

The Assessment of Motivation in the Learning of EFL at University Level: Validation of the English Language Learning Motivation Scale (ELLMS) at Four Spanish State Universities

María del Carmen GARRIDO-HORNOS

Author:

María del Carmen Garrido-Hornos
Universidad de Valladolid, Spain
mariacarmen.garrido@uva.es
<https://orcid.org/0000-0002-3030-5409>

Date of reception: 09/03/2022

Date of acceptance: 31/05/2022

Citation:

Garrido-Hornos, María del Carmen. 2023. "The Assessment of Motivation in the Learning of EFL at University Level: Validation of the English Language Learning Motivation Scale (ELLMS) at Four Spanish State Universities." *Alicante Journal of English Studies* 38: 151-177.
<https://doi.org/10.14198/raei.2023.38.09>

© 2023 María del Carmen Garrido-Hornos

License: This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).



Abstract:

Successful performance in the study of English as a Foreign Language is known to be subject to psychological constructs such as type of motivation, degree of self-regulated learning and levels of anxiety and burnout, or academic fatigue. The present study—conducted at the University of Valladolid Segovia Campus—served a double purpose. Firstly, it was used to validate the English Language Learner Motivation Scale (ELLMS) in a sample of university students who were studying this language but whose degrees were in subjects other than English Language or Linguistics. Secondly, it demonstrated that intrinsic motivation is associated with less anxiety and greater self-regulation and self-efficacy in the English language learning process. To both ends, we created a 94-question online survey which blended items from four other instruments measuring levels of anxiety, self-regulation and burnout. This questionnaire, delivered to 214 students from four different Spanish universities, produced interesting results. To begin with, it confirmed the first objective of the study and validated ELLMS as a viable instrument to measure motivation in this population, as well as confirming the presence of the three psychological factors envisaged in the original theoretical proposal and which the reader can find defined and analysed in depth in this paper: intrinsic motivation, external regulation and introjected regulation. The variable introjected regulation was negatively correlated with anxiety but positively with reported levels of burnout informed. With regard to external regulation, the results were not conclusive. This paper considers both the educational implications of these results and the impact that these variables have on the learning of English as a Foreign Language.

Keywords: Learning of English as a Foreign Language; Motivation; Self-Determination Theory; Anxiety

1. Introduction

As a social institution, knowledge generator and innovator, the university conceptualises the backdrop for today's modern society, and languages, especially English, are key to success in this scenario. In fact, “[p]roficiency in English [is] a definite asset of considerable value both at an individual and a societal level” (You and Dörnyei 2014, 2). However, although most undergraduate students believe that learning English as a second language is crucial for their professional development, mastering the academic demands of English language learning frequently becomes a difficult task (Mansoor et al. 2021).

Motivation, the drive to learn an additional language, has an impact—positive or negative—on learners performance and influences their self-esteem (Alemán-Aguilar and Portillo-Vázquez 2021). In fact, the study of the foreign language may sometimes entail a decrease or loss of motivation and involve a certain degree of apprehension and anxiety (Arnáiz-Castro and Guillén-García 2012; MacIntyre 1999; Teimouri et al. 2019). Studies in social psychology and education demonstrated that learners' motivation is as relevant as their aptitude in Second Language Acquisition (SLA) (Gardner 1985; Gardner and Clément 1990). For teachers, analysing the levels of motivation of our students is fundamental to understanding their level of engagement and helping them in the process (Dörnyei 2020; Dörnyei and Ushioda 2021; Mercer and Dörnyei 2020).

The objective of this paper is twofold: (1) to provide an overview of motivational variables in the learning of English as a Foreign Language (EFL) in students on different degrees at four Spanish universities and (2) to examine which of these variables best correlates with these students' incentive to learn the language.

To this end, we carried out a validation of the Spanish version of the *English Language Learner Motivation Scale* (ELLMS, Ardasheva et al. 2012). Grounded in *Self-Determination Theory* (SDT) as proposed by Deci and Ryan (1985), ELLMS was originally used to assess motivation among post-secondary education second or foreign language learners. We designed an online survey—which is described in depth in 4.1. *Data collection*—which was delivered to students at universities in four different regions of Spain: Catalonia, Madrid, Castile and León and Andalusia. The analysis of the data was carried out at the Department of English Philology (University of Valladolid, Segovia Campus). The questionnaire evaluated students' perceptions of themselves as language learners on the basis of SDT and the relationship between their motivation and concepts such as *self-efficacy*, *self-regulation*, *anxiety* or *burnout*.

After defining these notions and presenting our methodology, our findings will be analysed to ascertain whether students having a higher evaluation of

their competence and a greater degree of autonomy in the study of EFL is linked to a greater sense of self-efficacy and self-regulation. Likewise, we will evaluate our hypothesis that students showing weak self-efficacy beliefs and who have poor self-regulated learning strategies have higher levels of anxiety and burnout in their SLA.

2. Literature review

A considerable body of research in the field of SLA has analysed the factors which contribute to an individual's motivation to study a second language (Dörnyei 1994, 1998; Noels and Clément 1996). Social and cognitive theories have been particularly important in guiding such research with social theories focusing both on the learner's feelings towards the target language and its speakers (ethnolinguistic attitudes) and on social aspects (power relationships or language status) (Dörnyei 2020). Cognitive approaches, however, mainly regard motivational variables to be linked to the individual's personal perceptions—e.g., their objectives or their desires of success after achieving them.

Other researchers have reflected on the socio-psychological aspects underlying the process of English as a Second Language and English as a Foreign Language. Since the 1980s, Gardner and his group have investigated the factors influencing SLA and retention (Gardner 1985, 2007; Gardner and Clément 1990). In his “Socio-Educational Model of SLA” (1985), Gardner divided the process into two separate clusters of reasons for learning a language. The cognitive dimension is related to the acquisition of the structural components of the language, e.g., grammar, vocabulary, pronunciation, etc. The affective dimension, on the other hand, is concerned with acquiring the behavioural aspects of the target language community (Gardner, 1985), like identifying with the other language group's culture and context.

For Gardner, the learning of a second language (L2) is subject to the influence of attitudes and sociocultural clichés regarding the target culture (2007). For this reason, *motivation*—“the combination of effort plus desire to achieve the goal of learning the language plus favourable attitudes towards learning the language” (Gardner 1985, 10)—stands as a major affective variable in this process. The learner may study the language in pursuit of an internal goal, for example, to become a member of the new community (“integrative motivation”, Gardner 1985). But he or she may also be seeking an external objective like getting a specific job, (“instrumental motivation”, Gardner 1985).

In summary, integrativeness and instrumentality support motivation. This motivation—plus the learner's ability—is the driving force in language performance.

However, despite the leading role of the Socio-Educational Model in the mainstream of SLA, Gardner's proposal was criticised from the late 1980s on (Au 1988; Crookes and Schmidt 1991; Dörnyei 1994; Mori and Gobel 2006). New studies started to analyse motivation as a dynamic concept which needs to be based on the learning context in which L2 normally occurs.

Self-Determination Theory (SDT) captured both this dynamism of motivation and its importance in the educational setting (Deci and Ryan 1985, 2002; Deci et al. 1991). Broadly speaking, the theory asserts that we are born with the need to feel autonomous, competent and with a sense of belongingness. And, furthermore, that it is our capacity to choose that dictates our behaviour and actions. As such, then, the process of self-determination is intrinsically-motivated, that is to say, closely connected to a feeling of enhancement and enjoyment (Bai and Wang 2020). The individual has this motivation satisfied once he or she has met these three basic needs—autonomy, competency and sense of belongingness—(Bonney et al. 2008) and then feels free to take decisions, solve tasks successfully and improve his or her performance. Finally, the individual has the feeling of belonging to a group (Deci and Ryan 2002). Developing Deci and Ryan's theory, Noels et al. (2000) presented a subdivision of what has been shown to be suitable constructs for understanding L2 motivation: *intrinsic* and *extrinsic motivation*.

