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The Relationship among EFL Learners' Anxiety, Motivation, and Achievement

Mansoore Mahmoodi [*], ***Mehmet Ali Yavuz***

English Department, Cyprus International University, Nicosia 1011, Cyprus

ABSTRACT

This study aimed to investigate the intricate relationship between anxiety, motivation, and achievement among university-level students studying English as a Foreign Language (EFL). It examined the relationships among English learning and motivational factors, specifically (attitude and anxiety), as well as age and gender. A cohort of 120 Iranian EFL learners participated in this investigation, responding to two established and reliable questionnaires: The Foreign Language Learning Anxiety Scale (FLCAS) and the Attitude/Motivation Test Battery (AMTB) by Gardner. The researchers analysed data utilizing SPSS software version 23, employing descriptive statistics, Pearson correlation, and Multivariate Analysis of Variance (MANOVA). Data analysis revealed that the learners tended to experience heightened anxiety with increased exposure to foreign language classes, language assessments, feelings of unpreparedness for class, and difficulties in comprehending teacher feedback or speech in the target language. Moreover, the findings indicated a notable negative correlation between EFL learners' anxiety levels and their motivation. However, neither age nor gender significantly influences the levels of foreign language learning anxiety, attitudes, or motivation. Additionally, the results underscore a substantial negative correlation between EFL learners' anxiety levels and their academic achievement. The results of this study have important educational implications for teachers, students, curriculum developers, and syllabus designers in the field of EFL, emphasizing the necessity of addressing anxiety and fostering motivation within EFL learning environments.

Keywords: EFL Learners; The Foreign Language Learning Anxiety Scale (FLCAS); The Attitude/Motivation Test Battery (AMTB)

*CORRESPONDING AUTHOR:

Mansoore Mahmoodi, English Department, Cyprus International University, Nicosia 1011, Cyprus; Email: mahmoodimansoore@yahoo.com

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1. Introduction

Anxiety and motivation are essential emotional components that are crucial in learning a language [1,2]. While anxiety can hinder language learning, motivation can significantly enhance it [3]. Language learning motivation encompasses several elements, including the aspiration to realize language learning objectives [4] and a positive perception of the learning process. However, motivation alone cannot fully account for the challenges in attaining fluency experienced by certain second/foreign language learners. One significant factor that can contribute to these challenges is language learning anxiety. Language learning anxiety is an intricate and multifaceted phenomenon [5].

Students with high levels of anxiety may refrain from engaging in-class activities that evoke feelings of fear. This group of learners can be uninterested, unprepared, and unable, have an insufficient background, or have weak motivation. Anxiety caused by learning a foreign language can influence the preferences of language learners in the field of courses, fields, and jobs. It can also be a reason for students' resistance to requirements for a foreign language [6]. Students may feel unable to express themselves in a foreign language classroom where anxiety develops. Over the last four decades, many researchers have focused on increasing understanding of motivation's nature and its impact on learning and performance within educational settings [7]. If teachers do not pay sufficient attention to these factors, language learners may become depressed.

Anxiety in language classes leads students to overlook their academic qualifications, creating an inconsistency between their language proficiency and real self-perceived impact on the language learning and learners' motivation [8]. Therefore, it is crucial to encourage learners to minimize their anxiety levels. A non-threatening atmosphere will enhance learner motivation [9]. Teachers should construct a helpful and pleasant classroom atmosphere to keep students motivate [10].

Alleviating anxiety related to language acquisition in the setting of learning a second or foreign language can be a strategy to increase students' motivation. Motivation and anxiety are often opposites: motivated students are self-confident, while those who experience feelings of anxiety may be less unmotivated [11] .Interest and motivation are essential factors directly associated with foreign language anxiety [12]. Few empirical investigations have examined the association between these variables.

This study provides a better understanding of the issues that impact the language learning processes. It served several objectives. Initially, it explored the correlation between anxiety levels and motivation among EFL learners, employing the Foreign Language Learning Anxiety Scale (FLCAS) by Horwitz et al. [6] and the Attitude/Motivation Test Battery (AMTB) by Gardner [4]. Furthermore, this study delved into the connections between learning English and motivation variables, attitude, anxiety, age, and gender. Lastly, it studied the relationship between EFL learners' anxiety and achievement, considering the average score of the participants in their English courses. The main purpose of the research was to address the inquiries as follows:

1. Is there any relationship between the level of anxiety experienced by EFL learners and their motivation?
2. Are there any relationships between learning English and motivation variables, attitude, anxiety, age, and gender?
3. Is there any relationship between EFL learners' anxiety and achievement?

2. Literature Review

2.1. Foreign Language Anxiety and Its Theoretical Background

Anxiety has been extensively explored in the literature as one of the fundamental affective issues in EFL learning, making it a prominent focus of psychological and academic research [13] . Foreign language anxiety discusses the feelings of unease and anxiety that learners may encounter when learning a foreign language. It is a form of anxiety particular to the language learning environments, different from other types of anxiety. This unique anxiety complex encompasses various self-perceptions, conceptualizations, affective states, and behaviours that result from the diverse characteristics of language acquisition in a classroom situation [1]. Researchers have identified two kinds of anxiety: facilitating and debilitating. Within a learning context, facilitating anxiety encourages learners to approach new tasks, while debilitating anxiety leads them

to avoid such tasks. Consequently, anxiety includes the potential to either support or hinder language learning and performance [14].

