

# Re-evaluating the L2MSS Scale in the Context of Non-English Major Students

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## ABSTRACT

Researchers have been investigating motivation to learn second (L2) and foreign (FL) languages for decades, starting with the socio-educational model, moving on to the multi-dimensional model of motivational variables, and currently incorporating the complex dynamic system theory (CDST). The study examined changes in Dörnyei's L2 Motivational Self-System (L2MSS), which initially included five subscales related to future selves (IL2S and OL2S), instrumentality prevention and promotion (IPro and IPre) motives, and prior learning experience influencing the intended effort for learning (IE). 279 non-English major students in Croatia participated in the study aiming to distinguish the changes in the motivation for L2/FL language learning during post-pandemic era. Only four subscales remained valid after factor analysis of the collected data: the imagined-self, ought-to-self, promotion-focus, and prevention-focus scales. The factor loading of most particles in the original IE scale was less than 0.5, making the scale an insignificant dimension of the measurement instrument. Following recommendations from pre-pandemic research and in accordance with the 2 x 2 motivational theory, the findings suggest a modified multidimensional motivational scale should be used in future research on motivational factors in second language acquisition (SLA).

Keywords: motivation; foreign language; second language; L2MSS; factor analysis

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#### Introduction

Both external and internal factors can influence how much students participate in their education. External factors include behaviour, and internal factors involve cognitive and emotional activity. Motivation reflects a student's capacity for active learning, but it does not reveal how they will use that capacity. Over the past 15 years, educational psychologists have employed the second language motivational self-system model to evaluate students' intrinsic motivation for learning L2 or FL, focussing on their future self-guides and learning experiences (Dörnvei, 2005, 2019; Dörnyei et al., 2006, 2009). The L2 Motivational Self-System (or L2MSS) research has grown in popularity over time, with the number of publications doubling every two years (from one in 2005 to 82 in 2021) (Liu, 2024). Despite the similarity of findings from the application of the L2MSS in examining motivation among language learners of various nationalities and target languages (e.g., Aubrey, 2014; Dörnvei, 2009; Fiser, 2023a & b; Kormos et al., 2011; Martinovic & Soric, 2018; Stamenkovska et al., 2022; Taguchi et al., 2009; Yilmaz, 2017), considerable debate exists regarding the model's comprehensiveness concerning learners' self-regulation, self-discrepancy, perspectives, and focus. Even before the COVID-19 breakout, researchers appealed for modifying the L2MSS theory according to various research findings, and the transition from faceto-face learning and teaching to an online setting now calls for special attention due to its potential effects on learners' motivation in SLA.

#### Motivation in SLA

Motivation is considered as substantial variable in the process of L2 or FL learning success (Ushioda, 2019). Gardner and Lambert (1972) defined integrative motivation as the identification with a favourable attitude toward the target language (TL) group, and the desire to interact for potential integration, while instrumental motivation arises from a learner's desire to acquire a TL for a specific purpose. Their theories developed into a socio-educational model according to which the motivation to learn L2/FL includes goal orientation, the desire to learn a language, the learner's attitudes towards the language and the effort exerted to achieve such goals (Crookes & Schmidt, 1991, p. 475). Although unquestionably an important part in L2 motivational research, some argued against it due to the absence of opportunities of L2 speakers to interact with native speakers (Dörnyei, 2005; Lamb, 2004, Norton, 2000). A desire to integrate into the TL community and culture does not significantly affect the motivation of a FL learner, so Dörnvei (1990, 1994, 2005, 2009) introduced the formal setting component of motivational factors influencing SL/FL learning, thus developing the L2MSS motivational model (Dörnyei et al., 2006, 2009). The model is based on the notion of self-discrepancy (Higgins, 1987) and the theory of possible selves (Markus & Nurius, 1986) (Figure 1). He created the idea of the Ideal L2 Self (IL2S), which is a representation of all the qualities that a person aspires to have as an ideal L2 user, and which would correspond to Gardner's definition of integrativeness. The other future self-guide was the Ough-to L2 Self (OL2S), which corresponds to less internalized and more externalized instrumental incentives based on what learners believe they ought to possess (such as duties, obligations, and responsibilities). The third component of the L2MSS was the prior learning experience, or L2LE (the motivation for L2 learning in relation to the learning environment and experience). The L2MSS model has been validated in many studies of relations between its original three components and different language learning variables (Alqahtani, 2018; Taguchi et al., 2009; Zhao et al., 2022; Nizigama et al., 2024). The L2MSS module was further developed by adding the motivational dimension associated with promotion-focus which originates from the IL2S, and the one associated with the prevention-focus which is derived from the OL2S. The model was thus augmented with two additional scales: Instrumentality Promotion or IPro (hopes, aspirations, advancements, and accomplishments leading to future career success) and Instrumentality Prevention or IPre (absence or presence of negative outcomes resulting from failure to fulfil responsibilities and obligations) motives (Dörnyei, 2009).

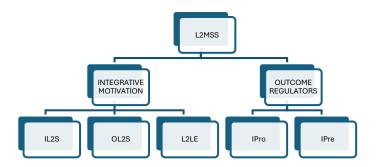


Figure 1. Schematic Representation of the L2MSS Model

New theories have recently emerged that raise questions about the L2MSS's integrativeness (selfguides), the distinction between learner fantasies and desires, the range and degree of effect of significant others (the regulatory focus and learners' perspectives), L2LE's restrictive scope, and the learner-context relationship (Al-Hoorie, 2018; Henry, 2017; Henry & Liu, 2023; MacIntyre, 2022; Papi et al., 2019; Peker, 2020; Teimouri, 2017, Ushioda, 2017, 2019). During the process of globalisation, and especially during and after the COVID-19 pandemic era, the motivation towards learning and using the English language has been alternated, bringing about the need to make adjustments in the L2MSS-based research. The research presented in the following chapters was conducted with an aim to identify the possible changes in the L2MSS components in the post-pandemic times, taking into the consideration the shift from the original identification of L2 learners to a specific L2 community towards the integration into the global community in which English language is considered as lingua franca (Csizér & Kormos, 2009; Nizigama et al., 2024; Yashima, 2002, 2009; Zhao et al., 2022)

#### Methodology

#### The aim

The study aimed to assess potential adjustments to the L2MSS motivational questionnaire as a tool for measuring motivation in a dynamic and complex SLA process in the post-pandemic era. The research presented in this paper aimed to identify if IL2S, OL2S, IPro, IPre, and L2LE changed in scope and uniformity, and whether they still functioned as components of the multimodal motivational scale in the case of non-English major students.