Intrinsic motivation has an internal perceived locus of causality and relates to the activity of doing something voluntarily. As a personal choice, maybe for mastery or pleasure purposes, it is highly relevant to the learning of a foreign language (Bonney et al. 2008). Intrinsically motivated individuals embody the prototype of self-determination and find their reward in the enjoyment of the learning task itself. Consequently, they achieve a sense of competence when performing in the L2 (Ehrman et al. 2003).

Conversely, *extrinsic motivation* has an external perceived locus of causality. The person's behaviour is ruled by an external source and his or her acts are carried out to either avoid possible punishment, obtain some sort of external compensation or to comply with an extrinsic constraint (Bai and Wang 2020; Noels et al. 2000).

The model we are describing comprises the following four types of extrinsic motivation, ordered along a self-determination continuum, "from unwillingness, to passive compliance, to active personal commitment" (Zareian and Jodaei 2015, 302).

- a) *External regulation* infers that a subject's conduct is controlled by external contingencies—a punishment, a promotion, a reward, etc. Individuals feel their behaviour has an external locus of causality, like joining English lessons to obtain course credits. If the motive to learn the language disappears, the incentive to continue engaging with the process will disappear as well (Ryan and Deci 2000).

- b) *Introjected regulation* implies a higher degree of autonomy than external regulation. In this case, the avoidance of guilt is decisive. In order to reach/maintain a certain degree of ego-enhancement or self-esteem, the subject accepts the established regulation and behaves in a determined way, albeit with a strong feeling of pressure. This may incite a student, for instance, to wish to learn English not only to avoid failing the exam, but also to accomplish a desire to impress others—social recognition.
- c) *Identified regulation*: the person identifies with the values underlying a specific activity and is motivated by a personal desire (e.g., being able to achieve aural comprehension in the L2 and proficiency when speaking it). In the case of university EFL students, learners who consider that being competent in L2 listening is essential for their linguistic development will focus on any type of oral exercises in order to attain their desired level. Therefore, even though their motivation is extrinsic—the task is clearly carried out because of its usefulness—identification makes it possible to choose freely and without any kind of external pressure.
- d) *Integrated regulation* entails the highest level of autonomy and is closely linked with the usefulness of the task. The person performs something encouraged by the benefit it may produce.

SDT also includes a fifth and final state of motivation, namely amotivation. For amotivated subjects, the outcomes of their actions are determined by elements over which they have no control. This explains why the person cannot find any motivation to guide goal-directed activities and may even wish to stop doing them.

In short, SDT offers various possibilities for predicting students' degree of success or failure in acquiring their chosen L2.

3. Research hypotheses

Since individuals vary both in their types and levels of motivation, tools like *ELLMS* help us detect how much motivation and what *orientation*—or specific reason for learning an additional language a particular student has (Noels et al. 2000).

Of the types of motivation explained above, the *ELLMS* contemplates three main factors, one related to intrinsic motivation and two to extrinsic motivation, namely introjected regulation and external regulation.

As stated above, our study sought to detect which of these dimensions are best related to our learners' motivation and their possible consequences on:

- a) a student's level of *self-efficacy*—any subject's personal conviction in his or her capabilities to execute a particular task effectively in order to achieve

- a desired outcome (Schunk and Pajares 2002; Seon-Ahn and Bong 2019; Zimmerman 2000).
- b) their level of *self-regulation*—the degree to which students are “metacognitively, motivationally, and behaviourally active participants in their own learning process” (Zimmerman 1989, 1). After all, goal congruence and the expectancy-value of aims have a profound impact on a person’s interest in learning (Sansone et al. 2019). Therefore, if individuals are persuaded to believe in themselves, they persevere more in the face of difficulties in their L2 attainment (Bandura 2012).

Considering these ideas as a general goal of the research, we formulated the following four research hypotheses:

H1. The original *ELLMS* three-factor structure—*intrinsic motivation, external regulation and introjected regulation*—will be valid for our Spanish sample.

H2. Students with a higher level of intrinsic motivation will show lower levels of anxiety when learning the L2.

H3. Students with a higher level of intrinsic motivation will show higher levels of self-regulation (3a) and self-efficacy (3b).

H4. Learners who show higher levels of introjected regulation will show higher levels of anxiety (4a) as well as higher burnout levels (4b).

Establishing these four hypotheses as a starting point, our research aimed to:

1. test whether our participants’ self-regulated behaviour increased their chances of success in the EFL learning procedure or, on the contrary, have an impact on their degree of anxiety and burnout.
2. analyse our participants’ level of anxiety and its relationship with their degree of motivation and burnout.

Foreign language anxiety—defined by Horwitz et al. (1986) as “a distinct complex of self-perceptions, beliefs, feelings and behaviours related to classroom language learning arising from the uniqueness of the language learning process” (28)—may entail or be provoked by communication apprehension, fear of negative evaluation and test anxiety (Horwitz et al. 1986). Feeling uncomfortable when expressing oneself in the L2 in front of others, worrying excessively about academic evaluation or setting unrealistic objectives about an assignment in English for fear of failure all influence the students’ motivation and their degree of exhaustion.

In addition, being proactive when setting goals and deploying strategies to regulate one’s knowledge is difficult if the degree of burnout is high (Oyoo et al. 2020). This sensation of exhaustion may respond to the pressure exerted upon the learner by the demands of the language—what Schaufeli et al. label as

“emotional exhaustion” (2002). In turn, this emotional exhaustion may make the learner develop an indifferent attitude towards the L2 and a pessimistic view of academic work at university—or “cynicism” (Schaufeli et al. 2002).

Consequently, the relationship established in our hypotheses between the constructs “self-efficacy”, “anxiety” and “burnout” is clear as there is (1) a typical *positive* correlation between self-efficacy and adaptative variables—e.g., task value or goal attainment— and (2) a *negative* correlation between self-efficacy and maladaptative variables—e.g., anxiety or burnout (Seon-Ahn and Bong 2019, 73).

4. Methodology

4.1. Data Collection

Our proposal made use of a modified version of the *ELLMS* instrument, which was adapted to the contextual necessities of our target group, university students. Some studies had previously applied *ELLMS* to measure the levels of motivation among pre-college and primary students (Ardasheva et al. 2012; Mateos de Cabo and Mateos de Cabo 2015). However, no study had made use of the questionnaire with university students.

In our case, a translation into Spanish of the items was made by experts and was provided to the participants in order to avoid misunderstandings or imprecise comprehension.

Following the procedure of the original questionnaire, we considered three dimensions of SDT—intrinsic motivation, external regulation and introjected regulation—and disregarded two others—identified regulation and integrated regulation.

Furthermore, with the purpose of gathering complete information from our target population, we also made use of these other four instruments:

a) *The Foreign Language Classroom Anxiety Scale (FLCAS*, Horwitz et al. 1986). A translation of this 33-item questionnaire was made by experts for our use.

b) *The General Self-Efficacy Scale (GSES*, Baessler and Schwarzer 1996). This provided a global score on people’s self-reliance to tackle the challenges of the environment in which they are engaged.

c) *The Self-Regulation Scale (SRS*, Luszczynska et al. 2004). The Spanish version of this scale was provided directly by the authors of the research group at Freie University in Berlin.

d) *The School Burnout Inventory-University Form (SBI-U*, Salmela-Aro et al. 2009), which has been translated and adapted to the Spanish university population (Boada-Grau et al. 2015) in order to assess burnout among undergraduate students.

