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Do Flow, Enjoyment and Anxiety emerge equally in English Foreign Language Classrooms as in other Foreign Language Classrooms?

O Fluxo, o Prazer e a Ansiedade surgem igualmente nas salas de aula de inglês como em outras salas de aula de língua estrangeira?

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ABSTRACT: The present study focused on differences in intensity of Foreign Language Enjoyment (FLE), Foreign Language Classroom Anxiety (FLCA), and proportion of time in a state of flow among 761 English FL learners and 825 FL learners of Languages Other Than English (LOTE). Participants in the LOTE group reported significantly higher levels of FLE and a higher proportion of class time in a state of flow, as well as lower levels of FLCA than the EFL group – although the effect size was very small. This suggests that the global status and prestige of English does not mean that learners around the world enjoy the classes more, spend more time in a state of flow or experience less anxiety. The relationships between FLE, FLCA and proportion of class time in a state of flow were also found to be higher in the LOTE group, suggesting stronger emotional involvement.

KEYWORDS: Foreign Language Enjoyment, Foreign Language Classroom Anxiety, Flow, English, Languages Other Than English (LOTE).

RESUMO: O presente estudo enfocou as diferenças na intensidade de prazer de Língua Estrangeira (FLE), Ansiedade de Sala de Aula de Língua Estrangeira (FLCA) e proporção de tempo em um estado de fluxo entre 761 alunos FL de Inglês e 825 alunos de Línguas Diferentes do Inglês (LOTE). Os participantes do grupo LOTE relataram níveis de FLE significativamente mais altos e uma proporção maior de tempo de aula em um estado de fluxo, bem como níveis mais baixos de FLCA do que o grupo EFL,

embora o tamanho do efeito fosse muito pequeno. Isso sugere que o status global e o prestígio do inglês não significa que os alunos ao redor do mundo aproveitem mais as aulas, passem mais tempo em um estado de fluência e experimentem menos ansiedade. As relações entre FLÊ, FLCA e proporção do tempo de aula em um estado de fluxo também foram encontradas como maiores no grupo LOTE, sugerindo maior envolvimento emocional.

PALAVRAS-CHAVE: Apreciação de Língua Estrangeira, Ansiedade em sala de aula de língua estrangeira, fluxo, inglês, Outros idiomas além do inglês

Introduction

The growing interest in emotions in applied linguistics comes as a huge relief to those who felt that the ever-present and dominant focus on cognition and the so-called “rational” factors had, in effect, relegated researchers with an interest in the so-called “non-rational” phenomena such as emotions to the side-lines, which translated into a high rate of rejections of papers and panel proposals at conferences and by prestigious journals (Dewaele, Chen et al., 2019).¹ As we write this introduction, we smile thinking back to the period twenty years ago, when our first contributions mentioning the word “emotion” in the title came out in the same year as Dewaele and Pavlenko (2002) and MacIntyre (2002). The former dealt with the communication of emotion in a Foreign Language (FL), and the latter with the emotions of FL learners that fuelled their motivation. We followed up these early studies with further work on the resonance of swearwords in the FL (Dewaele, 2004) and published pleas for more research on psychological and emotional variables in applied linguistics (Dewaele, 2005, 2011, 2015; MacIntyre & Gregersen, 2012). The present authors started collaborating ten years ago, which led to the publication of Dewaele and MacIntyre (2014), which will be at the heart of the present contribution.

Over the past decade, the field has evolved and grown substantially, and we have witnessed a radical shift in the value placed on understanding emotion (Dewaele, 2019, 2022; Pavlenko, 2013; Prior, 2019). This growth creates new challenges. One of them is that many of the recent studies on classroom emotions focused on English as a target language, which could create an erroneous view that the findings based on English are universal. The current study thus contributes to

¹ We do acknowledge that motivation research, which had a strong whiff of emotion about it, had established a niche in applied linguistics research and that some previous research had been carried out on the role of affect in foreign language teaching (cf. Dörnyei, 2020).

