The Role of Self-Regulation and Motivation in Secondary School Students' English Self-Efficacy***

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Abstract: The purpose of this research is to examine the role of self-regulation and motivation in the English self-efficacy of secondary school students and to investigate their relationship with various independent variables. This research aims to identify the factors influencing English proficiency in Türkiye and contribute to the consideration of these factors in the regulations made to improve language education in order to enhance the level of English language education. The research is conducted according to the correlational survey method. The sample of the research consists of 580 secondary school students studying in state schools affiliated with the Ministry of National Education in Kayseri province in the 2022-2023 academic year. In the research, "English Language Skills Self-Efficacy Scale", "Perceived Self-Regulation Scale", "Foreign Language Learning Motivation Scale" and "Personal Information Form" were used as data collection tools. In addition to descriptive statistics, t-test, Analysis of Variance, Tukey HSD multiple comparison test, and Stepwise Multiple Regression Analysis were used for data analysis. As a result of the research, it was found that secondary school students' self-regulation skills, foreign language learning motivation, students' gender, grade level, parental education level, family income level, the place where most of their life is spent, and English report card grade were significant variables in explaining their English self-efficacy.
Keywords: Foreign language self-efficacy, Motivation, Self-regulation.

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Introduction

Language is the way in which a person conveys their feelings, thoughts, and desires using various sounds and symbols (Aydoslu, 2005). However, for individuals to communicate and interact with others in their society and from different societies, as well as to collaborate, it is only possible through mutual understanding and the use of a common language (Günday & Aycan, 2018). With globalization, the search for a common language has emerged since the beginning of the 20th century. After World War II, the political and economic power balances led to English being accepted as a global language through decisions made in international platforms such as the United Nations (Aladağ, 2017). In order to keep up with the times, learning English has been emphasized as a means to follow developments in global culture, art, science, technology, economy, and politics. Turkey has adopted a similar approach to other countries in this regard, focusing heavily on English education and teaching. Both at the societal and state levels, comprehensive efforts have been made for many years to teach and learn foreign languages (Sebüktekin, 1983). However, despite new regulations influenced by different educational policies, it is well known that students taking foreign language courses from elementary school to university face significant challenges in acquiring language skills (Demirel, 2012). The main reasons for the difficulty in learning English in Turkey include the inability to learn the language in its natural environment, the long time required to develop language skills, methodological mistakes made by English teachers from the traditional education system, the lack of appropriate content in local textbooks for language teaching, the ineffective use of assessment tools, and students' prejudices towards learning foreign languages (Yaman, 2018).

When examining the issues in the learning environment from the perspectives of cognitive, affective, and behavioral domains, it is generally observed that the focus is on the cognitive domain, and efforts are made to solve problems through this dimension. However, affective characteristics significantly impact an individual's success in the learning process (Gömleksiz, 2003). Although Ehrman & Oxford (1995) primarily relate language success to mental factors, they emphasize that affective factors actually play a larger role in language learning success. Ehrman et al. (2003) identify affective variables, such as motivation, self-efficacy, tolerance for ambiguity, and anxiety, as factors that play a crucial role in the language teaching-learning process. Self-efficacy, expressed as a belief in one's ability, regulates an individual's affective characteristics by providing them with the ability to persevere and make determined efforts in the face of difficulties during the self-regulation process (Aydın & Atalay, 2015). Therefore, to increase success in foreign language education, it is important to focus on affective factors. This study will examine the relationships between self-efficacy, motivation, and self-regulation skills-affective components of the individual—in the context of English language success. First, it would be useful to briefly explain these three concepts.

Self-Efficacy

The concept of self-efficacy, which has been the subject of many studies, is based on the principle of reciprocal determinism from Albert Bandura's social-cognitive theory. According to this principle, an individual's behavior, personal characteristics, and environment mutually influence each other, and these interactions determine the individual's subsequent behavior (Bandura, 1986). Through this reciprocal determinism, individuals can develop a kind of self-regulatory mechanism to organize their lives. In this way, individuals are able to generate new ideas, make judgments about their experiences, and form expectations for the future (Yazgan-İnanç & Yerlikaya, 2016). Self-efficacy is a personal factor, consisting of cognitive, affective, and biological components, that plays a crucial role in the functioning of reciprocal determinism (Bandura, 1997). Self-efficacy is an individual's judgment of their ability to regulate their own behaviors to accomplish a particular task in any field, their belief that they can carry out necessary actions within a plan, and their self-judgment regarding whether they

possess the capacity to successfully execute these tasks (Bandura, 1982). The belief in self-efficacy determines how an individual will respond to negative situations they encounter in their daily life (Bıkmaz, 2002). Baron (2004) suggests that there are three types of self-efficacy: self-regulatory, social, and academic. Self-regulatory self-efficacy helps individuals avoid taking major risks in daily life, prevent putting themselves in danger, and resist social pressures. Social self-efficacy helps an individual adapt to their environment. Lastly, academic self-efficacy relates to the ability to regulate learning activities and establish reasonable academic expectations. Students' perceptions of self-efficacy directly affect their academic success, and these differences are also evident in language success (Hsieh & Schallert, 2008). Foreign language self-efficacy, in particular, refers to individuals' self-assessments regarding their ability to perform the necessary actions in an organized manner to achieve success in foreign language courses (Yanar, 2008).

Perceived Self-Regulation

Self-regulation is a learning model in which the learner engages in activities such as repetition, adding new knowledge to what has been learned, summarizing, creating schemas, and using various learning strategies. It involves reviewing the learning process, updating goals, and setting new objectives (Zimmerman, 1989). This model was initially developed to determine how students regulate and shape their own learning (Zimmerman, 2008). Academic self-regulation, also known as self-regulated learning, refers to behaviors such as writing or studying for an exam, engaging in goal-oriented actions, and the spontaneous generation of ideas and emotions to achieve success in the educational process (Zimmerman et al., 1996).

Pintrich (2000) defined self-directed learning in four key stages: forethought, monitoring, control, and reflection. Self-regulation exercises are carried out in each of these four areas: cognitive, motivational, emotional, behavioral, and contextual. To explain these concepts: the forethought category involves activating metacognitive knowledge, beliefs about competence, goal setting, and an awareness of when and what tasks need to be done. The monitoring stage refers to awareness and mental tracking, motivation, sensory monitoring, time management, effort, and content knowledge. The control category involves determining the strategies needed for learning, reasoning, motivation, effort, and planning tasks. The final category, reflection, involves evaluating mental schemas, emotional responses, choosing the most appropriate approach, and assessing the tasks and content (Cheng, 2011).

Foreign Language Motivation

Motivation is the force that initiates, sustains, and regulates an action, enabling the student to actively engage in learning and act according to their attitude (Pintrich & Schunk, 2002). Foreign language motivation refers to an individual's enthusiasm for learning a foreign language, and the enjoyment derived from language learning further enhances their desire to learn (Gardner, 1985).