According to Ganschow and Sparks [15], foreign language anxiety encompasses three fundamental elements: communication apprehension, test anxiety, and fear of negative evaluation. Communication apprehension arises when learners possess developed notions and thoughts, but lack the necessary communication aptitudes to express them effectively. This anxiety is primarily correlated with the challenge of successful communication with others within a foreign language context, distinguishing it from other contexts. Test anxiety refers to the apprehension and fear that learners experience about academic evaluations. It can be characterized as a fear of performing poorly on tests and is often associated with unpleasant experiences. Ultimately, fear of negative assessment shows that foreign language learners cannot convey the desired social impression. This component pertains to the fear of judgment or scrutiny from others, as well as a propensity to steer clear of situations involving evaluation [16].

Recently, investigators have become progressively interested in identifying anxiety encountered by learners in the foreign language classroom. These anxieties are displayed in several behaviours and reactions, such as avoiding challenging linguistic structures, experiencing anxiety during learning exercises, hesitating to volunteer responses or experience oral activities, arriving at class without preparation, refraining from speaking the target language in class, exhibiting a reduced inclination to communicate and express themselves in comparison to their more flexible students [8,17].

2.2. Previous Research on Foreign Language Anxiety

Foreign language anxiety has been widely investigated among adult learners, as noted by MacIntyre and Gardener [18]. However, research on its role among children is relatively limited. Previous studies have primarily focused on investigating foreign language anxiety experienced by students. However, most of them concentrated on either college [19,20] or high school level [15]. Few researchers considered the elementary school level [16].

Moreover, previous studies have analysed diverse factors contributing to foreign language learning anxiety, which can be broadly characterised into situational variables and learners' variables. Situational variables encompass several elements: course content, difficulty levels, actions, teacher conduct and perspectives, and social relations among peers [21]. Students' variables, on the other hand, encompass the following factors: gender, personality traits, perspectives, motivation, self-belief, cultural background, capability, and age [22–24].

In a study at the high school level, Ganschow and Sparks [15] explored the association between foreign language anxiety, proficiency in one's mother tongue, and competency in a foreign language. A total of 154 female students participated in this research. The researchers utilized the FLCAS [6] to estimate anxiety levels. This scale categorized anxiety into three levels: Low, High, and Average. The results revealed that 19% of the students experienced low anxiety, 64% exhibited average anxiety, and 17.5% displayed high anxiety levels. Besides, the findings indicated significant differences between students with low and high anxiety levels regarding phonology/orthography, reading comprehension measures, and foreign language aptitude.

In her study on learners of Japanese as a foreign language, Kitano [25] employed various scales to assess class anxiety, worry about negative evaluation, and self-perceived speaking proficiency. Using multiple correlations and regression analysis, she established a positive association between dispositional fear of negative assessment and anxiety experienced in the foreign language classroom. Additionally, Kitano pointed out that advanced-level learners experience a greater increase in anxiety levels due to fear of negative evaluation compared to students at different competency levels. Interestingly, the research findings revealed that the self-perceived speaking level of competence in the foreign language influenced the anxiety level of males but not that of females.

Kovaç [26] explored the anxiety level among Turkish high school students in a foreign language classroom in Kosovo. Additionally, the researchers investigated whether there were differences in anxiety levels based on three factors: achievement in the foreign language, bilingualism, and the type of high school. The study involved 169 EFL learners from four diverse first-grade high schools. The

researchers used the Foreign Language Classroom Anxiety Scale (FLCAS) to assess the students' anxiety levels. The findings revealed that EFL learners typically practiced modest levels of language anxiety. The results also showed no critical association between learners' foreign language anxiety scores and their level of achievement or bilingual status. Furthermore, the learners' educational context and anxiety level demonstrated no correlation.

Liu and Wang [27] investigated the coping tactics used by Chinese EFL instructors to decrease Foreign Language Anxiety (FLA) among Chinese English learners in online classes. Moreover, they explored the influence of teaching credentials and experience on Chinese English language teachers using a mixed-method design. The findings of the thematic analysis showed that the participants used 26 coping strategies. In the quantitative phase, 200 Chinese EFL teachers answered a newly developed questionnaire. The researchers used three statistical procedures: Cronbach's alpha, factor analysis, and independent samples t-tests. According to the results, the questionnaire demonstrated satisfactory reliability and construct validity. In addition, the findings indicated that instructors with experience and certification implemented coping strategies with greater frequency compared to their less experienced and non-certified counterparts.

2.3. Language Learning Motivation and Its Theoretical Framework

Motivation is a crucial issue in the field of language education, as emphasized by Dörnyei [10] . It is frequently used to account for learners' success or failure in learning. When students lack motivation, they encounter difficulties in following the teacher's instructions and dedicate effort to completing tasks. They consistently evaluate their comprehension and maybe reluctant to seek assistance when needed. The effect of motivation is apparent in all facets of teaching and learning [28].

According to Gardner [4], motivation and language aptitude are essential in determining the success of learning a new language in a classroom setting. Students need strong and positive motivation to engage deeply in learning a new language effectively. Conversely, a lack of motivation can lead to disinterest in the language, lower exam performance, frustration and setbacks in the learning process [1]. Dörnyei [29] introduced a conceptualization of motivation within the context of European foreign language learning (FLL). In foreign language learning environments, students often have limited exposure to the language being studied, resulting in integrative motivation being shaped by broader concepts and beliefs. This motivation entails a curiosity about foreign languages and cultures, as well as an appreciation for the cultural and intellectual aspects of the target language. Moreover, learners are frequently motivated by the novelty and challenge of acquiring and using the target language.