#### Participants

The study included 279 students enrolled in non-English major studies at Croatia's University of Slavonski Brod: students from the Integrated Undergraduate and Graduate Teacher Education program (TE group), the Undergraduate University Study of Early and Preschool Education program (ECEund), and the Graduate University Study of Early and Preschool Education program (ECEg) (Table 1). Gender was not one of the testing variables, given that over 95% of the participants were females. The participants ranged in age from 18 to 56 years old (M = 24.5). Almost all the participants reported experiencing online EFL learning at some time in their

education: 73 (26.2%) in secondary school, 116 (41.6%) as part of their studies during the 2021/2022 academic year, and 103 (36.9%) during the 2022/2023 academic year.

Total	Program	Number/percentage	Age group	Number/percentage
279	TE 1st year	27 / 9.7%	Age 1 (18-20)	71 / 25.4%
	TE 2nd year	17 / 6.1%	Age 2 (21-23)	107 / 38.4%
	TE 3rd year	18 / 6.5%	Age 3 (24-26)	39 / 14%
	TE 4th year	16 / 5.7%	Age 4 (27-29)	13 / 4.7%
	TE 5th year	26 / 9.3%	Age 5 (30 +)	49/17.6 %
	ECEund 1st year	38 / 13.6%		
	ECEund 2nd year	26 / 9.3%		
	ECEund 3rd year	35 / 12%		
	ECEg 1st year	32 / 11.5%		
	ECEg 2nd year	44 / 15.8%		

Table 1 Participants' socio-demographic description

#### Instrument

The instrument used in the present research consisted of two parts. The first section elicited the following demographic and background information: field and year of study, age, gender, years of studying English, experience with online EFL learning, type of secondary school they graduated from, final English grades in secondary school, and preceding years of study. The second section of the questionnaire included the L2MSS scale, which originated from earlier motivationorientated studies by Taguchi, Martinovic, and their colleagues (Martinovic, 2013; Martinovic & Soric, 2018; Taguchi et al., 2009). The data gathered and presented in this paper are part of the authors' ongoing larger research, aiming to investigate the relationship between motivation, the use of language learning strategies, and emotional engagement among non-English major students at UNISB in the post-pandemic era (Fiser, 2023a & b, 2024a, 2024b in press; Fiser & Pongracic, 2025, in press). The multi-dimensional motivational components were measured using the L2MSS scale, which comprised of 52 particles divided into 6-point Likert rating subscales: IL2S (10 particles), OL2S (12 particles), IPro (13 particles), IPre (8 particles), and IE (9 particles). Two independent translators translated the instrument into Croatian and then back to English to guarantee that the particles were not altered. Participants were handed the Croatian-language version of the questionnaire.

#### Procedure

Participants were given the questionnaire in paper form and in a face-to-face setting during their EFL classes in November 2022. Participation in the study was voluntary, and all participants remained anonymous throughout the duration of the study. The collected data were analysed with the SPSS program, version 21. Exploratory factor analysis was applied to the L2MSS scale. The extraction was made by applying the Principal Component Analysis (PCA) extraction method, and the rotation was done by varimax rotation with Kaiser normalization. All the tested items had salient loading with factor loading above 0.50. The suitability of the data set for factor analysis was determined by examining Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1974) (Table 2). The calculated KMO values for the sample were 0.916, meaning it was suitable and the first prerequisite for factor analysis was met (Hoelzle & Meyer, 2013; Kaiser, 1974; Lloret et al., 2017). The Bartlett's test of sphericity was also desirable (p = 0), confirming strong correlations between items and the scale being factorable (Osborne, 2014). Item and factor retention decisions were determined by these

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criteria: factors with an eigenvalue greater than 1, the scree plot, and factor loadings greater than 0.50.

#### Table 2 Prerequisites for factor analysis

Kaiser-Meyer-Olkin Measure of Sampling	.916	
Bartlett's Test of Sphericity	Approx. Chi-Square	8394.121
	Df	1326
	Sig.	.000

#### Results

PCA was used to analyse the entire correlation matrix so as to reduce data while at the same time preserving as much information from the original data set as possible (Norris & Lecavalier, 2010). The main components of the L2MSS scale and its 52 items were examined on a sample of 279 students. We followed a rule that for a particle to be retained, the cut-off value should be 0.30 (e.g., Bandalos & Gerstner, 2016; Osborne, 2014), and thus extracted a total of six scales, each with an eigenvalue greater than 1 (Table 3). The decision to retain the components was based on the value of characteristic roots above 1.4, the scree plot (Figure 2), the percentage of explained variance, and the theoretical dimensionality of components. As a result, a total of 15 items were eliminated.

