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Born to be an English Speaker: Motivational Pathways of Fixed Mindset to Success in EFL

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Abstract

Several maladaptive motivational pathways to success have been investigated in foreign language (L2) learning. However, the links between a fixed mindset and academic success through language selves and academic buoyancy in English Preparatory Programs (EPP) of English Medium Instruction (EMI) universities have not been researched. Although the L2 Motivational Self System (L2MSS; Dörnyei, 2005) has been extensively used to describe L2 learners' motivation, its links with important motivational constructs such us students' mindset and academic buoyancy in the prediction of success have not been studied to fully describe L2 learners' motivational pathways to success. In the present study, carried out on a sample of 343 Turkish EPP learners and through partial least squares structural equation modelling (PLS-SEM), we identified the following maladaptive pathways: learners' fixed mindset was related to their ought-to and feared L2 selves (Peker, 2016, 2020) positively and to their ideal L2 self and academic buoyancy negatively. Academic buoyancy and academic success were positively related. Significant negative indirect relationships between fixed mindset and academic buoyancy through L2 selves were identified in addition to significant negative indirect relationships between fixed mindset and academic success through L2 selves and academic buoyancy. We discuss EPP students' motivational mechanisms in terms of their implications for facilitating their success.

Key words: *academic buoyancy; academic success; feared L2 self; fixed mindset; L2MSS.*

Introduction

Success in learning English as a foreign language (EFL) is a requirement for academic and professional success. Research has shown the adaptive pathways to success for English learners with developed growth mindset (the belief that ability can change through effort) and less optimal outcomes of English learners with fixed mindset (the belief that ability is a fixed entity) (Bostwick et al., 2017; Claro et al., 2016; Karlen et al., 2021; Liu et al., 2018; Martin et al., 2017; Romero et al., 2014; Yeager et al., 2014). Learners' mindset in general education has been linked to success and failure either directly or indirectly through other motivational constructs (Albalawi & Al-Hoorie, 2021; Blackwell et al., 2007; Boullion, 2021; Calo et al., 2019; Martin et al., 2013; Yeager & Dweck, 2012). In EFL, however, the motivational pathways of mindset to success or failure have not been clarified. For example, the link between growth and fixed mindset and the Second Language Motivational Self System (L2MSS), one of the most widely investigated motivational construct in the prediction of success and failure in EFL (e.g., Al-Hoorie, 2016; Martinović, 2018; Wong, 2020), has not been investigated. How is a fixed or growth mindset of English ability translated in L2MSS? Is a fixed or growth mindset related to learners' ability to overcome the daily setbacks (i.e. academic buoyancy) that accompanied L2 learning? To what extent is a fixed or growth mindset manifested in success or failure in English? Lou and Noels (2019) have proposed a Language Mindset Meaning System (LMMS) that needs to be tested in terms of its motivational correlates to clarify how the growth meaning system or the fixed meaning system function psychologically in the prediction of success and failure.

In the present study, following Lou and Noels' (2019) LMMS, we investigated whether a fixed mindset in learning English for academic purposes negatively predicts success through L2 selves as well as through learners' low ability to overcome daily setbacks (i.e., academic buoyancy; Martin & Marsh, 2006, 2008). The current study will provide an understanding of students' motivation for success or failure in the EFL context with considerable implications for the EFL stakeholders in tertiary education.

Fixed and growth mindset

According to the Mindset Theory proposed by Dweck (2000, 2006), adaptive and maladaptive motivational processes are explained through growth and fixed mindset, respectively. A fixed mindset or entity theory of intelligence refers to one's belief that intelligence is a fixed entity that cannot change. On the other hand, a growth mindset or incremental theory of intelligence refers to one's belief that intelligence can be cultivated through learning. Individuals with a fixed mindset perceive the negative feedback as a threat and failure as the result of deficits in their intelligence. In contrast, individuals with a growth mindset accept failure as a chance for improvement and learning and perceive any negative feedback as a guideline to improve their skills (Dweck, 2000). Dweck (1999) also proposed that mindset is a continuum of the opposing poles of growth and fixed mindsets, which means that individuals who rank high in a growth

mindset, always rank low in a fixed mindset and vice versa. This view of mindset has been recently questioned (see for example Grüning et al., 2023), especially in the L2 context. Recent research findings point to the possibility that some L2 learners might also have a mixed mindset without being at one of the two opposing poles (fixed or growth mindset) but holding a middle ground to shape their learning attitudes through the L2 process (Lou et al., 2022).

Yeager and Dweck (2012) argue that fixed and growth mindsets contribute to individuals' different understanding of experiences, making them either vulnerable or resilient. In case of difficulties, a growth mindset increases academic resilience (students achieve good educational outcomes despite adversity) (Blackwell et al., 2007; Boullion, 2021; Calo et al., 2019; O'Neil & Kruger, 2022; Sisto et al., 2019; Yeager & Dweck, 2012) and academic buoyancy (Martin et al., 2013; Xu & Wang, 2022). Students with a growth mindset are also more likely to perform better compared to students with a fixed mindset (Bostwick et al., 2017; Claro et al., 2016; Karlen et al., 2021; Liu et al., 2018; Martin et al., 2017; Romero et al., 2014; Yeager et al., 2014). Studies have also shown the positive relationship between a growth mindset intervention and students' grades (Paunesku et al., 2015; Yeager et al., 2016; Yeager et al., 2019).

Related to L2 education, Mercer (2011) argued that fixed-minded L2 learners avoid challenges and are less ambitious. Lou and Noels (2020), on the other hand, found that growth minded L2 learners have lower anxiety and higher L2 proficiency. As the two types of mindset are related to different outcomes, Lou and Noels (2019) suggested the LMMS as a comprehensive framework to understand how L2 learners respond to particular learning situations. Unlike a fixed mindset, the growth mindset meaning system is linked with several adaptive motivational constructs such as high effort beliefs, mastery goals, self-regulation and positive emotions. For instance, Lou and Noels (2019) highlighted the need for research on the links between a mindset and other motivational constructs to better understand the components of the growth or fixed mindset meaning system. Similarly, Albalawi and Al-Hoorie (2021) investigated the mediation of ideal L2 self (IL2S) (i.e., being motivated in L2 learning out of ideals and inner desires) between the positive relation of a fixed mindset and demotivation. Their results indicated that a fixed mindset could be linked to the L2 selves motivational constructs.

L2 Motivational self system (L2MSS)

Motivation has been frequently defined from the learners' self-perspective (Al-Hoorie, 2018; Dörnyei, 2009). When learners experience a discrepancy between their current and expected L2 proficiency level, they either approach an ideal L2 proficiency level or avoid the negative consequences of a lower L2 proficiency level. This motivational approach in the EFL context has been suggested by Dörnyei (2005), who established the L2MSS as a framework to study the motivation of L2 learners.

L2MSS framework has three components: the ideal L2 self (IL2S), the ought-to L2 self (OL2S), and L2 learning experience. The first component refers to learners' internal

desire to learn an L2, while OL2S refers to learners' belief that they ought to learn an L2 to comply with social norms and pressure. The L2 learning experience refers to the learning environment and experience that create the executive motives for learners. L2MSS framework was validated through several quantitative studies (e.g., Blair & Azaz, 2019; Doiz & Lasagabaster, 2018; Öz & Bursalı, 2018) and the IL2S was found to be an important predictor of learning effort and motivation (Kim & Kim, 2012; Taguchi et al., 2009; Ueki & Takeuchi, 2013). Moreover, research has shown that the IL2S is predicted by learner's promotion focus orientation, while the OL2S is predicted by learner's prevention focus orientation (Papi & Khajavy, 2021).

Although the act of avoidance was emphasized in relation to the concept of ought-to L2 self in Dörnyei's (2005) L2MSS model, some OL2S items referred to individuals' tendency to avoid behaviors with possible negative future outcomes due to fear, not social norms and pressure. Taking into consideration the promotion and prevention nature of the L2MSS, Peker (2016, 2020) suggested that prevention could be conceived as learners' tendency to smoothen ego concerns instigated by a fear of exclusion and by social pressure to comply with social norms. She, therefore, distinguished the concept of avoidance due to fear (FL2S) which would cover the prevention aspect, through which avoidance aspect of L2MSS was included as a new aspect in Re-Conceptualized L2 Motivational Self System (R-L2MSS) apart from L2MSS. In addition, in the new model, the items referring to the prevention aspect due to social pressure and/or promotion aspect due to social norms were loaded on OL2S (i.e., the rest of the items in the OL2S in L2MSS). Accordingly, based on reliability analyses, Peker (2016, 2020) moved some of the fear-based avoidance items of OL2S into FL2S construct, and the prevention-focused items that previously belonged to OL2S were merged with this new construct, the FL2S, better. In addition, she also moved some of the IL2S items that refer to social pressure or norms into the OL2S construct. We considered this new model (R-L2MSS) as it expanded the original model by including a fourth aspect of L2 selves, which is FL2S in addition to revising the aspects of IL2S and OL2S. In a qualitative study, Fryer and Roger (2018) also identified the FL2S as a distinct motivational profile of L2 learners.

Related to the correlates of the L2 selves, Kim and Kim (2021) found the IL2S to be positively related to resilience factors such as self-composure, life satisfaction, and realistic optimism, while the OL2S to be negatively related to sociability. Kim and Kim (2014) also showed the positive relation between IL2S and English (as L2) proficiency either directly or indirectly through motivated behavior. Regarding the relation of L2 selves and mindset, Zarrinabadi et al. (2021) found that a growth mindset and IL2S were positively related, while a fixed mindset was negatively related to adaptability and, through it, to positive emotions.

Investigating the relation of L2 selves and achievement, Al-Hoorie (2016) found a negative association with the OL2S. Similarly, Martinović (2018) demonstrated that students with higher grades had higher levels of L2 motivation as well as stronger

IL2S. On the other hand, Wong (2020) found that both IL2S (to a higher extent) and OL2S (to a lower extent) were positively related to achievement through motivated learning behavior. Considering the links of L2 selves with resilience factors, Yun et al. (2018) suggested academic buoyancy as the mediating mechanism between the IL2S (and other motivational variables) and achievement, and they found that academic buoyancy indeed mediates this positive relation.