Crookes and Schmidt [30] proposed two fundamental motivation features in language acquisition: internal and external. Internal motivation comprises four elements: interest in the second language based on learners' current perspectives, experiences, and background knowledge; relevance of the second language to personal needs and goals; expectations of success or failure in language acquisition; and outcomes reflecting both intrinsic and extrinsic rewards sought by the learner. Additionally, the authors identified three external factors that contribute to motivated language learning: the decision to engage in learning a second language learning, sustained efforts over time, and maintaining a heightened level of engagement in the process of learning a language.

In terms of the two types of motivation, scholars have differing views on language learning outcomes. Integrative motivation has been considered more beneficial than instrumental motivation in indicating success in acquiring a second language [31]. Intrinsic motivation has a crucial function in second/foreign language learning [32]. Students who hold a positive view of the target culture are inclined to engage in language-related activities with the aim of enhancing their language proficiency [33].

2.4. Previous Research in Language Learning Motivation

Research on motivation for language learning originated with social psychologists in Canada. Two motivation models have been explored in language learning research: the socio-educational model by Gardner [34] and the L2 Motivational Self System by Dörnyei [35]. Gardner's model emphasizes on social-psychological perspectives related to social group motivations and contextual factors, while

Dörnyei's model takes a cognitive-situational approach to learner-based classroom research.

In a study by Marefat and Pakzadian [36] , 409 Iranian EFL learners who were surveyed to explore their motivation and perspective towards English as an International Language (EIL). The researchers utilized Structural Equation Modelling (SEM) to investigate the causal associations among various aspects. They also developed and validated a Persian version of the Attitudes toward EIL Scale. Additionally, the researchers used the adapted Persian motivation scale [37] to investigate the causal relationship between the different motivational elements. The findings revealed that the ideal self and instrumentality promotion positively predicted students' motivational intensity, causing the highest effect. Moreover, cultural realism was a predictor of localization, and localization was positively associated with the dis-ownership of English. EIL attitude was also positively related to cultural realism, while linguistically cultural disposition (negative) negatively influenced other elements [36].

In another study, Oga-Baldwin and Fryer [38] explored the similarities and differences in motivation between learning a foreign language and one's native language within a structured educational environment. They employed a self-determination theory framework. The researchers used latent profile analysis to show person-centred differences in 830 Japanese secondary school students. The results confirmed that the participants were divided into five theoretically consistent groups, exhibiting similar levels of motivation and achievement in various language domains.

Malik et al. [39] utilized a sequential-explanatory mixed-method research design to examine various motivation types, including integrative, instrumental, intrinsic, and extrinsic. The study involved 96 undergraduate students who completed the Attitude/Motivation Test Battery (AMTB) by Gardner [4] to collect quantitative data. The researchers analysed the data using descriptive statistics, t-tests, and ANOVA. The results indicated no significant difference in motivation between male and female learners or between freshman and junior students. However, there were meaningful differences among socio-economic groups regarding intrinsic motivation. Besides, the study found that integrative and extrinsic motivations were relatively higher than instrumental and intrinsic motivations, respectively [39].

2.5. Relationships between Anxiety, Motivation, and Achievement in EFL Context

Gardner believed that second/foreign language anxiety was typical of particular situations. He posited that individual variations in anxiety levels contributed to different achievements. According to Gardner et al. [11], learners motivated by integrative factors experienced less anxiety in L2 contexts than those motivated by instrumental factors. Their research findings indicated that anxiety and motivation are distinct dimensions that can have similar behavioural consequences. Oxford and Shearin [9] emphasized the importance of providing a non-threatening environment to preserve or enhance learner motivation and reduce anxiety levels. Pintrich and Schunk [40] suggested a mutual relationship between learning performance and motivation, with motivation influencing students' learning outcomes and learning outcomes impacting subsequent motivation. Moreover, Noels, et al. [41] observed that highly motivated individuals tend to exert less effort and may be more likely to experience feelings of anxiety. Correspondingly, Dörnyei [10] argued that establishing a supportive and positive classroom atmosphere constituted a crucial step for teachers to take before engaging in further activities to maintain student motivation. He proposed that reducing language apprehension within the second or foreign language acquisition framework was a viable approach to enhancing learner motivation. Brown et al. [22] explored a negative correlation between learners' anxiety and motivation, suggesting that learners became anxious without encouragement. Yan and Horwitz [12] argued that foreign language anxiety is directly correlated with language learning interest and motivation.

Similarly, Aida [42] demonstrated through empirical research that students with heightened levels of anxiety exhibited decreased willingness to participate in educational tasks and tended to achieve lower academic results compared to their less anxious counterparts. Liu [43] also showed a positive correlation between learners' English proficiency and motivation. Moreover, Chang and Liu [44] identified a strong correlation between the use of learning strategies and motivation.

Liu and Chen [7] studied EFL learners' learning motivation and language anxiety, with a sample of 155 high school students in central Taiwan. These participants began learning English either before or during the first two years of elementary school. The results indicated that students experienced moderate level of language anxiety, with no significant differences in anxiety levels among the students. Additionally, a significant negative association was observed between the two key emotional variables: anxiety and motivation.