a much-needed focus on languages other than English (LOTE). Dörnyei and Al-Hoorie (2017) argued that the international status of English is linked to general institutionalized support for English learning, and that differences in available support and perceived status of LOTEs may interfere with learners' motivation to learn a LOTE. Al-Hoorie (2017) suggests that the L2 self-guides for English might be stronger than for LOTE, and that motivation to learn LOTE might suffer as a result. He warns against the danger of assuming that, because a motivation pattern emerges for English, it can be assumed to be universal: "Because most available research is English biased, the available theories most likely reflect learning English rather than LOTEs. Paying more attention to LOTEs has the potential to deepen our understanding of the complexities involved in language learning motivation" (p. 7). A similar argument applies to research on classroom emotions: we cannot assume that the emotions for LOTEs mirror those for English, which occupies a unique position among languages and is by far the dominant target language. In order to counter potential biases, it is important to look at studies on other target languages and also to consider whether the intensity of classroom emotions linked to the learning of English is similar to those linked to the learning of LOTEs. The present study thus aims to shed light on this question by revisiting a large international database on classroom emotions first used in Dewaele and MacIntyre (2014).

Literature review

When MacIntyre and Gregersen (2012) and MacIntyre and Mercer (2014) introduced Positive Psychology (PP) in the field of Second Language Acquisition (SLA), it attracted wide-spread interest and triggered a wave of research on the role of various learner emotions in classrooms. The foundation of PP is a rejection of the traditional focus of psychology on problems. Its aim is to show how "normal" people live, with the goal of helping them to thrive and flourish (Seligman & Csikszentmihalyi, 2000). This perspective resonated with SLA researchers and teachers, who felt that it allowed them to overcome the deficit view of FL learners. Rather than considering learners as lacking something, the view changed to seeing learners as people in the process of growing. Instead of primarily focusing on factors that slowed growth (anxiety), interest grew in the role of positive emotions (enjoyment, pride, love, flow) and positive learner characteristics such as emotional intelligence, well-being, optimism, hope, and flow states (Dewaele, Chen et al. 2019; Oxford, 2016). As Oxford (2016) pointed out, the aim of FL learning is not limited to becoming more proficient, but also to becoming a happier and wiser person.

One of the overarching messages of positive psychology is to consider the balance between the positive and the negative sides of experience, because they often occur at the same time and in a coordinated way (Peterson, 2006). Mihaly Csikszentmihalyi, one of the founders of positive psychology, has long studied the concept of flow (Csikszentmihalyi, 1975; 1990; 2003). Csikszentmihályi (1990) defined the flow state as “an optimal state of intrinsic motivation, where the person is fully immersed in what they are doing. This is a feeling everyone has at times, characterized by a feeling of great absorption, engagement, fulfilment, and skill—and during which temporal concerns (time, food, ego-self, etc.) are typically ignored” (p. 5). Flow states reflect moments of optimal experience where cognition, emotion and experience blend well together, often during moments when one’s skill level meets the challenges and demands of a given situation (Csikszentmihalyi, 1990). The coordination of skills and challenges potentially may produce a variety of states including anxiety (if challenge exceeds skills), boredom (if skills exceed challenge), or even apathy (if both challenges and skills are low). For Csikszentmihalyi (2003), flow reflects an optimal balancing between a challenging situation and application of one’s skills to meet the moment.

Flow has been widely studied in psychology but has not been as widely examined in language learning contexts see however (Aubrey, 2017; Cho, 2018; Czimmermann & Piniel, 2016; Egbert, 2003; Hong et al., 2017; Ibrahim & Al-Hoorie, 2018; Liu & Song, 2021). Using their original 2014 database, Dewaele and MacIntyre (2022) focused on a previously unanalysed variable: proportion of FL class time in a state of flow. More specifically, they investigated the role that Foreign Language Enjoyment (FLE) and Foreign Language Classroom Anxiety (FLCA) have on the ontogenesis of positive flow, characterised by full involvement in a task, joy and bonding with peers, intense focus and joy, and distortion of the sense of time and place. Analysis of quantitative and qualitative data from 1044 participants revealed that FLE was a significant predictor of frequency of flow experience, while FLCA had no effect. Flow experiences were found to be typically self-centred, infrequent and short-lived among beginners and learners with low social standing in the group. Flow experiences increased, became stronger and more sustained among more advanced learners. The authors use the metaphor of flow resembling an occasional spark that becomes a sustained fire that includes other group members.