Overall, IL2S is related to growth mindset and constitutes a positive pathway to achievement through resilience factors (e.g., motivated learning behavior or academic buoyancy). On the other hand, the OL2S is not clear in terms of whether it is related to mindset as well as whether it is negatively (see Al-Hoorie, 2016) or positively (see Wong, 2020) related to achievement.

Academic success in EFL

Academic success in the EFL context is often related to success or failure in particular exams that verify learners' proficiency, especially in English Medium Instruction (EMI) universities in which English is used as an instructional language to teach any university subject. The exam-focused education in EFL requires learners to cope effectively with the exam stress and other daily adversities such as strict deadlines or negative feedback. Students' ability to deal effectively with daily academic adversities refers to academic buoyancy (Martin & Marsh, 2006, 2008). Several studies have shown that both academic buoyancy and academic achievement are predicted by motivational factors. Toprak-Çelen (2020) found academic buoyancy to mediate between EFL students' autonomous motivation (i.e., learning English out of interest and personal values) and exam scores. Similarly, Yun et al. (2018) found academic buoyancy to mediate the positive relation between the IL2S and achievement. Therefore, it is important to examine what has an impact on academic success and what does not.

The present study

Following the LMMS of Lou and Noels (2019), the aim of this prospective study was twofold. First, we investigated whether Time 1 (T1) EFL learners' fixed mindset relates to T1 L2 selves and through them to T1 academic buoyancy. After that, we examined whether this T1 motivational pathway could predict Time 2 (T2) pass or fail in English proficiency exams of English Preparatory Programs (EPP) in universities with EMI. Based on Peker's (2020) suggestion that FL2S could be a distinct prevention-focused self, we investigated the relation between a fixed mindset with all the three L2 selves (i.e., the ideal L2 self, the ought-to L2 self, and the feared L2 self).

As the ideal L2 self represents a promotion-focused motivational orientation, it was hypothesized that T1 fixed mindset would negatively relate to T1 IL2S (Hypothesis 1a). Alternatively, as OL2S and FL2S represent prevention-focused motivational orientations, it was hypothesized that T1 fixed mindset would positively relate to both these types of L2 selves (Hypothesis 1b).

Regarding the motivational outcomes, it was hypothesized that a fixed mindset would create a rigid learner with low levels of academic buoyancy, and therefore, with higher chances of failure. Specifically, the negative relation of T1 fixed mindset to T1 academic buoyancy would be manifested both directly and indirectly through the T1 L2 selves (Hypothesis 2). T1 IL2S was expected to relate positively with T1 academic buoyancy (Hypothesis 3a), while T1 OL2S and T1 FL2S self were expected to negatively relate to T1 academic buoyancy (Hypothesis 3b).

Finally, based on Yun et al. (2018) and Toprak-Çelen (2020), academic buoyancy would mediate the positive relation between T1 IL2S and end-of-semester exam success as well as the negative relation between T1 OL2S or FL2S and end-of-semester exam success (Hypothesis 4). The hypotheses are graphically represented in Figure 1.

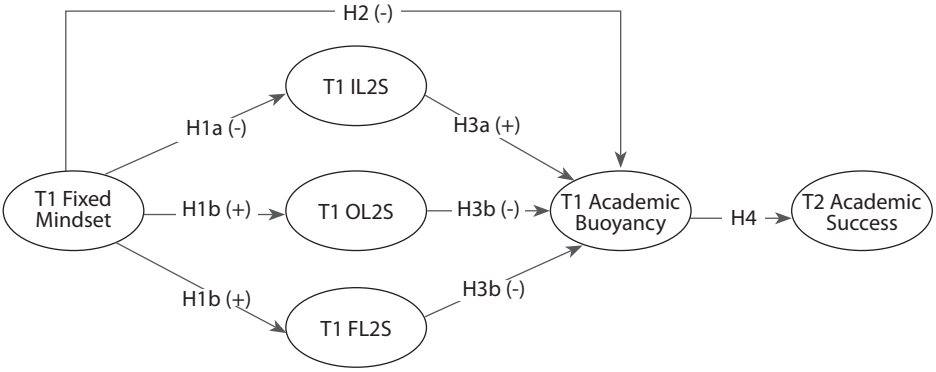

Figure 1. Hypothesized Model (Note. IL2S=Ideal L2 Self; OL2S=Ought-to L2 Self; FL2S=Feared L2 Self, T1=Time 1, T2=Time 2)

Methodology

Participants and procedures

In the current study, the sample consisted of 343 university students (57.1 % females, 42.9 % males; age range 18 – 24 years old for 99.7 % of the participants). The participants attended EPPs in four Turkish universities with English as the medium of instruction. According to the Common European Framework of Reference for Language (CEFR), there were 6 students at the beginner level (0-A1 CEFR), 21 at the low-intermediate level (A2 CEFR), 42 at the intermediate level (B1.1 CEFR), 84 at the upper-intermediate level (B1.2 CEFR), and 190 at the advanced level (B2.1 CEFR). Apart from three students who reported themselves as Bulgarian, Pakistani, and Turkmen, all other students had Turkish nationality. 27.4 % of the participants reported that they were repeating their current EPP course.

The study had been approved by the ethical committee of the corresponding author's institution before the data collection period started. Students received the first survey link by email after the first half of their semester (T1) so that they could have enough experience of their course. The emails for the Qualtrics survey were sent by the official

administrative person of each EPP (i.e., first survey). At the end of the academic term (T2), students received another survey link by email in which they reported whether they succeeded in completing their course or failed it. Students' email addresses were used in order to match the responses of T1 and T2 surveys.

Instruments

All the instruments in the current study were adapted from English to Turkish by the first corresponding author. A reviewer who is also a researcher in the area of language learning motivation and also fluent in both English and Turkish conducted the back translation procedure as suggested by Hambleton's (1994) guidelines. Students assessed each item of the instrument on a five-point Likert-type scale (1 = Strongly disagree; 5 = Strongly agree).

Background variables. Students were asked to report their gender, age, and nationality as well as whether they were repeating their class.

T1 fixed mindset. The six-item Implicit Theories of Intelligence Scale (ITIS; Dweck, 2000) was used to assess whether students have fixed mindset related to learning EFL. ITIS consisted of six items (e.g., *I have a certain amount of intelligence* and *I really can't do much to change it*), three of which were reverse-coded.

T1 R-L2MSS. The re-conceptualized version of L2MSS (R-L2MSS; Peker, 2016, 2020) was used to assess students' L2 selves. Five items assessed the IL2S (e.g., *I can imagine myself speaking English with international friends or colleagues*). Five items assessed the OL2S (e.g., *Learning English is necessary because people surrounding me expect me to do so*). Six items assessed the FL2S (e.g., *I am afraid of being humiliated/teased due to my limited use of English in English courses*).

T1 academic buoyancy. The Academic Buoyancy Scale (ABS; Martin & Marsh, 2008) was adopted to assess students' ability to successfully deal with academic setbacks and challenges (4 items; e.g., *I don't let study stress get to me*).

T2 academic success. Academic success was operationalized as students' pass/fail in their current English courses depending on the result of the proficiency exam conducted at the end of semester.

Data analysis

In a preliminary analysis using SPSS v.20, the descriptive statistics and the bivariate correlations of the measured variables (Table 1) were examined. In addition, independent samples t-tests were utilized to examine gender and class repetition group differences in the measured variables. As the current model combines different measurement tools related to various constructs and the new model is examined as an exploratory model, Partial Least Square SEM (PLS-SEM) was used to test the hypotheses. PLS-SEM is a statistical analysis which is implemented on complex models with many structural model relations (Hair et al., 2016). While Covariance-Based SEM (CB-SEM) is chosen

to test and confirm an existing theory, PLS-SEM is used for theory development and prediction purposes with little a priori knowledge, which is the case for the current study. In our study, a number of constructs (fixed mindset, R-L2MSS, academic buoyancy and academic success) formed a model that has not previously tested. As Hair et al. (2014) suggest, PLS-SEM is more efficient compared to CB-SEM "when there is little a priori knowledge on structural model relationship or the measurement of the constructs or when the emphasis is more on exploration than confirmation" (p. 18). One of the reasons is that removing items in such complex models would not be a problem for the analysis and results in PLS-SEM as it allows researchers to continue the analysis even if there is only one item left for each construct, while CB-SEM does not allow it as a rule of thumb. Secondly, PLS-SEM not only works well with small sample sizes, but it also enables the analysis of non-parametric data and shows the differences between groups in a data set (e.g., gender, age) through multi-group analysis by assessing reliability and validity (Hair et al., 2016). Therefore, the SmartPLS v.3.3.3 (2015) was utilized to test the measurement model and the structural hypothesized model.

Table 1
Descriptive Statistics and Bivariate Correlations of the Measured Variables of the Study

Latent constructs	*M*	*SD*	α	1	2	3	4	5	6
1. T1 FM	2.38	0.9	.90	-					
2. T1 IL2S	4.26	0.7	.84	-.22	-				
3. T1 OL2S	3.35	0.9	.72	.15	.10	-			
4. T1 FL2S	2.81	1.0	.85	.15	-.19	.42	-		
5. T1 AB	3.47	0.9	.83	-.31	.23	-.16	-.36	-	
6. T2 AS	1.75	0.4	1.00	-.13	-.01	-.08	-.18	.17	-

Note. FM=Fixed Mindset; IL2S=Ideal L2 Self; OL2S=Ought L2 Self; FL2S=Feared L2 Self; AB =Academic Buoyancy; AS=Academic Success.

Results

Preliminary analysis

Based on the data analysis, descriptive statistics and bivariate correlations are presented in Table 1. Based on the descriptive statistics, 25.1 % of the participants failed in the proficiency exam while 74.9 % of them succeeded. Also, independent samples t-tests were conducted to check the differences in the measured variables in terms of gender and class repetition. The results showed that there were gender differences regarding academic buoyancy and the FL2S. Males had higher T1 academic buoyancy ($M = 3.73$) compared to females ($M = 3.27$) ($t = 5.12$, $p = .046$), while females had higher T1 FL2S scores ($M = 2.96$) compared to males' ($M = 2.60$) ($t = -3.49$, $p = .007$). In addition, the students who were repeating the course had higher T1 FL2S scores ($M = 2.90$) compared to those who were not repeating the course ($M = 2.76$) ($t = 1.14$, $p = .011$).

