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English Language Learners' Self-efficacy, Foreign Language Anxiety, and Oral and Written Language Production: A Structural Equation Modeling

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Abstract: Educational psychologists and applied linguists have studied English language learners' self-efficacy, language anxiety, and language production separately. However, the structural relation of the English language learners' self-efficacy, foreign language anxiety, and oral/written language production has not been validated. A structural equation modeling consisting of learners' self-efficacy as the independent variable, language anxiety as the mediator variable, and production tasks (oral and written) as dependent variables, was evaluated using Smart-PLS. The data were gathered through self-efficacy questionnaire, foreign language anxiety scale, oral production test, and written production tasks from 264 Iranian EFL learners who were selected through convenience sampling. Smart PLS software was used for analyzing the data. The hypothesized model was evaluated, and it was found that the model enjoyed an acceptable level of divergent and convergent validity and goodness of fit. The results also showed that language learners' self-efficacy reduces their foreign language anxiety. Moreover, learners' self-efficacy through reducing the learners' anxiety improves the language learners' performance on oral and written production tasks. The findings can be used by English language teachers and students to collaborate and apply coping strategies to reduce language anxiety. Furthermore, through reducing anxiety, the learners can develop foreign language skills, particularly oral and written productions.

Keywords: Learners' self-efficacy, Language anxiety, Oral production, Structural equation modeling, Written production

Introduction

Language learners' academic success depends on various personal variables and contextual factors. As an individual variable, Self-efficacy (SE) is the most powerful human motivation, affection, and action (Bandura, 2006). Self-efficacy was defined initially in Bandura's social cognitive sciences as a belief in one's ability to carry out the sequences of actions needed to achieve a given level of achievement (Bandura, 1997). Based on what can be inferred from Bandura (1994), learners' self-efficacy beliefs can strongly predict their future ability to perform actions or complete tasks. Self-efficacy shows why people act differently when doing assigned tasks despite having similar competence levels. Researchers interested in the self-efficacy of different professions, particularly teachers, have claimed that self-efficacy is correlated with different distinguishing positive and negative outcomes (Fathi et al., 2021).

Findings of several related studies have verified the structural correlation between language learners' self-efficacy beliefs and academic achievement (e.g., Bong & Skaalvik, 2003). Self-efficacy affects the language achievement of learners with different language proficiency levels (Wang et al., 2014). The effect of learners' self-efficacy on academic and personal variables is moderated by other variables, such as teachers' roles and teaching abilities (Wang et al., 2021). They have identified self-efficacy profiles using a person-centered latent profile analysis (LPA) and explored their relationships with academic emotions and language proficiency. They recruited 300 non-English major undergraduates from two universities in China. Results revealed three groups representing medium, low and high self-efficacy levels. They reported that the students with a high level of SE experienced the most pleasant emotions (enjoyment, pride) and the least unpleasant emotions (anger, anxiety, and

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shame) and scored highest in the overall language test and the listening and reading subtests. However, the students in the low and medium SE groups showed differences in most measures of academic emotions but not in language proficiency. In another study by Williams and Andrade (2008), autonomy-supported teaching methodology was hypothesized to impact learners' achievements through their SE beliefs indirectly.

Another variable that might affect the language production (written and spoken) of the language learners is the level of foreign language anxiety (FLA). FLA is one of the predictors of emotional differences in language learners and one of the main barriers to academic success in them (Amiri & Ghonsooly, 2015). As Serraj (2015) believes, fear is one of the emotional filters and predictors affecting different learning stages. Ohata (2005) argues that FLA cannot be defined linearly. Instead, it is a complex psychological phenomenon affected by different variables. According to Anyadubalu (2010), there is a significant moderate negative relationship between English language anxiety and self-efficacy among middle-school students. This indicates that students who perceive high level of self-efficacy in themselves experience lower level of English language anxiety. Yuh-show (2001), furthermore, showed a strong negative correlation between a foreign language anxiety and self-efficacy in acquiring the foreign language.

The literature on the relationship between teachers' SE and FLA has mainly focused on general SE, subjective well-being, and mental well-being (e.g., Cansoy et al., 2020; Jeon et al., 2018; Klainin-Yobas et al., 2016). Mainly, they considered SE as a predictor variable and mental health, well-being, burnout, stress, and anxiety as dependent variables. For example, the association between teacher SE and psychological well-being has been explored in some studies (e.g., Bentea, 2017; Fathi et al., 2021; Hall-Kenyon et al., 2014; McInerney et al., 2015). Consequently, there needs to be more research on the level of learners' SE behaviours, considering context-specific variables predicting teachers' psychological well-being. However, the number of studies on the direct effect of language learners' perceived self-efficacy and their FLA needs to be more extensive. Therefore, it is worthy and of great importance to study Iranian EFL learners' FLA to remedy the lack of research in this field. That is, the effect of learners' FLA as a mediator variable between learners' SE and their performance in the production language needs to be better documented.

In line with the gap of the study, mentioned in the above section, this study attempts to investigate the effect of the language learners' perceived self-efficacy on reducing their FLA. It also investigates the structural relations between the language learners' foreign language reduction and their oral and written language production. Therefore, to be more specific and straightforward, the following research questions are stated:

Research Question One: Is there any significant relationship between the language learners' perceived self-efficacy and their foreign language anxiety?

Research Question Two: Is there any significant relationship between the learners' perceived self-efficacy and their oral production considering their language anxiety as a mediator variable?

Research Question Three: Is there any significant relationship between the learners' perceived self-efficacy and their written production considering their language anxiety as a mediator variable?

Review of the Related Studies

Learners' self-efficacy (SE) and foreign language anxiety (FLA) are the main variables of this study. The primary studies on each variable are reviewed as follows.