One of the features of the flow concept, as applied in the positive psychology of SLA, is that it encourages teachers, learners, and researchers to consider how positive and negative emotions are combined with other learner factors to influence task and classroom performance and other experiences (Czimmermann

& Piniel, 2016; Lou & Song, 2021). In differentiating the functional roles of positive and negative emotions for language learning, MacIntyre and Gregersen (2012) drew heavily upon Fredrickson's (2001) broaden-and-build theory, which proposes that positive emotions (a) broaden a learner's openness to new things, (b) help build interpersonal resources and (c) can counter and neutralise the lingering effects of negative emotions. FL learners who experience positive emotions acclimatize better in the classroom, are better able to notice things and establish connections, and crucially, they are more open to language input (p. 198). In contrast, learners in experiencing negative emotions feel under threat, which likely will silence them, narrow their focus and hinder the absorption of new information. Moreover, repeated negative emotions can cause longer-term damage as it can undermine learners' self-image and self-confidence and convince them that remaining silent is the safest option (cf. Dewaele, 2019a; Teimouri, 2017). Positive emotions, on the other hand, have the potential to increase group cohesion as well as learners' resilience and hardiness. As a result, learners will be more likely to explore, to try out the new FL and to take measured linguistic risks without fear of negative consequences.

Dewaele and MacIntyre (2014) introduced the concept of FLE with the aim of establishing whether it was on the positive end of a single dimensions with FLCA at the negative pole. Quantitative and qualitative data were collected through an online questionnaire (a large part of the dataset will be used in the present study). A total of 1746 FL learners with very different language profiles participated. The new FLE scale consisted of 21 items with 5-point Likert scales. It was complemented with an 8-item FLCA scale extracted from Horwitz et al.'s (1986) scale. FLE was defined as "a complex emotion, capturing interacting dimensions of challenge and perceived ability that reflect the human drive for success in the face of difficult tasks, pleasure is considered simply an agreeable feeling. On the one hand, enjoyment occurs when people not only meet their needs, but exceed them to accomplish something new or even unexpected; on the other hand, pleasure is a simpler feeling that something likable is happening" (Dewaele & MacIntyre, 2016, pp. 216-217). Following Horwitz (2017), FLCA was defined as a specific anxiety "linked to language learning and/or use" (p. 33) and caused by learners' "distress at their inability to be themselves and to connect authentically with other people through the limitation of the new language" (p. 41). Dewaele and MacIntyre (2014) found that FLE and FLCA were moderately negatively correlated; in other words, they are fundamentally independent dimensions. They are therefore not conceptualized to be in a see-

saw relationship: one going up does not automatically imply that the other goes down. Instead, it is recognized that whereas there is a tendency that one emotion may be high and the other low, it happens that they can both be elevated at the same time (as with a high-stakes event), or both be low at the same time (as in boredom). The authors sought to identify the sources of variation in FLE and FLCA. They found that higher levels of FLE and lower levels of FLCA were linked to knowing more languages, feeling more confident about performance in the FL, being more proficient, older and being European or American rather than Asian. Gender also played a role, with female participants reporting both more FLE and FLCA than male participants. In describing episodes of intense enjoyment in the FL class, participants highlighted the importance of the social dimension, namely group solidarity, strengthened through teachers' use of humour, praise and encouragement, in an atmosphere of mutual trust and respect. FLE levels were also linked to classroom activities that gave students a degree of autonomy.

In a follow-up mixed-methods study, Dewaele and MacIntyre (2019) collected data from 750 FL learners around the world via an online questionnaire. The study focused on the role of learner-internal variables like in the previous study but also in learner-external variables on FLE and FLCA. Multiple regression analyses revealed that teacher-related variables were the strongest predictors of FLE, while a single learner-internal variable, Emotional Stability versus Neuroticism, was the strongest predictor of FLCA. This finding was confirmed in the analysis of participants' words. Analysis of descriptions of episodes of intense FLE and FLCA coded according to the source(s) of FLE and FLCA revealed that the former was mainly linked to the teacher while the latter was mainly linked to the self (for an overview see Dewaele, 2022).