Our final survey contained 94 questions: 89 close-ended questions (including multiple-choice and rating questions) and 5 open-ended questions which allowed participants to include information not covered in the options provided elsewhere. Demographic questions aimed at exploring the background of the respondents (age, gender, nationality, university studies, number of languages spoken, proficiency level at the different English skills, etc.) opened the questionnaire. The remaining items were organised in 5 different sections according to the purpose or to the instrument which was being employed:

- (1) Section 1 included the questionnaire by Ardasheva et al. (2012). As proposed in their original study, we made use of the scale with 12 items grouped in three different dimensions: (1) Intrinsic Motivation—e.g., “It is fun to learn a new language”; (2) Introjected Regulation—e.g., “I feel bad about myself if I can’t speak English in my class”; (3) External Regulation—e.g., “I want to show my teachers that I can learn English.”

Subjects were required to answer the items on a 5-point Likert scale ranging from 1 (*Completely disagree*) to 5 (*Completely agree*). The higher the score, the higher that type of motivation.

In the original study, Cronbach’s alpha for the global score reached a value of 0.80 and the subscale alphas ranged from 0.58 to 0.74.

- (2) Section 2 (*FLCAS*) comprised 20 rating questions which evaluated oral and reading comprehension and 13 questions which estimated aspects related to general anxiety when learning EFL.

The scale consisted of three main dimensions: (1) Communication Apprehension—e.g., “I don’t mind making mistakes in class”; (2) Evaluation Anxiety—e.g., “I am worried about the consequences of failing”; (3) Discomfort—e.g., “I wouldn’t mind at all attending more foreign language classes.” Each item was rated on a 5-point Likert scale (1 = *Completely agree*, 5 = *Completely disagree*).

The original version of the scale (Horwitz 1986; Horwitz et al. 1986) revealed high values of internal consistency (0.93). In this scale, a higher score showed lower levels of anxiety.

- (3) Section 3 (*GSES*) asked subjects to answer the Spanish version of the 10 items—e.g., “If I find myself in a difficult situation, I usually know what I should do”—ranked from 1 (*Completely disagree*) to 4 (*Completely agree*). The higher the score, the higher the self-efficacy level.
- (4) Section 4 (*SRS*) made use of a reduced version of this instrument with only 7 items—e.g., “I keep my eyes on my goals and do not let anything turn me away from them.” Participants were asked to answer the items on a scale ranging from 1 (*Not at all*) to 4 (*A lot*).

Cronbach's alpha values found in previous research varied between 0.63 and 0.87. This scale offers just one dimensional scores and therefore a higher score suggests a higher level of self-regulation.

- (5) Section 5 (SBI) consisted of an inventory of 9 items along three dimensions: (1) Exhaustion—e.g., “I feel strained by the academic work”; (2) Cynicism—e.g., “I feel like I'm losing interest in my academic work”; (3) Inadequacy—e.g., “I often have a feeling of insufficiency in the activities I do in class.” Subjects were required to answer the items on a 6-point scale ranging from 1 (*Totally disagree*) to 6 (*Totally agree*). The higher the score, the higher the level of burnout experienced.

Previous research with the Spanish version of the instrument found acceptable reliability values for all three dimensions: Exhaustion (0.70), Cynicism (0.77) and Inadequacy (0.71). Furthermore, these dimensions showed good validity values with self-regulation ($r = -.22$, $r = -.27$, $r = -.32$, respectively) and with self-efficacy ($r = -0.16$, $r = -.25$, $r = -.25$) (Boada-Grau et al. 2015).

4.2. Participants

The sample consisted of 215 Spanish students—174 females (80.93%) and 41 males (19.07%). Their ages ranged from 17 to 66 years, although when the outlier of a person aged 66 was removed, this gave an age range of 17 to 24 (mean = 21.60; $SD = 4.38$). All were enrolled in curricular EFL courses at one of four Spanish state universities—Autonomous University of Barcelona (13.3%), Rey Juan Carlos University (15.27%), University of Valladolid (51.1%) and University of Cádiz (20.33%). The teachers in charge of these courses collaborated by delivering the survey to their learners. The results were collated at University of Valladolid, Segovia Campus, where this research originated, and which explains the high level of participation at this university.

All the respondents were Spanish native speakers and no foreign students took part in the study. Students from the Autonomous University of Barcelona were bilingual in Spanish and Catalan, but all their responses for the follow-up open-ended questions were provided in Spanish.

Table 1 shows the distribution of the sample by university degree. The column labelled “Frequency” indicates the number of students taking that particular degree. The students were recruited from nine degrees and three double degrees. Eighty-one respondents did not specify what they were studying:

TABLE 1. Sample distribution by university degree.

	Frequency	Percentage
Tourism	46	21.39
Early Education	33	15.34
Journalism	17	7.90
Nursing	7	3.25
Business Administration	6	2.79
Commerce	7	3.25
Art History	4	1.86
Elementary Education	4	1.86
Architecture	1	0.46
Advertising + Public Relations	7	3.25
Business Administration + Tourism	1	0.46
History + Tourism	1	0.46
Not specified	81	37.67
TOTAL	215	100

With regards to the highest level of studies completed, 65.6% of the sample had Secondary Studies and 25.5% had Vocational Training qualifications before starting their current degree, while 8.9% were graduates studying a second degree. The majority of the sample (74.4%) were not working while studying, but 16.7% worked regularly and the remaining 8.9% worked sporadically.

Participants had been studying English for between two months and twenty years, some of them studying English at language academies or in private classes in addition to their university English course, and their level in English ranged from A1 to C1, according to the CEFRL (Council of Europe 2001). As might be expected, this diversity created a complication, since the time of exposure to the L2 and the experiences in class or in extra-academic situations may influence the student's degree of motivation.

Likewise, the fact that, in most cases, English was a non-elective degree subject, while in degrees such as Nursing and Business Administration it was a voluntary module was also an issue. Both these aspects were taken into account when analysing the results and their general implications are mentioned in 6. *Discussion and final conclusions.*

4.3. Procedure

Within the usual class schedule, students were informed of the purpose and procedure of the study and that taking part was voluntary. The collaborators at the different institutions guaranteed their learners that the results of the

tests involved would not have any effect on either their grades for the module concerned or on their academic record. They were likewise assured that their answers would only be used for the specific purposes of the study and that their privacy would be preserved.

The online questionnaire was administered through *Moodle*, the open-source learning platform and data collection was carried out over a five month period. Once the answers had been carefully scrutinised, one questionnaire was removed as the respondent had submitted incomplete information or invalid answers to several questions. Consequently, the final sample totalled 214 subjects.

4.4. Statistical data analyses

The analyses corresponding to internal consistency and Pearson correlations between observed variables were performed using the statistical package SPSS 22.0. The EQS software was used to carry out Confirmatory Factor Analysis (CFA) of the different models being tested. The estimation method of choice was maximum likelihood with robust Satorra-Bentler corrections. Goodness-of-fit adjustment for each model was measured through indices based on different methods (Hu and Bentler 1999; Marsh et al. 1996): NNFI (Non-Normed Fit Index), CFI (Comparative Fit Index) and RMSEA (Root Mean Square Error of Approximation) and a 90% confidence interval was employed.

5. Results

This section presents the overall findings obtained from our survey. The results shown in Tables 2 to 6 are analysed below and their implications are commented on in depth in 6 *Discussion and final conclusions*.

5.1. Reliability analysis of all factors

Reliability is not an inherent or immutable property of a test itself, but of the values obtained from it with a particular sample. It is related to the possibility of reproducing the results on several occasions using the same instrument (Nunnally 1967).

