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Are Portuguese Higher Education Students Motivated to Study English as a Second/Foreign Language?

Abstract

Being motivated is fundamental for any individual to achieve personal and professional success. In the context of learning in higher education, motivation is crucial for achieving this success. Understanding the motivational state of students is essential for higher education managers and teachers. Understanding students' amotivation, intrinsic and extrinsic motivation can provide vital information to initiate changes in teaching and learning. In this sense, measuring amotivation, intrinsic motivation, and extrinsic motivation allows for understanding students' motivation's general state. This study aims to analyse the motiva-

tion of 145 Portuguese higher education students (70 male and 75 female) aged between 17 and 47 years old who studied a second/foreign language (English) in Portugal during the academic year of 2020/2021. We used the Academic Motivation Scale to measure motivation to study English. The results show that students are not demotivated. The motivation that prevails in the results is intrinsic motivation, and extrinsic motivation was insignificant. This study's results contribute to the literature on motivation to study second languages, especially concerning the need to understand why students are only intrinsically motivated. Are the lessons, the teaching methodologies, the techniques and the contents not able to motivate them?

Keywords: intrinsic and extrinsic motivation, language learning, ESL, EFL, higher education

The quality of teaching is increasingly fundamental to the success of any institution, whatever the level of education. In this sense, students' motivation is essential to increase the quality of the institutions' teaching process to achieve their short, medium and long-term objectives. In this sense, organisations aim to continuously improve the quality of their products and services at the most diverse levels of demand, responsible for providing quality education to their students (Yildiz, 2014). Furthermore, society expects institutions and teachers to safeguard education quality to ensure that future generations adequately prepare for the labour market (Hill, 1995). For this reason, experts in education in general and the quality of education, in particular, have been trying to improve the teaching and learning process at various levels and grades and in different curricular areas (Langstrand, Cronemyr, & Poksinska, 2015). In this sense, teachers must arouse curiosity in students, helping them learn that what seems complicated is not always difficult. However, unfortunately, the most ingrained teaching methods are not always those that most attract the student (Lee & Hammer, 2011). English as a second/foreign language (ESL/EFL) teaching and learning share a familiar territory of interests, mainly associated with successful results and educational outcomes. Success, which may be represented under the very shape of good marks and adequate knowledge acquisition, is utterly dependent on motivation. This attitude-related aspect is the key to teaching and learning successfully and effectively (Gardner, 2014; Mary, 2001; Ushida, 2005). Indeed, "[m]otivation is a key aspect of second language learning" (Lasagabaster et al., 2014, p. 1).

Considering the stated problem and its consequent importance, both in academic terms and for society in general, this article aims to measure the initial motivation of higher education students to study L2. The results of this research may contribute to educational researchers understanding the students' motivational status and, accordingly, implementing strategies to engage students in learning these areas of knowledge, namely English as a second/foreign language.

Literature Review

Motivation in ESL/EFL Learning

The success of a second or foreign language learning depends on various factors. These include age, supportive contexts, opportunities to practise, the quality of formal instruction and, of course, motivation (Pinter, 2011; Özütürk & Hürsen, 2014; García-Sampedro & Prado, 2020). We could also add several other factors besides motivation that contribute to the success of learning a second/foreign language: an early start in an optimal environment, opportunities to practise, explicit instruction and rich exposure (Pinter, 2011). However, there are a considerable and relevant number of theories of L2 acquisition that have contemplated the significance of motivation (Fernández & Cañado, 2001; Madrid, 2002). Indeed, motivation and related attitudinal aspects significantly impact students' second/foreign language learning (Harmer, 2007; Lai, 2013). Thus, according to the literature, positive attitudes and motivation are essential not only for children (young learners) (Heining-Boynton & Haitema, 2007; Nikolov, 1999) but it is also relevant within the context of EFL learning by university students (Özütürk & Hürsen, 2014). Several motivational theories contribute to comprehending this matter better (Madrid, 2002). Motivation has been studied as a complex idea, integrating additional elements (Madrid, 2002) and comprehending several theories. Among these is the very recent Directed Motivational Currents Theory by Dörnyei (Dörnyei et al., 2014; Lasagabaster et al., 2014). In detail, regarding this theory, its authors describe a DMC "[...] as a strong, motivational drive capable of stimulating and supporting long-term behaviour, such as learning a foreign/second language [...]" (Dörnyei et al., 2014, p. 9). Being strong "[...] pathway which occurs when a variety of time and context-related factors come together in an individual to prompt a firm decision to pursue a goal/vision which is considered personally significant [...]" (Dörnyei et al., 2014, p. 27). A DMC is therefore considered a reliable motivational tool in the classroom (Dörnyei et al., 2014), which should be highlighted when studying motivation in EFL/ESL.