Table 1 presents the studies that have included FLE in their research design, ordered according to the learners' target language(s) and first language (L1). It is striking that most studies have focused on English as a target language and that Chinese is the most frequent L1. Most of the studies focused on sources of variation in FLE at a micro-level of analysis (i.e., the effect of what happened in the classroom) and expanded the research area by focusing on the relationship between FLE and academic performance in the FL. The patterns generally confirmed the ones uncovered in Dewaele and MacIntyre (2014). A more substantial discussion of the studies is beyond the scope of the present paper.

Table 1 – Studies including FLE ordered according to L1 and FL of learners

Study	Learners' L1	Learners' FL
Jiang & Dewaele, 2019	Chinese	English
Jin & Zhang, 2021	Chinese	English
Li, 2018, 2020	Chinese	English
Li & Dewaele, 2021	Chinese	English
Li et al., 2018, 2019	Chinese	English
Li & Xu, 2019	Chinese	English
Wei et al., 2019	Chinese	English
Zhang et al., 2020	Chinese	English
Wei et al., 2019	Chinese	English
Pan & Zhang, 2021	Chinese	English
Dewaele & Resnik, 2020, 2021	German	English
Resnik & Schallmoser, 2019	German	English
Piniel & Albert, 2018	Hungarian	English
Saito et al., 2018	Japanese	English
Bashori et al., 2021	Indonesian/Javanese	English
Lee & Lee, 2021	Korean	English
Talebzadeh et al., 2020	Persian	English
Elahi Shirvan & Taherian, 2021	Persian	English
Elahi Shirvan & Talebzadeh, 2018a, b, 2020	Persian	English
Elahi Shirvan et al., 2020, 2021	Persian	English
Rezazadeh & Zarrinabadi, 2020	Persian	English
Piechurska-Kuciel, 2017	Polish	English
Pavelescu & Petrić, 2018	Romanian	English
Dewaele & Pavelescu, 2019	Romanian	English
Dewaele, Magdalena Franco et al., 2019	Spanish	English
Zhang et al., 2021	Thai	English
Dewaele & Alfawazan, 2018	Arabic/English	English/French/German/Spanish
De Smet et al., 2018	French	Dutch/English
Zhang & Tsung, 2021	Various	Chinese
Boudreau et al., 2018	English	French
Dewaele & Dewaele, 2017, 2020	English	French/German/Spanish
Dewaele et al., 2018	English	French/German/Spanish
Dewaele & Proietti Ergün, 2020a, 2020b	Turkish	Italian/Turkish
Dewaele, Özdemir et al. 2019	Kazakh	Turkish
Dewaele et al., 2016	Various	Various
Dewaele & MacIntyre, 2014, 2016, 2019, 2021, 2022	Various	Various
Botes et al., 2020, 2021	Various	Various

Just a few of the studies listed in table 1 actually compared levels of FLE and FLCA in two languages. De Smet et al. (2018) compared two target languages (English and Dutch) in two educational contexts (Content and Language Integrated Learning (CLIL) and non-CLIL) at different instruction levels (primary and secondary education) in Belgium. Participants were 896 pupils in French-speaking Belgium who filled out a questionnaire probing into their FLE and FLCA. Learners of English were found to report significantly less FLCA and more FLE than learners of Dutch despite the fact that the pedagogical approach was similar. The authors argue that their participants had more positive attitudes towards English than towards Dutch, which is perceived as a non-global language and the language of the Flemings with whom the francophone community has a tense relationship while English is a global language that is perceived as cool and exciting (De Smet et al., 2018).

Resnik and Dewaele (2020) focused on FLE and FLCA of 768 secondary- and tertiary-level students in their German language (L1) and English language (FL) classes. The students reported significantly higher levels of both FLCA and FLE in their English FL classes than in their German L1 classes. Analysis of qualitative data revealed that participants mentioned how much fun the English FL class was twice as much as for the German L1 class, while the latter elicited three times more mentions of boredom. The authors speculate that the difference could be linked to different didactic approaches in the German L1 and the English FL classes.