Taking this into account, the values obtained in our study should be consistent, since the different measurement instruments which compounded ours had been administered repeatedly to different subjects in different contexts but using the same procedure.

Reliability and internal consistency were assessed in this research with the traditional coefficient Cronbach's alpha (α), which estimates how reliable

responses to the items were by marking the degree of consistency in relation to the psychological construct measured.

Table 2 shows the main statistics (minimum, maximum, mean, standard deviation) and Cronbach's alpha coefficient for the thirteen variables identified. A reliability coefficient of 0.70 or higher is considered an acceptable measure in most situations (Tavakol and Dennick 2011). The Cronbach's alpha coefficient for eleven of the thirteen variables is high, which suggests that the items present relatively high internal consistency. Exceptional are the cases of External Regulation (0.60) and Discomfort (0.36), the latter presenting a value noticeably lower than the rest.

TABLE 2. Descriptive statistics and reliability values (Chronbach's α).

	Variable	Minimum	Maximum	Mean	SD	α
1.	Intrinsic Motivation	2	5	3.98	0.68	0.86
2.	External Regulation	3	5	4.51	0.53	0.60
3.	Introjected Regulation	1	5	4.17	0.88	0.75
4.	FLCAS	1	5	3.06	0.59	0.92
5.	CA	1	5	2.92	0.88	0.93
6.	EA	1	5	2.91	0.71	0.71
7.	DC	1	5	3.34	0.74	0.36
8.	Self-Regulation	1	4	2.72	0.51	0.78
9.	Self-Efficacy	2	4	3.10	0.46	0.85
10.	SBI-U-Global	1	6	3.12	1.07	0.87
11.	SBI-U-Exhaustion	1	6	3.20	1.19	0.80
12.	SBI-U-Cynicism	1	6	2.86	1.39	0.86
13.	SBI-U-Inadequacy	1	6	3.35	1.31	0.68

Note. FLCAS = *Foreign Language Classroom Anxiety Scale*; CA = *Communication Apprehension*; EA = *Evaluation Anxiety*; DC = *Discomfort*; SBI = *School Burnout Inventory*

5.2. Confirmatory Factor Analysis of SDT Factors

A 3-factor model was tested through CFA. Furthermore, two other models, a 1-factor model (Global Motivation) and 2-factor model (Intrinsic Motivation, on the one hand, and the two types of Extrinsic Motivation, on the other) were also

tested. It is important to verify the construct validity of the scales of these models by comparing the goodness-of-fit indices of the three options.

As shown in Table 3, the three-factor model reaches the recommended values for the different goodness-of-fit indicators: CFI and NNFI ≥ 0.9 , and RMSEA ≤ 0.08 , according to Hair et al. (2006) and Kline (2015). The CFI and NNFI were greater than or equal to the accepted value (CFI= 0.924, NNFI= 0.9). The RMSEA (0.063) also met the desired threshold. The Satorra-Bentler Chi-Square was 92.455 (d.f = 50, $p > 0.01$). This result, however, is to be considered cautiously, since the Satorra-Bentler Chi-Square test is highly sensitive to small size samples—like ours. As a matter of fact, all the other measures analysed in our sample do confirm the suitability of the three-factor model.

The results indicate a good fit for the model and support our *H1*. “The original *ELLMS* three-factor structure—intrinsic motivation, external regulation and introjected regulation—will be valid for our Spanish sample.”

It must be taken into account that the adjustment of the 3-factor model has been improved by including a covariance error between the pair formed by items 4 and 6, which implies more a systematic error than a random measurement error derived from the overlapping of the content of the items (see Table 3).

TABLE 3. Goodness-of-fit indices of CFA models.

Models	$_{SB}C^2$	<i>df</i>	NNFI	CFI	RMSEA	90% CI
M1Factor	226.6883	54	0.625	0.693	0.123	[0.106, 0.139]
M2Factors	166.2627	53	0.749	0.799	0.100	[0.083, 0.117]
M3Factors	112.9773	51	0.857	0.890	0.076	[0.057, 0.094]
M3Factors_improved	92.4554	50	0.900	0.924	0.063	[0.042, 0.083]

Note. ** $p < .01$, $_{SB}C^2$ = Satorra-Bentler’s Chi-Square, *df* = Degrees of Freedom, NNFI = Non-Normed Fit Index, CFI = Comparative Fit Index, RMSEA = Root Mean Square Error of Approximation and 90% CI = Confidence Interval of RMSEA.

Table 4 shows the results for the twelve items studied with their means, standard deviations and the factor loadings on the corresponding factor. Most of the items had values above 0.5 and can thus be considered strong indicators for the constructs (Hair et al. 2006), specifically: loading values for Intrinsic Motivation items were between 0.65 and 0.81, between 0.65 and 0.93 for Introjected Regulation items and between 0.33 and 0.66 for External Regulation items.

The correlations between factors is shown in Table 5. There is a weak positive linear relationship between Intrinsic Motivation and Introjected Regulation, as indicated by the coefficient being below 0.3 (Ratner 2009) and a stronger positive relationship between Intrinsic Motivation and External Regulation.

TABLE 4. *ELLS* Scale: Items, descriptive statistics and standardised loadings.

Construct	Item (first-order indicators)	Mean	SD	Loading
Intrinsic Motivation	1. It is fun to learn a new language.	4.08	0.84	0.69
	2. I like learning new things.	4.60	0.62	0.70
	3. I like to learn about English culture.	4.19	0.91	0.81
	4. I like it when I do well in English.	3.62	0.92	0.71
	5. I like it when I can understand difficult things in English.	4.06	0.94	0.67
	6. I like doing difficult things in English.	3.33	1.01	0.68
Introjected Regulation	1. I feel bad about myself if I can't speak in English in my class.	4.14	1.04	0.65
	2. I'd feel bad about myself if I couldn't speak to my American or English friends in English	4.21	0.92	0.93
External Regulation	1. I want to show my teachers that I can learn English.	4.30	0.85	0.61
	2. I want to find a good job when I grow up.	4.89	0.39	0.33
	3. My parents and teachers want me to learn English.	4.40	0.90	0.50
	4. Everybody at university has to learn English.	4.45	0.85	0.66

TABLE 5. Correlations between factors.

Correlations between factors	1	2	3
1. Intrinsic Motivation			
2. Introjected Regulation		0.27	
3. External Regulation		0.48	0.21

Note: All of the loadings are statistically significant at $\alpha = 0.01$.

As regards the correlations among the variables observed, Table 6 illustrates how, in the case of Intrinsic Motivation, all indices show a positive and meaningful correlation with the *FCLAS* scale ($r = 0.38$) and its three dimensions.

In this scale, a high score means low anxiety. The results support *H2*. “Students with a higher level of intrinsic motivation will show lower levels of anxiety when learning the second language.”

Intrinsic Motivation also shows a weak and significant positive correlation with Self-Regulation ($r = 0.15$) and Self-Efficacy ($r = 0.14$), thus supporting *H3*. “Students with a higher level of intrinsic motivation will show higher levels of self-regulation (3a) and self-efficacy (3b).”

The opposite occurs with the External Regulation variable, which has a weak negative correlation with *FCLAS* and its two dimensions: Communication Apprehension ($r = -.22$) and Evaluation Anxiety ($r = -.26$). In addition, External Regulation also shows a slight positive correlation with Burnout status ($r = 0.14$) and two of its dimensions: Exhaustion ($r = 0.15$) and Inadequacy ($r = 0.19$). These results demonstrate that this variable is associated with higher levels of anxiety.

In the case of Introjected Regulation, the indices show a weakly significant positive correlation with the *FLCAS* scale ($r = 0.09$) and a slight negative correlation with the Burnout status ($r = 0.14$) and the Cynicism dimension ($r = 0.16$). These results support *H4*. “Learners who show higher introjected regulation will show higher levels of anxiety (4a) as well as higher burnout levels (4b).”