#### Table 3

Explanation of the total variance (six-factor extraction)

Total va	riance explained					
Initial ei	genvalue			Rotation su	m of the squared	l loading
Factor	Total	% of variance	Cumuative %	Total	% of	Cumulative
					variance	%
1	15.021	28.886	28.886	7.727	14.859	14.859
2	7.310	14.058	42.944	7.214	13.873	28.733
3	2.827	5.436	48.380	6.102	11.736	40.468
4	2.164	4.161	52.541	2.809	5.401	45.870
5*	1.713	3.295	55.836	2.638	5.073	50.943
6*	1.463	2.813	58.649	2.462	4.734	55.677

\*Components discarded due to low number of retained items

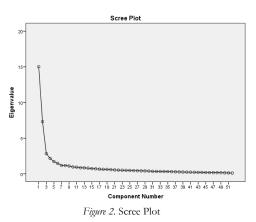


Table 4 displays the results of the rotated component matrix, which indicate that the first factor contained 10 items, the second 12 items, the third 10 items, the fourth 3 items, and the fifth 2 items. Despite sufficient eigenvalue, the fifth and sixth factors were discarded due to the low number of items, and the validity of the fourth factor is somewhat doubtful since it consists of only three items. If all four factors were retained as validated subscales, they would collectively account for 45.87% of the variance, with the individual contributions of these factors to the overall variance shown in Table 3.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
	P37 .867	P33 .777	P51 .758	P15 .828	P26 .511
	P17 .856	P46 .754	P44 .714	P10 .809	P11 .510
	P42 .828	P35 .708	P32 .699	P5 .676	
	P27 .825	P30 .702	P39 .661		
	P45 .813	P48 .701	P9 .604		
	P12 .804	P43 .654	P47 .594		
	P22 .804	P18 .646	P4 .557		
	P2 .707	P23 .631	P25 .527		
	P7 .529	P28 .630	P49 .516		
	P1 .525	P40 .624	P34 .509		
		P29 .587			
		P50 .579			
Initial Eignevalues	15.021	7.310	2.827	2.164	1.713

 Table 4

 Exploratory factor analysis results: factors, items, and loading

The L2MSS questionnaire was used in research before the COVID-19 outbreak in a similar context of non-English major students in Croatia (Martinovic & Buric, 2021), and the internal consistency of the subscales showed significant resemblance with the L2MSS post-pandemic scale reliability (Table 5). The reliability of the reevaluated motivational subscales (IL2S, OL2S, and IPro) provided in this study was higher than that of the original L2MSS subscales, showing that the new subscales constitute an even more reliable measure of motivation in L2/FL learning.

 Table 5

 Comparison of the original and reevaluated L2MSS scale reliability

L2MSS	α	α	α
subscales	Martinovic & Buric, 2021	Postpandemic L2MSS	Reevaluated scales
IL2S	.92	.93	.94 (10) F1
OL2S	.87	.89	.91 (12) F2
IPro	.82	.85	.89 (10) F3
IPre	.80	.80	.80 (3) F4
IE	.83	.84	

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#### Discussion

The first factor (F1) most closely resembles the original IL2S subscale, retaining 90% of its particles (Table 6). Only particle P32 moved to a new scale. The scale accounts for 15.02 variance and has the highest reliability (Cronbach  $\alpha$ ), indicating its significance in the motivational dimension of L2/FL learning. Previous research revealed similar findings highlighting the significance of IL2S in the motivational component, with the future ideal-self guide explaining much more variance in intended effort to acquire L2 than the ought-to guide (e.g., Csizér & Kormos, 2009; Dörnyei & Chan, 2013; Kormos & Csizér, 2008; Lamb, 2012; Moskovsky et al., 2016; Papi, 2010; Papi & Teimouri, 2012, 2014; Ryan, 2009; Taguchi et al., 2009; Teimouri, 2017; You & Dörnyei, 2014).

The goal of an L2 learner is to achieve proficiency in the target language, and vision is an "additional sensory dimension that closely accompanies this goal" (Henry, 2019, p. 141). According to Henry and Liu (2023), guides are representations of valued attributes and desired end-states (i.e., targets to aim at), whereas possibilities are representations of a person's potential, taking the form of futures that might or could be possible (i.e., positive potential that could be realized). They emphasised that L2MSS does not sufficiently distinguish fantasy from desire; thus, it may be useful to widen the self-system concept by including components of self-possibilities that serve as facilitators when self-guides are not well-defined.

Although particle P1 (formerly assigned to the IE subscale) had the lowest loading value, it emphasizes the need of widening the initial ideal-self guide concept to encompass the possibilities that one imagines having and which are based on one's own perspective.

As a result, we agree with Al-Hoorie (2018) and propose renaming the IL2S to the Imagined-self scale. We would also recommend adding particles that measure the IL2S guide, but only in relation to significant others and the learners' own standpoints. Such distinction of self-guide standpoints was suggested in the more recent 2 x 2 motivational model (Papi et al., 2019), with particles such as 'My family will be proud of me if one day I master English language' (ibid., p. 11).

Particle	Content	Original	Item
		placement	loading
P37	I can imagine myself living abroad and having a conversation in	IL2S	.867
	English		
P17	I can imagine myself living abroad and using English effectively for	IL2S	.856
	communicating with the locals.		
P42	I can imagine a situation where I am speaking English with foreigners.	IL2S	.828
P27	I can imagine myself writing English e-mails fluently.	IL2S	.825
P45	I imagine myself as someone who is able to speak English.	IL2S	.813
P12	I can imagine myself speaking English with international friends or	IL2S	.804
	colleagues		
P22	I can imagine myself speaking English as if I were a native speaker of	IL2S	.804
	English.		
P2	I can imagine myself studying in a university where all my courses are	IL2S	.707
	taught in English.		
P7	Whenever I think of my future career, I imagine myself using English.	IL2S	.529
P1	If I was offered a course in English in the future, I would enrol it	IE	.525

Table 6 Factor 1 or Imagined – self scale

The second factor (F2) kept almost 67% of the original OL2S's particles and accounts for 7.31% of variance (Table 7). It lost four of its original particles, but it also merged with three original

IPre particles and one original IPro particle. When forming the concept of the ought-to scale, Dörnyei drew on the self-discrepancy theory, in which it is the "...representation of the attributes that someone (yourself or another) believes you should or ought to possess" (Higgins, 1987, p. 321). What Henry and Liu (2023) objected to in the notion of the OL2S motivational dimension is that it did not distinguish between significant others who may affect the learner's motivation and how internalised those beliefs were within the learner. As can be seen from the content of F2 particles, they relate to different social influences: family, parents, peers, teachers, people linked to their future career, people related to their studies, and people in general. Therefore, we propose that guides (both IL2S and OL2S) be classified as 'identified' (perceptions learners share with significant others and integrate as part of their true selves), 'introjected' (a perspective shared with others but not adopted as one's own), and 'independent' (characteristic and unique to each individual learner) (Henry & Liu, 2023).