Such theory results from several other motivational thinking-related theories, namely the L2 Motivational Self System (Dörnyei et al., 2014), Dynamic Systems Theory and the Future Time Perspective (Lasagabaster et al., 2014). Jeremy Harmer also defines Motivation in his book *The Practice of English Language Teaching* (Harmer, 2007), the author defines it as "[...] some kind of internal drive which pushes someone to do things in order to achieve something" (Harmer, 2007, p. 51). The author also refers to the very extrinsic and intrinsic motivation, referring to the former as something that corresponds to external goals or compensations and the latter to aspects closer to an individu-

al's feelings (Harmer, 2007). Harmer, however, highlights that most studies have concluded that intrinsic motivation is critical in the learning process (Harmer, 2007). The author states that if the learning motivation is mainly extrinsic, success will be harder to attain without intrinsic motivation (Harmer, 2007). Indeed, such intrinsic motivation enhancement appears to be utterly relevant when it comes to language learning (Williams & Burden, 1997).

Thus, there are several motivation-related theories and motivation, whether intrinsic or extrinsic, is considered to play an essential role in students' performance within the context of ESL/EFL. Therefore, this article presents the motivation dimensions in the following section, which is essential to address this article's focus.

Motivation Dimensions

Motivation is a theoretical construct used to explain the direction, intensity, persistence, and quality of particular human behaviour (Maehr & Meyer, 1997), presenting itself in the literature as a variable in both magnitude and orientation. Motivation may also be defined as a conceptual construction that explains the individual's thoughts and behaviour (Dornyei, 2001). Whether the effects of performance outcomes are intrinsic or extrinsic, motivation is a mediating variable that explains various behaviour types in various contexts and environments (Maehr & Meyer, 1997). For example, motivation is considered a key determinant of learning in education and explains the attention and effort students devote to the activities they are engaged in (Brophy, 2013). In this context, it is up to the teacher to manage the students' motivation, increasing its levels to generate positive results in the learning process (Harlen & Deakin Crick, 2003). Nonetheless, keeping motivation levels high is not only dependent on the teacher. The students, intrinsically, may also increase their motivation towards learning by using self-regulatory strategies that will make them successful in their learning, such as establishing goals, controlling their behaviour so they can pay more attention in classes, dealing with distracting factors, only to name a few (Dembo & Seli, 2016).

There is some controversy about the impact of different motivation types on learning, discussing which type of motivation (intrinsic or extrinsic) allows for better learning rates (Ryan & Deci, 2000b). In this sense, it is fundamental to promote the student's desire to carry out a learning activity for the simple pleasure experienced in it and for the usefulness and perceived satisfaction derived from its motivational aspect (Vallerand et al., 1992). In order to more fully understand human behaviour, Deci and Ryan (1985) proposed the concept of Amotivation (AMOT), which is interrelated with the conditions of despondency, indifference, disinterest, and a lack of self-belief, exhaustion or depression

(Balkis, 2018). AMOT reflects a lack of interest in self-fulfilment or a generalised lack of willingness to engage in a specific task. As a result, students do not feel empowered or involved in attaining their respective objectives (Ryan and Deci, 2000b). Therefore, this condition identifies a state in which there is a lack of expectations regarding actions and their consequences (Barkoukis et al., 2008; Cheon et al., 2016) to the extent that the subject displays a lack of interest in dealing with a task as there is a lack of belief that the outcome shall be that sought after, whether stemming from ineptitude and incompetence (Cheon et al., 2016). According to Deci and Ryan (1985), this dimension arose from failure's regularity. It sustains negative feedback that makes individuals assume that a particular result is unattainable; however, regardless of how much they wish to achieve it (Dembo & Seli, 2016; Cheon et al., 2016).

Extrinsic motivation (EMOT) interrelates with the level of individual participation in a particular task not out of their own will but rather due to external motives (Reiss, 2012), for rewards, or advantages interrelated with their performance, competition against third parties, with learning a means to attain a specific and previously defined goal or objective (Deci & Ryan, 2000; Tokan & Imakulata, 2019). EMOT contains the four different SDT Continuum levels following rising levels of SDT (Deci & Ryan, 1985; Deci, Koestner, & Ryan, 2001). EMOT has three levels of increasing self-determination, which are external regulation (EMER), regulation by introjection (EMIN), and regulation by identification (EMID) (Deci & Ryan, 1985; Deci et al., 2001). However, EMER is the one that best characterises the EMOT. The individual performs a specific task because external motivation moves him to avoid punishment or achieve a particular reward, acting by external pressures that do not consider his interests, desires, and goals. This is the most diminutive autonomous form of motivation, regulated by external contingencies such as teachers' and peers' incentives in the learning process (Ryan & Deci, 2000a). In EMIN, there is already a certain degree of internalisation of motives, but the person still acts more out of obligation or pressure than out of their own will. For example, students may behave in a certain way because they feel pressured by others rather than their choices and desires (Ryan & Deci, 2000a). In EMID, the person already identifies with the value of the activity to be performed, accepting the importance of specific actions, with a certain autonomy in decisions. Applying this extrinsic motivation typology can be verified when students identify with a specific school activity, accepting it voluntarily by regulating their behaviour to perform it (Deci et al., 2001). Intrinsic motivation (IMOT) measures the level of individual participation in a task that stems from internal reasons, being oneself, curiosity, the will to live and overcoming a particular challenge (Orsini et al., 2016), in summary, the extent to which participating in a task represents an end in itself and intrinsically related to the level of individual willingness (Pintrich, 2003). IMOT is subdivided into three unordered subdi-