Motivation to learn English is derived from three main sources: intrinsic interest, external factors, and success. Intrinsic interest refers to the spontaneous desire to learn a language that arises during the process of learning a foreign language. External factors are elements that motivate an individual due to positive feedback received from an outside source during the language learning process. The final source, success, is defined as a student's positive self-perception related to their language acquisition (Fisher, 1990). Gardner & Lambert (1972) identified three main reasons for the impact of motivation in foreign language learning. First, intrinsic reasons include the individual's tendency to learn a foreign language, enjoyment of the process, and the desire to speak the language. Second, instrumental reasons include goals such as pursuing an academic career, translation work, or gaining opportunities on different

platforms through proficiency in a foreign language. Finally, integrative reasons refer to the desire to reach a professional level in a foreign language in order to get to know other cultures and communicate with people from different regions.

The Purpose and Importance of the Study

Since language learning is a comprehensive activity, the language learning process is influenced by many factors. According to the literature, it is observed that success in foreign language education is directly and indirectly affected by cognitive, affective, socio-economic factors, and psychomotor characteristics. Therefore, the principle that development is a whole in the teaching-learning process is a principle that should be considered in foreign language courses, just as it is in all other subjects. In this regard, it is important to provide students with a positive learning environment and support their development in terms of affective characteristics (Oğuz & Baysal, 2015). Perceived self-efficacy is one of the individual differences that addresses the affective domain in language teaching, and individuals with strong motivation in the language learning process also have higher self-efficacy beliefs (Ehrman et al., 2003). Language learning is a complex structure and a challenging process that requires dedication. Therefore, it can be said that the successful completion of this process, which requires persistence, will be possible for language learners who also have self-regulation. Taking responsibility for their own learning and engaging in individual studies can be considered a prerequisite for learning (Kahraman & Gündoğdu, 2021). Creating a system that will enhance students' self-efficacy and success in foreign language learning, the motivation necessary for the functioning of language learning, and the use of self-regulation strategies in English teaching appear to be crucial for foreign language education (Aşık, 2013; Turanlı, 2007; Vardar, 2011). However, it is important to understand how these factors interact with each other and the role they play in the learning process. Additionally, it is a shortcoming in the related literature that cognitive factors have been given more attention than affective factors in studies related to foreign language education (Gardner, 1997).

This study aims to address the affective factors such as self-efficacy, self-regulation, and motivation, which are considered important in the English learning process, and to fill a significant gap in the literature. Upon reviewing the literature, many studies examine the effect of these variables on English course success, but comprehensive research involving English self-efficacy, self-regulation, and foreign language motivation together is found to be quite limited. In this context, this study, which addresses these variables together, holds a pioneering quality in the literature. Moreover, considering that self-regulation in English classes is a rarely examined concept in the literature, and that these variables have been little explored in secondary school-level research, this study is expected to make significant contributions to the literature with its unique and comprehensive approach.

The aim of this research is to examine the role of self-regulation and motivation in secondary school students' English self-efficacy and to explore whether these characteristics show differences based on various independent variables. The research aims to contribute to the improvements made in language education by considering these factors in educational arrangements. The sub-problems of the current research are as follows:

1. "What is the level of secondary school students' English self-efficacy?"
2. "What is the level of secondary school students' self-regulation?"
3. "What is the level of secondary school students' foreign language motivation?"
4. "Do secondary school students' English self-efficacy levels show significant differences based on gender, grade level, and family income level?"
5. "Do secondary school students' self-regulation and foreign language motivation predict their English self-efficacy?"

Method

This study aims to investigate the impact of self-regulation and motivation on secondary school students' English language proficiency and examine the relationship of these traits with various independent variables. To achieve this, a "correlational survey" model, which is a subtype of the general survey model, was employed. The correlational survey model is a method designed to describe a past or ongoing situation, identify the relationships between associated variables, or predict one variable using specific others (Karasar, 2015).

Collection of Data

In the study, the "Personal Information Form," "English Language Skills Self-Efficacy Scale (Ocak, Küçükçınar and Karakuyu, 2022)" "Perceived Self-Regulation Scale (Arslan and Gelişli, 2015)" and "Foreign Language Motivation Scale Griffiths ve Özgür (2013)" were used as data collection instruments. After distributing the data collection instruments to students who voluntarily agreed to participate, information was provided about the purpose, scope, and content of the study and the instruments. The administration of the measurement tool took between 20 and 25 minutes; during this time, participants were given clarifications when necessary. The principle of confidentiality was strictly adhered to during the survey administration and data collection process.

Analysis of Data

In this study, descriptive statistics were used to determine the participants' English language skills self-efficacy, foreign language motivation, and perceived self-regulation levels. The differences in the overall self-efficacy and sub-dimensions of English language skills based on gender were analyzed using an independent samples t-test. To examine whether the mean scores of the English language skills self-efficacy level and its sub-dimensions differed according to other variables such as grade level and family income level, a one-way analysis of variance (ANOVA) was conducted. In cases where significant differences were found, the source of these differences was analyzed using the "Tukey HSD Test" for multiple comparisons. Moreover, multiple regression analysis was employed to determine the predictive levels of foreign language motivation and perceived self-regulation in relation to the overall English language skills self-efficacy and its sub-dimensions. SPSS was used for the multiple regression analyses.

Findings

This section of the study presents the findings. The findings obtained from the study first include descriptive statistics. After the t-test for group comparisons, analysis of variance, and Tukey HSD multiple comparison tests, the results of the multiple regression analyses are presented in sequence. Descriptive statistics for the scale scores and subscale scores used in the study are provided in Table 1.

Table 1
Secondary school students' English language skills, self-efficacy, perceived self-regulation and foreign language motivation levels

Scale and subscales	$\bar{x}$	ss	Lowest score	Highest score
English language skills self-efficacy	65,80	16,76	20,00	100,00
English reading self-efficacy	18,05	4,84	5,00	25,00
English listening self-efficacy	19,08	5,24	6,00	30,00
English speaking self-efficacy	15,88	4,88	5,00	25,00
English writing self-efficacy	12,78	4,55	4,00	20,00

Tablo 1 (cont.)

Scale and subscales	x̄	ss	Lowest score	Highest score
Perceived self-regulation	37,65	5,79	16,00	48,00
Openness	19,25	3,02	8,00	24,00
Inquiry	18,39	3,34	8,00	24,00
Foreign language motivation	28,03	7,08	8,00	40,00
Intrinsic foreign language motivation	7,16	2,36	2,00	10,00
Extrinsic foreign language motivation	7,68	2,40	2,00	10,00
Integrative foreign language motivation	6,17	2,35	2,00	10,00
Instrumental foreign language motivation	7,01	2,27	2,00	10,00

Examining Table 1 reveals that the mean score obtained from the overall self-efficacy in English language skills scale is x̄ = 65.81, indicating a high level of overall self-efficacy among students in English language skills. When the subdimensions of self-efficacy in English language skills are considered, the mean score for the reading skills subdimension is x̄ = 18.05, while the mean score for the listening skills subdimension is x̄ = 19.08. These closely related and high scores suggest that reading and writing skills are the most influential factors in the overall self-efficacy score for English language skills. These are followed by writing skills with a mean score of x̄ = 15.89 and speaking skills with a mean score of x̄ = 12.78.