Learners' Self-Efficacy

Bandura (1994) defined self-efficacy very briefly as people's beliefs and assumptions about their capabilities that provoke performance levels that affect their lives. As inferred from the analysis of the previous studies, people's beliefs play an important and decisive role in their feelings, motivations,

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behaviours, and thoughts. However, the SE concept sometimes needs to be clarified with other similar concepts, such as self-concept, which might lead to inconsistencies in the questionnaires, tools, and scales developed for assessing the self-efficacy of people, particularly language learners' tools developed especially for self-efficacy. Self-concept and self-efficacy concepts are associated with people's emotions and performances (Bong & Sklaavic, 2003). For people who experience stress and anxiety, SE is one of the factors that can overcome this trait (Panc et al., 2012). SE beliefs can influence the individual's quality of functions through motivation, emotion, cognition, and decision mechanisms.

As Çobanoğulları (2022) suggested, "people's beliefs about their abilities also affect their way of thinking. Individuals may think pessimistically or optimistically in line with their self-efficacy beliefs. Thus, they can activate themselves in the context of the performance or lower their performance level" (p.3). Individuals' SE determines not only the individual's ability to resist failures and difficulties but also their level of motivation (Fathi et al., 2021). Bandura (2011) maintained that people with low self-efficacy believe that, when facing obstacles and difficulties, they very quickly give up because they think their efforts are useless. Schunk (2012) has also suggested that to succeed and progress academically, students need not only skills and knowledge but also a high level of self-efficacy. Therefore, students with similar abilities, skills, and knowledge levels might have the same academic progress chance because of different self-efficacy levels (Bandura, 1993).

Recently, Çobanoğulları (2022) developed a reliable scale for measuring German learners' SE beliefs. As a result, a questionnaire consisting of 23 items and 3- factors was developed. He has concluded that the learners' language learning, their confidence and language skills development are related to the learners' self-efficacy beliefs. He has proved that the developed scale is a valid tool for measuring SE. Self-efficacy is a motivational trait that can improve students' learning and academic achievement (Akengin et al., 2014; Hwang et al., 2016). Because many researchers are familiar with the significance of self-efficacy in educational settings, it has been intensively investigated in education. Many related studies in the education field have confirmed the association between the learners' academic achievement and their level of self-efficacy (Hayat et al., 2020; Köseoğlu, 2015; Motlagh et al., 2011; Phan, 2012). Despite the differences between the fields of the studies, the significance of SE is demonstrated when it comes to learning. In addition to the studies mentioned above, several studies investigated the university students perceived self-efficacy beliefs in language basic skills (Afifah & Indriwardhani, 2021; Akın & Akpınar Dellal, 2016; Aydın, 2013; Can, 2020; Katrancı, 2014; Yeşilyurt, 2013; Busse, 2013; Hsieh, 2008).

Previous studies indicated a correlation between teachers' self-efficacy and mental health (Zimmerman & Cleary, 2006). Bandura (1997) believes that SE is first of all a belief and then an action, so to strengthen it, a valuable and practical attitude should be created in the person towards himself. Then, he should be taught the ability to identify the ways to succeed, to have the correct perception, interpretation, and evaluation of situations, and to have a positive mood to face challenges. According to Bandura (1990), perceived ineffectiveness plays a central role in depression, anxiety, stress, neuroticism, and other emotional states. Teachers with high levels of SE can effectively plan classroom tasks, activities, and assignments. They can also increase education quality (Hoi et al., 2017). Fathi et al. (2021) claimed that creating strong motivation in students does not only come from the teacher's specialized knowledge but mainly from his personality traits, views, attitudes, behaviour, and actions, and the sum of these characteristics makes the classroom atmosphere calm and cooperative.

Akin and Akpnar Dellals (2016) determined the self-efficacy beliefs of German learners. They examined students' self-efficacy expectations by type of gender, grade level, and high school attendance. They concluded that there was no significant association between learners' level of self-efficacy and the type of school at which study. However, they maintained that 4th-grade students' SE exceeded the SE of the students in other classes and male students turned out to have a higher level of SE than female students. In contrast, Can (2020) reported that male and female learners of the German language have the same level of self-efficacy.

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Foreign Language Anxiety

Related studies reveal that students' beliefs, perceptions, and classroom environment implicitly influence second language learning and that several factors can be attributed to the development of anxiety in L2 learners. Since the 1970s, studies have been abundant on the factors and variables influencing language learners' FLA (Al-Shboul et al., 2013; Al-Khasawneh, 2016; Lian & Budin, 2014; Lucas et al., 2011). The English language is the most widely spoken. It plays a vital role in the students' academic and professional lives (Gopang et al., 2015; Teng & Sinwongsuwat, 2015). Furthermore, great emphasis has been placed on the effective role of the English language in educational institutions, as it is one of the fundamental success factors for students enrolled in universities where English is the medium of instruction (Pendergrass et al., 2001).

FLA has been one of the best-studied affective variables in foreign language learning since the 1980s when Krashen (1981) first postulated that the affective factors (fear, motivation, and confidence) play a crucial role in foreign language learning success. Pioneering the study of affective factors in foreign language learning, MacIntyre and Gardner (1994) found that affective factors, particularly FLA, affect the performance of EFL learners. In this context, he developed the Attitude/Motivation Test Battery (AMTB) to assess learners' motivation, attitude and anxiety. In their great work on bridging the gap between theory and practice in FLA, Horwitz, Horwitz & Cope (1986) developed the Foreign Language Classroom Anxiety Scale (FLCAS), which has become the most widely used tool to measure learners' FLA. They developed the FLCAS using EFL learning reports, their clinical experiments, and a thorough examination of existing related tools such as the Personal Report of Communication Apprehension (McCroskey, 1984). A subsequent study by Horwitz (2001) reviewed the reliability and validity of the FLCAS. It concluded that there was no significant correlation between FLA and communication anxiety, negative evaluation anxiety, and trait anxiety.

It can be noted that FLA is not limited to language learners, but non-native teachers and student teachers can also experience FLA (Horwitz, 1996). According to Horwitz (1996), FLA by teachers can negatively affect the teaching and learning of foreign languages. However, this area of FLA is still under-researched, and there seems to be a need for further research on anxiety among foreign language teachers and student teachers. Not only does FL anxiety adversely affect learners' verbal behaviour, but it also negatively impacts learners' nonverbal behaviour. Physiological reactions to anxiety (e.g. risen heart rate, skin conductance) uncover that anxiety is not under a learner's control (Gregersen et al., 2014; Sevinç, 2018). Horwitz et al. (1986) reported that some psycho-physiological symptoms (e.g. panic, shivering, sweating, fast heartbeat, restless sleep) appear as a result of anxiety in learners who suffer from it. Gregersen (2005) also pinpointed non-verbal physical differences in anxious learners' behaviour compared to those who feel more at ease: differences such as fewer facial and brow expressions, making less eye contact with their teacher, restless body posture, less hand movement to express what they mean, and more eye blinks. In the wake of anxiety, psychological symptoms roll up, which last long and take some doing to subside.