mensions: intrinsic motivation for knowing/knowledge—to know—(IMTK), which assesses the desire to perform a particular activity for the pleasure and satisfaction experienced during learning; intrinsic motivation for achievement—to accomplish—(IMTA) which assesses the desire to perform an activity for the pleasure and satisfaction in accomplishing or creating something and intrinsic motivation to experience stimulation—to stimulate—(IMTS) which measures the desire to perform an activity that stimulates the individual who engages in it (Deci & Ryan, 2008). SDT, applied to teach, focuses more on whether students' motivation is more autonomous or controlled, predicting outcomes related to student's studies in the learning context, thus covering more the meaning, relevance, and persistence they give to the learning process rather than the total amount of motivation they experience (Vansteenkiste, 2006; Lens, & Deci, 2006). The different types of motivation resulting from SDT have been used in several studies and at different educational levels with positive results where experience, the relevance of learning and intention to complete the course have been evidenced. Conversely, other studies have revealed negative results of motivation where the main aspects include the intention to abandon the studies (Hardre & Reeve, 2003) and effective abandonment (Vallerand, 1997). Given the robustness evidenced over time in the literature, one of the most widely used SDT-based instruments for measuring student motivation is the Academic Motivation Scale (AMS), designed by Vallerand et al. (1989).

Research Gap and Model Proposed

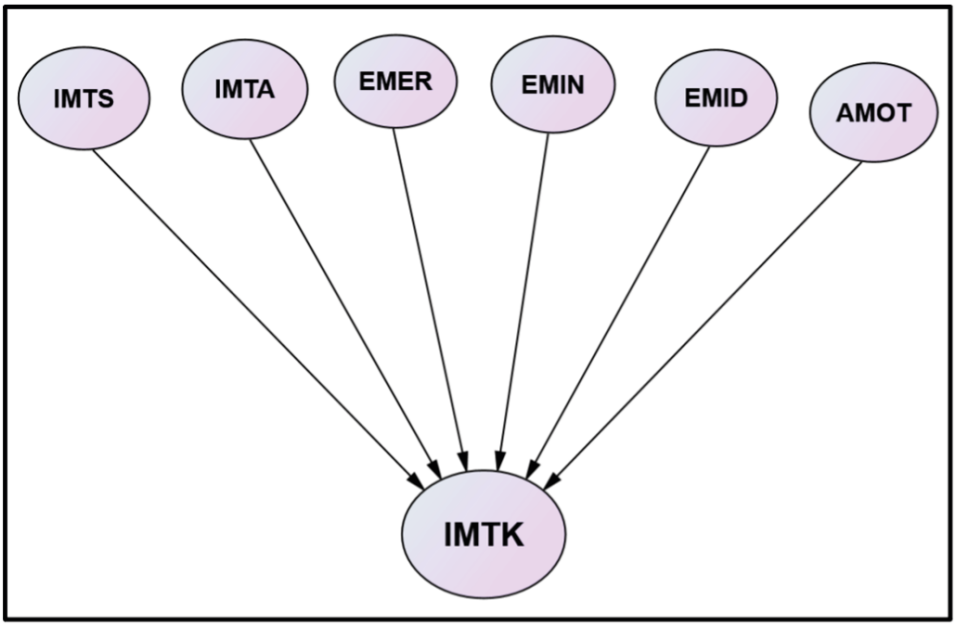
To study students' motivation levels, we based our research model on the three central dimensions of motivation (AMOT, IMOT and EMOT). Based on previous literature, Academic Motivation Scale (Vallerand et al., 1989) and Ryan and Deci's Self-Determination Theory (Ryan & Deci, 2000b), we defined the research hypotheses presented in Figure 1:

- H1: Intrinsic Motivation to Stimulate (IMTS) has a positive influence on Intrinsic Motivation to Know (IMTK);
- H2: Intrinsic Motivation to Accomplish (IMTA) has a positive influence on Intrinsic Motivation to Know (IMTK);
- H3: Extrinsic Motivation External Regulation (EMER) has a positive influence on Intrinsic Motivation to Know (IMTK);
- H4: Extrinsic Motivation Introjected Regulation (EMIN) has a positive influence on Intrinsic Motivation to Know (IMTK);
- H5: Intrinsic Motivation Identified Regulation (EMID) has a positive influence on Intrinsic Motivation to Know (IMTK);

– H6: Amotivation (AMOT) has a negative influence on Intrinsic Motivation to Know (IMTK).

Figure 1

Research Model (Authors's Own Work)



Materials and Methods

Participants

The participants were Portuguese students between 17 and 47 years old, average age of 21,32 years, 48% male and 52% female. These students had, in general, previous English language learning experiences from secondary school. Therefore, 145 questionnaires were collected from students studying English in Portuguese higher education institutions, namely the Polytechnic Institute of Porto and the Polytechnic Institute of Bragança.