According to Table 1, the mean score obtained from the foreign language motivation scale is x̄ = 28.03, indicating that students demonstrate a moderate level of overall foreign language motivation. Examining the subdimensions of the scale individually reveals that students' intrinsic motivation (x̄ = 7.16), integrative motivation (x̄ = 6.17), and instrumental motivation (x̄ = 7.01) are at similar and moderate levels. Additionally, the lowest motivation score in the foreign language motivation scale is found in the integrative motivation subdimension (x̄ = 6.17), while the highest motivation score is observed in the extrinsic motivation subdimension (x̄ = 7.68).

Examining the perceived self-regulation values in Table 1, the mean score obtained from the perceived self-regulation scale is x̄ = 37.65. These findings indicate that students have a high level of perceived self-regulation overall. Among the two subdimensions of the perceived self-regulation scale, the openness subdimension has a high mean score (x̄ = 19.25), making it the most influential factor on the overall mean. The mean score for the exploration subdimension, on the other hand, is moderate (x̄ = 18.39). Furthermore, to determine whether the scores obtained from the general self-efficacy in English language skills and its subdimensions differ by gender, an independent samples t-test was conducted. The results of this analysis are presented in Table 2.

Table 2
T-test results of the average scores of the general self-efficacy level and sub-dimensions of English language skills of secondary school students according to gender

Dimensions	Gender	n	x̄	ss	t	p
English language skills self-efficacy	Woman	291	68,29	16,41	3,62	,00
	Man	289	63,30	16,74		
English reading self-efficacy	Woman	291	18,95	4,47	4,61	,00
	Man	289	17,13	5,02		
English listening self-efficacy	Woman	291	19,68	5,12	2,77	,00
	Man	289	18,48	5,30		
English speaking self-efficacy	Woman	291	16,59	4,77	3,50	,00
	Man	289	15,18	4,89		
English writing self-efficacy	Woman	291	13,06	4,37	1,49	,13
	Man	289	12,50	4,70		

An examination of Table 2 reveals that female students have higher mean scores ($\bar{x}$ = 68.29) in the general self-efficacy dimension of English language skills compared to male students ($\bar{x}$ = 63.30). Similarly, in terms of the sub-dimensions of the scale, female students also exhibit higher mean scores than their male counterparts. A t-test was conducted to evaluate the significance of the difference between the mean scores of the groups. The calculated t-value (t[580] = 3.62; p < .05) indicates that the difference in the mean scores of general self-efficacy in English language skills based on gender is statistically significant at the .05 level. However, when analyzed in terms of the sub-dimensions, no significant difference was found in the listening dimension based on gender (t[580] = 1.46; p > .05). These findings suggest that female students have significantly higher self-efficacy in English language skills compared to male students. To determine whether the scores for general self-efficacy in English language skills and its sub-dimensions differ significantly based on grade level among secondary school students, a one-way analysis of variance (ANOVA) was conducted. The results of this analysis are presented in Tables 3 and 4.

Tablo 3

The n, $\bar{x}$ and sd. values of English language skills general self-efficacy levels and sub-dimensions according to the grade levels of secondary school students

Scale and Subscales	Class level	n	$\bar{x}$	ss
English language skills self-efficacy	5th grade	132	69,14	16,12
	6th grade	131	65,45	16,97
	7th grade	170	66,67	16,86
	8th grade	147	62,13	16,42
English reading self-efficacy	5th grade	132	18,86	4,617
	6th grade	131	17,77	4,960
	7th grade	170	18,39	4,596
	8th grade	147	17,17	5,080
English listening self-efficacy	5th grade	132	20,00	4,815
	6th grade	131	18,86	5,198
	7th grade	170	19,78	5,288
	8th grade	147	17,64	5,320
English speaking self-efficacy	5th grade	132	17,27	4,891
	6th grade	131	16,12	4,672
	7th grade	170	15,57	5,008
	8th grade	147	14,80	4,623
English writing self-efficacy	5th grade	132	13,00	4,559
	6th grade	131	12,69	4,673
	7th grade	170	12,91	4,592
	8th grade	147	12,51	4,407

When Table 3 is examined; it is seen that the highest average ($\bar{x}$ = 69.14) in the general self-efficacy level of English language skills according to the grade levels of the students belongs to the 5th grade, while the lowest average ($\bar{x}$ = 62.13) belongs to the 8th grade. When the sub-dimensions of the scale are examined; it is seen that the highest average is at the 5th grade level in the listening dimension ($\bar{x}$ = 20.00), followed by the 8th grade in the listening dimension ($\bar{x}$ = 19.78), the 5th grade in the reading dimension ($\bar{x}$ = 18.86) and the 6th grade in the listening dimension ($\bar{x}$ = 18.86). The lowest average is at the 8th grade level in the writing dimension ($\bar{x}$ = 12.51). It is noteworthy that the averages in the reading and listening sub-dimensions are higher than the averages of the other two sub-dimensions and are close to each other at all grade levels. The results of the variance analysis regarding the differences in scores obtained from the general self-efficacy of English language skills and its sub-dimensions according to grade levels are given in Table 4.

Table 4

The results of the variance analysis regarding the differentiation of the English language skills general self-efficacy and its sub-dimensions according to grade levels

Scale and Subscales	Source of Variance	KT	sd	KO	f	p
English language skills self-efficacy	Between groups	3594,23	3	1198,07	4,34	,00
	Within Groups	158993,52	576	276,03		
	Total	162587,75	579			
English reading self-efficacy	Between groups	231,53	3	77,17	3,34	,01
	Within Groups	13332,01	576	23,14		
	Total	13563,55	579			
English listening self-efficacy	Between groups	505,35	3	168,45	6,29	,00
	Within Groups	15411,50	576	26,75		
	Total	15916,86	579			
English speaking self-efficacy	Between groups	448,39	3	149,46	6,47	,00
	Within Groups	13332,54	576	23,14		
	Total	13780,93	579			
English writing self-efficacy	Between groups	21,70	3	7,23	,34	,79
	Within Groups	11964,36	576	20,77		
	Total	11986,06	579			

When Table 4 is examined, it can be seen that the total score of English language skills general self-efficacy (F(3,576) = 4.34; p < .05) and the subdimensions of English language skills self-efficacy, including English reading (F(3,576) = 3.34; p < .05), listening (F(3,576) = 6.29; p < .05), and speaking (F(3,576) = 6.47; p < .05), significantly vary according to students' grade levels.