Particles that were discarded due to insufficient loading ('I consider learning English important because the people I respect think that I should do it', 'Learning English is necessary because people surrounding me expect me to do so', 'I study English because close friends of mine think it is important', and 'Studying English is important to me because an educated person is supposed to be able to speak English') measure the ought-to L2 self from the significant other's standpoint for which reason we would still opt for leaving them in the measuring instrument as an 'ought-to/others' dimension. The suggestion is consistent with the 2 x 2 model (Papi et al., 2019), despite previous research indicating that both the Ideal L2 self/other and Ought L2 self/other were weaker predictors of motivated learning behaviour than the Ideal L2 self/own and Ought L2 self/own guides (ibid.). It should, however, be evaluated on a larger number of participants to ensure its validity in the context of Croatian non-English major students.

Particle	Content	Original	Item
		Placement	loading
P33	Studying English is important to me in order to gain the	OL2S	.777
	approval of my family.		
P46	I have to study English, because, if I do not study it, I think	OL2S	.754
	my parents will be disappointed with me.		
P35	Studying English is important to me because, if I don't have	IPre	.708
	knowledge of English, I'll be considered a weak student		
P30	Studying English is important to me, because I would feel	IPre	.702
	ashamed if I got bad grades in English.		
P48	My parents believe that I must study English to be an	OL2S	.701
	educated person		
P43	Studying English is important to me because other people	OL2S	.654
	will respect me more if I have a knowledge of English.		
P18	If I fail to learn English, I'll be letting other people down.	OL2S	.646
P23	Studying English is important to me in order to gain the	OL2S	.631
	approval of my peers.		
P28	Studying English is important to me in order to gain the	OL2S	.630
	approval of my teachers.		
P40	Studying English is important to me because I don't like to	IPre	.624
	be considered a poorly educated person.		
P29	Studying English is important to me in order to attain a	IPro	.587
	higher social respect.		
P50	It will have a negative impact on my life if I don't learn	OL2S	.579
	English.		

Table 7 Factor 2 or 'Ough-to scale'

The third factor (F3) also consists of 10 items, accounts for 2.83% of variance and constitutes the original IPro subscale due to 72.7% similarity (Table 8). Four particles from the original IPro subscale were discarded ('Studying English is important to me because I would like to spend a longer period living abroad, ,e.g. studying and working', 'I study English in order to keep updated and informed of recent news of the world, 'Studying English is important to me in order to achieve a special goal, e.g., to get a degree or scholarship', and 'Studying English is important to me because I am planning to study abroad'). Judging by the content of those particles, working and living abroad where the use of English language would be a prerequisite lost its value in the IPro motivational dimension. Particle P32 has the same meaning as particle P39 and should be deleted if the scale is to be used in its current form. Instrumentality motives with a promotion focus evolved from the ideal-self guide and the presence or absence of negative consequences a learner may feel can happen during learning may have a significant effect on the process of L2 learning. It is apparent that retained particles are related to one's own perspective, and are focused on the behaviour intended to increase the benefits of L2/FL learning. The newly designed motivational models, whether three-partite (Teimouri, 2017) or 2 x 2 (Papi et al., 2019), do not separately measure instrumentality motivation in SLA but rather integrate promotion and prevention motivation into the ideal and ought-to self-guide scales.

Particle	Content	Original Placement	Item loading
P51	Studying English can be important for me because I think I'll need it for further studies on my major.	IPro	.758
P44	Studying English can be important to me because I think it will someday be useful in getting a good job.	IPro	.714
P32	The things I want to do in the future require me to use English.	IL2S	.699
P39	The things I want to do in the future require me to use English.	IPro	.661
Р9	Studying English can be important to me because I think I'll need it for further studies.	IPro	.604
P47	Studying English is important to me because with English I can work globally	IPro	.594
P4	Studying English is important to me because English proficiency is necessary for promotion in the future.	IPro	.557
P25	I have to study English; otherwise, I think I cannot be successful in my future career.	IPre	.527
P49	Studying English is important because with a high level of English proficiency I will be able to make a lot of money.	IPro	.516
P34	Studying English is important to me because it offers a new challenge in my life	IPro	.509

Table 8 Factor 3 or Promotion-focus scale'

Nonetheless, we cannot ignore the new IPro subscale's strong internal consistency, and we would not recommend removing it from the multimodal motivational instrument; rather, we ought to examine the differences that may have resulted from participant diversity. As previously proven, there are both promotion-oriented and prevention-orientated learners (Jiang & Papi, 2021; Papi et al., 2019). The former are concerned with personal and professional development, as well as the benefits of their education. The latter are concerned with safety, security, and avoiding detrimental consequences.

The fourth factor (F4) has only three items and accounts for 2.16% of the variance. However, its internal consistency is high ( $\alpha = .80$ ) (Table 9). Three items that constitute this scale all came from the original IPre subscale, and it would be logical to retain its original name as well as to keep it as one of the motivational scales. Based on the high number of such particles preserved in the F2 and F3 scales and the low number of prevention-focus particles, we assumed that participants in this study were inclined toward a promotion focus. It is also noteworthy that the original IE

subscale (Factor 5) accounted for only 1.7% of variance and retained only two particles (Table 4) and so was removed from the re-evaluated motivational instrument. This factor measured the effort learners were to exert in learning L2/FL, and findings of previous research suggested that the ideal L2-self explained much more variance of intended effort in SLA than the ought-to L2-self (Dörnyei & Chan, 2013; Islam et al., 2013; Moskovsky et al., 2016; Papi, 2010; Papi & Teimouri, 2012, 2014; Taguchi et al., 2009; You & Dörnyei, 2014). Three original IE particles were integrated into the F1 scale, demonstrating no need to separately measure the motivation related to prevention-focus or the IE in L2/FL learning.