Welesilassie and Nikolov [45] examined the connection between motivation and anxiety in an Ethiopian context. To collect data, they used two questionnaires: L2MSS and facilitative/debilitative anxiety. The results of the study displayed that learners perceived their L2MSS and FL anxiety at a moderate level. The findings suggested a significant correlation between students' ideal L2 self and their L2 learning experiences. However, a weak yet significant relationship was observed between students' ideal L2 self and debilitative anxiety.

In their study, Wang et al. [46] aimed to explore the relationships between students' emotions, including foreign language enjoyment, anxiety, boredom, and engagement and their English achievement. The researchers employed SEM to assess the hypothesized associations among the variables. The results demonstrated correlations between students' enjoyment, anxiety, and boredom. Furthermore, students' dedication facilitated the relationships between their emotions and English achievement.

In conclusion, previous research has indicated that motivation and anxiety in second/foreign language learning are closely intertwined with other, influencing language acquisition and being subject to change. Nevertheless, there is a lack of extensive research on motivation and anxiety in the context of language acquisition due to the intricate characteristics of language learning and the diverse range of individuals and situations involved in second language/foreign language acquisition [47]. Little empirical research has explored the connection between these factors. Hence, the main aim of this research was to fill this gap by deepening our comprehension of the effects of motivation and anxiety on the process of language acquisition and how they correlate with students' academic success.

3. Materials and Methods

3.1. Participants

The study population consisted of all EFL learners at Payam Noor University of Mashhad, Iran. 120 EFL learners, (male and female) were selected for this study using convenience sampling. These participants were chosen to represent the population and explore the correlation between with their anxiety level, motivation, and achievement.

3.2. Design of the Study

In this quantitative study, the researchers investigated the relationship among anxiety, motivation, and achievement in a study utilized a correlational design. The researchers administered two surveys: The Foreign Language Learning Anxiety Scale (FLCAS) by Horwitz et al. [6] and the Attitude/Motivation Test Battery (AMTB) by Gardner [4] . Another fundamental issue about the design of this study was Sampling was a key consideration in this quantitative research. The study utilized a convenience or opportunity sampling method, where participants were selected based on the researcher's convenience and specific functional criteria [48].

3.3. Instruments

The researcher collected the data using two questionnaires: The Foreign Language Learning Anxiety Scale (FLCAS) [6] and the Attitude/Motivation Test Battery (AMTB) [4].

3.3.1. The Foreign Language Learning Anxiety Scale (FLCAS)

Horwitz et al. [6] constructed the Foreign Language Classroom Anxiety Scale (FLCAS). It consisted of 33 items considering three categories: communication apprehension, test anxiety, and worry of negative assessment in the foreign language classroom. This questionnaire was a five-point Likert-type scale from no to high anxiety. Among the items, ten were phrased negatively, specifically items 2, 5, 8, 11, 14, 18, 22, 24, 28, and 32. Prior to calculating the total scores for this scale, the researchers in this

study reversed these items [49].

3.3.2. Attitude/Motivation Test Battery (AMTB)

Gardner [4] designed the AMTB to compute the crucial attitude/motivation variables. He identified five characteristics in the test battery that make up the social learning model of SLA: instrumental orientation, integrativeness, motivation, perspective toward the learning condition, and language anxiety. Motivation measurement items are categorized into three scales: attitude toward language learning, motivation intensity, and willingness to learn the language. The scores of these subscales show the satisfaction level with the learning task, the portion of endeavour spent on learning the language, and the degree of language proficiency that a language learner intends to achieve [50,51].

3.3.3. SPSS Software 23

This study utilized SPSS Software version 23 to analyse this correlational research data.

3.4. Data Collection

For data collection, the researcher used two questionnaires, including FLCAS and AMTB. The researcher used a Google Form questionnaire and set up Zoom meetings with teachers to provide information on the study. The meetings included information regarding the study's goal, recruitment, and data collection procedures. Participants had to respond to all questions and write the average of their English course scores. The questionnaires were given to each student through a link sent to their WhatsApp or Telegram, social apps in Iran. The students were well aware that the survey would not affect their grades.

3.5. Data Analysis

After collecting the data, the researchers used SPSS Software 23 to analyse the data. The present study employed three essential statistical procedures: descriptive statistics, correlation, and MANOVA. The researchers assessed the fundamental assumptions associated with these statistical procedures, including sample size, linearity, normality, outliers, homoscedasticity, independence of observations, equality of variances, and homogeneity of variance-covariance matrices. Sample size is particularly crucial in MANOVA as inadequate samples can result in unbalanced standardized discriminant weights [52]. It is essential to have more cases in each cell than dependent variables [49]. Therefore, in MANOVA, the sample size requirements per cell should exceed the number of dependent variables. The recommended sample size for optimal outcome is a minimum of 20 observations per cell or the smallest group's sample size should be six to ten times the number of dependent variables [53]. This study incorporates two dependent variables, and thus a sample size of 120 participants is deemed appropriate.

The researchers utilized the results of the Kolmogorov-Smirnova test to evaluate the normal distribution of scores. According to Pallant [49], a non-significant result indicates adherence to normality. In this study, the significance values for the Anxiety Questionnaire and the Attitude/Emotion Questionnaire are 0.005 and 0.000, respectively, suggesting a deviation from normality, which is "quite common in larger samples" . The results of this analysis are presented in **Table 1**.

Table 1. K-S Tests of Normality for EFL Learners.