Empirical Study and Statistical Analyses—Confirmatory Factorial Analysis

In this case study, we used a quantitative methodology. A questionnaire survey that applied the Academic Motivation Scale (AMS) by Vallerand et al. (1989) was given to students studying English as a second language in higher education. The original questionnaire had the following general starting question: "Why do you go to college?" It has been translated and adapted to "Why would I spend my time studying English?" The 28 items of the scale were translated and adjusted to be used by students who studied English. The scale's adaptation did not require many changes and adapted to the desired context, using almost equal affirmations in practically all the questions. The original AMS 7-point Likert scale, which varies from "Not fully corresponds to" and "Matched in full," was maintained and all variables belonging to AMOT, EMOT and IMOT. The data analysis method was based on estimating two structural models, one with dimension and factorial loading results and the other with factorial loadings above 0.5. Confirmatory Factor Analysis (CFA) was used, estimating two structural models with dependent variable IMTK using structural equations in AMOS 27 software.

To check whether the measurement model was statistically valid and significant, we analysed the measurement model's loadings and errors that characterise this study (Sarstedt et al., 2014, Hair et al., 2010). The proposed model's estimation was performed using the structural equation model (SEM) and SPSS/AMOS 27 software. The final model tested returned the following statistical findings (χ^2 = 619.032, p = 0.001, df = 215, χ^2/df = 2.879, RMSEA = 0.069, SRMR = 0.109, NFI = 0.901, GFI = 0.918, AGFI = 0.910 and CFI = 0.949), displaying a good level of suitability across practically all evaluation indicators (Hair et al., (2010). As regards the convergent validity of the model (Table 1), we evaluated further three metrics: Average Variance Extracted (AVE), Composite Reliability (CR) and Cronbach's Alpha (α). According to the literature (Taber, 2018), we estimated a model composed of six dimensions named Intrinsic Motivation to Stimulate (IMTS), Intrinsic Motivation to Accomplish (IMTA), Extrinsic Motivation External Regulation (EMER), Extrinsic Motivation Introjected Regulation (EMIN), Intrinsic Motivation Identified Regulation (EMID and Amotivation (AMOT). To confirm the constructs' reliability, we calculated Cronbach's Alpha (α) that there is an excellent total internal consistency (α = 0.935) for the sample of 145 respondents. The internal consistency for all items that make up the model is demonstrated by Cronbach's Alpha (α) higher than 0.8, revealing validity and internal and explanatory reliability. Cronbach's Alpha (α) is a widely used statistical technique cited by several authors to demonstrate that the tests and scales built or adopted are relevant in explaining the investigation results (Hardre & Reeve, 2003). It should be noted that the values of Composite Reliability (CR), Average Variance Extracted (AVE), and

Cronbach's Alpha (α) presented were obtained after the removal of items with a factorial load below 0.5. The remotion of these items allowed a substantial increase in all the robustness measures presented in Table 1.

Table 1

Validity and Reliability of Constructs

Constructs	Items	Loadings	Composite Reliability	Average Variance Extracted	Cronbach Alpha
IMTS	IMTS1	0.841	0.963	0.728	0.896
	IMTS2	0.820			
	IMTS3	0.854			
	IMTS4	0.798			
IMTA	IMTA1	0.820	0.864	0.616	0.857
	IMTA2	0.839			
	IMTA3	0.637			
	IMTA4	0.827			
EMER	EMER1	0.386	0.819	**0.323**	0.799
	EMER2	0.568			
	EMER3	0.907			
	EMER4	0.925			
EMIN	EMIN1	0.769	0.904	0.706	0.925
	EMIN2	0.727			
	EMIN3	0.919			
	EMIN4	0.928			
EMID	EMID1	0.786	0.931	0.822	0.909
	EMID2	0.721			
	EMID3	0.893			
	EMID4	0.714			
AMOT	AMOT2	0.996	0.843	0.653	0.809
	AMOT3	0.585			
	AMOT4	0.791			

Constructs	Items	Loadings	Composite Reliability	Average Variance Extracted	Cronbach Alpha
IMTK	IMTK1	0.953	0.926	0.762	0.922
	IMTK2	0.950			
	IMTK3	0.894			
	IMTK4	0.662			

AMOT=Amotivation, **EMER=**Extrinsic Motivation External Regulation, **EMIN=**Extrinsic Motivation Introjection, **EMID=**Extrinsic Motivation Identification, **IMTS=**Intrinsic Motivation to Stimulate, **IMTA=**Intrinsic Motivation to Accomplish, **IMTK=**Intrinsic Motivation to Know

* Dimension EMER was removed because AVE results were lower than 0.5

To perform the CFA, two models were tested, one with all the variables corresponding to the six dimensions under analysis (Model 1) and another removing dimension and respectively variables whose factor loadings were lower than 0.5 (Model 2) (Leguina, 2015). Table 2 shows the results of the two models tested, with Model 1 presenting a modest adjustment, which was improved by removing the dimension EMER.