Dewaele and Proietti Ergün (2020a) looked into the relationships between enjoyment, anxiety and attitudes/motivation in Turkish L1 and Italian FL among 110 pupils in an Italian immersion school in Turkey. The authors found similar levels of attitudes/motivation in Turkish L1 and Italian FL but significantly higher levels of anxiety and marginally higher levels of enjoyment in the Italian FL classroom. A positive relationship was found between Enjoyment in Turkish L1 and Italian FL classrooms, suggesting that enjoyment of language classes in that specific context was not language-specific.

A fourth study to compare FLE, FLCA and attitudes/motivation among two FLs is Dewaele and Proietti Ergün (2020b) on the same immersion school population. The 110 Turkish pupils studied both Italian and English as FLs. No significant difference existed between levels of FLE and attitudes/motivation in both languages but FLCA was significantly higher in Italian and course marks were significantly lower. As was the case in Dewaele and Proietti Ergün (2020a), a positive relationship existed between levels of FLE across the two FLs but no relationship existed between levels of FLCA nor between strength of attitudes/

motivation in both FLs. Correlation analyses showed that FLE and attitudes/motivation were positively correlated in both FLs while FLCA was negatively linked with FLE and with attitudes/motivation in both FLs. Multiple regression analyses showed that FLCA was a negative predictor of course marks in both FLs. Attitudes/motivation was a positive predictor of course marks in both FLs. FLE did not predict course marks. The authors conclude that broad similarities exist in the relationships between the independent variables and course marks in the two FLs, though it was unclear why the effect of attitudes/motivation on course marks was much stronger for Italian, while FLCA was much stronger for English. The authors speculate that, in addition to micro-level variables (individual differences), meso-level (classroom and school) and macro-level differences (society) between the FLs might be responsible or that unseen mediating variables such as teaching style or assessment might have played a role.

To sum up, the findings from the four studies reviewed above that compared FLE and FLCA in two languages are slightly diverging, and it remains to be seen whether it is linked to the fact that two studies compared classroom emotions in learners' L1 classes with those in FL classes, while the other two studies compared classroom emotions in two FLs. In the present study, we propose to explore in more detail how the difference between English and LOTE might affect learners' emotions and flow experiences. The exponential increase in studies of positive psychology concepts such as flow experiences in SLA in general, and interest in classroom emotions in particular, has so far generated a body of research that is mostly focused on English as a target language; this study aims to increase knowledge about how such experiences compare between English and LOTE.

Research questions

- (1) Do learners of LOTE and English experience a similar proportion of class time in Flow and a similar intensity of FLE and FLCA?
- (2) Are the relationships between proportion of class time in Flow, FLE and FLCA similar among learners of English and learners of LOTE?

Method

Participants and Demographics

A total of 1589 participants who provided data on Flow, FLE and FLCA were extracted from the original database consisting of 1746 participants (Dewaele & MacIntyre, 2014). A majority of participants were female ($n = 1216$), 367 participants were male and 6 participants declined to provide this information. Age ranged from 11 to 75 years ($Mean = 23.9$, $SD = 8.8$). Participants came from all over the world, with 90 different nationalities. The largest groups were Belgians ($n = 359$), British ($n = 243$), Americans ($n = 118$) and Polish ($n = 75$), followed by many smaller groups ($n < 66$). Only a minority of participants ($n = 202$) were still in high school, with the majority being at university: 952 were doing a Bachelor's degree, 349 a Master's degree and 83 a PhD. Almost half of the participants were studying English as a FL ($n = 761$); over half of participants ($n = 825$) were studying LOTE including French ($n = 226$), Spanish ($n = 151$), German ($n = 110$) and Dutch ($n = 99$). The remaining participants ($n < 35$) studied a variety of different languages. The sample consists of 318 bilinguals, 546 trilinguals, 408 quadrilinguals, 201 pentalinguals, 70 sextalinguals and 44 polyglots.