Fluency, accuracy and complexity are three critical criteria of language proficiency in speaking, which are all widely damaged by anxiety; MacIntyre and Gardner (1994) realized that anxious learners had some difficulties in their oral behaviour, such as lack of complexity, fluency and proper accent. In addition, Kim and Tracy-Ventura (2011) found that highly anxious learners were almost always less accurate when using the simple past tense. If anxiety arises, FL communication becomes restricted, and facial expressions consequently decline (Gregersen, 2005).

Anxiety occurrence is not linear, i.e., a consequence of a network of prior internal and external variables (Dewaele, 2017). One of the variables could be the learner's anxiety background. If a learner was already exposed to anxious situations (i.e., trait anxiety), they are more likely to illustrate it in an FL context (Dewaele, 2013). Moreover, some personal traits, such as being extroverted or introverted, are salient in this regard, as extroverted learners tend to be less anxious compared to introverted ones; however, in terms of language development abilities, both parties appear to have their distinctive upsides and downsides (Dewaele, 2013; Dewaele et al., 2019). The level of anxiety is predictable by

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the extent to which a learner is inclined to a positive mental disposition, i.e. mentally positive learners have a more positive self and others conceptualization, make sense of social support, and finally, are more capable of relieving FL anxiety (Jin & Dewaele, 2018). Learner's attitude is another variable that can actively affect the degree of FL anxiety. Learners who have a positive attitude toward themselves and others are more able to lower FL anxiety (Dewaele, et al., 2018); accordingly, attitude and perceived FL competence toward teachers and FL learning can be a negative predictor of learner's anxiety in case of FL learning.

Materials and Method

Participants

In line with the purpose of the study, 300 Iranian English language learners were recruited, but only 264 language learners filled in and returned the questionnaires in the time limits required for collecting the data. The participants were selected from Bayan language institutes in Tehran, Alborz and Isfahan provinces of Iran through convenience sampling. Both male (n=140) and female (n=124) learners were selected. All the participants met the pre-intermediate English language proficiency standards set by the English Language Institutes. The participants' demographic profile is presented in Table 1.

Table 1

Demographic Profile of the Participants

Variable		Number (%)
Gender	Male	140 (53)
	Female	124 (47)
Age	18-23	110 (41.7)
	23-25	100 (37.9)
	25-30	54 (20.4)

Instruments

Four different instruments were used in this study: learners' Self-efficacy scale, FLA questionnaire, oral production, and written production tests.

Learners' Self-Efficacy Scale.

Wang developed the English Self-Efficacy (QESE) scale consisting of 32 items (2004). The scale measures four areas: (a) Self-efficacy for listening, (b) self-efficacy for speaking, (c) self-efficacy for reading and (d) self-efficacy for writing. The items are measured on a 7-point rating scale from 1 (I am totally unable to do this) to 7 (I am able to do this well). The modified questionnaire version enjoyed an acceptable level of internal consistency and validity.

Foreign Language Classroom Anxiety Scale (FLCAS)

Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz et al., (1986) consists of 33 items which are reduced into four factors communication apprehension (8 items:); fear of negative evaluation (9 items); test anxiety (5 items); and anxiety about English classes (11 items).

Oral Production Tasks

To avoid the effect of task unfamiliarity, two tasks, which are frequently used in EFL classrooms, were selected in this study. My hunch as a teacher was that describing pictures and telling stories are the most frequently used tasks in pre-intermediate classes. Two tasks were assigned to language learners. The

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language learners were asked to tell a story and describe a picture using their own words. The oral production of the two tasks were recorded and assessed holistically through an interval scale ranging from 1 to 30. Two raters assessed the learners' performance on each task. The average of the two scores of the two raters gave was reported as each language learner's performance on oral production tasks. The reliability of the learners' scores on oral production tasks was assessed by estimating the correlation coefficient between the two raters' scores (inter-rater reliability). For oral production, the inter-rater reliability index was determined to be 0.89.

Witten Production Tasks

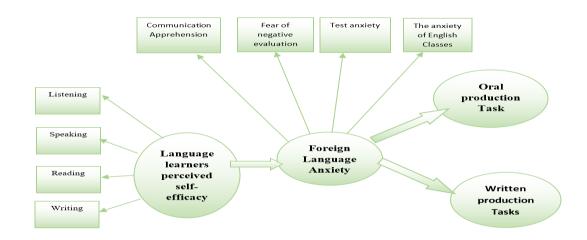
Two general written production tasks used by general English language teachers in their EFL classes were selected to avoid the effect of task unfamiliarity. Writing a summary of a passage and writing expository paragraphs are the two tasks more frequently used in EFL classes. The language learners were asked to read a passage and write a summary. The second task was developing a topic in a 250-word essay. The learners' written production of the two tasks was assessed holistically through an interval scale ranging from 1 to 20. Two raters assessed the learners' performance on each task. The average of the two scores the two raters gave was reported as each language learner's performance on oral production tasks. The reliability of the learners' scores on written production tasks was assessed by estimating the correlation coefficient between the two raters' scores (inter-rater reliability). The interrater reliability index for oral production was reported to be 0.87.

Data Collection Procedure

The administrators of the language institutes recruited in the study were contacted and asked for permission for our colleagues to enter the language institutes. The data were collected by the researcher's postgraduate students who taught in Bayan Language Institutes in cities of Tehran, Karaj and Isfahan located in Tehran, Alborz and Isfahan provinces. They were informed of the researcher's intents and study objectives, and they were asked to send the obtained data to the researcher. The administers of the institutes signed the informed consent forms and the learners were assured that their responses would be kept anonymous and would not negatively or positively affect their academic achievement. They met the language learners at the institutes where they learned English and asked them to complete the questionnaires. The participants' responses were entered into the SPSS software for analysis. The items for each component were computed and added together as the total score for each study variable. Then, the SPSS files were converted into Smart-PLS version 2 to evaluate the proposed model and test the hypotheses.