To identify the source of the significant differences between the English language skills general self-efficacy and subdimension scores and grade level averages, the "Tukey HSD Test" was used. The Tukey test results revealed that the English language skills general self-efficacy scores of 5th-grade students were significantly higher than those of 8th-grade students. The results are detailed in Table 5 (p < .05).

Table 5

The results of the Tukey HSD test regarding the source of the difference in the total scores of English language skills general self-efficacy and its subdimensions between grade levels

(I) Grade	(J) Grade	Difference between means (I-J)	p
5. Sınıf	8. Sınıf	7,00	,00

In Table 5, when examining the source of the difference between the English language general self-efficacy total scores across grade levels, it is observed that there is a significant difference of ,00 (p < ,05) between the 5th-grade English language general self-efficacy mean scores and the 8th-grade mean scores. In the sub-dimensions, the greatest difference is in writing skills, where 5th graders also outperform 8th graders (p < .05). These findings indicate higher English self-efficacy levels among 5th-grade students. To examine differences in English general self-efficacy and sub-dimension scores based on family income, a one-way ANOVA was conducted, with results shown in Tables 6 and 7.

Table 6

The n, x̄ and sd. values of English language skills general self-efficacy levels and sub-dimensions according to the average monthly family income level of secondary school students

Scale and subscales	Family income level	n	x̄	ss
English language skills self-efficacy	10,000 TL and below	181	60,87	16,59
	10001-20000 TL	210	66,02	15,33
	20001 TL and above	189	70,29	17,20

Table 6 (cont.)

Scale and subscales	Family income level	n	$\bar{x}$	ss
English reading self-efficacy	10,000 TL and below	181	16,84	5,04
	10001-20000 TL	210	18,41	4,51
	20001 TL and above	189	18,79	4,79
English listening self-efficacy	10,000 TL and below	181	18,00	5,36
	10001-20000 TL	210	19,00	4,73
	20001 TL and above	189	20,21	5,45
English speaking self-efficacy	10,000 TL and below	181	14,56	4,76
	10001-20000 TL	210	15,96	4,69
	20001 TL and above	189	17,07	4,90
English writing self-efficacy	10,000 TL and below	181	11,46	4,38
	10001-20000 TL	210	12,63	4,39
	20001 TL and above	189	14,21	4,49

In Table 6, it is observed that the highest average score for English language skills general self-efficacy level ($\bar{x}$ = 70.29) belongs to the group with a monthly income level above 20,001 TL, while the lowest average score ($\bar{x}$ = 60.87) is observed in the group with a monthly income level of 10,000 TL or below. In all sub-dimensions, the highest averages were observed in participants with a monthly income level above 20,001 TL. Additionally, the highest average score in the sub-dimensions is found in the listening dimension for the above 20,001 TL income level ($\bar{x}$ = 20.21), followed by listening ($\bar{x}$ = 19.00) for the 10,001-20,000 TRY income group, reading ($\bar{x}$ = 18.79) for the above 20,001 TL income group, and reading ($\bar{x}$ = 18.41) for the 10,001-20,000 TL income group. The lowest average was observed in the writing sub-dimension ($\bar{x}$ = 11.46) for students with a monthly family income level of 10,000 TL or below. The results of the variance analysis regarding the differentiation of secondary school students' English language skills general self-efficacy and sub-dimensions based on monthly family income levels are presented in Table 7.

Tablo 7

Variance analysis results of secondary school students' English language skills general self-efficacy and sub-dimensions based on monthly family income levels.

Scale and subscales	Source of variance	KT	sd	KO	f	p
English language skills self-efficacy	Between groups	8206,55	2	4103,27	15,33	,00
	Within Groups	154381,20	577	267,55		
	Total	162587,75	579			
English reading self-efficacy	Between groups	395,80	2	197,90	8,67	,00
	Within Groups	13167,74	577	22,82		
	Total	13563,55	579			
English listening self-efficacy	Between groups	454,33	2	227,16	8,47	,00
	Within Groups	15462,53	577	26,79		
	Total	15916,86	579			
English speaking self-efficacy	Between groups	581,89	2	290,94	12,71	,00
	Within Groups	13199,04	577	22,87		
	Total	13780,93	579			
English writing self-efficacy	Between groups	705,01	2	352,50	18,03	,00
	Within Groups	11281,04	577	19,55		
	Total	11986,06	579			

When examining Table 7, it is observed that the total score for general self-efficacy in English language skills ($F(3,576) = 15.33$; $p < .05$), as well as the sub-dimensions of English language skills self-efficacy—English reading ($F(3,576) = 8.67$; $p < .05$), listening ($F(3,576) = 8.47$; $p < .05$), speaking ($F(3,576) = 12.71$; $p < .05$), and writing ($F(3,576) = 18.03$; $p < .05$)—significantly differ based on students' monthly family income levels.

To identify the source of the significant differences in secondary school students' English language skills general self-efficacy and sub-dimensions according to family income levels, a multiple comparison test, the "Tukey HSD Test," was used. The results of the Tukey test show that students with family income levels of 20,001 TL and above have significantly higher English writing self-efficacy scores than students with family income levels of 10,000 TL and below. The detailed results are presented in Table 8 ($p < .05$).

Tablo 8
Tukey HSD test results on the source of differences in total scores of general self-efficacy in English language skills and its sub-dimensions based on monthly family income levels

(I) Education level	(J) Education level	Difference between means (I-J)	p
20001TL and above	10000 TL and below	2,74	,00

In Table 8, when examining the source of the difference between English language skills general self-efficacy scores and family income level average scores, it is observed that students with a family income level of 20,001 TL and above have significantly higher English self-efficacy scores than those with a family income level of 10,000 TL and below ($p < .05$). In the sub-dimensions, a significant difference ($p < .05$) is found between the English writing self-efficacy scores of students with family income levels of 20,001 TL and above and those with family income levels of 10,000 TL and below.

The findings regarding the predictors of English language skills self-efficacy (total score and sub-dimensions) as influenced by foreign language motivation (total score and sub-dimensions) and self-regulation (total score and sub-dimensions) are presented below. Table 9 shows the results of the multiple regression analysis in predicting English language skills self-efficacy. According to Table 9, foreign language motivation and perceived self-regulation are highly and significantly related to English language skills self-efficacy ($R = .70$, $R^2 = .49$, $p < .01$). These variables explain approximately 49% of the variance in English language skills self-efficacy.

Tablo 9
Findings of multiple regression analysis for English language skills self-efficacy

Variable	B	SH_β	β	t	p
Constant	20,40	1,48	—	1,06	,00
Foreign language motivation	1,32	,08	,55	16,47	,00
Perceived self-regulation	,67	,09	,23	6,83	,00
R=.70	R^2=.49				
$F_{(2, 577)}$=278.49	p=.00				

The relative importance order of predictive variables for English language skills self-efficacy is as follows according to standardized regression coefficients (β); foreign language motivation and perceived self-regulation. The significance of regression coefficients was examined with t-test results and it was determined that foreign language motivation and perceived self-regulation variables are significant predictors for English language skills self-efficacy. An increase in foreign language motivation and perceived self-regulation scores causes an increase in English language skills self-efficacy score.