Table 9 Factor 4 or Prevention-focus scale'

Particle	Content	Original	Item
		placement	loading
P15	I have to study English because I don't want to get bad marks in it.	IPre	.828
P10	I have to learn English because I don't want to fail the English	IPre	.809
	course.		
P5	I have to learn English because without passing the English course I	IPre	.676
	cannot graduate.		

#### Conclusion

The re-evaluation of the widely used L2MSS in the context of Croatian non-English major students indicated the integrity of the more recently developed 2 x 2 motivation instrument (Papi et al., 2019). The factor analysis revealed the IL2S subscale's strong validity and consistency, which now includes certain IE particles; however, its content should be divided based on the distinction between desires and possibilities, as well as the own/others standpoint. The OL2S scale underwent considerable modifications, and future research on motivation in SLA motivation should benefit from looking into the reasons why particular features of significant others gained or lost significance in the learners' motivation. The new scale continues to clearly investigate learners' motivation as influenced by significant others, but the level of internalisation has changed in comparison to the original ought-to subscale. We propose dividing the re-evaluated scale into particles that investigate the Ought L2 self/own and the Ought L2 self/other. The focus inclination was not assessed independently in the 2 x 2 model. The re-evaluation of the L2MSS reveals highly reliable IPro and IPre subscales that cannot be overlooked. They might be used in research aimed primarily at distinguishing these two inclinations in SLA learners, but the combination of IPro and IPre particles with F1 and F2 suggests that a 2 x 2 model would be better suited to a more comprehensive knowledge of the subject. It is also strongly advised to test variables that may have influenced the motivation of our study participants since findings of recent research imply the significant connections of L2MSS and L2 anxiety (Sadoughi & Hejazi, 2023), academic engagement and resilience (Çelen, 2020; Sadoughi et al., 2023), willingness to communicate in the target language (Li & Liu, 2021; Zhou, 2022) action plans and attitude towards English language (Almesaar, 2024), the so called 'feared L2 self' (Peker, 2020), and the experience of online EFL learning (Fiser, 2023a & b, 2024; Fiser & Pongracic, 2025, in press). Furthermore, in line with current SLA research trends, motivation measurement instruments should aim to distinguish the ongoing learner's motivation to achieve the imagined competence in using the target language from the relatively short-term motivational surge arising from the L2 vision or direct motivational currents (DMC) (Dörnyei et al., 2016; Henry, 2019; Muir, 2016). DMC's components are based on motivational psychology and can stimulate and encourage L2 learning, but they differ from the behaviour of highly motivated students in that they represent a relatively short-term and highly intense burst of motivational energy aimed at achieving a clearly defined goal, and they operate alongside stable and ongoing motivation with seemingly effortless energy and without requiring high levels of self-regulation. Following the emerging research on the motivation for learning L2/FL based on the possible effects of the COVID-19 pandemic and the switch to online and distant learning (Al Rawashdeh et al., 2021; Fiser, 2025, in press; Fiser & Pongracic, 2025, in press; Huang et al., 2020; Jiang & Papi, 2021), and the 'International posture' component (Amorati, 2020; Csizér & Kormos, 2009; Kong et al., 2018; Nizigama et al., 2024; Yashima, 2009; Zhao et al., 2022), more research should be done aiming to better redefine the standpoint and future visions of FL/L2 learners of English as a global language.

#### References

- Al-Hoorie, A. H. (2018). The L2 motivational self system: A meta-analysis. Studies in Second Language Learning and Teaching, 8(4), 721–754. https://doi.org/10.14746/ssllt.2018.8.4.2
- Al Rawashdeh, Z. A., Youssef, M. E., Al Arab, A. R., Alara, M., & Al-Rawashdeh, B. (2021). Advantages and disadvantages of using e-learning in university education: Analyzing students' perspectives. *The Electronic Journal of E-Learning*, 19(2), 107-117. https://doi.org/10.34190/ejel.19.3.2168
- Almesaar, O. (2024). L2MSS in the Saudi Arabian context: Item, scale, and external validity analysis. Frontiers in Education, 9, 1247701. https://doi.org/10.3389/feduc.2024.1247701
- Alqahtani, A. F. (2018). English language learning motivation and English language learning anxiety in Saudi military cadets: A structural equation modelling approach. Arab World English Journal (AWEJ), 9(3), 45-60. https://doi.org/10.2139/ssrn.3258767
- Amorati, R. (2020). Accessing a global community through L2 learning: a comparative study on the relevance of international posture to EFL and LOTE students. *Journal of Multilingual* and Multicultural Development, 41(1), 1-16. https://doi.org/10.1080/01434632.2020.1850746
- Aubrey, S. (2014). Development of the L2 Motivational Self System: English at a University in Japan. JALT Journal, 36(2), 153-174. https://doi.org/10.37546/JALTJJ36.2-1
- Bandalos D. L., & Gerstner J. J. (2016), Using factor analysis in test construction. In K. Schweizer, & C. DiStefano (Eds.), Principles and methods of test construction: Standards and recent advances (pp. 26-51). Hogrefe.
- Bartlett M. S. (1954). A further note on the multiplying factors for various chi-square approximations in factor analysis. *Journal of the Royal Statistical Society, Series B*, 16, 296-298.
- Crookes, G., & Schmidt, R. (1991). Motivation: Reopening the research agenda. Language Learning, 41, 469-512.
- Csizér, K., & Kormos, J. (2009). Learning experiences, selves and motivated learning behaviour: A comparative analysis of structural models for Hungarian secondary and university learners of English. In Z. Dörnyei, & E. Ushioda (Eds.), *Motivation, language identity and the* L2 self (pp. 98-119). Multilingual Matters. https://doi.org/10.21832/9781847691293-006
- Çelen, E. (2020). A structural equation model on EFL tertiary level students' academic buoyancy, academic resilience, reconceptualized L2 motivational self system, and their academic achievement. Doctoral dissertation, Bilkent Universitesi (Turkey).