Construct	Test					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Anxiety Questionnaire	0.100	120	0.005	0.966	120	0.004
Attitude/Motivation Questionnaire	0.165	120	0.000	0.939	120	0.000

a. Lilliefors Significance Correlation

Table 2 presents the mean scores for EFL learners, which were recorded as *92.975* on FLCAS and *115.883* on AMTB. Furthermore, a comparison of the Mean and Trimmed Mean for EFL learners in both the FLCAS and AMTB suggested that these values were closely aligned. Consequently, the researcher opted to retain these cases within the data file [49]. Additionally, **Table 4.2** depicts the standard deviations pertaining to the survey data of EFL learners.

Table 2. Descriptive Statistics for EFL Learners.

		Statistic	Std. Error
FLCAS	Mean	92.9750	2.60277
	% 5 Trimmed Mean	93.3056	
	Median	87.0000	
	Variance	812.932	
	Std. Deviation	28.51196	
	Skewness	0.111	0.221
	Kurtosis	−0.684	0.438
AMTB	Mean	115.8833	1.33406
	% 5 Trimmed Mean	116.2222	
	Median	116.0000	
	Variance	213.566	
	Std. Deviation	14.61390	
	Skewness	−0.438	0.221
	Kurtosis	0.527	0.438

The boxplots representing the learners' data for the FLCAS (Appendix A, **Figure A1**.) indicate that no cases were identified as outliers. In contrast, the boxplots for the learners' data concerning the AMTB (Appendix A, **Figure A2**.) reveal the presence of 14 outlier cases. As a result, the researchers excluded these outliers from the subsequent statistical analysis, thereby adjusting the number of participants to 106. Furthermore, the researchers evaluated the assumption of linearity through the Q-Q plots presented in Appendix A, **Figures A3** and **A4**, where a reasonably straight line suggests a normal distribution [49].

As the results of the MANOVA shown in **Table 3**, the Box's M significance value is reported as 0.58, indicating that the assumption of homogeneity of variance-covariance matrices was upheld [49].

Table 3. Box's Test of Equality of Covariance Matrices.

Box's M	8.163
F	0.836
df1	9
df2	3255.537
Sig.	0.583

Moreover, to assess the assumption of homogeneity of variances, the researcher conducted Leven's Test. As illustrated in **Table 4**, the significance values for both variables exceed 0.05, indicating that the variances are equal.

Table 4. Levene's Test of Equality of Error Variances.

	F	df1	df2	Sig.
FLCAS	1.008	5	100	0.417
AMTB	0.738	5	100	0.597

4. Results

The present study aimed to investigate the relationship between the level of anxiety experienced by EFL learners and their motivation, the relationships between learning English and motivation variables, attitude, anxiety, age, and gender, and the relationship between EFL learners' anxiety and achievement. It employed two questionnaires to address these research questions: The Foreign Language Learning Anxiety Scale (FLCAS) by Horwitz et al. [6] and the Attitude/Motivation Test Battery (AMTB) by Gardner [4]. The researchers conducted three primary statistical analyses, including descriptive statistics, correlation, and MANOVA, using SPSS software version 23.

As for finding the answer to research question one, the researcher examined the correlation between anxiety levels and motivation among EFL learners. To explore this relationship, the researcher employed the Pearson product-moment correlation coefficient. Prior to conducting the correlation analysis, an introductory examination was performed to confirm the absence of violations regarding the assumptions of outliers, normality, linearity, and homoscedasticity. According to Pallant [49] , the magnitude of the correlation coefficient is a crucial factor in the interpretation of correlation outcomes. The coefficient value can range from −1 to 1, with higher absolute values indicating a stronger relationship between the variables. As outlined by Cohen's [54], a correlation coefficient of r = 0.10 to 0.29 denotes a small effect size; r = 0.30 to 0.49 signifies a medium effect size; and r = 0.50 to 1.0 represents a large effect size.

In the current study, the findings showed a significant negative relationship between EFL learners' level of anxiety and motivation ($r = -0.54$, $n = 106$, $p < 0.05$), in accordance with Cohen's criteria. The R2 value demonstrates a variance of 29% between the levels of anxiety and motivation among EFL learners. These findings suggest that as learners' motivation increases, their level of anxiety decreases. **Table 5** provides a summary of this section.

As for finding the answer for research question two, the researchers sought to examine whether the levels of anxiety experienced by EFL learners, as measured by FLCAS, and their scores on the AMTB varied according to two demographic variables: age and gender. To investigate

this, a multivariate analysis of variance (MANOVA) was employed to assess gender and age differences in FLCAS and AMTB among EFL learners. The study manipulated two dependent variables: FLCAS and AMTB, while the independent variables were age and gender.

Table 5. Correlations between EFL Learners' Level of Anxiety and Motivation.

		Anxiety	Attitude/ Motivation
Anxiety	Pearson Correlation	1	−0.542**
	Sig. (2-tailed)		0.000
	N	106	106
Attitude/Motivation	Pearson Correlation	−0.542**	1
	Sig. (2-tailed)	0.000	
	N	106	106

** Correlation is significant at the 0.01 level (2-tailed).

The researcher conducted preliminary assumption testing to assess for normality, linearity, univariate and multivariate outliers, and the homogeneity of variance-covariance matrices, with no severe violations identified. The results of the MANOVA for learners, as presented in **Table 6**, indicate that age yielded F (6, 198) ~ 1.933, P ~0.077, Wilks' Lambda ~0.89, gender produced F (2, 99) ~ 1.387, P ~0.255, Wilks' Lambda ~0.97, and the interaction between age and gender resulted in F (2, 99) ~0.761, P ~ 0.470, Wilks' Lambda ~0.98. None of these factors exerted a significant influence on the dependent variables: FLCAS and AMTB. Consequently, the findings indicate that the age and gender of EFL learners do not significantly affect their levels of foreign language learning anxiety, attitude, and motivation.