The measurement model

Initially, the outer loadings of each item in the assessed latent constructs were tested. As Hair et al. (2016) suggested, indicators were evaluated based on outer loading and Average Variance Extracted (AVE) criteria. In the measurement model, there was one item from the subscale of the OL2S with outer loading lower than .40 (Ought4), and there were 4 items with outer loadings between .60 and .70 (i.e., Fixed6, Feared3, Ideal1, Ought5). Based on the outer loadings and AVE value criteria, the indicator with the lowest outer loading (Ought4) was removed; however, the four indicators with loadings between .60 and .70 (i.e., Fixed6, Feared3, Ideal1, Ought5) were kept, as the AVE values were satisfactory for all latent constructs after removing the indicator with the low outer loading (i.e., Ought 4). Table 2 shows the loadings and cross-loadings of indicators in the final form of the model.

Table 2
Loadings and Cross Loadings of the Indicators

Variables	FM	IL2S	OL2S	FL2S	AB	AS
FM1	.849	-.227	.265	.252	-.282	-.137
FM2	.902	-.191	.209	.165	-.247	-.153
FM3	.785	-.189	.035	.006	-.247	-.104
FM4	.863	-.173	.193	.142	-.265	-.146
FM5	.873	-.222	.102	.077	-.303	-.089
FM6	.683	-.164	.076	.090	-.229	-.017
IL2S1	-.132	.668	.048	-.096	.081	-.008
IL2S2	-.165	.742	.029	-.123	.128	-.068
IL2S3	-.133	.834	-.010	-.222	-.218	-.004
IL2S4	-.195	.788	.004	-.146	.201	.017
IL2S5	-.242	.826	-.046	-.224	.336	.013
OL2S1	.167	-.017	.830	.365	-.119	-.004
OL2S2	.102	.013	.833	.297	-.108	-.069
OL2S3	.197	-.085	.834	.381	-.195	-.129
OL2S5	.109	.149	.637	.324	-.117	-.066
FL2S1	.149	-.137	.306	.750	-.291	-.094
FL2S2	.114	-.234	.320	.710	-.220	-.113
FL2S3	.100	-.016	.474	.629	-.169	-.159
FL2S4	.165	-.221	.412	.864	-.319	-.126
FL2S5	.071	-.087	.257	.713	-.346	-.165
FL2S6	.130	-.303	.281	.810	-.279	-.124
AB1	-.329	.271	-.204	-.290	.815	.132
AB2	-.200	.147	-.067	-.226	.753	.070
AB3	-.246	.239	-.105	-.314	.835	.176
AB4	-.242	.236	-.184	-.359	.845	.184
AS	-.135	.006	-.092	-.171	.180	1.00

Note. FM=Fixed Mindset; IL2S=Ideal L2 Self; OL2S=Ought L2 Self; FL2S=Feared L2 Self; AB =Academic Buoyancy; AS=Academic Success.

In the second stage, in order to find out if the correlations fit in the theory, a latent variable (construct) correlations table (Table 3) was examined.

Table 3
Latent Construct Correlations

Variables	1	2	3	4	5	6
1. FM	-			.		
2. IL2S	-.24	-				
3. OL2S	.19	-.00	-			
4. FL2S	.16	-.24	.44	-		
5. AB	-.32	.28	-.18	-.37	-	
6. AS	-.14	.01	-.09	-.17	.18	-

Note. FM=Fixed Mindset; IL2S=Ideal L2 Self; OL2S=Ought L2 Self; FL2S=Feared L2 Self; AB =Academic Buoyancy; AS=Academic Success.

After that, the internal consistency and convergent validity of the latent constructs were tested. The composite reliability as a criterion of the internal consistency can be between 0 and 1. The higher values show higher levels of reliability. More specifically, the values of .60 to .70 are suggested as acceptable by Hair et al. (2014). Based on these composite reliability threshold values, all latent constructs of the current study showed a good internal consistency as displayed in Table 4. Moreover, the square root of the AVE values exceeded the recommended threshold of .5 (Hair et al., 1998) and met the discriminant validity criterion which refers to how much a latent construct is distinct from other latent constructs in the model (Hair et al., 2014). After deleting an item with cross loading problem (Ought4), discriminant validity (in terms of cross loadings, Fornell-Larcker criterion and HTMT) and convergent validity (>.50) were confirmed for all the latent constructs in the measurement model (Table 4).

Table 4
Composite Reliability

Latent constructs	No. of items	Composite Reliability	Square Root of AVE	R^2	R^2 Adjusted
1. FM	6	.93	.69		
2. IL2S	5	.88	.60	.06	.05
3. OL2S	4	.87	.62	.04	.04
4. FL2S	6	.88	.56	.03	.02
5. AB	4	.89	.66	.23	.22

Note. FM=Fixed Mindset; IL2S=Ideal L2 Self; OL2S=Ought L2 Self; FL2S=Feared L2 Self; AB =Academic Buoyancy; AS=Academic Success.

The structural model

The hypothesized relationships were estimated by using 2,500 iterations of bootstrapping. Bootstrapping generated the results of path coefficients, indirect effects,

total effects, loadings, R-square, interacting effects and mediating effects. Figure 2 and Table 5 demonstrate all the path coefficients in the tested model, except only three of the indirect paths that were not statistically significant and were removed based on the recommendations by Hair et al. (2014).

Table 5
Path Coefficients

Direct Paths	Standardized Path coefficient	*t*	97.5 % CI	
			Lower	Upper
H1a. T1 FM → T1 IL2S	-.23	4.76**	-.32	-.13
H1b. T1 FM → T1 OL2S	.18	3.93**	.07	.25
H1b. T1 FM → T1 FL2S	.14	2.43*	.01	.23
H2. T1 FM → T1 AB	-.22	4.25***	-.32	-.11
H3a. T1 IL2S → T1 AB	.16	3.25**	.05	.25
H3b. T1 OL2S → T1 AB	-.00	0.09		
H3b. T1 FL2S → T1 AB	-.32	6.85***	-.40	-.22
H4. T1 AB → T2 AS	.18	3.51***	.07	.28
Indirect Paths				
T1 FM → T1 IL2S → T1 AB	-.04	2.81**	-.07	-.02
T1 FM → T1 OL2S → T1 AB	.00	0.03	-.02	.02
T1 FM → T1 FL2S → T1 AB	-.04	2.22*	-.08	-.00
T1 FM → T1 AB → T2 AS	-.04	2.52*	-.08	-.01
T1 IL2S → T1 AB → T2 AS	.03	2.46*	.01	.06
T1 OL2S → T1 AB → T2 AS	.00	0.03	-.03	.02
T1 FL2S → T1 AB → T2 AS	-.06	3.03**	-.10	-.02
T1 FM → T1 IL2S → T1 AB → T2 AS	-.01	2.33*	-.01	-.00
T1 FM → T1 OL2S → T1 AB → T2 AS	.00	0.03	-.01	.00
T1 FM → T1 FL2S → T1 AB → T2 AS	-.09	1.82	-.02	-.00

Note. FM=Fixed Mindset; IL2S=Ideal L2 Self; OL2S=Ought L2 Self; FL2S=Feared L2 Self; AB =Academic Buoyancy; AS=Academic Success; * indicates p < .05, ** indicates p < .01, *** indicates p < .001

As hypothesized (Hypothesis 1a), T1 fixed mindset was negatively related to T1 IL2S (β = -.23, t = 4.76, p = .000), and as suggested in hypothesis (H1b), T1 fixed mindset had a positive correlation with T1 OL2S (β = .18, t = 3.93, p = .000) and T1 FL2S (β = .14, t = 2.43, p = .015). In addition, Hypothesis 2 was confirmed, as the direct path from T1 fixed mindset to T1 academic buoyancy (β = -.22, t = 4.25, p = .000) was significant and negative.

In partial fulfilment of the Hypotheses 3a and 3b, the ideal L2 self was found to be positively related to academic buoyancy (β = .16, t = 3.25, p = .001) whereas T1 FL2S was negatively correlated with T1 academic buoyancy (β = -.32, t = 6.85, p = .000).

Contrary to Hypothesis 3b, no significant path was found between T1 OL2S and T1 academic buoyancy.

The path between T1 academic buoyancy and T2 academic success was also significant (β = .18, t = 3.51, p = .000), validating Hypothesis 4. T1 fixed mindset, T1 IL2S, and T1 FL2S had a contribution of 23 % to the prediction of the variance of T2 academic buoyancy. Overall, all of the hypotheses except for the hypothesis related to the path between T1 OL2S and T1 academic buoyancy (Hypothesis 3b) were confirmed (Figure 2). On the other hand, the exogenous variable and mediators together explained only .03 % of the variance in T2 academic success.

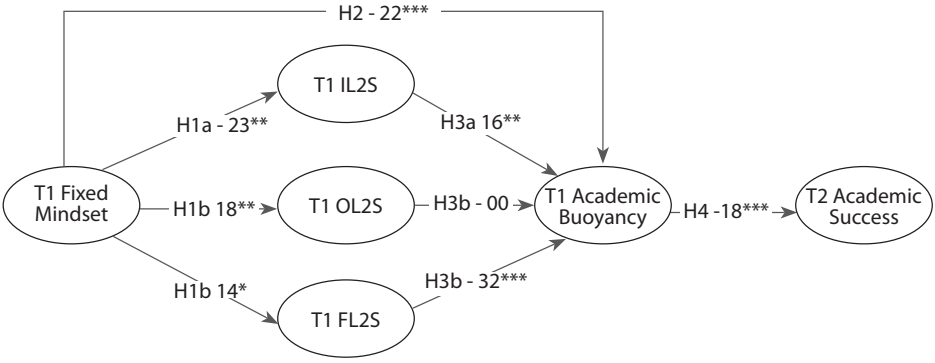

Figure 2. Tested Model (Note. IL2S=Ideal L2 Self; OL2S=Ought L2 Self; FL2S=Feared L2 Self; Numbers near numbered hypotheses show path coefficient values for each correlation).

Mediating effects

The new version of SmartPLS software (2023) allows direct access to the mediating effects. At the analysis stage, it was found that the total negative indirect effects of T1 fixed mindset on T1 academic buoyancy through the IL2S (β = -.04, t = 2.81, p = .005) and through the FL2S (β = -.04, t = 2.22, p = .026) were significant. In addition, the total negative indirect effect of T1 fixed mindset to T2 academic success via T1 academic buoyancy (β = -.04, t = 2.52, p = .012) was also significant. Moreover, the total negative indirect effect of T1 fixed mindset on T2 academic success was significant through T1 IL2S and academic buoyancy (β = -.01, t = 2.33, p = .020).