- Dörnyei, Z. (1990). Conceptualizing motivation in foreign-language learning. Language Learning, 40(1), 45-78. https://doi.org/10.1111/j.1467-1770.1990.tb00954.x
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The Modern Language Journal*, 78(3), 273-284. https://doi.org/10.1111/j.1540-4781.1994.tb02042.x
- Dörnyei, Z. (2005). The psychology of the language learner: Individual differences in second language acquisition. Routledge. https://doi.org/10.4324/9781410613349
- Dörnyei, Z. (2009). The L2 Motivational Self System. In Z. Dörnyei & E. Ushioda (Eds.), Motivation, language identity and the L2 self (pp. 9–42). Multilingual Matters. https://doi.org/10.21832/9781847691293-003
- Dörnyei, Z. (2019). Towards a better understanding of the L2 Learning Experience, the Cinderella of the L2 Motivational Self System. *Studies in Second Language Learning and Teaching*, 9(1), 19-30. http://dx.doi.org/10.14746/ssllt.2019.9.1.2
- Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 self images, sensory styles, and imagery capacity across two target languages. *Language Learning*, 63, 437–462. https://doi.org/10.1111/lang.12005
- Dörnyei, Z., Csizér, K., & Németh, N. (2006). Motivation, language attitudes and globalisation: A Hungarian perspective. Multilingual Matters. https://doi.org/10.21832/9781853598876
- Dörnyei, Z., Alastair, H., & Muir, C. (2016). Motivational currents in language learning: Frameworks for focused interventions. Routledge. https://doi.org/10.4324/9781315772714
- Fiser, Z. (2023a). Emotional engagement in learning English as a foreign language during COVID-19 pandemic. In Dj. Jovanovic, I. Petrusic, J. Jovanovic, & I. Stevovic. (Eds.), *Proceedings COAST 2023*, Faculty of Management Herceg Novi (pp. 1318-1327)
- Fiser, Z. (2023b). The effect of online learning setting on motivation, intended effort, emotional engagement, and language learning strategies among non-English majors in Croatia – A pilot study. In I. Karabegovic, A. Kovacevic, & S. Mandzuka (Eds.), New Technologies, Development and Application VI. NT 2023. Lecture Notes in Networks and Systems, vol 687 (pp. 542-549). Springer, Cham. https://doi.org/10.1007/978-3-031-31066-9\_60
- Fiser, Z. (2024). Does migrating from face-to-face to online learning setting affect motivation and the choice of language learning strategies? In L. Pon & I. Sarcevic Sokcevic (Eds.) Jezik i migracije: Book of proceedings. HDPL (pp. 33-51).
- Fiser, Z. (2025). Has our motivation to use English globally changed during COVID-19? In M. Huseyin Bilgin, H. Danis, E. Demir, & Z. Cséfalvay (Eds.), Proceedings of the 45th EBES Conference. Springer Cham. In press.
- Fiser, Z., & Pongracic, L. (2025). The effect of online learning setting on motivation to learn EFL among students of child education profession. *Knowledge, Management & E-Learning: An International Journal*. In Press.
- Gardner, R., & Lambert, W. (1972). Attitudes and motivation in second-language learning. Newburry House Publishers.

- Henry, A. (2017). L2 motivation and multilingual identities. Modern Language Journal, 101(3), 548– 565. https://doi.org/10.1111/modl.12412
- Henry, A. (2019). Directed motivational currents: Extending the theory of L2 vision. In: M. Lamb, K. Csizér, A. Henry, & S. Ryan (Eds), *The Palgrave handbook of motivation for language learning* (pp. 139-161). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-28380-3\_7
- Henry, A., & Liu, M. (2023). Can L2 motivation be modelled as a self-asteem? A critical assessment. System, 119. https://doi.org/10.1016/j.system.2023.103158
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319-340.
- Hoelzle, J. B., & Meyer, G. J. (2013). Exploratory factor analysis: Basics and beyond. In I. B. Weiner, J. A. Schinka, & W. F. Velicer (Eds.), *Handbook of psychology: Research methods in psychology*, 2 (2nd ed., pp. 164-188). John Wiley & Sons, Inc. <u>https://doi.org/10.1002/9781118133880.hop202006</u>
- Huang, M., Yahui, S., & Yang, X. (2020). Emergency remote teaching of English as a foreign language during COVID-19: Perspectives from a university in China. International Journal of Educational Research and Innovation, 15, 400-418. https://doi.org/10.46661/ijeri.5351
- Islam, M., Lamb, M., & Chambers, G. (2013). The L2 motivational self system and national interest: A Pakistani perspective. System, 41, 231–244. https://doi.org/10.1016/j.system.2013.01.025
- Jiang, C., & Papi, M. (2021). The motivation-anxiety interface in language learning: a regulatory focus perspective. *International Journal of Applied Linguistics*, 1-16. https://doi.org/10.1111/ijal.12375
- Kaiser H. F. (1974). An index of factorial simplicity. Psychometrika, 39, 31-36.
- Kong, J. H., Han, J. E., Kim, S., Park, H., Kim, Y. S., & Park, H. (2018). L2 Motivational Self System, international posture and competitiveness of Korean CTL and LCTL college learners: A structural equation modeling approach. *System*, 72, 178-189. https://doi.org/10.1016/j.system.2017.11.005
- Kormos, J., & Csizer, K. (2008). Age-related differences in the motivation of learning English as a foreign ' language: Attitudes, selves, and motivated learning behavior. *Language Learning*, 58, 327–355.
- Kormos, J., Kiddle, T., & Csizér, K. (2011). Systems of goals, attitudes, and self-related beliefs in second-language learning motivation. *Applied Linguistics*, 32(5), 495-516. http://doi.org/10.1111/j.1467-9922.2008.00443.x
- Lamb, M. (2004). Integrative motivation in a globalizing world. System, 32(1), 3-19. https://doi.org/10.1016/j.system.2003.04.002
- Lamb, M. (2012). A self system perspective on young adolescents' motivation to learn English in urban and rural settings. Language Learning, 62, 997–1023. https://doi.org/10.1111/j.1467-9922.2012.00719.x