As for finding the answer for research question three, the current research investigated the correlation between EFL learners' anxiety and achievement. For the achievement variable, the researcher utilized the participants' average scores in their language learning class. The present study analysed the association between these two variables using the Pearson product-moment correlation coefficient. As indicated, the preliminary analyses revealed no violations of the assumptions of linearity, normality, homoscedasticity, or the presence of the outliers.

In alignment with Cohen's theory [54], the findings from question four indicated a significant negative correlation between EFL learners' level of anxiety and achievement ($r = -0.84$, $n = 106$, $p < 0.05$). The R2 revealed that 70% of the variance in achievement could be accounted for by the levels of anxiety among EFL learners. The results suggest that a decrease in anxiety levels is associated with an increase in achievement. **Table 7** presents the detailed findings of this analysis.

Table 6. Multivariate Tests[a] for EFL Learners.

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept Pillai's Trace		0.966	1390.114[b]	2.000	99.000	0.000
	Wilks' Lambda	0.034	1390.114[b]	2.000	99.000	0.000
	Hotelling's Trace	28.083	1390.114[b]	2.000	99.000	0.000
	Roy's Largest Root	28.083	1390.114[b]	2.000	99.000	0.000
Age	Pillai's Trace	0.108	1.898	6.000	200.000	0.083
	Wilks' Lambda	0.892	1.933[b]	6.000	198.000	0.077
	Hotelling's Trace	0.120	1.968	6.000	196.000	0.072
	Roy's Largest Root	0.119	3.983[c]	3.000	100.000	0.010
Gender	Pillai's Trace	0.027	1.387[b]	2.000	99.000	0.255
	Wilks' Lambda	0.973	1.387[b]	2.000	99.000	0.255
	Hotelling's Trace	0.028	1.387[b]	2.000	99.000	0.255
	Roy's Largest Root	0.028	1.387[b]	2.000	99.000	0.255
Age *	Gender Pillai's Trace	0.015	0.761[b]	2.000	99.000	0.470
	Wilks' Lambda	0.985	0.761[b]	2.000	99.000	0.470
	Hotelling's Trace	0.015	0.761[b]	2.000	99.000	0.470
	Roy's Largest Root	0.015	0.761[b]	2.000	99.000	0.470

a Design: Intercept + age + Gender + age * Gender

b Exact statistic

c The statistic is an upper bound on F that yields a lower bound on the significance level.

Table 7. Correlations between EFL Learners' Level of Anxiety and Achievement.

		Achievement	FLCAS
Achievement	Pearson Correlation	1	−0.844**
	Sig. (2-tailed)		0.000
	N	106	106
FLCAS	Pearson Correlation	−0.844**	1
	Sig. (2-tailed)	0.000	
	N	106	106

** Correlation is significant at the 0.01 level (2-tailed).

5. Discussion

The primary aim of the present study was to improve the understanding of the issues manipulating language learning processes among EFL learners. Moreover, this research investigated the relationships between anxiety levels and motivation, and the impact of demographic variables such as age and gender on these constructs. In this quantitative study, the researcher employed descriptive statistics, correlation analysis, and MANOVA (multivariate analysis of variance) to analyse the data. The findings indicated that learners experienced elevated levels of anxiety under various conditions, including: attending a large number of foreign language classes; participating language assessments; being unprepared for language classes; lacking adequate preparation for anticipated questions from the language teacher; struggling to comprehend the corrections by the teacher; having difficulties understanding every word of the language teacher; and facing challenges in grasping the teacher's speech in the foreign language.

Furthermore, the results of the current study demonstrated a significant negative correlation between the anxiety levels, motivation, and achievement among EFL learners. Specifically, the increased motivation among EFL learners was associated with reduced anxiety levels. Additionally, lower anxiety levels corresponded with higher achievement levels. The MANOVA analysis further demonstrated that demographic variables such as age and gender did not significantly influence on the dependent variables: learners' anxiety levels (assessed via the FLCAS) and their attitude/motivation (measured through the AMTB).

The outcomes of the current study align with those of a prior investigation conducted by Cakıcı [13] . Cakıcı explored the correlation between foreign language anxiety and language achievement among university preparatory students. Her findings revealed a significant negative relationship between foreign language anxiety and achievement, suggesting that as anxiety levels increase, language achievement tends to diminish. In other words, high levels of language anxiety were found to be associated with lower academic achievement.

Additionally, Andrea [55] conducted a study on the anxiety levels of the students at Dunaújváros University and examined their perspectives on learning a second or foreign language. The aim was to determine whether a correlation existed between students' anxiety levels and their academic achievements. The findings revealed that participants experienced relatively high anxiety levels, primarily due to concerns regarding failure in their foreign language classes. They often compared themselves unfavourably to peers who were perceived to possess greater language proficiency and felt apprehensive when interacting with native speakers of foreign language. However, contrary to the findings of the current study, the results displayed no significant relationship between anxiety levels and academic achievements.