Table 2

Quality Models Indices

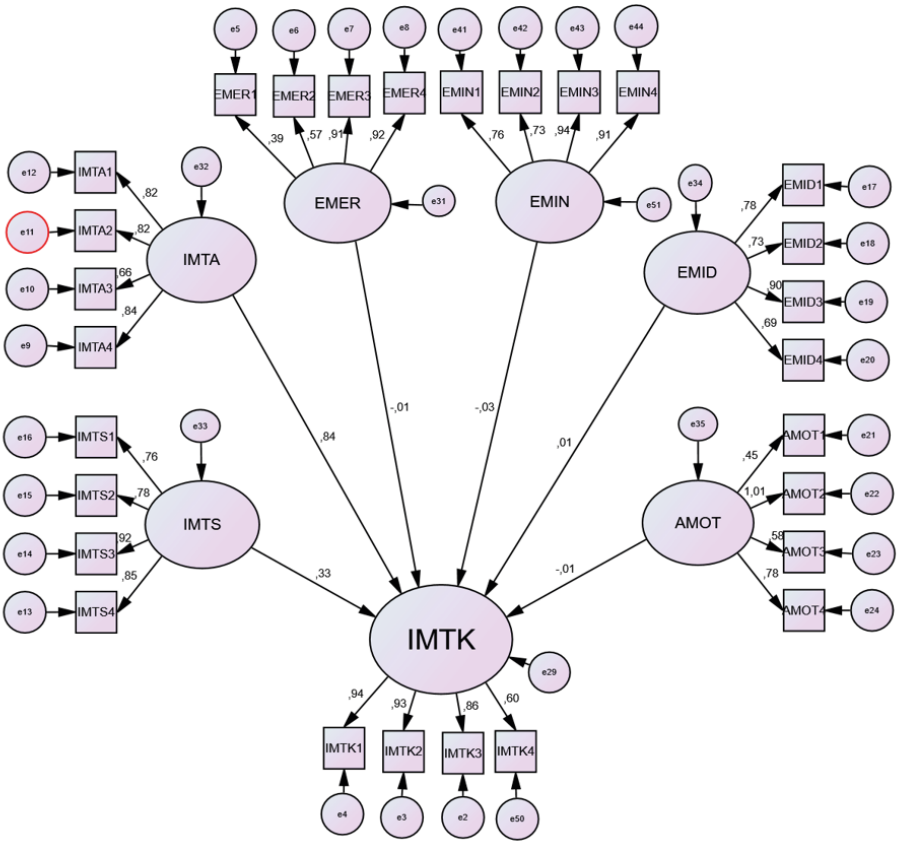
Adjustment indices	Model 1 7 Constructs / 28 variables	Model 2 6 Constructs / 24 variables
χ^2 Satorra Bentler	1156.505	619.032
Df	344	215
p-value	$p < 0.001$	$p < 0.001$
$\frac{\chi^2}{df}$ Satorra Bentler	3.362	2.879
RMSEA	0.115	0.069
SRMR	0.225	0.109
NFI	0.685	0.901
GFI	0.709	0.918
AGFI	0.740	0.910
CFI	0.751	0.949

Results

The Final Research Model is presented in Figure 2. One can see the standardised path coefficients in which the model's IMOT dimensions (IMTA and IMTS) were significant ($p < 0.001$) with an impact on the dependent variable IMTK. The final research model allowed us to validate that IMTS ($\beta = 0.332$; $p < 0.05$) and IMTA ($\beta = 0.839$; $p < 0.001$) influence the IMTK of students who study a second language, namely English, in a higher education context. We also tested if EMOT dimensions like EMER, EMIN and EMID influence IMTK, but our results reveal non-statistical significance ($p > 0.05$). After analysing the hypotheses tested in the measurement model, we found that only H1 and H2a were validated. The hypotheses H3, H4, H5 and H6 formulated were not validated in the final model.

Figure 2

Research Model (Authors's Own Work)



In Table 3, we may observe the summary of the hypotheses tested following the best research model for each analysis stage and the results obtained that conclude the variation that occurred in IMTK. The structural results point to the dimensions of IMTS and IMTA as holding direct statistically significant influences over the IMTK of students. The dimensions of EMER, EMIN, EMID and AMOT have no statistically significant influence over the IMTK of students. Our results validated the formulated research hypotheses H1 and H2. H3, H4, H5, and H6 had no statistical significance ($p > 0.05$).

Table 3

Research Hypotheses and Statistical Results

Hypotheses	Relationship	Regression Coefficients	Standard Error	t	*p*-value	Result
H1	IMTS→ IMTK	.332	.041	6.173	<0.001	Supported
H2	IMTA→ IMTK	.839	.073	3.197	<0.001	Supported
H3	EMER→ IMTK	–.001	.085	–.259	>0.05	Not Supported
H4	EMIN→ IMTK	–.028	.012	–.570	>0.05	Not Supported
H5	EMID→ IMTK	.011	.076	.208	>0.05	Not Supported
H6	AMOT→ IMTK	–.011	.100	–.236	>0.05	Not Supported