- Li, T., & Liu, Z. (2021). Exploring effects of the second language motivational self system on Chinese EFL learners' willingness to communicate in English and implications for L2 education. *Journal of Higher Education Research*, 2, 169–177. https://doi.org/10.32629/jher.v2i4.404
- Liu, M. (2024). Mapping the landscape of research on the L2 motivational self system theory (2005-2021): a bibliometric and text network analysis. System, 120. https://doi.org/10.1016/j.system.2023.103180
- Lloret, S., Ferreres, A., Hernandez, A., & Tomas, I. (2017). The exploratory factor analysis of items: Guided analysis based on empirical data and software. *Anales de Psicologia*, 33, 417-432. https://doi.org/10.6018/analesps.33.2.270211
- MacIntyre, P. D. (2022). Using the self as a basis for a motivation system: Is it worth the trouble? In A. H. Al-Hoorie, & F. Szabó (Eds.), Researching language learning motivation: A concise guide (pp. 83-90). Bloomsbury Academic.
- Markus, H., & Nurius, P. (1986). Possible selves. American Psychologist, 41(9), 954-969. https://doi.org/10.1037/0003-066X.41.9.954
- Martinovic, A. (2013). Testing the L2MSS among Croatian university students: A pilot study. In J. Mihaljevic Djigunovićc, & M. Medved Krajnovic (Eds.), UZRT 2012: Empirical studies in English applied linguistics (pp. 183-192). FFZG.
- Martinovic, A., & Buric, I. (2021). L2 motivation: the relationship between past attributions, the L2MSS, and intended effort. *Journal For Foreign Languages*, 13, 409-426. https://doi.org/10.4312/vestnik.13.409-426
- Martinovic, A, & Soric, I. (2018). The L2 motivational self system, L2 interest, and L2 anxiety: A study of motivation and gender differences in the Croatian context. *ExELL*, 6(1), 37-56. https://doi.org/10.2478/exell-2019-0005
- Moskovsky, C., Assulaimani, T., Racheva, S., & Harkins, J. (2016). The L2 motivational self system and L2 achievement: A study of Saudi EFL learners. *The Modern Language Journal*, 100, 641–654. https://doi.org/10.1111/modl.12340
- Muir, C. (2016) The dynamics of intense long-term motivation in language learning: Directed motivational currents in theory and practice. PhD dissertation. University of Nottingham.
- Nizigama, E., Fazilatfar, A. M.; & Rezai, M. J. (2024). L2 Motivational Self System and international posture of Burundi simultaneous multiple language learners: a mixed methods study. *Iranian Journal of Language Teaching Research*, 12(2), 55-76. https://doi.org/10.30466/ijltr.2024.54785.2562
- Norris, M., & Lecavalier, L. (2010). Evaluating the use of exploratory factor analysis in developmental disability psychological research. J Autism Dev Disord.,40(1), 8-20. https://doi.org/10.1007/s10803-009-0816-2
- Osborne, J. W. (2014). Best practices in exploratory factor analysis. CA, USA: CreateSpace Independent Publishing Platform. https://doi.org/10.4135/9781412995627.d8

- Papi, M. (2010). The L2 motivational self system, L2 anxiety, and motivated behavior: A structural equation modelling approach. *System, 38*, 467–479. https://doi.org/10.1016/j.system.2010.06.011
- Papi, M., Bondarenko, A. V., Mansouri, S., Feng, L., & Jiang, C (2019). Rethinking L2 motivation research: The 2 x 2 model of L2 self-guides. *Studies in Second Language Acquisition*, 41(2), 337-361. https://doi.org/10.1017/S0272263118000153
- Papi, M., & Teimouri, Y. (2012). Dynamics of selves and motivation: A cross-sectional study in the EFL context of Iran. *International Journal of Applied Linguistics*, 22(3), 287–309. https://doi.org/10.1111/j.1473-4192.2012.00312.x
- Papi, M., & Teimouri, Y. (2014). Language learner motivational types: A cluster analysis study. Language Learning, 6(3), 493–525. https://doi.org/10.1111/lang.12065
- Peker, H. (2020). Feared L2 self as an emerging component of the reconceptualized L2 motivational system. *Eurasian Journal of Applied Linguistics*, 6(3) 361-386. https://doi.org/10.32601/ejal.834658
- Ryan, S. (2009). Self and identity in L2 motivation in Japan: The ideal L2 self and Japanese learners of English. In Z. Dornyei, & E. Ushioda (Eds.), *Motivation, language identity and the* L2 self (pp. 120–143). Multilingual Matters.
- Sadoughi, M., & Hejazi, S. Y. (2023). How can L2 motivational self system enhance willingness to communicate? The contribution of foreign language enjoyment and anxiety. *Current Psychology*, 43(3), 2173-2185. https://doi.org/10.1007/s12144-023-04479-3
- Sadoughi, M., Hejazi, S. Y., & Lou, N. M. (2023). How do growth mindsets contribute to academic engagement in L2 classes? The mediating and moderating roles of the L2 motivational self system. *Social Psychology of Education*, 26, 241–261. https://doi.org/10.1007/s11218-022-09744-0
- Stamenkovska, T., Kálmán, C., & Györi, J. (2022). The motivational disposition of international students learning foreign languages in Hungary: Testing the L2 motivational self system in the Hungarian context. *Journal of Adult Learning, Knowledge and Innovation*, 5(2), 101-110. https://doi.org/10.1556/2059.2022.00060
- Taguchi, T., Magid, M., & Papi, M. (2009). The L2 motivational self system amongst Chinese and Japanese learners of English: A comparative study. In Z. Dörnyei, & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 66-97). Multilingual Matters. https://doi.org/10.21832/9781847691293-005
- Teimouri, Y. (2017). L2 selves, emotions, and motivated behaviors. *Studies in Second Language* Acquisition, 39(4), 691–709. https://doi.org/10.1017/S0272263116000243
- Ushioda, E. (2017). The impact of global English on motivation to learn other languages: Toward an ideal multilingual self. *The Modern Language Journal*, 101(3), 469-482. https://doi.org/10.1111/modl.12413