Structural Model of the Research Constructs

Figure 1



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Results

The results, including a preliminary analysis of mean scores on different constructs, reliability and convergent analysis, divergent analysis, and path analysis, are presented in the following sections.

Descriptive Statistics

Results showed that the participants obtained mean scores on the perceived self-efficacy in listening, speaking, reading, and writing skills were 3.91 (SD=1.10), 3.71(SD=0.98), 3.96 (SD=0.87), and 3.75 (SD=0.97), respectively. It is also seen that the mean scores of the participants on communication apprehension and fear of negative evaluation were 2.33 (SD=0.91) and 2.44 (SD=0.89), respectively. Also, their mean scores on the other dimensions of FLA (test anxiety & the anxiety of English classes) were 2.33 (SD=0.88) and 2.50(SD=0.84), respectively. Results also showed that participants' scores on the oral production test (M=22.52, SD=3.56) and written production tasks (M=21.75, SD=4.23) are at reasonable levels, above the cutoff score of 15 (See Table 2).

Table 2Descriptive Statistics of the Constructs

Construct	Indicator	Mean (M)	SD
Perceived self-efficacy	Listening	3.91	1.10
	Speaking	3.71	0.98
	Reading	3.96	0.87
	Writing	3.75	0.97
FLA	communication apprehension	2.33	0.91
	fear of negative evaluation	2.44	0.89
	Test anxiety	2.23	0.88
	The anxiety of English classes	2.50	0.84
Language production	Oral	22.52	3.56
	Written	21.75	4.23

Measurement Models

Three models were tested while evaluating models using Smart-PLS2 software: the outer, inner, and general. The inner model is the equivalent of the measurement model in structural equations. It shows the relationships between latent or hidden variables (independent and dependent variables) with obvious or observable variables (here, components). The outer model is equivalent to the structural model (path analysis) in structural equations and examines the relationships between latent or hidden variables. In addition, the general model involves the overall evaluation of the model. In the following sections, each model is presented.

Reliability and Convergent Validity

The results revealed that factor loadings of the components of all variables exceeded 0.6, indicating that the FL of the items constituting the variables is at an acceptable level. Results also showed that the hat Variance Inflation Factor (VIF), which is used to identify the degree of multicollinearity, shows a linear correlation between one or more of the independent variables or inputs, falls between 1 and 5, indicating that variables are moderately correlated. While testing the model, the researchers must also report Cronbach's alpha (internal consistency) and Rho-A, which show composite reliability indicators computed on unstandardized loadings. As seen in Table 3, the value of Cronbach's alpha for all variables exceeded 0.7, indicating that all variables have acceptable internal consistency. Rho-A for the variables exceeded 0.7, suggesting the composite reliability of the variables based on unstandardized loading exceeded are all high and acceptable. On the other hand, the composite reliability coefficient for all constructs is higher than 0.7. Therefore, the composite reliability of the constructs is also confirmed.

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Finally, results revealed that the convergent validity of all variables was established as the factor loadings are higher than 0.4 and the AVE value for each structure is higher than 0.5. Table 3 represents the results.

 Table 3

 Reliability and Convergent Validity of the Constructs

Construct	Indicator	FL	VIF	Cronbach's alpha	Rho- A	Composite Reliability	AVE
Perceived self-efficacy	Listening	0.613	2.98			0.960	0.53
	Speaking	0.633	2.75	0.040	0.051		
	Reading	0.681	3.54	- 0.948	0.951		
	Writing	0.678	2.61				
	Communication apprehension	0.922	1.68		0.962	0.969	0.83
FLA	Fear of negative evaluation	0.894	1.76	0.957			
	Test anxiety	0.902	1.89				
	The anxiety of English classes	0.911	1.90	-			
*	Oral	0.970					
Language production	Written	0.882	1.99	0.934	0.946	0.958	0.87

Divergent Validity

A frequently used method to determine the discriminant validity of the constructs is the Fornell-Larcker criterion. According to the Fornell-Larcker criterion, the square root of AVE for any latent construct should be higher than the correlations of any other latent construct. As shown in Table 4, the square root of AVE for each construct is higher than the correlation for each construct. Therefore, it can be strongly asserted that the hypothetical structural model has an acceptable level of discriminant validity.

Table 4

The Discriminant Validity of the Dependent and Independent Variables of the Model

Research Constructs	Self-efficacy	FLA	Oral production	Written production
Self-efficacy	0.910			
FLA	0.988	0.941		
Oral production	0.992	0.997	0.940	
Written production	0.933	0.940	0.937	0.710

Inner Model (Path Analysis) Evaluation

Standard and non-standard coefficients and R2 square were used to evaluate the proposed model (See Figures 2 & 3). All the paths shown in the internal model (relationships between constructs based on research hypotheses) are evaluated regarding the significance of the T-test and R2 square. Therefore, if the T value is above 1.96 and 2.58, they will be approved at the confidence level of 95% and 99%, respectively. Therefore, as shown in Figure 2, all the hypotheses of the model are accepted, and their T value was significant at the 99% confidence level (P<0.01). The R-squared is 0.877, which is acceptable

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(See Table 5). Results showed that the language learners perceived self-efficacy significantly decreased the learners' FLA (t= 1236.62, P<0.01). It is also seen that language learners' self-efficacy positively affects their oral production by reducing their language anxiety as a mediator variable (t=310.115, P<0.01). Moreover, results revealed that language learners' self-efficacy positively affects their written production by reducing their language anxiety as a mediator variable (t=162.495, P<0.01).