Finally, academic buoyancy was a significant mediator between the relation of T1 IL2S and T2 academic success (β = .03, t = 2.46, p = .014). It also mediated the relationship between T1 FL2S and T2 academic success (β = -.06, t = 3.03, p = .002).

Discussion and conclusion

In the current study, we investigated whether EFL learners' fixed mindset relates to L2 selves and through them to academic buoyancy and academic success. Aligned with Hypothesis 1a, the findings demonstrated that when language learners are highly fixed-minded, their motivation to learn English is less likely to be instigated by their

future ideals (T1 IL2S). On the other hand, in support of Hypothesis 1b, the findings indicated that students with high T1 fixed mindset were engaged in learning English out of their tendency to comply with social norms (T1 OL2S) and out of their fears of exclusion (T1 FL2S). These findings imply that students' T1 fixed mindset in EPPs implemented in EMI universities limits their promotion-focused motivation, while it supports their prevention-focused motivation.

Moreover, the findings indicated that fixed-minded learners had a lower ability to overcome daily setbacks in learning an L2. This could be due to two reasons as it is indicated by both the direct and the indirect relation of T1 fixed mindset to T1 academic buoyancy. Firstly, effort is not worthy for a fixed-minded student, and secondly, a maladaptive motivational pathway consists of low IL2S and high FL2S. Recent research has shown similar maladaptive pathways of fixed mindset to demotivation in learning English through low IL2S (Albalawi & Al-Hoorie, 2021). The current study extended previous evidence showing that fixed mindset is also manifested in low academic buoyancy either through low IL2S and high FL2S or directly without any intervening psychological mechanism.

Our findings indicate that when students have intrinsic reasons to become competent in a foreign language (IL2S), they can cope effectively with academic setbacks. In addition, the current findings demonstrate that when students learn a foreign language out of their fears of exclusion (FL2S), they become less resilient to cope with academic setbacks. These findings imply that students' academic buoyancy could be limited by a fixed mindset and students' FL2S in EPPs implemented in EMI universities, while it could be supported by their IL2S.

Regarding academic buoyancy and academic success, it was found that T1 academic buoyancy had a mediating role in the positive relation between T1 IL2S and T2 academic success. It seems that being capable to overcome daily academic adversities (academic buoyancy) could function as the psychological mechanism through which IL2S manifests in academic success. T1 academic buoyancy also mediated the negative relations between T1 FL2S (but not T1 OL2S) and T2 academic success partially confirming our Hypothesis 4. Yun et al. (2018) have also found the mediating role of academic buoyancy between the IL2S and academic achievement of university students. Our findings build on the findings by Yun et al. (2018) showing that low academic buoyancy also mediated the negative relation between the FL2S and academic success. It is also indicated that a prevention-focused motivation in learning English hinders students' ability to overcome daily setbacks in the English class and minimizes their possibilities to succeed.

Based on previous literature (Bostwick et al., 2017; Claro et al., 2016; Karlen et al., 2021; Liu et al., 2018; Martin et al., 2017; Romero et al., 2014; Yeager et al., 2014), the findings of the current study also demonstrated that academic buoyancy of the language learners at EMI universities mediated the negative relationship between a fixed mindset and academic success. That means that fixed-minded EPP students

become less successful in their language courses by means of a lower capacity to overcome daily academic setbacks. Similar to the previous findings regarding the indirect relationship of mindsets to students' success (Karlen et al., 2021; Kim & Park, 2021), the current study showed the indirect negative relationships between fixed mindset and academic success through maladaptive motivational factors such as low academic buoyancy, low IL2S and high FL2S.

As fixed-minded students have a lower tendency to learn L2 out of ideals and less resilience in case of academic difficulties, the findings point to the necessity to support the development of a growth mindset in EPPs through mindset interventions. A number of previous attempts (Blackwell et al., 2007; Paunesku et al., 2015; Yeager et al., 2016; Yeager et al., 2019) to implement growth mindset programs have shown their positive impacts on language learners' motivation and success. These growth mindset programs might be particularly useful in foreign language preparatory programs, especially at EMI universities, to boost students' motivational pathways and success. Thus, students' fixed mindset which serves as a barrier to their achievement may be reshaped. Mindset interventions could be further enriched with activities for students' awareness of their language selves and their reactions to academic setbacks. Furthermore, exploration of adaptive selves and trials of buoyant reactions can be offered in a supporting program of EPPs students' motivational pathways.

The present study also contains several limitations. First of all, as it is a correlational study, no inferences could be made about causal relations. Secondly, the data were collected only from the Turkish students in urban areas (i.e., İstanbul, Ankara). The findings cannot be generalized to Turkish students in rural parts of Turkey or students of other nationalities. Thus, further research is necessary with representative samples from rural and urban parts of Turkey and other countries to generalize the results to all Turkish students and students from other cultures. The third limitation is that the findings are based on survey reports which provide limited information about the characteristics of the participants. Finally, as only 3 % of the variance in academic success was explained by the whole set of variables of this study, in future studies, researchers should take some other additional personal and motivational variables into consideration to explain academic success. Future studies with extensive interviews could also provide further information about the motivational pathways of a fixed mindset to success.

This study highlighted the relationship between a fixed mindset and students' success in EPPs through the motivational constructs of language selves and academic buoyancy. The current study demonstrated the importance of a low fixed mindset, high IL2S, low FL2S and high academic buoyancy in students' success in EPPs.

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Rođeni da govore engleski jezik: motivacijski put do uspjeha u učenju engleskoga kao stranoga jezika kod učenika s fiksnim mentalnim sklopom

Sažetak

Do sada je u području učenja stranoga/inoga jezika (L2) istraženo nekoliko maladaptivnih motivacijskih puteva do uspjeha. Međutim, nisu ispitane veze između fiksnoga mentalnog sklopa i akademskoga uspjeha kroz moguće pojmove o sebi i akademsku ustrajnost u Pripremnim programima učenja engleskoga jezika na sveučilištima u kojima se nastava izvodi na engleskom jeziku. Iako se Inojezični motivacijski sustav pojmova o sebi (engl. L2MSS; Dörnyei, 2005) uvelike koristi za opisivanje motivacije inojezičnih učenika, njegove veze s važnim motivacijskim konstruktima poput mentalnoga sklopa i akademske ustrajnosti pri predviđanju uspjeha nisu dovoljno ispitane kako bi se u potpunosti objasnio motivacijski put do uspjeha inojezičnih učenika. Naša je studija provedena u Turskoj na uzorku od 343 polaznika pripremnoga programa učenja engleskoga jezika. Korišteni su model strukturne jednadžbe (PLS-SEM) i metoda parcijalnih najmanjih kvadrata. Utvrđeni su sljedeći maladaptivni putevi do uspjeha: fiksni mentalni sklop učenika pozitivno je povezan s njihovim 'traženim inojezičnim ja' i 'neželjenim inojezičnim ja' (Peker, 2016, 2020), a negativno je povezan s njihovim 'idealnim inojezičnim ja' i akademskom ustrajnošću. Akademska ustrajnost i akademski uspjeh pozitivno su povezani. Uočene su značajne negativne indirektne veze između fiksnoga mentalnog sklopa i akademske ustrajnosti kroz inojezične pojmove o sebi, kao i značajne negativne indirektne veze između fiksnog mentalnog sklopa i akademskog uspjeha kroz inojezične pojmove o sebi i akademsku ustrajnost. Raspravljamo o motivacijskim mehanizmima polaznika pripremnih programa učenja engleskoga jezika i njihovom utjecaju na uspjeh.

Ključne riječi: *akademska ustrajnost; akademski uspjeh; fiksni mentalni sklop; L2MSS/Inojezični motivacijski sustav pojmova o sebi; 'neželjeni inojezični ja'.*

Uvod

Uspješnost u učenju engleskoga jezika kao stranoga jezika jedan je od uvjeta za ostvarivanje akademskoga i profesionalnoga uspjeha. Istraživanja su pokazala da učenici

koji uče engleski jezik i imaju razvojni mentalni sklop (uvjerenje da se sposobnosti mogu promijeniti ako se uloži određeni trud) imaju i adaptivni put do uspjeha, dok su učenici s fiksnim mentalnim sklopom (uvjerenje da su sposobnosti nepromjenjive) manje uspješni u tome (Bostwick i sur., 2017; Claro i sur., 2016; Karlen i sur., 2021; Liu i sur., 2018; Martin i sur., 2017; Romero i sur., 2014; Yeager i sur., 2014). Mentalni sklop učenika u općem obrazovanju direktno ili indirektno se povezuje s uspjehom i neuspjehom kroz druge motivacijske konstrukte (Albalawi i Al-Hoorie, 2021; Blackwell i sur., 2007; Boullion, 2021; Calo i sur., 2019; Martin i sur., 2013; Yeager i Dweck, 2012). U učenju engleskoga kao stranoga jezika, međutim, motivacijski put određenoga mentalnog sklopa do uspjeha ili neuspjeha još nije objašnjen. Na primjer, još uvijek nije ispitana veza između razvojnoga i fiksnoga mentalnog sklopa i Inojezičnog motivacijskog sustava pojmova o sebi (u daljnjem tekstu: L2MSS), jednoga od najčešće istraživanih motivacijskih konstrukata pri predviđanju uspjeha ili neuspjeha u učenju engleskoga jezika kao stranoga jezika (npr. Al-Hoorie, 2016; Martinović, 2018; Wong, 2020). Kako se fiksni ili razvojni mentalni sklop odražava na L2MMS? Je li fiksni ili razvojni mentalni sklop povezan sa sposobnošću učenika da prevladaju svakodnevne prepreke (tj. pokažu akademsku ustrajnost) koje dolaze uz učenje inoga jezika? U kojoj se mjeri fiksni ili razvojni mentalni sklop manifestira u uspješnosti ili neuspješnosti učenja engleskoga jezika? Lou i Noels (2019) su osmislili Sustav značenja jezičnoga mentalnog sklopa (engl. LMMS) čije je motivacijske korelate potrebno testirati kako bi se razjasnilo kako razvojni sustav značenja ili fiksni sustav značenja psihološki funkcionira u predviđanju uspjeha ili neuspjeha.