TABLE 6. Correlations between variables studied.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Intrinsic Motivation													
2. External Regulation	0.37**												
3. Introjected Regulation	0.18**	0.26**											
4. FLCAS	0.38**	-0.19**	0.09										
5. CA	0.28**	-0.22**	0.03	0.87**									
6. EA	0.20**	-0.26**	-0.04	0.72**	0.82**								
7. DC	0.38**	0.05	0.21**	0.20**	0.16*	0.58**							
8. Self-Regulation	0.15*	-0.08	0.11	0.11	0.25**	0.12	0.21**						
9. Self-Efficacy	0.14*	0.01	0.19**	0.15*	0.13	0.07	0.16*	-0.06					
10. SBI-U Global	-0.11	0.14*	-0.14*	-0.22**	-0.30**	-0.13	-0.28**	-0.09	-0.22**				
11. SBI-U-Exhaustion	-0.12	0.15*	-0.09	-0.29**	-0.44**	-0.16*	-0.39**	0.82**	-0.07	-0.17*			
12. SBI-U-Cynicism	-0.11	0.04	-0.16*	-0.10	-0.11	-0.08	-0.13	0.46**	0.86**	-0.04	-0.17*		
13. SBI-U-Inadequacy	-0.03	0.19**	-0.10	-0.13	-0.13	-0.07	-0.14*	0.48**	0.75**	0.83**	-0.09	0.51**	

Note. * $p < 0.05$; ** $p < .01$; SBI-U = School Burnout Inventory-University Form; FLCAS = Foreign Language Classroom Anxiety Scale; CA = Communication Apprehension; EA = Evaluation Anxiety; DC = Discomfort

6. Discussion and final conclusions

The present study was conducted with two basic objectives: (1) to validate the Spanish version of the *English Language Learner Motivation Scale (ELLMS)* (Ardasheva et al. 2012) in a sample of 214 university students who were studying English at university although their degrees were in subjects other than English Language or Linguistics. (2) To demonstrate that intrinsic motivation is associated with less anxiety and with greater self-regulation and self-efficacy in the study of the English language.

With those aims in mind, the research explored the students' own views of their academic situation at university, their emotions and levels of apprehension and burnout with respect to the FLA.

To collect the data, we developed a 6-section online survey based on the adaptation and translation into Spanish of five different instruments: (1) *ELLMS* (Ardasheva et al. 2012), (2) *FLCAS* (Horwitz et al. 1986), (3) *GSES* (Baessler and Schwarzer 1996), (4) *SRS* (Luszczynska et al. 2004) and (5) *SBI-U* (Salmela-Aro et al. 2009). The focus when translating was not on literal translations, but rather on construct equivalence.

The global conclusion which can be drawn from the results obtained is that the Spanish version of the *ELLMS* is a viable instrument with good psychometrical properties in general to measure the motivation of EFL university students. The information gathered revealed an overall consensus among our participants on many questions, despite them studying at four different universities and on twelve different degrees.

According to what was posited in our first hypothesis, (*H1*: “The original *ELLMS* three-factor structure—intrinsic motivation, external regulation and introjected regulation—will be valid for our Spanish sample”), the results confirmed the presence of three factors: intrinsic motivation, internal regulation and external regulation, which correspond with the results of the original study (*ELLMS*, Ardasheva et al. 2012).

As regards the items measuring the first of these factors, i.e., intrinsic motivation, respondents completely agreed in section 1 (*ELLMS*, Ardasheva et al. 2012) on the usefulness of studying a new language (67.3%) and its culture (45.8%).

These percentages are not surprising, since these statements related to the acquisition of new knowledge in an L2 reflected, in our test, the subjects' “natural human propensity to learn [...], [their] inherent tendency to seek out novelty and challenges, to extend and exercise [their] capacities” (Ryan and Deci 2000, 54). Related to personal interest, internal satisfaction and optimistic managing, the answers evinced the pleasure that the respondents gain from *exploring* new

things in the language, which Noels et al. consider could be included in a subtype of intrinsic motivation they refer to as “knowledge” (2000).

Nonetheless, responses to the statement “I like it when I do well in English”—which mirrors the feeling of pleasure derived from *mastering* a task in the foreign language or accomplishing a goal using it (“accomplishment” subtype, Noels et al. 2000)—were more varied, probably because English was not a prerequisite for graduation for all the participants and their interest in performing effectively in the L2 was also varied. As such, 35.0% neither agreed nor disagreed with the statement while 36.9% simply agreed and only 17.8% were in complete agreement with the statement.

The enjoyment derived from trying to solve challenging exercises and tasks in the foreign language received likewise a quite heterogenous score, with 42.1% of the participants neither agreeing nor disagreeing and 14.0% showing their complete agreement. Fortunately, only a few respondents (4.7%) indicated they had little intrinsic motivation when responding to the statement “I like doing difficult things in English”.

This same disparity of opinions can be seen in relation to the item “I like it when I can understand difficult things in English.” A total of 38.3% of respondents completely agreed with the idea, 36.4% strongly agreed, 18.2% neither agreed or disagreed. Interestingly, 5.6% strongly disagreed and 1.4% selected the option “*Completely disagree*”, which tells us that, sadly, this sub-group derive no fun, aesthetic appreciation or “stimulation” (third subtype by Noels et al. 2000) from performing a particular task in English.

Turning now to our results on the items measuring extrinsic motivation, the general responses were much more consistent. 47.2% of the respondents completely agreed with both statements estimating introjected regulation: “I feel bad about myself if I can’t speak English in my class” and “I’d feel bad about myself if I couldn’t speak with my American or English friends in English.”

This seems quite logical, as not being able to communicate fluently in English either in class or with native speakers with all probability implies a considerable degree of social pressure on the individual. Introjected regulations like those conveyed by these statements project sensations which are within the person, but are not part of the integrated self, since they involve coercion or seduction, not free selection (Deci and Ryan 1985; Deci et al. 1991).

These results suggest that unsuccessful performance in English indeed entails for our participants a high level of apprehension and personal coercion. Items measuring external regulation were those which received the highest percentage of complete agreement. This might be due to the fact that they entailed ideas directly related to personal success and professional projection—“I want to find a good job when I grow up” (91.6%)—or because they verbalised generalised

and socially-accepted beliefs—“Everybody at university has to study English” (64.5%), “My parents and teachers want me to learn English” (60.7%).

Our second research hypothesis was also confirmed: *H2* (“Students with a higher level of intrinsic motivation will show lower levels of anxiety when learning the L2”). In research on anxiety conducted previously (Arnáiz-Castro and Guillén-García 2012), internal consistency in the Spanish version of the scale had a Cronbach’s alpha score of 0.93. Given this excellent coefficient, we tested in this study whether students achieving a higher score for the items measuring intrinsic motivation presented lower levels of anxiety with respect to EFL. More specifically, the section in our questionnaire devoted to measuring anxiety as a major obstacle in the acquisition and production of the language—principally assessed by *FLCAS* (Horwitz et al. 1986)—evinced the students’ general apprehension in speaking interventions.

The scores for this section revealed that, broadly speaking, these EFL learners feel anxious about speaking in front of their classmates (with 25.1% strongly agreeing that they would feel embarrassed if their classmates laughed at them when speaking in English). Moreover, almost a quarter of students felt the same about volunteering answers in the English class (24.7%) and 31.6% were in complete agreement with the statement “I start to panic when I have to speak without preparation.”

Fortunately, only 8.8% of the whole sample strongly disagreed with the idea of taking more English classes. This can be interpreted as a very positive reaction, for 40.5% completely agreed with the idea of receiving greater exposure to the language regardless of their level of English and their possible degree of anxiety during oral communication.