Table 10 shows the findings of the multiple regression analysis obtained in predicting English reading self-efficacy. When Table 10 is examined, it is seen that foreign language motivation and perceived self-regulation together have a moderate and significant relationship ($R = .61$, $R2 = .38$, $p < .01$) with English reading self-efficacy. These variables explain approximately 38% of the variance in English reading self-efficacy.

Tablo 10
The findings of the multiple regression analysis for English reading self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	1,79	1,05		1,70	,08
Foreign language motivation	,32	,02	,47	12,64	,00
Perceived self-regulation	,19	,03	,22	6,11	,00
R=.61	R²=.38				
F$_{(2, 577)}$= 177,37	p=.00				

The relative importance of the predictor variables for English reading self-efficacy, based on standardized regression coefficients (β), consists of foreign language motivation and perceived self-regulation. The significance of the regression coefficients was examined with t-test results, and it was found that both foreign language motivation and perceived self-regulation are significant predictors for English reading self-efficacy. An increase in foreign language motivation and perceived self-regulation scores leads to an increase in English reading self-efficacy scores.

Table 11 shows the findings of the multiple regression analysis for predicting English listening self-efficacy. As seen in Table 24, foreign language motivation and perceived self-regulation together have a moderate and significant relationship with English listening self-efficacy (R = .60, R² = .36, p < .01). These variables explain approximately 36% of the variance in English listening self-efficacy.

Tablo 11
The findings of the multiple regression analysis for English listening self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	1,50	1,15		1,30	,19
Foreign language motivation	,33	,02	,45	11,91	,00
Perceived self-regulation	,21	,03	,24	6,39	,00
R=,60	R²=,36				
F$_{(2, 577)}$= 167,25	p=,00				

The relative importance of predictor variables for English listening self-efficacy, based on standardized regression coefficients (β), is shown to be foreign language motivation and perceived self-regulation. T-test results for the regression coefficients indicated that both foreign language motivation and perceived self-regulation are significant predictors of English listening self-efficacy. An increase in foreign language motivation and perceived self-regulation scores leads to an increase in English listening self-efficacy scores.

Table 12 shows the findings of the multiple regression analysis for predicting English speaking self-efficacy. According to Table 12, foreign language motivation and perceived self-regulation together have a moderate and significant relationship with English speaking self-efficacy (R = 0.68, R² = 0.38, p < 0.01). These variables explain approximately 38% of the variance in English speaking self-efficacy.

Tablo 12
The findings of the multiple regression analysis for English speaking self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	-,57	1,06		-,53	,59
Foreign language motivation	,32	,02	,47	12,57	,00
Perceived self-regulation	,19	,03	,23	6,23	,00
R=,68	R²=,38				
F$_{(2, 577)}$= 177,89	p=,00				

The relative importance of predictor variables for English speaking self-efficacy, based on standardized regression coefficients (β), consists of foreign language motivation and perceived self-regulation. T-test results show that both variables are significant predictors of English speaking self-efficacy. An increase in foreign language motivation and perceived self-regulation scores leads to higher English speaking self-efficacy scores.

Table 13 presents the multiple regression analysis findings for predicting English writing self-efficacy. It shows a moderate and significant relationship (R = .57, R^2 = .33, p < .01) between foreign language motivation, perceived self-regulation, and English writing self-efficacy. These variables explain about 33% of the variance in English writing self-efficacy.

Tablo 13
The findings of the multiple regression analysis for English writing self-efficacy

Variable	B	SH_β	β	t	p
Constant	,80	1,02		,77	,43
Foreign language motivation	,34	,02	,53	13,64	,00
Perceived self-regulation	,06	,031	,08	2,11	,03
R=.57	R^2=.33				
$F_{(2, 577)}$= 142,55	p=.00				

The relative importance of predictor variables for English writing self-efficacy, based on standardized regression coefficients (β), consists of foreign language motivation and perceived self-regulation. T-test results show that both variables are significant predictors of English writing self-efficacy. An increase in foreign language motivation and perceived self-regulation scores leads to higher English writing self-efficacy scores.

Table 14 presents the multiple regression analysis findings for predicting English language skills self-efficacy. It shows a high and significant relationship (R = .71, R^2 = .51, p < .01) between intrinsic motivation, extrinsic motivation, integrative motivation, instrumental motivation, openness, and exploration, and English language skills self-efficacy. These variables explain about 51% of the variance in English language skills self-efficacy.

Tablo 14
The findings of the multiple regression analysis for English language skills self-efficacy

Variable	B	SH_β	β	t	p
Constant	5,88	3,34		1,75	,07
Intrinsic foreign language motivation	2,31	,27	,32	8,45	,00
Extrinsic foreign language motivation	,62	,24	,09	2,57	,01
Integrative foreign language motivation	1,59	,24	,22	6,44	,00
Instrumental foreign language motivation	,73	,26	,09	2,81	,00
Openness	,75	,22	,13	3,34	,00
Inquiry	,48	,19	,09	2,47	,01
R=.71	R^2=.51				
$F_{(6,573)}$= 99,25	p=.00				

The relative importance of the predictor variables for English language skills self-efficacy, based on standardized regression coefficients (β), includes foreign language intrinsic motivation, foreign language integrative motivation, openness, foreign language instrumental motivation, curiosity, and foreign language extrinsic motivation. T-test results show that these variables are significant predictors for English language skills self-efficacy. An increase in these variables leads to higher self-efficacy scores in English language skills.

Table 15 shows the findings of the multiple regression analysis for predicting English reading self-efficacy. The results indicate a moderate and significant relationship between

foreign language intrinsic motivation, foreign language extrinsic motivation, foreign language instrumental motivation, openness, and curiosity with English reading self-efficacy (R = .64, R² = .41, p < .01), while no significant relationship was found with foreign language integrative motivation. These variables explain about 41% of the variance in English reading self-efficacy.

Tablo 15
The multiple regression analysis findings for English reading self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	2,54	1,05		2,41	,01
Intrinsic foreign language motivation	,78	,08	,38	9,09	,00
Extrinsic foreign language motivation	,16	,07	,08	2,19	,02
Integrative foreign language motivation	,06	,07	,03	,88	,37
Instrumental foreign language motivation	,27	,08	,12	3,33	,00
Openness	,17	,07	,11	2,46	,01
Inquiry	,15	,06	,10	2,51	,01
R=.64	R^2=.41				
F$_{(6,573)}$= 67,97	p=.00				

The relative importance of predictor variables for English reading self-efficacy, based on standardized regression coefficients (β), includes foreign language intrinsic motivation, instrumental motivation, openness, curiosity, external motivation, and integrative motivation. T-test results show that intrinsic motivation, external motivation, instrumental motivation, openness, and curiosity are significant predictors of English reading self-efficacy, while integrative motivation is not. An increase in scores for intrinsic motivation, external motivation, instrumental motivation, openness, and curiosity leads to higher English reading self-efficacy scores, while an increase in integrative motivation decreases these scores.