Moreover, this research's findings confirm the results of a study by Kord et al. [56] . They explored the influence of motivation and anxiety on language learners' performance and their overall learning experience in the classroom. They discovered a significant association between the level of motivation and anxiety among language learners and the learning process.

In another study, Tahernezhad et al. [57] investigated the degree of anxiety among Iranian intermediate EFL learners and its relationship to their motivation. 80 EFL learners (35 males and 45 females) selected through cluster random sampling answered two questionnaires: Foreign Language Learning Anxiety Scale (FLCAS) and Gardner's Attitude/Motivation Test Battery (AMTB). The results showed that most participants experienced a mid to high level of language learning anxiety. Moreover, the results showed a negative relationship between the levels of language learning anxiety and their motivation. Besides, the findings show no significant difference between the anxiety and motivation levels of male and female participants, revealing that gender did not play an influential role in these two variables.

In a meta-analysis study, Piniel and Zólyomi [58] analyzed 48 studies that used the FLCAS to investigate the potential gender differences in language anxiety. The findings showed gender-related differences were not statistically significant. The results of moderator investigations displayed that age did not influence this relationship.

Furthermore, Pei [59] examined the associations between motivation and anxiety of college students. The study used an anxiety and a motivation scale to collect data, analyzed by SPSS. This research used descriptive statistic and correlation analysis. The study findings specify a strong negative relationship between motivation and anxiety. While anxiety and intrinsic motivation meaningfully linked negatively, anxiety displayed no relationship with extrinsic motivation. Moreover, in a quantitative study, Altamimi [60] investigated the relationship between language anxiety and foreign language achievement of learners using FLCAS to evaluate the anxiety levels in the foreign language learning process. The findings showed a negative correlation between the two variables, emphasizing that language anxiety was a hindering factor in language achievement.

However, the findings of the present study are in contrast with the results of the research done by Rababah and Almwajeh [61] . They analyzed the differing gender-based levels of anxiety male and female students at Jadara University, Jordan, experience, employing The Foreign Language Classroom Anxiety Scale to indicate gender differences in the influence of anxiety on learning. The results showed that the female students displayed much higher levels of anxiety when it came to learning a foreign language.

6. Conclusions

The current research investigateed the extent of anxiety experienced by EFL learners in the language classroom. Furthermore, the study sought to investigate the correlation between anxiety levels and motivation of EFL learners. Furthermore, this research examined the relationships between English language learning and motivation variables, attitude, anxiety, age, and gender. Ultimately, the study analysed the association between EFL learners' anxiety and academic achievement. The researchers employed two questionnaires: The Foreign Language Learning Anxiety Scale (FLCAS) [6] and the Attitude/Motivation Test Battery (AMTB) created by Gardner [4].

The first research question inspected the anxiety levels of EFL learners within the educational setting. To this end, the researcher utilized a five-point Likert-type scale, specifically the FLCAS. To calculate the average mean scores of participants' responses to the questionnaire items, the descriptive statistics were performed using SPSS. The findings reveaked that learners exhibit higher levels of anxiety under the following conditions: attending multiple foreign language classes, feeling uncomfortable during assessment in a language class, not being prepared very well for a language class, lack of preparation for the language teacher questions beforehand, not comprehending the corrections provided by the teacher, not understanding every word of the language teacher, and difficulties in comprehending the teacher's speech in the foreign language.

The second research question investigated the relationship between EFL learners' levels of anxiety and motivation. The researcher examined the correlation between these two variables, operating the Pearson product-moment correlation coefficient. In alignment with Cohen's [54] framework, the current study illustrated a substantial negative correlation between EFL learners' level of anxiety and their motivation. Specifically, as the learners' motivation increases, their anxiety levels diminish.

In addressing the research question three, the researcher examined whether the levels of anxiety among the learners and their scores on Attitude/Motivation Test Battery varied based on the demographic variables such as gender and age. By employing a MANOVA, the researcher examined the potential differences in the FLCAS and AMTB among EFL learners across gender and age groups. The results of the MANOVA indicated that neither age nor gender had a significant effect on the dependent variables, namely. FLCAS and AMTB.

In research question four, the researcher explored the association between EFL learners' achievement and anxiety using the Pearson product-moment correlation coefficient. The achievement variable was determined by the average scores of participants in their language learning classes. According to Cohen's [54] guidelines, the results of this inquiry displayed a substantial negative correlation between EFL learners' level of anxiety and their academic achievement.

Specifically, lower levels of anxiety among EFL learners were correlated with higher levels of achievement.

This study's discoveries have various educational implications for EFL instructors, students, developers of educational plans, and creators of syllabus. By identifying the level of EFL learners' anxiety, teachers can create a less stressful classroom environment. Furthermore, teachers can implement strategies to encourage language acquisition while simultaneously alleviating students' anxiety. In addition, understanding the relationship between anxiety and achievement can enable educators to provide targeted support aimed at enhancing students' academic achievement. Curriculum developers and syllabus designers may also consider organizing in-service classes for teachers, where they can discuss the underlying causes of learners' anxiety in EFL contexts and propose various pedagogical strategies to address these challenges.