Na temelju LMMS-a Loua i Noelsa (2019), u ovome smo istraživanju ispitali može li se pomoću fiksnoga mentalnog sklopa u učenju engleskoga jezika u akademske svrhe negativno predvidjeti uspjeh kroz inojezične pojmove o sebi i kroz slabe sposobnosti učenika da prevladaju svakodnevne prepreke (tj. kroz nisku razinu njihove akademske ustrajnosti; Martin i Marsh, 2006, 2008). Ova će studija omogućiti bolje razumijevanje motivacije učenika za uspjeh ili neuspjeh u kontekstu učenja engleskoga jezika kao stranoga jezika, sa značajnim implikacijama za sve sudionike u učenju engleskoga jezika kao stranoga jezika u tercijarnom obrazovanju.

Fiksni i razvojni mentalni sklop

Prema Teoriji mentalnoga sklopa koju je osmislila Dweck (2000, 2006), adaptivni i maladaptivni motivacijski proces može se pojedinačno objasniti kroz razvojni i fiksni mentalni sklop. Fiksni mentalni sklop ili teorija entiteta odnosi se na uvjerenje pojedinca da je inteligencija nepromjenjiva, tj. da je ona fiksni entitet koji se ne može mijenjati. S druge pak strane, razvojni mentalni sklop ili inkrementalna teorija inteligencije odnosi se na uvjerenje da se inteligencija može razvijati kroz učenje. Osobe koje imaju fiksni mentalni sklop smatraju da je negativna povratna informacija prijetnja i vide neuspjeh kao rezultat nedostataka vlastite inteligencije. Za razliku od njih, osobe s razvojnim mentalnim sklopom prihvaćaju neuspjeh kao priliku za poboljšanje i

učenje te prihvaćaju svaku negativnu povratnu informaciju kao savjet za poboljšanje svojih vještina (Dweck, 2000). Dweck (1999) također smatra da je mentalni sklop kontinuum suprotnih polova razvojnoga i fiksnoga mentalnog sklopa, što znači da osobe koje imaju dobar razvojni mentalni sklop, uvijek imaju i slabo razvijen fiksni mentalni sklop, i obrnuto. Ovakav pogled na mentalni sklop u posljednje je vrijeme postao upitan (npr. Grüning i sur., 2023), posebno u kontekstu inoga jezika. Rezultati novijih istraživanja upućuju na mogućnost da neki inojezični učenici imaju i mješoviti mentalni sklop te da se ne nalaze ni na jednom od dva suprotna pola (fiksni ili razvojni mentalni sklop), nego su negdje u sredini i tu oblikuju svoje stavove o učenju kroz proces učenja inoga jezika (Lou i sur., 2022).

Yeager i Dweck (2012) tvrde da fiksni i razvojni mentalni sklop doprinose boljem razumijevanju iskustava pojedinaca te ih čine ili ranjivima ili otpornima. U slučaju poteškoća, razvojni mentalni sklop povećava akademsku otpornost (studenti ostvaruju dobre obrazovne ishode usprkos poteškoćama) (Blackwell i sur., 2007; Boullion, 2021; Calo i sur., 2019; O'Neil i Kruger, 2022; Sisto i sur., 2019; Yeager i Dweck, 2012) i akademsku ustrajnost (Martin i sur., 2013; Xu i Wang, 2022). Studenti s razvojnim mentalnim sklopom također ostvaruju bolje rezultate u usporedbi sa studentima koji imaju fiksni mentalni sklop (Bostwick i sur., 2017; Claro i sur., 2016; Karlen i sur., 2021; Liu i sur., 2018; Martin i sur., 2017; Romero i sur., 2014; Yeager i sur., 2014). Istraživanja su također pokazala pozitivnu vezu između intervencije razvojnoga mentalnog sklopa i ocjena studenata (Paunesku i sur., 2015; Yeager i sur., 2016; Yeager i sur., 2019).

Što se tiče inojezične nastave, Mercer (2011) smatra da inojezični učenici s fiksnim mentalnim sklopom izbjegavaju izazove i da su manje ambiciozni, dok su Lou i Noels (2000) došli do saznanja da inojezični učenici s razvojnim mentalnim sklopom imaju nižu razinu anksioznosti i bolje znanje inoga jezika. Kako su dva tipa mentalnoga sklopa povezana s različitim ishodima, Lou i Noels (2019) su predložili LMMS kao sveobuhvatan okvir pomoću kojega se može razumjeti kako inojezični učenici reagiraju na određene situacije u procesu učenja. Za razliku od fiksnoga mentalnog sklopa, LMMS je povezan s nekoliko adaptivnih motivacijskih konstrukata kao što su uvjerenja o važnosti ulaganja velikoga truda, ciljevi ovladavanja jezikom, samoregulacija i pozitivne emocije. Na primjer, Lou i Noels (2019) su istaknuli potrebu istraživanja veza između mentalnoga sklopa i drugih motivacijskih konstrukata, s ciljem boljega razumijevanja komponenti Sustava značenja razvojnog ili fiksnog mentalnog sklopa. Slično tome, Albalawi i Al-Hoorie (2021) ispitali su medijacijsku ulogu 'idealnog inojezičnog ja' (IL2S) (tj. motiviranosti u učenju inoga jezika zbog ideala i unutarnje želje) u pozitivnoj povezanosti fiksnoga mentalnog sklopa i demotivacije. Rezultati do kojih su došli upućuju na to da se fiksni mentalni sklop može povezati s motivacijskim konstruktima inojezičnih pojmova o sebi.

Inojezični motivacijski sustav pojmova o sebi (L2MSS)

Motivacija se često definira iz perspektive samih učenika (Al-Hoorie, 2018; Dörnyei, 2009). Kada učenici osjete razliku između svoje trenutačne i očekivane razine znanja

inoga jezika, oni ili pristupaju idealnom znanju inoga jezika ili izbjegavaju negativne posljedice niže razine znanja inoga jezika. Ovakav motivacijski pristup u kontekstu učenja engleskoga jezika kao stranoga jezika predložio je Dörnyei (2005), koji je osmislio Inojezični motivacijski sustav pojmova o sebi (L2MSS) kao okvir unutar kojega se proučava motivacija inojezičnih učenika.

Unutar okvira Inojezičnoga motivacijskog sustava pojmova o sebi postoje tri sastavnice: 'idealni inojezični ja' (IL2S), 'traženi inojezični ja' (OL2S) i iskustvo učenja inoga jezika. Prva se sastavnica odnosi na unutarnju želju učenika da nauče ini jezik, dok se 'traženi inojezični ja' odnosi na njihovo uvjerenje da trebaju naučiti ini jezik kako bi udovoljili društvenim normama i pritiscima. Iskustvo učenja inoga jezika podrazumijeva okružje u kojemu se proces učenja odvija i iskustvo u tome, a oboje kod učenika potiču motivaciju za rad. Okvir Inojezičnoga motivacijskog sustava pojmova o sebi potvrđen je u nekoliko kvantitativnih studija (npr. Blair i Azaz, 2019; Doiz i Lasagabaster, 2018; Öz i Bursalı, 2018), a potvrđeno je i da je 'idealni inojezični ja' važan prediktor motivacije i truda koji se ulaže u učenje (Kim i Kim, 2012; Taguchi i sur., 2009; Ueki i Takeuchi, 2013). Štoviše, istraživanja su pokazala da se 'idealni inojezični ja' može predvidjeti putem učenikove orijentacije fokusirane na napredak, dok se 'traženi inojezični ja' može predvidjeti putem učenikove orijentacije fokusirane na prevenciju (Papi i Khajavy, 2021).

Iako se u Dörnyeivu (2005) modelu Inojezičnoga motivacijskog sustava pojmova o sebi naglašava postupak izbjegavanja kada se spominje koncept 'traženog inojezičnog ja', neki dijelovi 'traženog inojezičnog ja' podrazumijevaju tendenciju pojedinca da zbog straha, a ne društvenih normi ili pritisaka, izbjegava ponašanja koja će dovesti do potencijalnih negativnih ishoda u budućnosti. Uzimajući u obzir prirodu napretka i prevencije unutar modela Inojezičnoga motivacijskog sustava pojmova o sebi, Peker (2016, 2020) smatra da bi se na prevenciju trebalo gledati kao na tendenciju učenika da ublaže zabrinutost ega koju izazivaju strah od isključenosti i pritisak društva da se podvrgnu društvenim normama. Ona stoga razlikuje pojam izbjegavanja koji nastaje od straha da pojedinac postane nešto što ne želi (engl. *FL2S*, tj. 'neželjeni inojezični ja'), čime bi se pokrio aspekt prevencije. Tako je uveden aspekt izbjegavanja unutar modela Inojezičnoga motivacijskog sustava pojmova o sebi kao novi aspekt u Rekonceptualiziranom inojezičnom motivacijskom sustavu pojmova o sebi (R-L2MSS), odvojeno od modela Inojezičnoga motivacijskog sustava pojmova o sebi. Osim toga, u novome modelu, 'traženom inojezičnom ja' (tj. ostatku dijelova 'traženoga inojezičnog ja' unutar L2MSS modela) dodani su dijelovi koji se odnose na aspekt prevencije koji je nastao zbog društvenoga pritiska i/ili na aspekt napretka koji je nastao zbog društvenih normi. Sukladno tome, na temelju analiza pouzdanosti Peker (2016, 2020) je iz 'traženog inojezičnog ja' maknula neke dijelove koji se odnose na izbjegavanje uzrokovano strahom te ih uklopila u konstrukt 'neželjeni inojezični ja'. Tako su dijelovi fokusirani na prevenciju, a koji su ranije pripadali domeni 'traženoga inojezičnog ja' (OL2S), spojeni s ovim novim konstruktom, 'neželjenim inojezičnim ja' (FL2S), kojemu bolje

odgovaraju. Uz to je uklonila i neke dijelove 'idealnog inojezičnog ja' koji se odnose na društveni pritisak ili norme i uklopila ih u konstrukt 'traženog inojezičnog ja'. Analizirali smo ovaj novi model (R-L2MSS) jer on predstavlja proširenja originalnoga modela dodavanjem četvrtoga aspekta inojezičnih pojmova o sebi – FL2S ('neželjenog inojezičnog ja') te revidirali aspekte 'idealnog inojezičnog ja' i 'traženog inojezičnog ja'. Fryer i Roger (2018) su u kvalitativnoj studiji također prepoznali 'neželjeni inojezični ja' kao jasan motivacijski profil inojezičnih učenika.