Figure 2

Structural Model (path) and Reflective Measurement of Teachers' PA based on Non-standard Coefficients

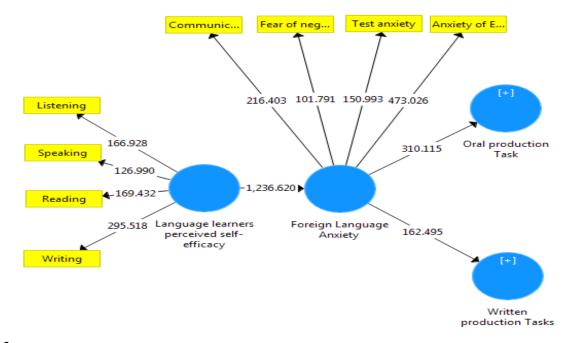
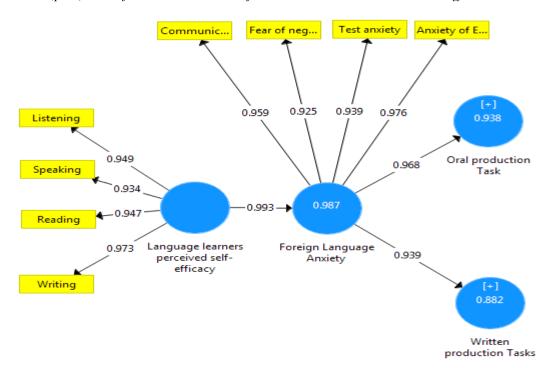


Figure 3

Structural Model (path) and Reflective Measurement of Teachers' PA based on Standard Coefficients



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Table 5

Results	of the	Study	Hypotheses
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Hypotheses Effect sizes				
	Non-standard coefficients		Standard	_
	T	p	Coefficients	
H1: No significant relationship exists between the language learners' perceived self-efficacy and their FLA.	1236.62	P<0.01	0.993	Confirmed
H 2: No significant relationship exists between the language learners' perceived self-efficacy and their oral production considering their language anxiety as a mediator variable?	310.115	P<0.01	0.968	Confirmed
H3: No significant relationship exists between the language learners' perceived self-efficacy and their written production considering their language anxiety as a mediator variable?	162.495	P<0.01	0.939	Confirmed

Discussion

This study evaluated the structural model of language learners' self-efficacy, FLA, oral production, and written production. Results revealed that language learners' perceived self-efficacy negatively correlates with their language anxiety. Simply put, learners' self-efficacy reduces their language anxiety. The higher the learners' self-efficacy, the lower the language anxiety they feel. Therefore, it can be argued that this finding resonates well with the results of some of the previous studies that confirmed the significant correlation between teachers'/learners' mental health and well-being and their SE (Bentea, 2017; Fathi et al., 2020; Ortan et al., 2021; von Muenchhausen et al., 2021; Zee & Koomen, 2016). For example, Ortan et al. (2021) reported that teachers' SE fosters their job satisfaction and well-being because the high level of SE leads to and ensures a positive context in which students and teachers thrive and brings about students, teachers and parents' higher rate of involvement. Previous studies also verified that people's SE creates an efficient setting which can decrease burnout, anxiety, attrition, emotional exhaustion and turnover and anxiety, which negatively affects the level of well-being and mental health while increasing their mental health.

Although the number of studies on learners' self-efficacy to support this finding is scanty, the other studies on another component of an education curriculum (teachers) reported that teachers' SE positively correlates with their psychological well-being (Lipiñska-Grobelny & Narska, 2021). The findings also align with Xiyun et al. (2022), who have reported that teachers' SE and abilities to regulate their emotions significantly predict their psychological well-being, and teacher SE is a more robust correlate than emotion regulation. Similarly, Burić and Kim (2021) have suggested that teacher efficacy is closely correlated with well-being, including job satisfaction, emotional exhaustion, and work engagement.

Based on the detailed analysis of the findings of the related studies and this study, it could be postulated that EFL teachers who have high levels of mental health and well-being can well manage the classrooms, cope with teaching difficulties, engage language learners in classroom activities, and use appropriate instructional strategies than the teachers with low mental health and well-being index. In other words, teachers' mental health and well-being affect their perceptions of their abilities to teach well, manage the classrooms, and engage language learners with different characteristics.

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The findings of the present study indeed add something to the results of the related study, such as Xiyun et al. (2022), Ortan et al. (2021), and Von Muenchhausen et al. (2021). They reported a positive correlation between teachers' well-being and mental health. Still, we found a reciprocal correlation between teachers' mental health, well-being, and SE. In other words, teachers' SE affects their mental health and well-being, and teachers' mental health and well-being affect their SE. As teachers' SE can significantly improve their mental health, well-being, and self-confidence and it can reduce negative feelings such as anxiety and burnout, it can be inferred that language learners' self-efficacy, like teachers' self-efficacy, can bring about various psychological consequences such as reduction in self-efficacy and increasing self-confidence to have a better performance in oral and production tasks.

Findings also revealed that a reduction in language learners' FLA significantly affects the language learners' performance on oral and written production tasks. It can be inferred that language learners perform better on production tasks when anxiety is lowered. However, when language learners experience a high level of anxiety, they might have high performance on production tasks. Results are in line with the findings of Mohebi et al. (2016), who reported a significant positive correlation between anxiety and writing complexity. The results also confirm the findings of Amini Naghadeh et al. (2014), who showed a negative relationship between EFL learners' anxiety and narrative writing performance.

The findings also echo the results of the study by Saltan (2003), who investigated the relationship between anxiety and language learning and reported that students experience the most anxiety in speaking. Findings also support Horwitz (2001), who states that most students feel anxious while doing tasks in public educational contexts. He has also suggested that it is pretty hard for learners with a high level of anxiety to learn a second/foreign language successfully. Findings also support the results of several related studies (e.g., Alrabai, 2015; Alrabai & Moskovsky, 2016; Kondo & Yang, 2003) who have investigated the consequences of FLA for language learners in different cultures. Findings also echo the results of Atef-Vahid and Kashani (2011), who found that the level of language anxiety varied among the language learners indicating that some learners have a high level, some moderate, and some low level of anxiety. They concluded that language anxiety adversely affects the learners' language achievement.