This section also assessed participants’ fear of negative evaluation. 52.1% of the respondents strongly agreed with the statement “I worry about the consequences of failing my English tests”, which is understandable if we take for granted that most of our participants regarded assessment in the L2 as a pressure-inducing element rather than as an intrinsically-motivating tool.

These findings support our hypothesis and provide evidence that, if we are able to arouse in our EFL students some sort of intrinsic motivation, their levels of anxiety will be lower.

Ryan and Deci stated that “[i]ntrinsic motivation, being an inherent organismic propensity, is catalyzed (rather than *caused*) when individuals are in conditions that conduce towards its expression” (2000, 58). We know that fostering intrinsic motivation can be a lengthy and difficult process, since it implies performing the activity for its own sake and not for an external reward. Our research, however, helped us to conclude that we should do our best to orientate our teaching to promote self-determined motivation in our students,

which will give rise to increased problem-solving flexibility, more efficient knowledge development and an increased level of self-esteem in class (Deci et al. 1991; Noels et al. 2000).

At times, namely when instructors use exams as motivational tools for learning, students' extrinsic motivation—“[that] construct that pertains whenever an activity is done in order to attain some separable outcome” (Ardasheva et al. 2012)—may prevail over intrinsic motivation.

We are conscious that avoiding the negative outcome of this is crucial, so ensuring that lessons are encouraging may be more likely to lead to intrinsically-motivated responses on the part of the learners, who will feel less anxious and apprehensive towards the L2. This possibility was explored in studies by Gocer (2014), Jarie et al. (2019), MacIntyre (1999), MacIntyre and Gardner (1994), Torres and Turner (2015) and Mortimore (2017). By means of statistically meaningful results, they all demonstrated the correlation between linguistic anxiety and achievement and success in SLA.

As regards H3 (“Students with a higher level of intrinsic motivation will show higher levels of self-regulation (3a) and self-efficacy (3b)”), we found that students revealing a higher level of intrinsic motivation did in effect present higher levels of self-regulation and self-efficacy. Section 4 (SRS, Luszczynska et al. 2004) in our survey helped us to verify this idea by measuring attention as one component of the dispositional variable self-regulation. Items related to concentration and emotional self-control in problem-solving tasks produced similar results. To this end, 46.7% of the respondents said that they were completely able to concentrate on their activities for a long time and 52.1% selected the same option when asked about their ability to come back to a task after being distracted. Furthermore, more than half of the participants selected the option “*Somewhat*” for the item “I stay focused on my goal and don't allow anything to distract me from my plan of action”, with 25.1% choosing the option “*A lot*” and only 1.4% opted for the answer “*Not at all.*”

This item and its results are particularly illustrative in endorsing the notion that the higher the level of intrinsic motivation, the higher the level of self-regulation. As Luszczynska et al. put it, “attention control is a key component of self-regulation when individuals pursue their goals in the face of barriers and setbacks” (2004, 555). If we help our learners to focus their attention on their attainment in the L2, their academic activity will be more self-regulated and, consequently, their degree of intrinsic motivation will increase, too.

Additionally, the responses obtained from the section which assessed self-efficacy (GSE, Baessler and Schwarzer 1996) showed that, in most cases, our intrinsically motivated participants presented optimistic self-beliefs to cope with difficult demands in life. The 10 questions involved received very similar

responses: 57.2% ranked as “*Moderately true*” the statement “If someone opposes me, I can find the means and ways to get what I want” and 59.1% considered “*Exactly true*” “I can always manage to solve difficult problems if I try hard enough.” The participants selected the option “*Moderately true*” when asked both about their resourcefulness and coping abilities in unforeseen situations (53%) and about the ease with which they can stick to their aims and accomplish their goals (54.4%). This supports the idea that our actions are responsible for successful outcomes: self-efficacy, the belief that we can overcome obstacles and get things done, is necessary for effecting changes in our lives.

Finally, hypothesis *H4a*—“Learners who show higher levels of introjected regulation will show higher levels of anxiety”—was also confirmed. This is significant but, unfortunately, provides negative information on this type of extrinsic motivation in the EFL learning process. The results obtained from this section lead us to conclude that when the learner contemplates the language as an imposition rather than as a choice, the level of pressure increases considerably. For these individuals, learning English does not involve the rewarding effect of achieving mastery in the language, but rather the reduction of anxiety produced by, for example, the necessity of passing an exam, impressing others or obtaining the recognition desired.

Taking this into consideration, we can also assert that this study confirmed *H4b*: “Learners who show higher levels of introjected regulation will show higher burnout levels (4b).”

Section 5 in our questionnaire was focused on measuring levels of burnout among the sample group. The adaptation of the instrument designed by Salmela-Aro et al. (2009) to university students provided an indication of the confidence students show in meeting academic requirements. In most cases, the participants did not show notable levels of exhaustion or cynicism. Of those surveyed, 29.4% totally disagreed with the idea of leaving university prematurely because of a possible lack of motivation (and another 22.4% partially disagreed). Furthermore, only 3.7% totally agreed that they were losing interest in their academic work, compared to 27.1% who had the opposite view.

Feelings of inadequacy were also assessed by means of items such as “I often have a feeling of insufficiency in my academic work.” Interestingly though, for these statements, respondents showed more diverse opinions: 12.1% totally disagreed, 22% partially disagreed, 22% disagreed and 23.8% partially agreed, with the remaining 20.1% totally agreeing.

Taking into account all these data, it appears that introjected regulation is the worst option in terms of motivation when compared to the other variables in the analysis. Even though it implies a higher degree of autonomy than external regulation, the main motive of this regulation is the avoidance of guilt or anxiety.

As teachers, we should do our best to prevent these feelings from setting the pace in our students' learning process.

To conclude, the results of the present study revealed the unquestionable relation between motivation and FLA, highlighting the importance of intrinsic motivation as a psychological construct that bolsters the process.

Dörnyei stated that “[m]otivation energises human beings and provides direction” (1998, 126). Nonetheless, the heterogeneity of students and their diverse educational backgrounds implies a challenge for any teacher. The connection between certain teaching methodologies and the level of enthusiasm they arouse in learners should perhaps be the object of a new study, since motivation is linked to learning styles and teaching methods, energy and the desire to understand and learn.

Further research addressing this issue could extend the implications of this study and complement it. Moreover, in spite of the fact that our investigation has provided interesting results, it does have some limitations.

On the one hand, we have worked with self-reported measures, which may have disrupted the answers with aspects such as social desirability (Holtgraves 2004). For this reason, future research in this line should include measures that guarantee academic objectivity, for instance, academic marks.

Apart from that, more generalisable results would probably have been obtained by restricting our sample to subjects showing the same proficiency level in the use of the language. The fact that our respondents oscillated between CEFRL LEVELS A1 and C1 (Council of Europe 2001) likely affected the data, since, as the the degree of difficulty in the L2 increases, levels of motivation, anxiety and burnout may also rise due to boredom and tediousness (Salmela-Aro et al. 2009). Of course, the opposite may occur when the individual feels autonomous and linguistically-competent. The relevance of these variables would deserve particular attention in future research.

Be that as it may, today there is a consensus that English is perceived as a valuable subject both in the learners' university studies and professional career. They even admit its “high practical value” (Wong 2014, 47). As teachers, we know we cannot achieve the same level of effectiveness for every student in every type of learning activity in the teaching of EFL. Students' motivation will have important repercussions on their learning process if we help them to identify their most efficient learning strategies (Bonney et al. 2008; Kim and Kim 2021). That should be our main aim.