Što se tiče korelata inojezičnih pojmova o sebi, Kim i Kim (2021) su utvrdili da je 'idealni inojezični ja' pozitivno povezan s faktorima otpornosti kao što su staloženost, zadovoljstvo životom i realistični optimizam, dok je 'traženi inojezični ja' negativno povezan s društvenošću. Kim i Kim (2014) su također pokazali izravnu ili neizravnu pozitivnu povezanost između 'idealnog inojezičnog ja' i znanja engleskoga kao inoga jezika kroz motivirano ponašanje. Što se tiče povezanosti između inojezičnih pojmova o sebi i mentalnoga sklopa, Zarrinabadi i sur. (2021) došli su do saznanja da su razvojni mentalni sklop i 'idealni inojezični ja' pozitivno povezani, dok je fiksni mentalni sklop negativno povezan s prilagodljivošću te time i s pozitivnim emocijama.

Istražujući veze između inojezičnih pojmova o sebi i postignuća, Al-Hoorie (2016) je utvrdio negativnu povezanost s 'traženim inojezičnim ja'. Slično tome, Martinović (2018) je pokazala da studenti koji imaju bolje ocjene imaju i veću razinu motivacije za učenje inoga jezika, kao i jači 'idealni inojezični ja'. S druge pak strane, Wong (2020) je utvrdio da su i 'idealni inojezični ja' (u većoj mjeri) i 'traženi inojezični ja' (u manjoj mjeri) pozitivno povezani s postignućima kroz motivirano ponašanje pri učenju. Uzimajući u obzir povezanost inojezičnih pojmova o sebi i faktora otpornosti, Yun i sur. (2018) smatraju da je akademska ustrajnost medijacijski mehanizam između 'idealnog inojezičnog ja' (i drugih motivacijskih varijabli) i postignuća te su utvrdili da akademska ustrajnost doista ima medijacijsku ulogu u ovoj pozitivnoj vezi.

Općenito govoreći, 'idealni inojezični ja' povezan je s razvojnim mentalnim sklopom i omogućava pozitivan smjer k postignućima kroz faktore otpornosti (npr. motivirano ponašanje pri učenju ili akademsku ustrajnost). Međutim, nije jasno je li 'traženi inojezični ja' povezan s mentalnim sklopom niti je li negativno (vidi Al-Hoorie, 2016) ili pozitivno (vidi Wong, 2020) povezan s postignućima.

Akademski uspjeh u učenju engleskoga jezika kao stranoga jezika

Akademski uspjeh u kontekstu učenja engleskoga jezika kao stranoga jezika često se povezuje s uspjehom ili neuspjehom na posebnim ispitima koji mjere znanje učenika, pogotovo na sveučilištima koja izvode nastavu na engleskom jeziku, tj. na kojima se engleski koristi kao jezik za poučavanje bilo kojega kolegija. Obrazovanje na engleskom jeziku kao stranom jeziku, a koje je usmjereno na polaganje ispita, od studenata zahtijeva da se uspješno suočavaju sa stresom pri polaganju ispita i s drugim svakodnevnim obvezama, poput strogih rokova ili negativnih povratnih informacija. Termin koji označava sposobnost studenata da uspješno izvršavaju svakodnevne akademske obveze je akademska ustrajnost (Martin i Marsh, 2006, 2008). Nekoliko je studija pokazalo

da se i akademska ustrajnost i akademska postignuća mogu predvidjeti pomoću motivacijskih faktora. Toprak-Çelen (2020) je pokazao da akademska ustrajnost ima medijacijsku ulogu između autonomne motivacije studenata koji uče engleski jezik kao strani jezik (tj. uče engleski jezik zbog interesa i osobnih vrijednosti) i rezultata na ispitima. Slično tome, Yun i sur. (2018) su utvrdili da akademska ustrajnost ima pozitivnu medijacijsku ulogu između 'idealnog inojezičnog ja' i postignuća. Stoga je bitno ispitati što sve utječe, a što ne utječe na akademski uspjeh.

Naše istraživanje

U skladu s LMMS modelom Loua i Noelsa (2019), ovo istraživanje ima dvostruki cilj. Prvo smo ispitali postoji li veza između vremena 1 (u daljnjem tekstu: T1) u fiksnom mentalnom sklopu učenika koji uče engleski jezik kao strani jezik i T1 u inojezičnim pojmovima o sebi, a kroz njih i T1 u akademskoj ustrajnosti. Nakon toga smo ispitali može li ovakav motivacijski put T1 predvidjeti vrijeme 2 (u daljnjem tekstu: T2) u uspješnosti ili neuspješnosti na ispitima znanja engleskoga jezika koji se provode u sklopu Pripremnih programa za učenje engleskoga jezika na sveučilištima na kojima se nastava izvodi na engleskom jeziku. Na temelju prijedloga koji je dala Peker (2020), da se 'neželjeni inojezični ja' može shvatiti kao zasebni pojam o sebi fokusiran na prevenciju, ispitali smo vezu između fiksnoga mentalnog sklopa i sva tri inojezična pojma o sebi (tj. 'idealnog inojezičnog ja', 'traženog inojezičnog ja' i 'neželjenog inojezičnog ja').

Kako 'idealni inojezični ja' predstavlja motivacijsku orijentaciju fokusiranu na napredak, hipoteza je da će T1 fiksnoga mentalnog sklopa negativno utjecati na T1 'idealnog inojezičnog ja' (Hipoteza 1a). Kao drugo, kako 'traženi inojezični ja' i 'neželjeni inojezični ja' predstavljaju motivacijsku orijentaciju fokusiranu na prevenciju, hipoteza je da će T1 fiksnoga mentalnog sklopa pozitivno utjecati na oba ova tipa inojezičnih pojmova o sebi (Hipoteza 1b).

Što se tiče motivacijskih ishoda, hipoteza je da će fiksni mentalni sklop izgraditi rigidnoga učenika s niskom razinom akademske ustrajnosti te samim time i visokim izgledima za neuspjeh. Točnije, negativna povezanost između T1 fiksnoga mentalnog sklopa i T1 akademske ustrajnosti manifestirat će se i direktno i indirektno kroz T1 inojezičnih pojmova o sebi (Hipoteza 2). Očekuje se da je T1 'idealnog inojezičnog ja' pozitivno povezan s T1 akademske ustrajnosti (Hipoteza 3a), dok su T1 'traženog inojezičnog ja' i T1 'neželjenog inojezičnog ja' negativno povezani s T1 akademske ustrajnosti (Hipoteza 3b).

Na kraju, prema saznanjima do kojih su došli Yun i sur. (2018) i Toprak-Çelen (2020), akademska ustrajnost trebala bi pozitivno posredovati između T1 'idealnog inojezičnog ja' i uspjeha na ispitima na kraju semestra te negativno posredovati između T1 'traženog inojezičnog ja' ili 'neželjenog inojezičnog ja' i uspjeha na ispitima na kraju semestra (Hipoteza 4). Hipoteze su grafički prikazane na Slici 1.

Slika 1

Metodologija

Sudionici i postupci

Ovo je istraživanje provedeno na uzorku od 343 studenata (57,1 % studentica i 42,9 % studenata, u dobi od 18 do 24 godine za 99,7 % sudionika). Sudionici su pohađali Pripremni program učenja engleskoga jezika na četiri sveučilišta u Turskoj na kojima se nastava izvodi na engleskom jeziku. Prema Zajedničkom europskom referentnom okviru za jezike (ZEROJ), 6 studenata bilo je na početnoj razini učenja engleskoga jezika (0-A1), 21 na nižoj srednjoj razini (A2), 42 na srednjoj razini (B1.1), 84 na višoj srednjoj razini (B1.2) te 190 na naprednoj razini (B2.1). Osim troje studenata koji naveli da su bugarske, pakistanske i turkmenistanske nacionalnosti, svi ostali studenti bili su turske nacionalnosti. 27,4 % sudionika izjavilo je da trenutačno ponavljaju Pripremni program učenja engleskoga jezika.

Prije početka prikupljanja podataka istraživanje je odobreno od strane etičkoga povjerenstva institucije na kojoj je zaposlen autor zadužen za korespondenciju. Studentima je e-porukom poslana poveznica na anketu tijekom prve polovice semestra (T1) jer se smatralo da će do tada već steći iskustvo u radu i učenju. E-poruke s poveznicom na anketu izrađenu u *Qualtric*s formatu poslao je službeni administrator svakoga Pripremnog programa učenja engleskog jezika (prva anketa). Na kraju semestra (T2) studenti su e-porukom primili još jednu poveznicu na anketu u kojoj su odgovorili jesu li uspjeli završiti program ili ne. Za spajanje rezultata dobivenih za obje ankete (T1 i T2), korištene su e-adrese studenata.

Instrumenti

Sve instrumente korištene u ovome istraživanju s engleskoga na turski jezik preveo je i prilagodio autor zadužen za korespondenciju. Recenzent koji je također uključen u istraživanja o motivaciji za učenje jezika i koji tečno govori i engleski i turski jezik napravio je povratni prijevod slijedeći smjernice koje je naveo Hambleton (1994). Studenti su svaki tvrdnju u instrumentu procijenili na ljestvici Likertova tipa koja se sastojala od pet stupnjeva (1 = uopće se ne slažem, 5 = u potpunosti se slažem).

Pozadinske varijable. Studenti su naveli svoj spol, dob i nacionalnost, kao i to ponavljaju li program ili ne.

T1 fiksni mentalni sklop. Korištena je Ljestvica implicitnih teorija inteligencije od šest tvrdnji (ITIS; Dweck, 2000) kako bi se procijenilo imaju li studenti fiksni mentalni sklop kada se radi o učenju stranoga jezika. Ljestvica se sastojala od 6 tvrdnji (npr. *Imam određenu količinu inteligencij*e i *Zaista ne mogu učiniti puno da to promijenim*), od kojih je 3 bilo reverzibilno kodirano.