Discussion

According to the literature, students' motivations can vary between amotivation, intrinsic and extrinsic motivation. In this sense, learners can experience motivation according to Self-Determination Theory (Ryan & Deci, 2000b), which is assumed to be one of the primary theoretical references addressing this critical subject. Motivation can manifest itself at various levels and intensities that affect student behaviour, involving not only the student themselves (intrinsic motivation) but also the education system as a whole, the family, and the surrounding social environment, among other personal, intrapersonal, interpersonal, contextual and situational elements (extrinsic motivation) (Vallerand & Blssonnette, 1992). Motivation is closely related and linked to student learning (Chiu & Chow, 2010; Gonzalez' & Paoloni, 2015; Yen et al., 2011) and has been scientifically evaluated by several authors due to the importance of the consequences it can cause in the learning process (Deci & Ryan, 2000). The motivation to learn a second language depends on several factors and social

contexts. According to the literature, it is greatly influenced by the way courses are delivered ("explicit instruction") (Pinter, 2011), the quality of instruction and the attitudes it elicits in students (Heining-Boynton & Haitema, 2007; Nikolov, 1999). However, according to the results obtained from our study, the students' motivation levels who participated in this study were influenced primarily by personal motivation, which is relevant to their identity and emotional satisfaction (Dörnyei et al., 2014), thus supporting the studies that highlight the importance of intrinsic motivation. The student's behaviour and attitude are also central to increasing their motivation to learn the second language (Lasagabaster et al., 2014). In the present study, students notably revealed the individual ability to self-motivate, corroborating studies on the power of personal motivation rather than external motivation. On the other hand, the fact that extrinsic motivation was not relevant in our study shows that students learning a second language develop a certain mentality that allows them to reduce levels of amotivation and increase levels of intrinsic motivation obtained through teaching methods that employ different approaches in the teaching-learning process (Balkis, 2018). In other studies, however, extrinsic motivation surpasses intrinsic motivation regarding EFL students, possibly due to specific external reasons such as job-related purposes (Khazaie & Mesbah, 2014; Nuraeni, 2020). These referred external reasons do not seem to have significantly impacted the surveyed students, which again may explain the higher levels of intrinsic motivation.

It should also be considered that this study collected the very opinions of students during the academic year of 2020/2021, whose pandemic affected the teaching institutions and overall classes. EFL was indeed no different. Accordingly, the results obtained by this study may have been influenced by such extraordinary teaching and learning context, characterised by its remote reality. Hence, because students could not contact a more direct or face-to-face teaching/learning context (where praise and closer guidance from the teacher, for example, would probably be more present), the teaching methodologies were different and as diverse as the remote reality allow. Again, this aspect alone can explain that these students did not seem to be clearly or highly motivated extrinsically, where methodologies and didactic approaches could have created a more significant impact.

On the other hand, this situation may also explain this study's results regarding students' seeming more intrinsically motivated, which may result from their inner movement and focus on their motivation. Furthermore, job perspectives and other external factors may not have significantly impacted the surveyed students in this study. The pandemic context, as experimented, may have redirected the students into some other objectives, consequently more focused on internal aspects such as self-accomplishment, for example, rather than job perspectives.

Additionally, one can conclude that the teaching methodologies within a remote teaching and learning context were not sufficiently attractive so that students would feel more extrinsically motivated. Furthermore, we consider it essential to study such aspects regarding the possible didactic methodologies that may motivate the EFL/ESL students, whether in a more remote context or a face-to-face one.

More precisely, more studies should be conducted to evaluate the latest results regarding students' motivation to learn English as a foreign language in a distant context. For example, although Jiang et al. (2023) conclude that EFL students' motivation may increase within the online context, and Arrosagaray et al. (2022) point out a higher extrinsic motivation within a distance learning context, it is also recommended further studies as the dominant type of motivation may change (Arrosagaray et al., 2022). Moreover, Ozer and Badem (2022) consider cross-cultural studies critical to highlight language learners' motivation in blended and distance learning contexts (Ozer & Badem, 2022).

Conclusion

Our study aimed to measure higher education students' motivation to learn a language other than their own, that is, a second/foreign language. It is universally accepted that academic motivation is fundamental to learning, whether intrinsic or extrinsic. Our study measured students' amotivation, intrinsic motivation and extrinsic motivations. We found that only intrinsic motivation proved to influence these students' learning process, which consists of an exciting conclusion due to the importance of other external factors, as pointed out by other previously referred authors. Amotivation and extrinsic motivation were not statistically significant, which showed that only intrinsic motivation assumed a possible influence on intrinsic motivation to know English as a second/foreign language in the higher education context. Furthermore, we found that students' general state of motivation was relatively preponderant on the level of personal motivation rather than external motivation. Using the Academic Motivation Scale and the Self-Determination Theory allowed us to assess which motivation levels have a relevant influence on the learning process of these students.

This study contributes to the literature regarding the second/foreign language learning process in higher education contexts, allowing us to understand which dimensions affect students' behaviour, attitude and motivation. Higher education institutions should take advantage of these results to adopt methodologies capable of promoting and increasing students' motivation. The fact that the

enquired students were only intrinsically motivated shows that external factors such as teachers, teaching tools, classroom conditions, classmates, friends, family members, and job perspectives, among many other extrinsic factors, do not motivate them. Therefore, higher education institutions should interpret these results as an opportunity to continuously improve their teaching processes to provide a quality academic service to help students have a professional future with more positive and ambitious prospects in the labour market.