Conclusion

Based on the study's findings, it can be concluded that learners perceived self-efficacy in language skills reduces their language anxiety. Detailed analysis of the study revealed that the correlation between all components of the FLA and the central construct was statistically significant. Reduction in learners' language anxiety is a mediator variable between language learners' self-efficacy and their performance on written and production tasks. The theoretical model proved to enjoy divergent and convergent validity and internal consistency.

Teachers need to employ appropriate strategies to increase the language learners' self-efficacy and reduce their anxiety to either directly or indirectly foster the learners' performance on language oral and written tasks. Language learners need to learn how to reduce anxiety and increase self-efficacy using appropriate strategies. It is worth noting that language learners must take some actions to overcome language anxiety (Pakdaman et al., 2022). It can therefore be inferred that both EFL teachers and learners need to feel responsible for the anxiety factor. Humphries (2011, p.3) has maintained that "production suffers when students are nervous, meaning that they are less effective communicators, lowering their morale." Therefore, language learners need some effective strategies to cope with FLA. They should understand that it is important to attend workshops on foreign language anxiety reduction, that can be of much significance to language teachers and learners. Finally, language learners need to recognize that effective oral and written production needs both language knowledge, cognitive strategies, and skills required for regulating emotions such as stress and anxiety, as production is stressful. Researchers, teachers, and language learners can use the findings of the present study. Researchers can replicate the study by adding variables such as motivation, attitude, aptitude, and academic emotions as mediator variables and language achievement and passion for learning as the

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dependent variables. It is also possible to do study on the various factors affecting learners' self-efficacy. Additionally, qualitative research on the same topic can be used to validate the results of this scale.

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References

- Afifah, L., & Indriwardhani, S. P. (2021). Students' self-efficacy in learning a foreign language during the COVID-19 pandemic. *KnE Social Sciences*, 235-241.
- Akengin, H., Yıldırım, G., İbrahimoğlu, Z., & Arslan, S. (2014). Investigating the relationship between students' self-efficacy perceptions and academic achievements related to a geography course. *Marmara Journal of Geography*, 29, 150-167.
- Akın, B., & Akpınar Dellal, N. (2016). Self-efficacy beliefs of the German language teaching students. *Turkish Studies*, 11(19), 19-30. http://dx.doi.org/10.7827/TurkishStudies.10045
- Al-Khasawneh, F. M. (2016). Investigating foreign language learning anxiety: A case of Saudi undergraduate EFL learners. *Journal of Language and Linguistic Studies*, 12(1), 137-148.
- Al-Shboul, M., Ahmad, M., Nordin, I., & Rahman, Z. (2013). Foreign language anxiety and achievement: Systematic review. *International Journal of English Linguistics*, *3*(2), 31-45. Retrieved from http://dx.doi.org/10.5539/ijel.v3n2p32
- Alrabai, F. (2014a). A model of foreign language anxiety in the Saudi EFL context. *English Language Teaching*, 7(7), 82–101.
- Alrabai, F. (2014b). Motivational practices in English as a foreign language classes in Saudi Arabia: Teachers beliefs and learners perceptions. *Arab World English Journal*, *5*(1), 224-246.
- Alrabai, F. (2015). The influence of teachers' anxiety-reducing strategies on learners' foreign language anxiety. *Innovation in Language Learning and Teaching*, 9(2), 163-190.
- Alrabai, F., & Moskovsky, C. (2016). The relationship between learners' affective variables and second language achievement. *Arab World English Journal (AWEJ)*, 7(2), 77-103.
- Amini Naghadeh, S., Mojallal Chopoghlou, M.A, Karimpour S, Alizadeh, S. (2014). Anxiety and speaking English as a second Language among Iranian English Major Students of Payame Noor University. J. *Educ. Manage. Stud.*, 4(4), 872-876.
- Amiri, M., & Ghonsooly, B. (2015). The Relationship between English Learning Anxiety and the Students' Achievement on Examinations. *Journal of Language Teaching and Research*, 6(4), 855–865. https://doi.org/10.17507/jltr.0604.20
- Anyadubalu, C. C. (2010). Self-Efficacy, Anxiety, and Performance in the English Language among Middle-School Students in English Language Program in Satri Si Suriyothai School, Bangkok. World Academy of Science, Engineering and Technology (39), 1043-1048.
- Atef-Vahid, S. & Kashani, A. F. (2011). The effect of English learning anxiety on Iranian high school students' English language achievement. *Brain*, 2(3), 2067-3957.

ISSN: 2476-3187

Iranian Journal of English for Academic Purposes

IJEAP, 2023, 12(3), 1-16 (Previously Published under the Title: Maritime English Journal)

- Aydın, İ. S. (2013). Development of a speaking self-efficacy scale for teacher candidates. *Mediterranean Journal of Educational Research*, 14, 33-46.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of applied sport* psychology, 2(2), 128-163.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148. https://doi.org/10.1207/s15326985ep2802_3
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachandran (Ed.), *Encyclopedia of human behavior*, 4, 71-81. Academic Press.
- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman and Company.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307-337). Information Age Publishing.
- Bandura, A. (2011). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44. https://doi.org/10.1177/0149206311410606
- Bentea, C. (2017). Teacher self-efficacy, teacher burnout and psychological well-being. *The European Proceedings of Social and Behavioural Sciences (EpSBS)*, 23, 1128-1135.
- Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review*, 15(1), 1-40. https://doi.org/10.1023/A:1021302408382
- Burić, I., & Kim, L. E. (2021). Job satisfaction predicts teacher self-efficacy and the association is invariant: Examinations using TALIS 2018 data and longitudinal Croatian data. *Teaching and Teacher Education*, 105, 103406.
- Busse, V. (2013). An exploration of motivation and self-beliefs of first-year students of German. *System*, 41(2), 379–398. https://doi.org/10.1016/j.system.2013.03.007
- Can, D. (2020). *Investigation of self-efficacy beliefs and professional attitudes German teacher candidates* [Unpublished Master's thesis]. Atatürk University, Erzurum.
- Cansoy, R., Parlar, H., and Turkoglu, M. E. (2020). A predictor of teachers' psychological wellbeing: teacher efficacy. *Int. J. Online Educ. Sci. 12*, 41–55. doi:10.15345/iojes.2020.04.003
- Çobanoğulları, F. (2022). Language learning self-efficacy beliefs of German as foreign/second language learners: A scale development study. *Journal of Pedagogical Research*, 6(4), 130-142. https://doi.org/10.33902/JPR.202217645
- Dewaele, J. M. (2013). The link between foreign language classroom anxiety and psychoticism, extraversion, and neuroticism among adult bi-and multilingual. *Modern Language Journal*, 670–684. doi:10.1111/j.1540-4781.2013.12036.x
- Dewaele, J. M. (2017). Are perfectionists more anxious than foreign language learners and users. In C. Gkonou, M. Daubney, & J. M. Dewaele, *New Insights into Language Anxiety: Theory, Research and Educational Implications, eds* (pp. 70–90). Bristol: Multilingual Matters. doi:10.21832/9781783097722-006
- Dewaele, J. M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research*, 676–697. doi:10.1177/1362168817692161
- Dewaele, J. M., Magdalena, A. F., & Saio, K. (2019). The effect of perception of teacher characteristics on Spanish EFL learners' anxiety and enjoyment. *Mod. Lang. J*, 12–427.