Several limitations must be acknowledged in this research. In this quantitative study, the researcher utilized two questionnaires as instruments for data collection. For subsequent studies, it may be beneficial to incorporate a variety of methodologies, including interviews, observations, journals, and ethnographic approaches. Furthermore, the researchers could consider utilizing grounded theory methodology to conduct qualitative research and to develop a model illustrating learners' levels of anxiety. In this study, the researcher focused on two demographic variables: gender and age. Future research could explore additional demographic variables, such as the academic level of learners. Additionally, future studies may assess teachers' perceptions regarding learners' levels of anxiety within the classroom setting. It is also noteworthy that the number of participants who completed the questionnaires in this study was limited. Future research could encompass a larger sample size from a diverse range of universities across the country.

Author Contributions

Conceptualization, M.M. and M.A.Y.; methodology, M.A.Y.; software, M.M.; validation, M.A.Y. and M.M.; formal analysis, M.M.; investigation, M.M.; resources, M.A.Y.; data curation, M.M.; writing—original draft preparation, M.M.; writing—review and editing, M.M.; supervision, M.A.Y.; project administration, M.M. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement

Not applicable.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study. They filled the consent form before answering the questionnaires.

Data Availability Statement

Not applicable.

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Conflicts of Interest

The authors declare no conflict of interest.

Appendix A

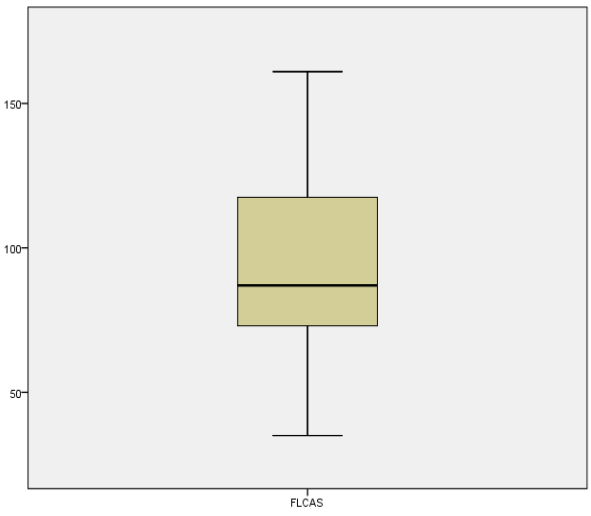

Figure A1. Boxplot Learners' Foreign Language Learning Anxiety, Outlier Assumption.

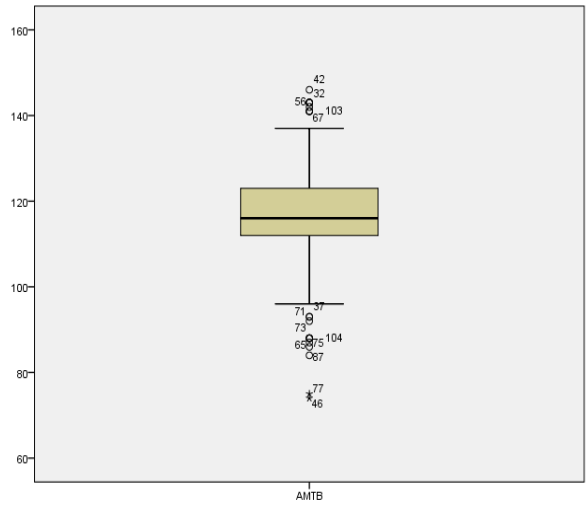

Figure A2. Boxplot Learners' Attitude/Motivation Test Battery, Outlier Assumption.

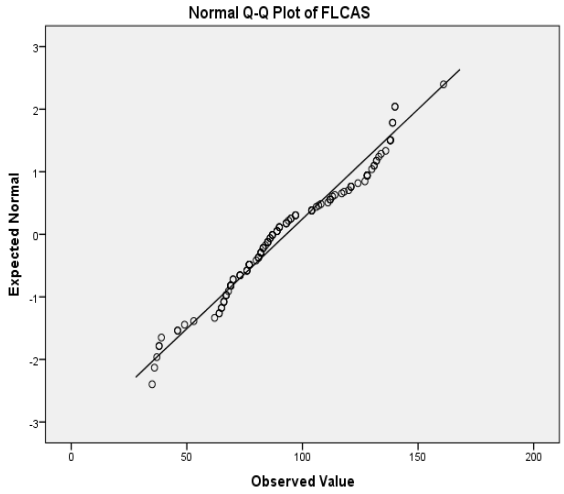

Figure A3. Q-Q Plot for Linearity Assumption, Learners' Foreign Language Learning Anxiety.

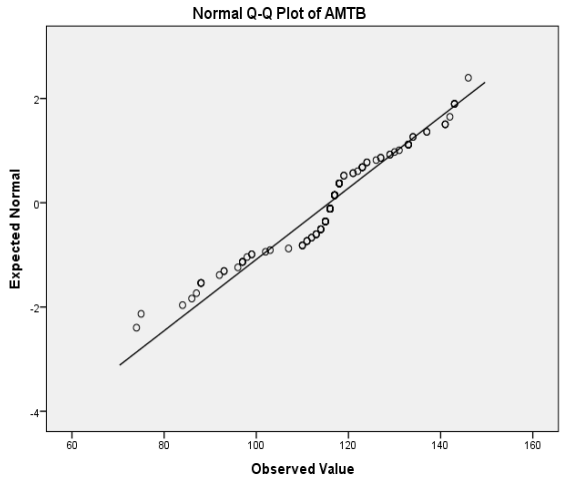

Figure A4. Q-Q Plot for Linearity Assumption, Learners' Attitude/ Motivation Test Battery.

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