We started our study with a question, also titled the present article. Our answer to it, based on the results obtained and the reflections they allow us to make regarding this specific issue, is that it is difficult to provide a self-assuring and permanent answer regarding each learner's approach to their learning. However, the study results made us realise the importance of continuously innovating in language learning motivation in higher education, be it with more effective and innovative methodologies, matching the current challenges of online learning and digital technology-based learning resources, or paying more attention to the individual needs and particularities of learners.

To sum up, we conclude that regardless of the studies and analysis of some authors who consider motivation to be highly dependent on extrinsic factors, such as how courses are delivered, among other previously referred aspects (Pinter, 2011), our study, however, concludes that the Portuguese university students who study English and who answered our questionnaire consider their motivation to be more intrinsic. This conclusion highlights the reality regarding students' motivation to study English as a second/foreign language. Furthermore, it highlights how important it may be for teachers and teaching institutions to invest in their courses and teaching/learning contents and didactic methodologies to improve students' motivation and academic results so that extrinsic motivation can increase and succeed.

Also, there should be more studies that could include more university students learning English as a second/foreign language to understand and evaluate whether intrinsic motivation is a dominating reality. Finally, we want to add that the present study has some limitations, namely that it does not cover a significant number of university students learning English from different courses resulting in a particular limitation to work in terms of extrapolation of results.

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References

Arrosagaray, M., González-Peiteado, M., Pino-Juste, M., & López, B. (2022). Adult students' motivational profiles in classroom, blended, and distance language learning. *The International Journal of Adult, Community and Professional Learning, 30*, 1–16. https://doi.org/10.18848/2328-6318/CGP/v30i01/1-16

Balkis, M. (2018). Academic amotivation and intention to school dropout: The mediation role of academic achievement and absenteeism. *Asia Pacific Journal of Education, 38*(2), 257–270.

Barkoukis, V., Tsorbatzoudis, H., Grouios, G., & Sideridis, G. (2008). The assessment of intrinsic and extrinsic motivation and amotivation: Validity and reliability of the Greek version of the Academic Motivation Scale. *Assessment in Education: Principles, Policy & Practice, 15*(1), 39–55.

Brophy, J. E. (2013). *Motivating students to learn*. Routledge.

Cheon, S. H., Reeve, J., & Song, Y. G. (2016). A teacher-focused intervention to decrease PE students' amotivation by increasing need satisfaction and decreasing need frustration. *Journal of Sport and Exercise Psychology, 38*(3), 217–235.

Chiu, M. M., & Chow, B. W. Y. (2010). Culture, motivation, and reading achievement: High school students in 41 countries. *Learning and Individual Differences*, *20*(6), 579–592.

Deci, E. L., Koestner, R., & Ryan, R. M. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of Educational Research, 71*(1), 1–27.

Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, *19*(2), 109–134.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry, 11*(4), 227–268.

Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological wellbeing across life's domains. *Canadian Psychology/Psychologie Canadienne, 49*(1), 14–23. https://doi.org/10.1037/0708-5591.49.1.14

Dembo, M. H., Seli, H. (2016). *Motivation and learning strategies for college success: A focus on self-regulated learning.* Routledge.

Dörnyei, Z., & Muir, Ch., & Ibrahim, Z. (2014). Directed motivational currents: Energising language learning through creating intense motivational pathways. In D. Lasagabaster, A. Doiz & J. M. Sierra (Eds.), *Motivation and foreign language learning: From theory to practice* (pp. 9–29). John Benjamins Publishing Company.

Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge University Press.

Fernández, D. M., & Cañado, M. L. P. (2001). Exploring the student's motivation in the EFL class. *Present and Future Trends in TEFL, 12*, 321–364.

García-Sampedro, M., & Prado, S. A. (2020). Affective and motivational factors in English as a second language in Spain. *Journal of Education Culture and Society, 11*(1), 163–173.

Gardner, R. C. (2014). Attitudes and motivation in second language learning. In *Bilingualism, multiculturalism, and second language learning* (pp. 63–84). Psychology Press.

Gonzalez, A., & Paoloni, P.-V. (2015). Perceived autonomy-support, expectancy, value, metacognitive strategies and performance in chemistry: A structural equation model in undergraduates. *Chemistry Education Research and Practice*, *16*(3), 640–653.

Hair, J. F. Jr., Black W. C., Barry, J. B., & Rolph, E. A. (2010). *Multivariate data analysis*. Pearson Prentice Hall.

Hardre, P. L., & Reeve, J. (2003). A motivational model of rural students' intentions to persist in, versus drop out of, high school. *Journal of Educational Psychology, 95*(2), 347–356.

Harlen, W., & Deakin Crick, R. (2003). Testing and motivation for learning. *Assessment in Education: Principles, Policy & Practice, 10*(2), 169–207.

Harmer, J. (2007). *The practice of English language teaching*. Pearson Education Limited.

Heining-Boynton, A. L., & Haitema, T. (2007). A ten-year chronicle of student attitudes toward foreign language in the elementary school. *The Modern Language Journal, 91*(2), 149–168.

