidence of the students. Group activities will increase the interaction of students and create a comfortable learning environment. Thus, more activity in the classroom, more positive interaction among students and positive attitude of the teacher will help to reduce anxiety. Such group activities are also very useful for shy students. The results of the study showed a positive relationship between shyness and foreign language anxiety. Therefore, enabling shy students to participate in classroom activities will contribute to reduce their anxiety. In addition, modifying the curriculum of courses to create a low-risk learning environment for shy students can be beneficial. It is quite normal for the students to have a certain level of anxiety and make mistakes when speaking a foreign language. It should be pointed out that mistakes are the best way of learning. However, if they do not notice their mistakes and

repeat them many times, they will be fossilized and the possibility of correction will be reduced. Students' self-confidence may decrease as they do make mistakes. This will encourage the student to avoid speaking in a foreign language and to hide his mistakes. For this reason, detecting the mistakes made by the student and correcting them together with the teacher will create an awareness for the student. Performing error analysis with the students and realizing that the student can overcome the problem will affect the language learning process positively. In addition, teaching the use of language learning strategies will benefit the students' language development. The success of students who use language learning strategies at a high level has been proven by many studies. In this respect, the benefits of using strategy should be explained and language students should be trained on proper use of language strategies effectively and consciously. The level of strategy use of each student should be determined and the results of this test should be presented to the students. Language learning strategies should be applied in the classroom by giving examples.

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