Table 16 presents the results of multiple regression analysis for predicting English listening self-efficacy. The analysis shows that foreign language intrinsic motivation, integrative motivation, instrumental motivation, openness, and curiosity have a moderate and significant relationship with English listening self-efficacy (R = .61, R² = .38, p < .01), while external motivation does not. These variables explain approximately 38% of the variance in English listening self-efficacy.

Tablo 16
The multiple regression analysis findings for English listening self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	2,08	1,17		1,77	,07
Intrinsic foreign language motivation	,49	,09	,22	5,18	,00
Extrinsic foreign language motivation	,11	,08	,05	1,39	,16
Integrative foreign language motivation	,53	,08	,23	6,09	,00
Instrumental foreign language motivation	,18	,09	,08	2,01	,04
Openness	,23	,08	,13	2,97	,00
Inquiry	,18	,06	,11	2,67	,00
R=.61	R^2=38				
F$_{(6,573)}$= 59,03	p=.00				

The relative importance of the predictor variables for English listening self-efficacy, based on standardized regression coefficients (β), includes foreign language integrative motivation, intrinsic motivation, instrumental motivation, external motivation, openness, and curiosity. The analysis found that intrinsic motivation, integrative motivation, instrumental motivation, openness, and curiosity are significant predictors, while external motivation is not. Increases in intrinsic motivation, instrumental motivation, openness, and curiosity lead to higher English listening self-efficacy scores, while higher external motivation scores result in lower self-efficacy.

Table 17 shows the findings of multiple regression analysis obtained in predicting English speaking self-efficacy. When Table 17 is examined, it is seen that foreign language intrinsic motivation, foreign language extrinsic motivation, foreign language integrative motivation, openness and search together have a moderate and significant relationship (R=.63, R2=.40, p<.01) with English speaking self-efficacy; however, there is no significant relationship between foreign language instrumental motivation and English speaking self-efficacy. These variables explain approximately 40% of the variance in English speaking self-efficacy.

Tablo 17
The multiple regression analysis findings for English speaking self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	,09	1,07		,09	,92
Intrinsic foreign language motivation	,56	,08	,27	6,46	,00
Extrinsic foreign language motivation	,20	,07	,10	2,63	,00
Integrative foreign language motivation	,50	,07	,24	6,39	,00
Instrumental foreign language motivation	,00	,08	,00	,09	,92
Openness	,23	,07	,14	3,15	,00
Inquiry	,13	,06	,09	2,19	,02
R=.63	R^2=.40				
F$_{(6,573)}$= 65,20	p=.00				

The relative importance of predictor variables for English speaking self-efficacy, based on standardized regression coefficients (β), is as follows: intrinsic motivation, integrative motivation, openness, extrinsic motivation, search, and instrumental motivation. T-test results revealed that intrinsic, extrinsic, and integrative motivation, along with openness and search, were significant predictors, while instrumental motivation was not. Increasing intrinsic, extrinsic, integrative motivation, openness, and search scores boosted self-efficacy, while higher instrumental motivation scores led to a decrease in self-efficacy.

Table 18 presents the findings from the multiple regression analysis conducted to predict English writing self-efficacy. Upon examining Table 18, it can be seen that intrinsic motivation, integrative motivation, and instrumental motivation together have a moderate and significant relationship with English writing self-efficacy (R = .58, R2 = .34, p < .01). However, there is no significant relationship between extrinsic motivation, openness, and search with English writing self-efficacy. These variables explain approximately 34% of the variance in English writing self-efficacy.

Tablo 18
The multiple regression analysis findings for English writing self-efficacy

Variable	B	SH$_\beta$	β	t	p
Constant	1,15	1,05		1,10	,27
Intrinsic foreign language motivation	,46	,08	,24	5,39	,00
Extrinsic foreign language motivation	,13	,07	,07	1,77	,07
Integrative foreign language motivation	,48	,07	,25	6,29	,00
Instrumental foreign language motivation	,26	,08	,13	3,25	,00
Openness	,11	,07	,07	1,63	,10
Inquiry	,00	,06	,00	,13	,89
R=.58	R^2=.34				
F$_{(6,573)}$= 50,16	p=.00				

The order of importance of predictor variables for English writing self-efficacy, based on standardized regression coefficients (β), is as follows: foreign language integrative motivation, intrinsic motivation, instrumental motivation, openness, extrinsic motivation, and search. T-test results showed that intrinsic, integrative, and instrumental motivations were significant predictors, while extrinsic motivation, openness, and search were not. Increases in

intrinsic, integrative, and instrumental motivation scores led to higher self-efficacy, while increases in extrinsic motivation, openness, and search led to lower self-efficacy scores.

Conclusion and Discussion

In this study, the first step was to assess the level of English language skills self-efficacy of secondary school students. The research results showed that secondary school students had a high level of perceived English self-efficacy. In the subdimensions of the scale, it was concluded that students had high self-efficacy in English reading and listening skills, and moderate self-efficacy in speaking and writing skills. Especially the results obtained from the subdimensions of the scale are as expected, as reading and listening are considered input processes in language skills, while speaking and writing are regarded as output processes. A review of the literature revealed studies on English language skills and self-efficacy, but these studies do not assess secondary school students' English language skills self-efficacy. To conduct this study with secondary school students, the "English Language Skills Self-Efficacy Scale" developed by Ocak, Küçükçınar & Karakuyu (2022) was used. Therefore, the results obtained in this study regarding English language skills will be compared with the results of studies conducted with students from other educational levels. In this context, the following studies, which show similarities with the results obtained from this research, were identified in the literature: Torres (2011) found that high school students had high self-efficacy beliefs in listening and reading skills, while having moderate self-efficacy in writing and speaking skills. The researcher suggested that this result might stem from writing being the most difficult skill requiring different sub-skills among language skills. Additionally, based on participants' moderate confidence in completing English speaking and writing tasks, the researcher evaluated that these two communication skills were not sufficiently emphasized in the classroom. Considering that communication skills affect each other, the researcher stressed that equal focus should be placed on all language skills. Çeliköz & İlbeği (2020) found that English preparatory students had higher self-efficacy beliefs in reading and listening skills than in speaking and writing skills. They explained this with the higher likelihood of being exposed to stimuli that support perceptual skills and reading abilities. Tılfarlıoğlu & Cinkara (2009) reached a conclusion that English self-efficacy beliefs were high in preparatory class students. Kitikanan & Sasimonton (2017) found similar results in their study with university students. Additionally, Kesen Mutlu, Solhi Andarab & Karacan (2019) also noted that students' self-efficacy levels were high in their research. In Çetintaş & Berkant's (2021) study, they found that high school students' English self-efficacy perceptions were above average.