ISSN: 2476-3187

Iranian Journal of English for Academic Purposes

IJEAP, 2023, 12(3), 1-16 (Previously Published under the Title: Maritime English Journal)

- Fathi, J., Derakhshan, A., and Saharkhiz Arabani, A. (2020). Investigating a structural model of self-efficacy, collective efficacy, and psychological well-being among Iranian EFL teachers. *Iran. J. Appl. Lang. Stud.* 12, 123–150.
- Fathi, J., Greenier, V., & Derakhshan, A. (2021). Self-efficacy, reflection, and burnout among Iranian EFL teachers: the mediating role of emotion regulation. *Iranian Journal of Language Teaching Research*, 9(2), 13-37.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: *Algebra and statistics*, 382-388.
- Gopang, L., Bughio, F., & Pathan, H. (2015). Investigating foreign language learning anxiety among students learning English in a public sector university, Pakistan. *The Malaysian Online Journal of Educational Science*, *3*(4), 27-37.
- Gregersen, T. (2005). Nonverbal Cues: Clues to the Detection of Foreign Language Anxiety. *Foreign Language Annals*, 38(3), 388-400.
- Gregersen, T., MacIntyre, P. D., & Meza, M. D. (2014). The motion of emotion: Idiodynamic case studies of learners' foreign language anxiety. *Modern Language Journal*, pp. 574–588.
- Hall-Kenyon, K.M., Robert, B., MacKay, B. (2014). Preschool Teacher Well-Being: A Review of the Literature. *Early Childhood Education Journal* 42(3), DOI:10.1007/s10643-013-0595-4.
- Hayat, A. A., Shateri, K., Amini, M., & Shokrpour, N. (2020). Relationships between academic self-efficacy, learning-related emotions, and metacognitive learning strategies with academic performance in medical students: A structural equation model. *BMC medical education*, 20(1), 1–11.
- Hoi, C. K. W., Zhou, M., Teo, T., & Nie, Y. (2017). Measuring efficacy sources: Development and validation of the Sources of Teacher Efficacy Questionnaire (STEQ) for Chinese teachers. *Psychology in the Schools*, 54(7), 756–769.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
- Horwitz, E. K. (1996). Even teachers get the blues: Recognizing and alleviating language teachers' feelings of foreign language anxiety. *Foreign Language Annals*, 29(3), 365-372.
- Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, 21(1), 112-126.
- Hsieh, P. H. (2008). "Why are college foreign language students' self-efficacy, attitude, and motivation so different?". *International Education*, 38(1), 76-94.
- Humphries, R. (2011). Language anxiety in international students. *Griffith Working Papers in Pragmatics and Intercultural Communication*, 4 (½), 65-77.
- Hwang, M. H., Choi, H. C., Lee, A., Culver, J. D., & Hutchison, B. (2016). The relationship between self-efficacy and academic achievement: A 5-year panel analysis. *The Asia-Pacific Education Researcher*, 25(1), 89–98. https://doi.org/10.1007/s40299-015-0236-3
- Jeon, L., Buettner, C. K., and Grant, A. A. (2018). Early childhood teachers' psychological well-being: exploring potential predictors of depression, stress, and emotional exhaustion. *Early Education and Development*, 29(1), 53–69. doi:10.1080/10409289.2017.1341806
- Jin, Y., & Dewaele, J. M. (2018). The effect of positive orientation and perceived social support on foreign language classroom anxiety. *System*, 149–157. doi:10.1016/j.system.2018.01.002
- Kim, Y. J., & Tracy-Ventura, N. (2011). Task complexity, language anxiety, and the development of the simple past. In P. Robinson, Second Language Task Complexity: Researching The

Iranian Journal of English for Academic Purposes

IJEAP, 2023, 12(3), 1-16

(Previously Published under the Title: Maritime English Journal)