T1 R-L2MSS. Korištena je rekonceptualizirana verzija modela Inojezičnog motivacijskog sustava pojmova o sebi (R-L2MSS; Peker, 2016, 2020) kako bi se kod studenata procijenili inojezični pojmovi o sebi. Pet je tvrdnji korišteno za procjenu

'idealnog inojezičnog ja' (npr. *Mogu se zamisliti kako razgovaram s prijateljima ili kolegama iz drugih zemalja na engleskom jeziku*). Pet je tvrdnji korišteno za procjenu 'traženog inojezičnog ja' (npr. *Učenje engleskoga je neophodno jer to očekuju svi oko mene*). Šest je tvrdnji korišteno za procjenu 'neželjenog inojezičnog ja' (npr. *Bojim se poniženja/ zadirkivanja zbog ograničenog korištenja engleskog jezika na nastavi*).

T1 akademska ustrajnost. Korištena je Ljestvica akademske ustrajnosti (ABS; Martin i Marsh, 2008) kako bi se procijenila sposobnost studenata da se uspješno suočavaju s akademskim preprekama i izazovima (4 tvrdnje, npr. *Ne dopuštam da stres zbog učenja utječe na mene*).

T2 akademski uspjeh. Akademski uspjeh operacionaliziran je kao prolaz/pad u aktualnim programima engleskoga jezika ovisno o rezultatu ispita znanja koji se provodi na kraju semestra.

Analiza podataka

U preliminarnoj analizi korišten je računalni program SPSS v.20, a ispitane su deskriptivna statistika i bivarijatne korelacije mjerenih varijabli (Tablica 1). Uz to korišteni su i t-testovi za nezavisne uzorke kako bi se ispitale razlike u mjerenim varijablama s obzirom na spol i na grupe koje ponavljaju program. Budući da aktualni model kombinira različite mjerne alate povezane s raznim konstruktima, a novi se model analizira kao eksploratorni model, za testiranje hipoteza korišten je Model strukturne jednadžbe metodom parcijalnoga najmanjeg kvadrata (PLS-SEM). To je statistička analiza koja se provodi na kompleksnim modelima s puno veza unutar strukturnoga modela (Hair i sur., 2016). Dok se Model strukturne jednadžbe temeljen na kovarijanci (CB-SEM) primjenjuje pri testiranju i potvrđivanju postojeće teorije, PLS-SEM se koristi za razvoj teorije i u svrhe predviđanja s malo prethodnoga znanja, što je slučaj s ovim istraživanjem. Broj konstrukata (fiksni mentalni sklop, R-L2MSS, akademska ustrajnosti i akademski uspjeh) u našem istraživanju oblikuje model koji prethodno nije testiran. Kako navode Hair i sur. (2014), PLS-SEM je u usporedbi s modelom CB-SEM učinkovitiji „kada postoji malo prethodnoga znanja o vezama unutar strukturnog modela, mjerenjima konstrukata ili kada se naglasak stavlja više na istraživanje nego na potvrđivanje" (str. 18). Jedan od razloga je taj što uklanjanje tvrdnji iz tako složenih modela ne bi bio problem za analizu i rezultate pomoću PLS-SEM modela jer on dozvoljava istraživačima da nastave analizu čak i ako ostane samo jedna tvrdnja za svaki konstrukt, dok to nije moguće u CB-SEM modelu. Nadalje, PLS-SEM ne samo da dobro funkcionira na maloj veličini uzorka, nego također omogućava i analizu neparametrijskih podataka i pokazuje razlike između grupa u setovima podataka (npr. spol, dob) kroz analizu više grupa tako što procjenjuje pouzdanost i valjanost (Hair i sur., 2016). Stoga je za testiranje mjernoga modela i strukturnoga modela hipoteza korišten SmartPLS v.3.3.3. (2015).

Tablica 1

Rezultati

Preliminarna analiza

U Tablici 1 prikazana je deskriptivna statistika i bivarijatne korelacije koje su dobivene na temelju analize podataka. Prema deskriptivnoj statistici, 25,1 % sudionika nije položilo ispit znanja engleskoga jezika, dok ih je 74,9 % taj ispit položilo. Uz to su provedeni i t-testovi na nezavisnim uzorcima s ciljem provjere razlika u mjerenim varijablama s obzirom na spol i ponavljanje programa učenja engleskoga jezika. Rezultati su pokazali da postoje razlike s obzirom na spol u akademskoj ustrajnosti i 'neželjenom inojezičnom ja'. Muški su sudionici imali višu vrijednost T1 akademske ustrajnosti (M = 3,73) u usporedbi s onima ženskoga spola (M = 3,27) (t = 5,12, p = 0,046), dok su one pak imale više T1 vrijednosti u 'neželjenom inojezičnom ja' (M = 2,69) u usporedbi s muškim sudionicima (M = 2,60)(t = -3,49, p = 0,007). Osim toga, studenti koji su ponavljali program učenja engleskoga jezika imali su viši T1 u 'neželjenom inojezičnom ja' (M = 2,90) u usporedbi s onima koji ga nisu ponavljali (M = 2,76) (t = 1,14, p = 0,011).

Mjerni instrument

Prvo su testirana vanjska opterećenja svake tvrdnje u procjenjivanim latentnim konstruktima. U skladu s onim što su predložili Hair i sur. (2016), indikatori su procijenjeni na temelju vanjskih opterećenja i kriterija prosječne ekstrahirane varijance (AVE). U mjernom modelu postoji jedna tvrdnja iz podskale 'traženi inojezični ja' s vanjskim opterećenjem ispod 0,40 (*engl.* Ought4) te četiri tvrdnje s vanjskim opterećenjima ispod 0,60 i 0,70 (*engl*. Fixed6, Feared3, Ideal1, Ought5). Na temelju analize vanjskih opterećenja i vrijednosti kriterija prosječne ekstrahirane varijance uklonjen je indikator s najnižim vanjskim opterećenjem (Ought4), dok su četiri indikatora s opterećenjima između 0,60 i 0,70 (Fixed6, Feared3, Ideal1, Ought5) zadržana jer su vrijednosti prosječne ekstrahirane varijance bile zadovoljavajuće za sve latentne konstrukte nakon uklanjanja indikatora s niskim vanjskim opterećenjem (tj. Ought4). Tablica 2 pokazuje opterećenja i unakrsna opterećenja indikatora u finalnom obliku modela.

Tablica 2

U drugoj fazi je analizirana tablica korelacija latentne varijable (konstrukta), kako bi se utvrdilo uklapaju li se one u korelacijsku teoriju (Tablica 3).

Tablica 3

Nakon toga su testirane unutarnja konzistencija i konvergentna valjanost latentnih konstrukata. Kompozitna pouzdanost kao kriterij unutarnje konzistencije može se kretati u rasponu od 0 do 1. Više vrijednosti pokazuju više stupnjeve pouzdanosti. Da budemo precizniji, Hair i sur. (2014) smatraju da su prihvatljive i vrijednosti u rasponu između 0,60 i 0,70. U skladu s ovim graničnim vrijednostima kompozitne pouzdanosti, svi latentni konstrukti u ovome istraživanju pokazali su dobru unutarnju

konzistenciju, kako se može vidjeti u Tablici 4. Nadalje, korijen kvadrata vrijednosti prosječne ekstrahirane varijance veći je od preporučene granične vrijednosti od 0,5 (Hair i sur., 1998) te udovoljava kriteriju diskriminantne valjanosti koji upućuje na to u kojoj je mjeri latentni konstrukt različit od drugih latentnih konstrukata u modelu (Hair i sur., 2014). Nakon što je uklonjena tvrdnja koja je bila upitna zbog unakrsnoga opterećenja, potvrđene su diskriminantna valjanost (s obzirom na unakrsno opterećenje, Fornell-Larckerov kriterij i HTMT) i konvergentna valjanost (> 0,50) za sve latentne konstrukte u mjernom modelu (Tablica 4).

Tablica 4

Strukturni model

Veze o kojima su postavljene hipoteze ispitane su pomoću 2500 *bootstrap* ponavljanja. Pomoću *bootstrappinga* dobiveni su podatci o koeficijentima putanje, indirektnim učincima, ukupnim učincima, opterećenjima, R kvadratu, interakcijskim učincima i medijacijskim učincima. Slika 2 i Tablica 5 prikazuju sve koeficijente putanje unutar testiranoga modela, osim samo tri indirektne putanje koje nisu bile statistički značajne i koje su uklonjene u skladu s preporukama Haira i sur. (2014).

Tablica 5

Kao što se pretpostavilo (Hipoteza 1a), T1 fiksnoga mentalnog sklopa negativno je povezan s T1 'idealnog inojezičnog ja' (β = -0,23, t = 4,76, p = 0,000). Također, kako se pretpostavilo u Hipotezi 1b, T1 fiksnoga mentalnog sklopa u pozitivnoj je korelaciji s T1 'traženog inojezičnog ja' (β = 0,18, t = 3,93, p = 0,000) i T1 'neželjenog inojezičnog ja' (β = 0,14, t = 2,43, p = 0,015). Uz to, potvrđena je hipoteza 2 jer je direktna putanja iz T1 fiksnoga mentalnog sklopa do T1 akademske ustrajnosti (β = -0,22, t = 4,25, p = 0,000) bila značajna i negativna.

U djelomičnoj potvrdi hipoteza 3a i 3b pokazalo se da je 'idealni inojezični ja' pozitivno povezan s akademskom ustrajnošću (β = 0,16, t = 3,25, p = 0,001), dok je T1 'neželjenog inojezičnog ja' u negativnoj korelaciji s T1 akademske ustrajnosti (β = -0,32, t = 6,85, p = 0,000). Suprotno hipotezi 3b, nije utvrđena značajna putanja između T1 'traženog inojezičnog ja' i T1 akademske ustrajnosti.

Putanja između T1 akademske ustrajnosti i T2 akademskoga uspjeha također je značajna (β = 0,18, t = 3,51, p = 0,000) jer potvrđuje hipotezu 4. T1 fiksnoga mentalnog sklopa, T1 'idealnog inojezičnog ja' i T1 'neželjenog inojezičnog ja' imali su doprinos od 23 % pri predviđanju varijance T2 akademske ustrajnosti. Općenito govoreći, potvrđene su sve hipoteze osim one koja se odnosi na putanju između T1 'traženog inojezičnog ja' i T1 akademske ustrajnosti (hipoteza 3b) (Slika 2). S druge pak strane, egzogena varijabla i medijatori zajedno su objasnili samo 0,03 % varijance u T2 akademskoga uspjeha.