Studies showing different results can be listed as follows: Aykol (2017) found that high school students had moderate English self-efficacy beliefs in his study. Zhu & Gong (2020) found that university students had moderate overall English self-efficacy in their study. In the study by Wang & Huang (2014), which examined elementary school children's use of self-efficacy beliefs and self-regulated learning strategies during the process of learning English as a second language, it was determined that English self-efficacy was at a moderate level. Similarly, Oğuz & Baysal (2015) found that high school students had moderate self-efficacy beliefs regarding their English skills in their study examining the relationship between foreign language anxiety and English self-efficacy beliefs.

Contrary to this study, Taşdemir (2018) found that in his research with high school students, most of the students had low overall English self-efficacy and low self-efficacy beliefs for the four skills. The study mentioned that the reason for the participants' low English self-efficacy was due to a lack of vocabulary knowledge. In Rahemi's (2007) study, which examined the English self-efficacy beliefs of students studying in the field of humanities and their effect on their English achievements, it was found that the students had very low English self-efficacy and held some negative beliefs about their academic abilities as foreign language learners.

Similar findings were also found in Yanar's (2008) study, which measured the English self-efficacy levels of high school students.

The study also concluded that the perceived self-regulation level of secondary school students was high. While the students' self-regulation was high in the search dimension of the scale, it was at a moderate level in the openness dimension. It is possible to come across other studies in the literature that are similar and different from the results of this study. In parallel with the results of this study, in the study conducted by Harrison & Prain (2009) with 8th grade secondary school students, it was determined that most of the students used self-regulation strategies at a high level in English lessons. In the study conducted by Kanat & Kozikoğlu (2018) with students at the same level, it was concluded that the students used self-regulation strategies for English lessons at a moderate level. In the study conducted by Mutweleli (2014) on secondary school students, it was concluded that the students' self-regulation skills were at a moderate level.

Another variable addressed in this study is foreign language motivation levels. The research found that students had a moderate level of language motivation. When evaluating students' foreign language motivation in terms of its intrinsic, extrinsic, integrative, and instrumental subdimensions, it was found that only extrinsic motivation was high, while the other motivation levels were at a moderate level. This result indicates that students' language motivation was not at the expected level. The lack of interest in foreign languages among secondary school students may be linked to their lack of awareness about the social and professional benefits of language learning. It appears that students' motivation to learn a language is often shaped by external factors, such as exam success or expectations of rewards. Additionally, the inability to learn a language in a natural setting, personal goals, and individual abilities may also influence this situation. When examining relevant studies, many similar studies to this one have been found. For instance, in a study by Dilshad, Nausheen & Ahmed (2019) that aimed to investigate secondary school students' motivation to learn English and identify factors that reduce their motivation, it was determined that students' motivation to learn English was at a moderate level. The main factors that reduced students' motivation to learn English were found to be lack of confidence, problems in speaking English, and weak grammar knowledge. Mehdiyev et al. (2016) also examined university students' motivation to learn a language and found that the majority of students had moderate or high levels of motivation. The study attributed students' lack of eagerness to learn a language to factors such as lack of interest, compulsory learning, not seeing the necessity of language in their professions, and a lack of opportunities for sufficient practice.

Unlike the findings obtained from this study, in the study conducted by Nguyen (2019) with university students to reveal the type and level of motivation in English language learning, it was found that the students' motivation to learn English as a foreign language was high. It was concluded that the students tended to learn English for instrumental reasons such as finding a job or getting an English certificate. In the study conducted by Purnama, Rahayu & Yugafiati (2019) to measure the level of motivation of eighth-grade students to learn English, it was found that the students had high motivation. In the study conducted by Becirovic (2017) with 5th, 9th, and 12th-grade students, it was concluded that the students' level of motivation in English was high. It can be thought that the high level of motivation in this study is due to the fact that the students in the sample group are older and that this age group has a better understanding of the importance of learning English.

This study also aimed to examine the effects of secondary school students' gender, grade level, and their families' average monthly income on their English language skills self-efficacy beliefs. The research found a trend in favor of female students in terms of overall English language skills self-efficacy and in the subdimensions of reading, listening, and speaking. The superiority of female students in language skills may be due to their natural

inclination towards language learning and their greater exposure to language interactions. Studies in the literature support this result (Arslan, 2018; Huang, 2013; Mahyuddin et al., 2006; Ocak & Akkaş Baysal, 2016; Oğuz & Baysal, 2015). However, there are also studies in the literature that found the self-efficacy levels of male students to be higher, which contrasts with the findings of this study (Ergür, 2016; Necan, 2019). Additionally, some studies have found results indicating that gender does not have an effect on English self-efficacy levels, contrary to the current findings (Güç, 2019; Güler Oğuz, 2019; Gürcan, 2021; İlbeği & Çeliköz, 2020; Sevimbay, 2016; Tuncer & Akmençe, 2019).

When the English self-efficacy levels of secondary school students were examined by grade level, significant differences were found in the overall English self-efficacy score and in the self-efficacy scores related to the subdimensions of English listening, reading, and speaking. According to the findings, grade level has a significant impact on English self-efficacy, except for the writing subdimension. The differentiation observed is attributed to the average English writing self-efficacy scores of 5th and 8th-grade students, with 5th-grade students exhibiting higher self-efficacy levels than their 8th-grade counterparts. This could be due to the lighter curriculum in 5th grade compared to 8th grade, as well as 8th-grade students' feelings of inadequacy in class due to their unsatisfactory performance in practice tests for the high school entrance exams. Some studies in the literature support this finding. For instance, Gürbüztürk & Şad (2009) and Bozkurt (2017) found significant differences in self-efficacy levels based on grade level. Similarly, Oğuz & Baysal (2015) observed that students' English self-efficacy beliefs were higher in the lower grades, but decreased by the 11th and 12th grades. This suggests that as grade levels increase, students' perceived importance of English decreases. Bozkurt & Ekşioğlu (2018) found significant differences in favor of 10th-grade students. In contrast, Tuncer & Akmençe (2019) concluded that English self-efficacy beliefs did not significantly differ based on grade level.