Works Cited

- ALEMÁN-AGUILAR, Guadalupe C. and Marcos Portillo-Vázquez. 2021. "Analysis of the Motivation of English as a Second Language in Higher Education Students in Mexican Context." *Innoeduca: International Journal of Technology and Educational Innovation* 7(1): 31-39. <https://doi.org/10.24310/innoeduca.2021.v7i1.8713>
- ARDASHEVA, Yuliya, Sze Sze Tong and Thomas R. Tretter. 2012. "Validating the English Language Learner Motivation Scale (ELLMS): Pre-College to Measure Language Learning Motivational Orientations among Young ELLS." *Learning and Individual Differences* 22(4): 473-483. <https://doi.org/10.1016/j.lindif.2012.03.001>
- ARNÁIZ-CASTRO, Patricia and Félix Guillén-García. 2012. "Foreign Language Anxiety in a Spanish University Setting: Interpersonal Differences." *Revista de Psicodidáctica* 17(1): 5-26. <http://hdl.handle.net/10553/43211> [Accessed online on December 1, 2021]
- AU, Shun, Y. 1988. "A Critical Appraisal of Gardner's Socio-Psychological Theory of Second-Language (L2) Learning." *Language Learning* 38 (1): 75-99. <https://doi.org/10.1111/j.1467-1770.1988.tb00402.x>
- BAESSLER, Judith and Ralf Schwarzer. 1996. "Evaluación de la Autoeficacia: Adaptación Española de la Escala de Autoeficacia General." *Ansiedad y Estrés* 2(1): 1-8.
- BAI, Barry and Jing Wang. 2020. "Hong Kong Secondary Students' Self-Regulated Learning Strategy Use and English Writing: Influences of Motivational Beliefs." *System* 96. <https://doi.org/10.1016/j.system.2020.102404>
- BANDURA, Albert. 2012. "On the Functional Properties of Perceived Self-Efficacy Revisited." *Journal of Management* 38(1): 9-44. <https://doi.org/10.1177/0149206311410606>
- BOADA-GRAU, Joan, Enrique Merino-Tejedor, José-Carlos Sánchez-García, Aldo-Javier Prizmic-Kuzmica and Andreu Vigil-Colet. 2015. "Adaptation and Psychometric Properties of the SBI-U Scale for Academic Burnout in University Students." *Anales de Psicología* 31(1): 290-297. <https://doi.org/10.6018/analesps.31.1.168581>
- BONNEY, Christina Ree, Joanne P. Smith-Darden, Kai S. Cortina and Katherine L. Fiori. 2008. "Understanding Strategies in Foreign Language Learning: Are Integrative and Intrinsic Motives Distinct Predictors?" *Language and Individual Differences* 18 (1): 1-10. <https://doi.org/10.1016/j.lindif.2007.11.005>
- COUNCIL OF EUROPE. 2001. *Common European Framework of Reference for Languages (CEFR): Learning, Teaching and Assessment*. Cambridge: Cambridge UP.
- CROOKES, Graham V. and Richard W. Schmidt. 1991. "Motivation: Reporting the Research Agenda." *Language Learning* 41 (4): 469-512. <https://doi.org/10.1111/j.1467-1770.1991.tb00690.x>
- DECI, Edward L. and Richard M. Ryan. 1985. *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum.

- DECI, Edward L. and Richard M. Ryan, eds. 2002. *Handbook of Self-Determination Research*. Rochester, New York: U. of Rochester P.
- DECI, Edward L., Robert J. Vallerand, Luc G. Pelletier and Richard M. Ryan. 1991. "Motivation and Education: The Self-Determination Perspective." *Educational Psychologist* 26(3 and 4): 325-346. <https://doi.org/10.1080/00461520.1991.9653137>
- DÖRNYEI, Zoltán. 1994. "Motivation and Motivating in a Foreign Language Classroom." *The Modern Language Journal* 78 (3): 273-284.
- DÖRNYEI, Zoltán. 1998. "Motivation in Second and Foreign Language Learning." *Language Teaching* 31 (3): 117-135. <https://doi.org/10.1017/S026144480001315X>
- DÖRNYEI, Zoltán. 2020. *Innovations and Challenges in Language Learning Motivation*. London: Routledge.
- DÖRNYEI, Zoltán and Ema Ushioda, eds. 2021. *Teaching and Researching Motivation* (3rd ed.). Harlow: Longman.
- EHRMAN, Madeline E., Betty L. Leaver and Rebecca L. Oxford. 2003. "A Brief Overview of Individual Differences in Second Language Learning." *System* 31 (3): 313-330. [https://doi.org/10.1016/S0346-251X\(03\)00045-9](https://doi.org/10.1016/S0346-251X(03)00045-9)
- GARDNER, Robert C. 1985. *Social Psychology and Second Language Learning*. London: E. Arnold.
- GARDNER, Robert C. 2007. "Motivation and Second Language Acquisition." *Porta Linguarum* 8: 9-20. <http://hdl.handle.net/10481/31616> [Accessed online on December 1, 2021]
- GARDNER, Robert C. and Richard Clément. 1990. "Social Psychological Perspectives on Second Language Acquisition." In Giles and Robinson 1990, 495-517.
- GILES, Howard and W. Peter Robinson, eds. 1990. *Handbook of Social Psychology*. Chichester, UK: John Wiley and Sons.
- GOCER, Ali. 2014. "The Relationship between Anxiety and Attitude of Students Learning Turkish as a Foreign Language and Their Achievement on Target Language." *Educational Research and Reviews* 9 (20): 879-884. <https://doi.org/10.5897/ERR2014.1784>
- HAIR, Joseph F., William C. Black, Barry J. Babin, Rolph E. Anderson and Ronald L. Tatham. 2006. *Multivariate Data Analysis. Sixth Edition*. England: Pearson Prentice Hall.
- HOLTGRAVES, Thomas. 2004. "Social Desiderability and Self-Reports: Testing Models of Socially Desirable Responding." *Personality and Social Psychology Bulletin* 30(2): 161-172. <https://doi.org/10.1177/0146167203259930>
- HORWITZ, Elaine K. 1986. "Preliminary Evidence for the Reliability and Validity of Foreign Language Anxiety Scale." *TESOL Quarterly* 20(3): 559-562. <https://doi.org/10.2307/3586302>