Slika 2

Medijacijski učinak

Nova verzija računalnoga programa SmartPLS (2023) omogućava direktan pristup medijacijskim učincima. U fazi analize uočeno je da su ukupni negativni indirektni učinci T1 fiksnoga mentalnog sklopa na T1 akademske ustrajnosti kroz 'idealni inojezični ja' (β = -0,04, t = 2,81, p = 0,005) i kroz 'neželjeni inojezični ja' (β = -0,04, t = 2,22, p = 0,026) bili značajni. Osim toga, ukupan negativni indirektni učinak T1 fiksnoga mentalnog sklopa na T2 akademskog uspjeha putem T1 akademske ustrajnosti (β = -0,04, t = 2,52, p = 0,012) također je bio značajan. Nadalje, ukupan negativni učinak T1 fiksnoga mentalnog sklopa na T2 akademskog uspjeha bio je značajan kroz T1 'idealnog inojezičnog ja' i akademsku ustrajnost (β = -0,01, t = 2,33, p = 0,020).

Na kraju, akademska ustrajnost bila je značajni medijator u vezi između T1 'idealnog inojezičnog ja' i T2 akademskoga uspjeha (β = 0,03, t = 2,46, p = 0,014). Također je bila i medijator u vezi između T1 'neželjenog inojezičnog ja' i T2 akademskoga uspjeha (β = -0,06, t = 3,03, p = 0,002).

Rasprava i zaključak

U ovome smo istraživanju ispitali ima li fiksni mentalni sklop studenata koji uče engleski jezik kao strani jezik utjecaj na njihov pojam o sebi te kroz njih i na akademsku ustrajnost i akademski uspjeh. U skladu s hipotezom 1a, rezultati su pokazali da kada studenti koji uče jezik imaju stabilan fiksni mentalni sklop, njihova motivacija za učenje engleskoga jezika često nije potaknuta njihovim budućim 'idealnim inojezičnim ja'. S druge strane, u prilog Hipotezi 1b idu rezultati koji pokazuju da se studenti s izraženim T1 fiksnim mentalnim sklopom upuštaju u učenje engleskoga jezika zbog vlastite tendencije da se uklope u društvene norme (T1 OL2S) i zbog straha od isključenja (T1 FL2S). Ovi rezultati impliciraju da T1 fiksni mentalni sklop studenata koji pohađaju Pripremni program učenja engleskog jezika na sveučilištima ograničava njihovu motivaciju fokusiranu na napredak, a pojačava njihovu motivaciju fokusiranu na prevenciju.

Štoviše, rezultati pokazuju da studenti s fiksnim mentalnim sklopom imaju manju sposobnost prevladavanja svakodnevnih prepreka u učenju inoga jezika. To se možda događa zbog dva razloga, kako je uočeno i u direktnoj i u indirektnoj vezi između T1 fiksnoga mentalnog sklopa i T1 akademske ustrajnosti. Kao prvo, studenti s fiksnim mentalnim sklopom smatraju da ne vrijedi ulagati trud u učenje, a kao drugo, maladaptivni motivacijski put fiksnoga mentalnog sklopa sastoji se od niskog 'idealnog inojezičnog ja' i visokog 'neželjenog inojezičnog ja'. Nedavna istraživanja pokazuju slične maladaptivne puteve fiksnoga mentalnog sklopa prema demotivaciji za učenje engleskoga jezika kroz nizak 'idealni inojezični ja' (Albalawi i Al-Hoorie, 2021). Ovim smo istraživanjem proširili postojeće dokaze o tome da se fiksni mentalni sklop također manifestira u niskoj akademskoj ustrajnosti ili kroz nizak 'idealni inojezični ja' i visok 'neželjeni inojezični ja' direktno, bez intervencije ikakvog psihološkog mehanizma.

Naši rezultati pokazuju da se studenti mogu uspješno suočavati sa svim akademskim poteškoćama kada imaju intrinzične razloge da postanu kompetentni u stranom jeziku

('idealni inojezični ja'). Osim toga, ovi rezultati pokazuju i da studenti postaju manje otporni na akademske poteškoće kada uče strane jezik zbog straha od isključenja ('neželjeni inojezični ja'). Ta saznanja upućuju na to da fiksni mentalni sklop i 'neželjeni inojezični ja' studenata koji pohađaju Pripremni program učenja engleskoga jezika na sveučilištima na kojima se nastava izvodi na engleskom jeziku mogu ograničiti akademsku ustrajnost studenata, dok 'idealni inojezični ja' može pozitivno utjecati na nju.

Što se tiče akademske ustrajnosti i akademskoga uspjeha, utvrđeno je da T1 akademske ustrajnosti ima medijacijsku ulogu u pozitivnoj vezi između T1 'idealnog inojezičnog ja' i T2 akademskog uspjeha. Čini se da bi sposobnost snalaženja i prevladavanja svakodnevnih poteškoća (akademska ustrajnost) mogla funkcionirati kao psihološki mehanizam kroz koji se 'idealni inojezični ja' manifestira u akademskom uspjehu. T1 akademske ustrajnosti također je bio i medijator u negativnoj vezi između T1 'neželjenog inojezičnog ja' (ali ne i T1 'traženog inojezičnog ja') i T2 akademskoga uspjeha, čime je djelomično potvrđena naša Hipoteza 4. Yun i sur. (2018) su također utvrdili i medijacijsku ulogu akademske ustrajnosti između 'idealnog inojezičnog ja' i akademskih postignuća studenata. Naši rezultati temelje se na saznanjima Yuna i sur. (2018) koji su pokazali da je akademska ustrajnost medijator u negativnoj vezi između 'neželjenog inojezičnog ja' i akademskog uspjeha. Također se može reći da motivacija fokusirana na prevenciju u učenju engleskoga jezika ograničava sposobnost studenata da uspješno prevladavaju svakodnevne prepreke na nastavi engleskoga i smanjuje njihove izglede za uspjeh.

U skladu s postojećom literaturom (Bostwick i sur., 2017; Claro i sur., 2016; Karlen i sur., 2021; Liu i sur., 2018; Martin i sur., 2017; Romero i sur., 2014; Yeager i sur., 2014), rezultati ovoga istraživanja također pokazuju da je akademska ustrajnost studenata koji uče jezik na sveučilištima na kojima se nastava izvodi na engleskom jeziku medijator u negativnoj povezanosti između fiksnoga mentalnog sklopa i akademskoga uspjeha. To znači da studenti koji pohađaju Pripremni program učenja engleskoga jezika, a imaju fiksni mentalni sklop, postaju manje uspješni u učenju jezika jer imaju slabiju sposobnost prevladavanja svakodnevnih akademskih poteškoća. Slično ranijim saznanjima o indirektnoj vezi između mentalnoga sklopa i uspjeha studenata (Karlen i sur., 2021; Kim i Park, 2021), i ovo je istraživanje pokazalo indirektne negativne veze između fiksnoga mentalnog sklopa i akademskoga uspjeha kroz maladaptivne motivacijske faktore poput niske akademske ustrajnosti, niskoga 'idealnog inojezičnog ja' i visokog 'neželjenog inojezičnog ja'.

Kako studenti s fiksnim mentalnim sklopom imaju manju tendenciju da uče ini jezik kako bi dosegli idealni stupanj i manju otpornost u slučaju akademskih poteškoća, rezultati upućuju na potrebu pružanja podrške da se u Pripremnim programima učenja engleskoga jezika potiče razvojni mentalni sklop kroz intervencije u mentalnom sklopu. Brojni dosadašnji pokušaji (Blackwell i sur., 2007; Paunesku i sur., 2015; Yeager i sur., 2016; Yeager i sur., 2019) da se u programe uvede razvojni mentalni sklop imali su pozitivan učinak na motivaciju i uspjeh studenata koji uče strani jezik. Takvi programi, koji potiču razvojni mentalni sklop, mogli bi biti iznimno korisni u pripremnim

programima za učenje stranoga jezika, pogotovo na sveučilištima u kojima se nastava izvodi na engleskom jeziku, kako bi se poboljšala motivacija i uspjeh studenata. Na taj bi se način mogao preoblikovati fiksni mentalni sklop studenata koji im je prepreka ka dobrim postignućima. Intervencije u mentalni sklop mogle bi se dalje obogatiti aktivnostima kojima se razvija svijest studenata o njihovim 'mogućim inojezičnim ja' i reakcijama na akademske prepreke. Nadalje, istraživanje adaptivnih 'mogućih ja' i testiranje ustrajnosti također bi se mogli ponuditi kao podrška Pripremnim programima za učenje engleskoga jezika i razvoju motivacije kod studenata.

Ovo istraživanje ima i nekoliko ograničenja. Kao prvo, budući da se radi o korelacijskom istraživanju, ne mogu se izvesti zaključci o kauzalnim odnosima. Kao drugo, podatci su prikupljeni samo od turskih studenata u urbanim sredinama (npr. Istambul, Ankara). Rezultate se ne može generalizirati i na turske studente u ruralnim dijelovima Turske ili na studente drugih nacionalnosti. Stoga su potrebna daljnja istraživanja koja će se provesti na reprezentativnom uzorku u ruralnim i urbanim dijelovima Turske i drugih zemalja kako bi se rezultati mogli generalizirati na sve turske studente i studente iz drugih zemalja. Treće ograničenje predstavlja činjenica da su rezultati temeljeni na odgovorima dobivenima u anketama, što pruža ograničene informacije o karakteristikama sudionika. I, na kraju, kako je cijelim setom varijabli objašnjeno samo 3 % varijance akademskoga uspjeha, u budućim bi istraživanjima trebalo razmotriti i neke dodatne osobne i motivacijske varijable pri objašnjavanju akademskoga uspjeha. Buduća istraživanja s opsežnim intervjuima također bi mogla pružiti dodatne informacije o motivacijskom putu fiksnoga mentalnog sklopa do uspjeha.

U ovom se istraživanju naglasila veza između fiksnoga mentalnog sklopa i uspjeha studenata u Pripremnim programima za učenje engleskoga jezika kroz motivacijske konstrukte jezičnih pojmova o sebi i akademske ustrajnosti. Pokazana je važnost niskoga fiksnog mentalnog sklopa, visokog 'idealnog inojezičnog ja', niskoga 'neželjenog inojezičnog ja' i visoke akademske ustrajnosti za uspjeh studenata u Pripremnim programima za učenje engleskoga jezika.

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