According to the findings obtained from the research, the English self-efficacy levels of secondary school students show a significant difference according to the average monthly family income. However, it was determined that the English writing self-efficacy of students whose family income level is 20001 TL and above is higher than that of students whose family average monthly income level is 10000 TL and below. Based on these findings, it can be said that as the family income level increases, the foreign language self-efficacy levels of students also increase. Since families with high income levels provide their children with more educational opportunities, this may contribute to the increase in the self-efficacy levels of students. Satıcı (2013) states that a good economic situation increases people's living standards and that they are likely to have more opportunities in environments where they can develop themselves. He also states that they can have more opportunities to meet their educational needs and increase their academic self-efficacy by gaining more educational experience. The findings of the studies conducted by Berkant & Çetintaş (2021) and İlgar (2019) are similar to the findings of this study. Aykol (2017) also concluded that high school students with a family income of 4000-5000 TL and above 6000 TL have higher English self-efficacy beliefs compared to students with lower family income levels. Contrary to this study, Bozkurt & Ekşioğlu (2017) and Çimen (2011) determined that students' English self-efficacy beliefs are not related to family income status.

The results of the stepwise multiple regression analysis conducted to determine the predictive power of the variables on English self-efficacy, as part of the study's aim, showed that foreign language motivation and perceived self-regulation have a high level of significant relationship with English language skills self-efficacy. These findings suggest that foreign language motivation and perceived self-regulation are critical factors in determining students' English language skills self-efficacy. The relationship between motivation and self-efficacy can be summarized as follows: a student with high foreign language motivation effectively explores

ways and resources to learn the language. This effort enhances their academic success, reinforcing their English self-efficacy beliefs. When considering the importance of the variables predicting English self-efficacy, foreign language motivation comes first, followed by perceived self-regulation. A review of the literature reveals that no studies have simultaneously examined the three variables addressed in this research. This makes the study unique. However, studies investigating these variables in pairs can be found in the literature. For example, Torres & Alieto (2019) found a significant relationship between English self-efficacy beliefs and language learning motivation in their study with high school students. Özdemir & Karafil (2017) and Piniel & Osizer (2013) found a significant relationship between students' language motivations and general self-efficacy beliefs. Studies by Basco & Han (2016) and Husain (2014) also identified that students' general motivations have an effect on their self-efficacy levels. Based on these findings, it can be suggested that developing motivated learning behaviors in students can influence how they process their language learning experiences and the self-efficacy beliefs they develop. In contrast to the results of this study, Ersanlı (2015) found a low-level negative relationship between 8th-grade students' English learning motivation and self-efficacy beliefs. Consistent with the findings of this study, several studies in the literature have found a positive relationship between English self-efficacy and self-regulation (Magogwe & Oliver, 2007; Su et al., 2018). This shows that students' confidence in their abilities is related to their capacity to guide and regulate their learning process. This suggests that students' beliefs in their self-efficacy could help them adopt more effective learning strategies and achieve success. In terms of the sub-dimensions of the scale, a moderate relationship was found between reading, listening, and speaking sub-dimensions with motivation and self-regulation. This indicates that students' self-efficacy in these skills is moderately related to their levels of motivation and self-regulation. However, a high-level and significant relationship was found between the writing sub-dimension and motivation and self-regulation. This suggests that students' self-efficacy in writing skills is more strongly related to their levels of motivation and self-regulation. In a study by Cho, Y. A., and Kim, Y. (2019) with high school students, a positive relationship was found between students' self-efficacy beliefs and self-regulated learning strategies, with the highest relationship being in writing proficiency. This finding, similar to the results of the current study, shows that students' self-efficacy beliefs about their writing skills most strongly affect their confidence in using self-regulation strategies during the learning process. In other words, students' beliefs in their writing abilities play a crucial role in determining their confidence in regulating and implementing their study strategies during the learning process.

Another issue addressed in the study is the predictive power of the sub-dimensions of students' foreign language motivation (intrinsic, extrinsic, integrative, and instrumental) and perceived self-regulation (openness and search) in forecasting English self-efficacy. The results of the six-step regression analysis showed that the sub-dimensions of foreign language intrinsic motivation, extrinsic motivation, integrative motivation, instrumental motivation, openness, and search significantly predicted English language skills self-efficacy at a high level. Similarly, in a study by Buch et al. (2015), it was found that self-efficacy beliefs significantly influenced students' intrinsic motivation levels, particularly.

Finally, a more detailed examination was conducted to determine whether the sub-dimensions of the independent variables (foreign language motivation and perceived self-regulation) predicted the sub-dimensions of English self-efficacy (reading, listening, speaking, and writing). The results indicated that all independent variable sub-dimensions, except for integrative motivation in foreign language, were significant predictors for English reading self-efficacy. The lack of influence of integrative motivation on reading skills may be due to the student not viewing it as a skill for communicating or integrating with the community of the target language. In the English listening self-efficacy sub-dimension, it was found that only the sub-dimension of extrinsic motivation in foreign language was not a significant predictor. This could be related to the fact that listening skills are not assessed when students receive grades in

English lessons. Additionally, the fact that students do not engage in activities such as watching English films, listening to music, or conversing with foreigners outside the classroom may have contributed to this result. In the English speaking self-efficacy sub-dimension, it was found that none of the sub-dimensions had a significant role except for instrumental motivation in foreign language. In speaking skills, this could be explained by the limited opportunities for students to use the language outside of class, or the absence of situations that require speaking English, which may account for the lack of effect of extrinsic motivation on this skill. For the English writing self-efficacy sub-dimension, it was found that neither foreign language extrinsic motivation nor the sub-dimensions of perceived self-regulation had a significant effect. Regarding the writing dimension, it can be expected that students do not feel the need for motivation or a search for developing their writing skills, as writing is a less emphasized skill in classroom settings. These analyses highlight the diversity and importance of the factors that affect English language skills self-efficacy. In contrast to the findings of this study, İlgar (2019) found a significant relationship between English self-efficacy total scores and demotivation total scores, while no relationship was found between motivation and self-efficacy beliefs when examined in terms of total scores.

Based on the findings of the research, the following recommendations can be made in the current research:

Students' motivation to learn English depends on their understanding of the language's importance in social and professional life. Therefore, teachers should raise awareness by providing examples of the language's uses and benefits in class. Emphasizing the value of English in areas such as business, academic careers, and travel can enhance students' motivation. Approaches that encourage students to focus on their own interests and goals can help support their intrinsic motivation.

Effective strategies should be implemented to strengthen students' self-efficacy beliefs in writing and speaking. These include providing practice opportunities and interactive activities with real-life scenarios to boost their confidence. Increasing motivation and improving self-regulation can also be crucial for enhancing students' English writing skills.

To enhance the impact of integrative motivation on English reading skills, exposure to the target language culture should be increased, teaching methods that promote integrative motivation should be used, and steps should be taken to foster a sense of belonging and attachment in students.

Students should be encouraged to engage in activities outside of class, such as watching English movies, listening to music or podcasts, and interacting with foreigners, to improve their listening skills. To enhance the effect of instrumental motivation on speaking, classroom activities should include real-life speaking experiences, such as interviews, negotiations, and presentations. Similar studies examining English self-efficacy at the secondary school level can contribute to the field. Studies using a mixed design could be conducted to better understand the impact of affective factors in language education.

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