- HORWITZ, Elaine K., Michael B. Horwitz and Joann A. Cope. 1986. "Foreign Language Classroom Anxiety." *The Modern Language Journal* 70(2): 125-132. <https://doi.org/10.2307/327317>
- HU, Li-tze and Peter M. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives." *Structural Equation Modeling* 6(1): 1-55. <https://doi.org/10.1080/10705519909540118>
- JARIE, Laureane, Carlos Salavera-Bordás, Abel Merino-Orozco and Pablo Usán-Supervía. 2019. "Validación y Confiabilidad de la Versión Francesa de la Escala de Ansiedad Lingüística *Foreign Language Classroom Anxiety Scale* y Aplicado a Estudiantes Franceses: Revisión del Análisis de Horwitz, Horwitz y Cope, Aida y Pérez y Martínez." *Thélème: Revista Complutense de Estudios Franceses* 34(1): 207-225. <https://doi.org/10.5209/thel.61553>
- KIM, Tae-Young and Youngmi Kim. 2021. "Structural Relationship between L2 Learning Motivation and Resilience and Their Impact on Motivated Behaviour and L2 Proficiency." *Journal of Psycholinguistic Research* 50 (1): 417-436. <https://doi.org/10.1007/s10936-020-09721-8>
- KLINE, Rex B. 2015. *Principles and Practice of Structural Equation Modeling*. New York: Guilford P.
- LUSZCZYNSKA, Aleksandra, Manfred Diehl, Benicio Gutiérrez-Doña, Patrik Kuusinen and Ralf Schwarzer. 2004. "Measuring One Component of Dispositional Self-Regulation: Attention Control in Goal Pursuit." *Personality and Individual Differences* 37(3): 555-566. <https://doi.org/10.1016/j.paid.2003.09.026>
- MACINTYRE, Peter D. 1999. "Language Anxiety: A Review of the Research for Language Teachers." In Young 1999, 24-45.
- MACINTYRE, Peter D. and Robert C. Gardner. 1994. "The Subtle Effects of Language Anxiety on Cognitive Processing in the Second Language." *Language Learning* 44(2): 283-305. <https://doi.org/10.1111/j.1467-1770.1994.tb01103.x>
- MANSOOR, Ali, Abdus Samad and Maimoona Iqbal. 2021. "Re-Fueling L2 Learners' Motivation: Exploring ESL Undergraduate Learners' Perceptions about the Re-Motivating Factors of a Public Sector University in Pakistan. The Qualitative Appro." *Journal of the Research Society of Pakistan* 58(1). http://pu.edu.pk/home/journal/14/Vol_58_No.1_2021.html [Accessed online on June 14, 2021]
- MARCOULIDES, George A. and Randall E. Schumacker, eds. 1996. *Advanced Structural Equation Modeling: Issues and Techniques*. Mahwah, NJ: Erlbaum.
- MARSH, Herbert W., John R. Balla and Kit Tai Hau. 1996. "An Evaluation of Incremental Fit Indices: A Clarification of Mathematical and Empirical Properties." In Marcoulides and Schumacker 1996, 315-353.
- MATEOS DE CABO, Eva and Ruth Mateos de Cabo. 2015. "An Application of the English Language Learner Motivation Scale (ELLMS) Among Spanish Primary ELLs." *SSRN Electronic Journal*. <http://dx.doi.org/10.2139/ssrn.2638492>

- MERCER, Sarah and Zoltán Dörnyei. 2020. *Engaging Language Learners in Contemporary Classrooms*. Cambridge: Cambridge UP.
- MORI, Setsuko and Peter Gobel. 2006. "Motivation and Gender in the Japanese EFL Classroom." *System: An International Journal of Educational Technology and Applied Linguistics* 34(2): 194- 210. <https://doi.org/10.1016/j.system.2005.11.002>
- MORTIMORE, Louisa. 2017. "Mindfulness and Language Learning Anxiety in the Bilingual Primary Classroom." *Educación y Futuro: Revista de Investigación Aplicada y Experiencias Educativas* 37: 15-37. <http://hdl.handle.net/11162/166901> [Accessed online on February 11, 2022]
- NOELS, Kimberly A. and Richard Clément. 1996. "Communicating Across Cultures: Social Determinants and Acculturative Consequences." *Canadian Journal of Behavioural Science* 28(3): 214-228. <https://doi.org/10.1037/0008-400X.28.3.214>
- NOELS, Kimberly A., Luc G. Pelletier, Richard Clément and Robert J. Vallerand. 2000. "Why Are You Learning a Second Language? Motivational Orientations and Self-Determination Theory." *Language Learning* 50(1): 57-85. <https://doi.org/10.1111/0023-8333.00111>
- NUNNALLY, Jum C. 1967. *Psychometric Methods*. New York: McGraw-Hill.
- OYOO, Syprine, Peter Mwaura, Theresia Kinai and Josephine Mutua. 2020. "Academic Burnout and Academic Achievement among Secondary School Students in Kenya." *Education Research International* 2020. <https://doi.org/10.1155/2020/5347828>
- RATNER, Bruce. 2009. "The Correlation Coefficient: Its Values Range Between +1/-1, Or Do They?" *Journal of Targeting, Measurement and Analysis for Marketing* 17: 139-142. <https://doi.org/10.1057/jt.2009.5>
- RENNINGER, K. Ann and Suzanne E. Hidi, eds. 2019. *The Cambridge Handbook of Motivation and Learning*. Cambridge: Cambridge UP.
- RYAN, Richard M. and Edward L. Deci. 2000. "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions." *Contemporary Educational Psychology* 25: 54-67. <https://doi.org/10.1006/ceps.1999.1020>
- SALMELA-ARO, Katariina, Noona Kiuru, Esko Leskinen and Jari-Erik Nurmi. 2009. "School-Burnout Inventory (SBI). Reliability and Validity." *European Journal of Psychological Assessment* 25: 48-57. <https://doi.org/10.1027/1015-5759.25.1.48>
- SANSONE, Carol, Danielle M. Geerling, Dustin B. Thoman and Jessi L. Smith. 2019. "Self-Regulation of Motivation: A Renewable Resource for Learning." In Renninger and Hidi 2019, 87-110.
- SCHAUFELI, Wilmar B., Isabel M. Martínez, Alexandra Marqués-Pinto, Marisa Salanova and Arnold B. Bakker. 2002. "Burnout and Engagement in University Students." *Journal of Cross-Cultural Psychology* 33(5): 464-481. <https://doi.org/10.1177/0022022102033005003>
- SCHUNK, Dale H. and Frank Pajares. 2002. "The Development of Academic Self-Efficacy." In Wigfield and Eccles 2002, 15-31.

- SEON-AHN, Hyun and Mimi Bong. 2019. "Self-Efficacy in Learning: Past, Present and Future." In Renninger and Hidi 2019, 63-86.
- TAVAKOL, Mohsen and Reg Dennick. 2011. "Making Sense of Cronbach's Alpha." *International Journal of Medical Education* 2(53). <http://dx.doi.org/10.5116/ijme.4dfb.8dfd>
- TEIMOURI, Yasser, Julia Goetze and Luke Plonsky. 2019. "Second Language Anxiety and Achievement: A Meta-Analysis." *Studies in Second Language Acquisition* 41(2): 363-387. <https://doi.org/10.1017/S0272263118000311>
- TORRES, Kelly M. and Jeannine E. Turner. 2015. "Heritage Language Learners' Perceptions of Acquiring and Maintaining the Spanish Language." *International Journal of Bilingual Education and Bilingualism* 4(1): 1-17. <https://doi.org/10.1080/13670050.2015.1113927>
- WIGFIELD, Allan and Jacquelynne S. Eccles, eds. 2002. *Development of Achievement Motivation*. San Diego, CA: Academic P.
- WONG, Ruth M. H. 2014. "Motivation to Learn English and School Grade Level: The Case of Newly Arrived Hong Kong Students." *Porta Linguarum* 21: 37-50. <https://doi.org/10.30827/Digibug.30481>
- YOU, Chenjing and Zoltán Dörnyei. 2014. "Language Learning Motivation in China: Results of a Large-Scale Stratified Survey." *Applied Linguistics* (August), 1-26. <https://doi.org/10.1093/APPLIN/AMU046>
- YOUNG, Dolly Jesuita, ed. 1999. *Affect in Foreign Language and Second Language Learning: A Practical Guide to Creating a Low-Anxiety Classroom Atmosphere*. Boston, MA: McGraw-Hill.
- ZAREIAN, Gholamreza and Hojat Jodaei. 2015. "Motivation in Second Language Acquisition: A State of the Art Article." *International Journal of Social Sciences and Education* 5 (2): 295-308.
- ZIMMERMAN, Barry J. 1989. "A Social Cognitive View of Self-Regulated Academic Learning." *Journal of Educational Psychology* 82(3): 1-23. <https://doi.org/10.1037/0022-0663.81.3.329>
- ZIMMERMAN, Barry J. 2000. "Self-Efficacy: An Essential Motive to Learn." *Contemporary Educational Psychology* 25(1): 82-91. <https://doi.org/10.1006/ceps.1999.1016>