- Ushioda, E. (2019). Researching L2 motivation: Past, present and future. In M. Lamb, K. Csizér, A. Henry, & S. Ryan (Eds.), *The Palgrave handbook of motivation for language learning* (pp. 661– 682). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-28380-3\_32
- Yashima, T. (2009). International posture and the ideal L2 self in the Japanese EFL context. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 144–163). Multilingual Matters. https://doi.org/10.21832/9781847691293-008
- Yilmaz, C. (2017). L2 motivational self system and its relationship with gender, proficiency and year. New Trends and Issues Proceedings on Humanities and Social Sciences [Online], 4(3), 185-193. https://doi.org/10.18844/prosoc.v4i3.2537
- You, C. J., & Dörnyei, Z. (2014). Language learning motivation in China: Results of a large-scale stratified survey. *Applied Linguistics*, 37, 495–519. https://doi.org/10.1093/applin/amu046
- Zhao, X., Xiao, W., & Zhang, J. (2022). L2 motivational selfsystem, international posture and the sustainable development of L2 proficiency in the COVID-19 era: A case of English majors in China. *Sustainability*, 14(13), 8087. https://doi.org/10.3390/su14138087
- Zhou, C. (2022). The relationship between Chinese EFL learners' L2 motivational selfsystem and willingness to communicate. *Theory and Practice in Language Studies*, 12(11), 2374–2380. https://doi.org/10.17507/tpls.1211.18

Factor 1: In	nagined – self scale	
Particle	Content	Original
from the		placement
L2MSS		-
P33	Studying English is important to me in order to gain the approval of my family.	OL2S
P46	I have to study English, because, if I do not study it, I think my parents will be disappointed with me.	OL2S
P35	Studying English is important to me because, if I don't have knowledge of	IPre –
	English, I'll be considered a weak student	OL2S/Other
P30	Studying English is important to me, because I would feel ashamed if I got	IPre
	bad grades in English.	OL2S/Own
P48	My parents believe that I must study English to be an educated person	OL2S/Other
P43	Studying English is important to me because other people will respect me more if I have a knowledge of English.	OL2S
P18	If I fail to learn English, I'll be letting other people down.	OL2S
P23	Studying English is important to me in order to gain the approval of my	OL2S
	peers.	
P28	Studying English is important to me in order to gain the approval of my	OL2S
	teachers.	
P40	Studying English is important to me because I don't like to be considered	IPre
	a poorly educated person.	
P29	Studying English is important to me in order to attain a higher social	IPro
	respect.	
P50	It will have a negative impact on my life if I don't learn English.	OL2S/Own

Appendix	
The re-evaluated L2MSS scales	
Factor 1: Imagined – self scale	

### Factor 2 - Ough-to scale

Particle	Content	Original
from the		placement
L2MSS		-
P33	Studying English is important to me in order to gain the approval of my family.	OL2S
P46	I have to study English, because, if I do not study it, I think my parents will be disappointed with me.	OL2S
P35	Studying English is important to me because, if I don't have knowledge of English, I'll be considered a weak student	IPre – OL2S/Other
P30	Studying English is important to me, because I would feel ashamed if I got bad grades in English.	IPre OL2S/Own
P48	My parents believe that I must study English to be an educated person	OL2S/Other
P43	Studying English is important to me because other people will respect me more if I have a knowledge of English.	OL2S
P18	If I fail to learn English, I'll be letting other people down.	OL2S
P23	Studying English is important to me in order to gain the approval of my peers.	OL2S
P28	Studying English is important to me in order to gain the approval of my teachers.	OL2S
P40	Studying English is important to me because I don't like to be considered a poorly educated person.	IPre
P29	Studying English is important to me in order to attain a higher social respect.	IPro
P50	It will have a negative impact on my life if I don't learn English.	OL2S/Own

Particle	Content	Original
from the		placement
L2MSS		
P51	Studying English can be important for me because I think I'll need it for further studies on my major.	IPro
P44	Studying English can be important to me because I think it will someday be useful in getting a good job.	IPro
P32	The things I want to do in the future require me to use English.	IL2S
P39	The things I want to do in the future require me to use English.	IPro
Р9	Studying English can be important to me because I think I'll need it for further studies.	IPro
P47	Studying English is important to me because with English I can work globally	IPro
P4	Studying English is important to me because English proficiency is necessary for promotion in the future.	IPro
P25	I have to study English; otherwise, I think I cannot be successful in my future career.	IPre
P49	Studying English is important because with a high level of English proficiency I will be able to make a lot of money.	IPro
P34	Studying English is important to me because it offers a new challenge in my life	IPro

Factor 3 - Promotion-focus scale

#### Factor 4 – Prevention-focus scale

Particle	Content	Original
from the		placement
L2MSS		
P15	I have to study English because I don't want to get bad marks in it.	IPre
P10	I have to learn English because I don't want to fail the English course.	IPre
P5	I have to learn English because without passing the English course I cannot	IPre
	graduate.	

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