Hill, F. M. (1995). Managing service quality in higher education: the role of the student as primary consumer. *Quality Assurance in Education, 3*(3), 10–21.

Khazaie, Z., & Mesbah, Z. (2014). The relationship between extrinsic vs Intrinsic motivation and strategic use of language of Iranian Intermediate EFL learners. *Theory and Practice in Language Studies, 4*(1), 99–109. https://doi.org/10.4304/tpls.4.1.99-109

Jiang, P., Namaziandost, E., Azizi, Z., & Razmi, M. (2023). Exploring the effects of online learning on EFL learners' motivation, anxiety, and attitudes during the COVID-19 pandemic: A focus on Iran. *Current Psychology, 42*, 2310–2324.

Lai, H.-Y. T. (2013). The motivation of learners of English as a foreign language revisited. *International Education Studies*, *6*(10), 90–101.

Langstrand, J., Cronemyr, P., Poksinska, B. (2015). Practise what you preach: Quality of education in education on quality. *Total Quality Management & Business Excellence, 26*(11–12), 1202–1212.

Lasagabaster, D., Sierra, J. M., & Doiz, A. (2014). *Motivation and foreign language learning.* John Benjamins Publishing Company.

Lee, J. J., & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic Exchange Quarterly, 15*, 1–5.

Leguina, A. (2015). A primer on partial least squares structural equation modeling (plssem). *International Journal of Research & Method in Education, 38*(2), 220–221. https://doi.org/10.1080/1743727X.2015.1005806

Madrid, D. (2002). The power of the FL teacher's motivational strategies. *Cauce, 25*, 369–422.

Maehr, M. L., & Meyer, H. A. (1997). Understanding motivation and schooling: Where we've been, where we are, and where we need to go. *Educational Psychology Review, 9*(4), 371–409.

Mary, M. (2001). Situating second language motivation. In *Motivation and second language acquisition* (pp. 69–91). Natl Foreign Lg Resource Ctr.

Nikolov, M. (1999). "Why do you learn English?" "because the teacher is short." A study of Hungarian children's foreign language learning motivation. *Language Teaching Research*, *3*(1), 33–56.

Nuraeni, N. (2020). Understanding EFL students' motivation to learn: Why do you study English? *Lingua Scientia Jurnal Bahasa, 12*(1). https://doi.org/10.21274/ls.2020.12.1.51-70

Orsini, C., Evans, P., Binnie, V., Ledezma, P., & Fuentes, F. (2016). Encouraging intrinsic motivation in the clinical setting: Teachers' perspectives from the self-determination theory. *European Journal of Dental Education, 20*(2), 102–111.

Ozer, O., & Badem, N. (2022). Student motivation and academic achievement in online EFL classes at the tertiary level. *LEARN Journal: Language Education and Acquisition Research Network, 15*(1), 361–382.

Özütürk, G., & Hürsen, Ç. (2014). Determination of university students' motivation in EFL classroom. *Procedia—Social and Behavioral Sciences, 116*, 7–12.

Pinter, A. (2011). *Children learning second languages*. Springer.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95*(4), 667–686. https://doi.org/10.1037/0022-0663.95.4.667

Reiss, S. (2012). Intrinsic and extrinsic motivation. *Teaching of Psychology, 39*(2), 152–156. https://doi.org/10.1177/0098628312437704

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54–67.

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68.

Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair Jr, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy, 5*(1), 105–115.

Taber, K. S. (2018). The use of Cronbach's Alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(6), 1273–1296.

Tokan, M. K., & Imakulata, M. M. (2019). The effect of motivation and learning behaviour on student achievement. *South African Journal of Education, 39*(1), 1–8. https://doi.org/10.15700/saje.v39n1a1510

Ushida, Eiko. (2005). The role of students' attitudes and motivation in second language learning in online language courses. *CALICO Journal,* 23, 49–78. https://doi.org/10.1558/cj.v23i1.49-78.

Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In *Advances in Experimental Social Psychology* (pp. 271–360). Elsevier.

Vallerand, R. & Blais, M. & Brière, N. & Pelletier, L. (1989). Construction et validation de l'échelle de motivation en éducation (EME). *Canadian Journal of Behavioural Science-revue Canadienne Des Sciences Du Comportement,* 21, 323–349. https://doi.org/10.1037/h0079855.

Vallerand, R. J., & Bissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality, 60*(3), 599–620.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement, 52*(4), 1003–1017.

Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologist, 41*(1), 19–31.

Williams, M., & Burden, R. (1997). Psychology for language teachers: A social constructivist approach. Cambridge University Press.

Yen, H.-C., Tuan, H.-L., & Liao, C.-H. (2011). Investigating the influence of motivation on students' conceptual learning outcomes in web-based vs classroom-based science teaching contexts. *Research in Science Education, 41*(2), 211–224.

Yildiz, S. (2014). Total quality management & business excellence service quality evaluation in the school of physical education and sports: An empirical investigation of students' perceptions. *Total Quality Management and Business Excellence, 25*, 37–41.