ISSN: 2476-3187

- Cognition Hypothesis Of Language Learning And Performance, ed. (pp. 287–306). Amsterdam: John Benjamins.
- Klainin-Yobas, P., Ramirez, D., Fernandez, Z., Sarmiento, J., Thanoi, W., Ignacio, J., and Lau, Y. (2016). Examining the predicting effect of mindfulness on psychological well-being among undergraduate students: A structural equation modeling approach. *Personality and Individual Differences*, 91, 63-68. doi:https://doi.org/10.1016/j.paid.2015.11.034.
- Kondo, S., & Yang, Y. L. (2003). "The English language classroom anxiety scale: Test construction, reliability, and validity. *JALT journal*, 25(2), 187-196.
- Köseoğlu, Y. (2015). Self-Efficacy and academic achievement--A case from Turkey. *Journal of Education and Practice*, 6(29), 131-141.
- Krashen, S. (1981). Second language acquisition. Second Language Learning, 3(7), 19-39.
- Lian, L. H., & Budin, M. B. (2014). Investigating the relationship between English language anxiety and the achievement of school-based oral English tests among Malaysian form four students. *International Journal of Learning, Teaching and Educational Research*, 2(1), 67-79.
- Lipińska-Grobelny, A., & Narska, M. (2021). Self-efficacy and psychological well-being of teachers. *E-mentor*, (3 (90), 4-10.
- Lucas, I. R., Miraflores, E., & Go, D. (2011). English language learning anxiety among foreign language learners in the Philippines. *Philippine ESL Journal*, *7*, 94-119.
- McInerney, D. M., Ganotice, F. A., King, R. B., Morin, A. J. S., and Marsh, H. W. (2015). Teachers' commitment and psychological well-being: implications of self-beliefs for teaching in Hong Kong. *Educational Psychology*, 35(8), 926-945. doi:10.1080/01443410.2014.895801
- MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44(2), 283–305.
- McCroskey, J. C. (1984). The communication apprehension perspective. Avoiding communication: *Shyness, reticence, and communication apprehension*, 13-38.
- Mohebi, F., Azarnoosh, M., Rokni, A. (2016). The Relationship between EFL learners' anxiety and writing complexity. *International Journal of Foreign Language Teaching & Research*, 4(14), 47-68.
- Motlagh, S. E., Amrai, K., Yazdani, M. J., Altaib Abderahim, H., and Souri, H. (2011). The relationship between self-efficacy and academic achievement in high school students. *Procedia-Social and Behavioral Sciences*, pp. 15, 765–768. https://doi.org/10.1016/j.sbspro.2011.03.180.
- Ohata, K. (2005). Potential sources of anxiety for Japa-nese learners of English: Preliminary case interviews with five Japanese college students in the U.S.TESL-EJ, 1 - 21(18)(PDF)Foreign Language Available from: Anxiety. https://www.researchgate.net/publication/312918924_Foreign_Language_Anxiety [accessed Jan 28 2023].
- Ortan, F., Simut, C., & Simut, R. (2021). Self-efficacy, job satisfaction and teacher well-being in the K-12 educational system. *International journal of environmental research and public health*, 18(23), 12763.
- Pakdaman, A., Alibakhshi, G., & Baradaran, A. (2022). The advantages of using negotiated syllabus in EFL classes: exploring the undergraduate students' perceptions. *Qualitative Research Journal*, (ahead-of-print).
- Panc, T., Mihalcea, A., & Panc, I. (2012). Self-efficacy survey: A new assessment tool. Procedia-Social and Behavioral Sciences, 33, 880-884. Pendergrass, N., Kowalczyk, R., Dowd, J., & Laoulache, R. (2001). Improving first-year engineering education. *Journal of Engineering Education*, 90(1), 33-41.

ISSN: 2476-3187

Iranian Journal of English for Academic Purposes

IJEAP, 2023, 12(3), 1-16 (Previously Published under the Title: Maritime English Journal)

- Pendergrass, N., Kowalczyk, R., Dowd, J., & Laoulache, R. (2001). Improving first-year engineering education. *Journal of Engineering Education*, 90(1), 33-41.
- Phan, H. P. (2012). Relations between informational sources, self-efficacy and academic achievement: A developmental approach. *Educational Psychology*, 32, 81–105. https://doi.org/10.1080/01443410.2011.625612
- Saltan, F. (2003). *EFL speaking anxiety: How do students and teachers perceive it?* (Master's thesis, Middle East Technical University).
- Schunk, D. H. (2012). Social cognitive theory. In K. R. Harris, S. Graham, & T. Urdan (Eds.), *Theories, constructs, and critical issues*: Vol. 1. Educational psychology handbook (pp. 101–123). Washington, DC: American Psychological Association.
- Serraj, S. (2015). Listening anxiety in Iranian EFL learners. *International Journal of Scientific and Research Publications*, *5*(6). Retrieved from http://www.ijsrp.org/research-paper-0615/ijsrp-p4285.pdf
- Sevinç, Y. (2018). Language anxiety in the immigrant context: Sweaty palms? *International Journal of Bilinguism*, 717–739. doi:10.1177/1367006917690914
- Teng, B., & Sinwongsuwat, K. (2015). Teaching and learning English in Thailand and the integration of Conversation Analysis (CA) into the classroom. *English Language Teaching*, 8(3), 13-23
- Von Münchhausen, S., Braeunig, M., Pfeifer, R., Göritz, A. S., Bauer, J., Lahmann, C., et al. (2021). Teacher self-efficacy and mental health—their intricate relation to professional resources and attitudes in an established manual-based psychological group program. *Front. Psychiatry*, 12:510183. doi: 10.3389/fpsyt. 2021.510183
- Wang, C. (2004). Self-regulated learning strategies and self-efficacy beliefs of children learning English as a second language. Doctoral dissertation. http://www.ohiolink.edu/etd/
- Wang, C., Kim, D.-H., Bai, R., & Hu, J. (2014). Psychometric properties of a self-efficacy scale for English language learners in China. System, 44, 24–33. doi: 10.1016/j.system.2014.01.015
- Wang, Y., Shen, B., & Yu, X. (2021). A latent profile analysis of EFL learners' self-efficacy: Associations with academic emotions and language proficiency. *System*, 103, 102633.
- Williams, K., & Andrade, M. (2008). Foreign language learning anxiety in Japanese EFL university classes: Causes, coping, and locus of control. *Electronic Journal of Foreign Language Teaching*, 5(2), 181-191.
- Xiyun, S., Fathi, J., Shirbagi, N., & Mohammaddokht, F. (2022). A structural model of teacher self-efficacy, emotion regulation, and psychological wellbeing among English teachers. *Frontiers in Psychology*, 13.
- Yuh-show, C. (2001). "Learners' beliefs and second Language anxiety." *Concentric: Studies in English literature and linguistics*, 2001, 27(2), 75 90.
- Yeşilyurt, E. (2013). Teacher self-efficacy perceptions of teacher candidates. *Electronic Journal of Social Sciences*, 12(45), 88-104.
- Zee, M., & Koomen, H. M. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational research*, 86(4), 981-1015.
- Zimmerman, B. J., & Cleary, T. J. (2006). Adolescents' development of personal agency. The role of self-efficacy beliefs and self-regulatory skills. In F. Pajares, & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 45-69). Greenwich: Information Age.