Only 5 participants described themselves as beginners; 243 described themselves as low intermediate, 67 as intermediate, 435 as high intermediate and 293 as advanced.

Participants reported having studied the FL for an average of 8.6 years ($SD = 5$), ranging from 1 month to 35 years.

The instrument

The questionnaire started with a demographics section, as described immediately above. Participants then filled out the 21-item original version of the Foreign Language Enjoyment (FLE) questionnaire (Dewaele & MacIntyre, 2014), reflecting both the private and social dimensions of FLE (Dewaele & MacIntyre, 2016). Referring to the FL course they were enrolled in, participants were asked to indicate on a 5-point Likert scale to what extent they agreed with the statements. Internal reliability was good (Cronbach $\alpha = .87$, $Mean = 3.84$, $SD = .45$).

Participants also completed eight items extracted from the Foreign Language Classroom Anxiety Scale (Horwitz, Horwitz & Cope, 1986). The items refer to physical symptoms of anxiety, nervousness, and lack of confidence, which were included in Dewaele and MacIntyre (2014) (see appendix). Two FLCA

items were phrased to indicate low anxiety (reverse scored) and six were phrased to indicate high anxiety. Internal reliability was good (Cronbach $\alpha = .86$, $Mean = 2.72$, $SD = 0.83$).

Finally, participants were asked to give feedback on 5-point Likert scale about four positively worded items that tap into characteristics of flow, based on Larson and Csíkszentmihályi's (2014) Experience Sampling Method. Respondents were asked to indicate the percentage of time in FL class that they felt fully engaged ("I'm totally absorbed"), a transformation of time ("I lose sense of time"), fulfilment ("I feel fulfilled"), and positive emotion ("I feel happy"). Taken together, the four flow items produced a satisfactory level of internal consistency (Cronbach $\alpha = .82$, $Mean = 60.46$, $SD = 18.64$). This measure was first used in Dewaele and MacIntyre (2021).

The data

A Q-Q plot (quantile-quantile plot) showed that Flow, FLE and FLCA follow a normal distribution reasonably well except for the extreme tail of FLE (Figures 1, 2 and 3). We thus used parametric statistics, and more specifically independent t-tests that allow moderate violations to normality.

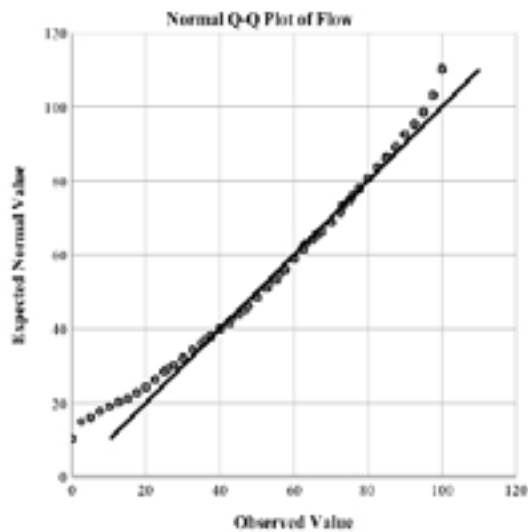


Figure 1 – Q-Q plot for Flow

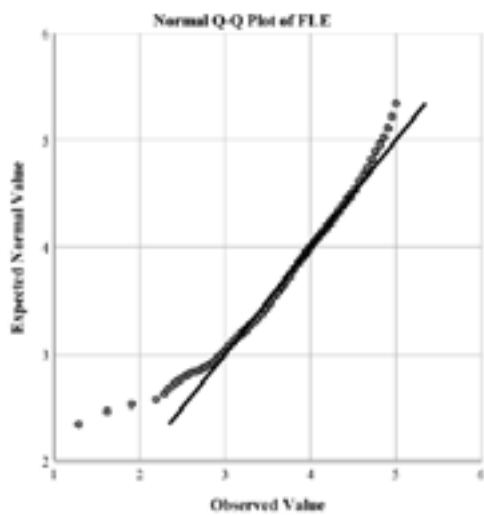


Figure 2 – Q-Q plot for FLE

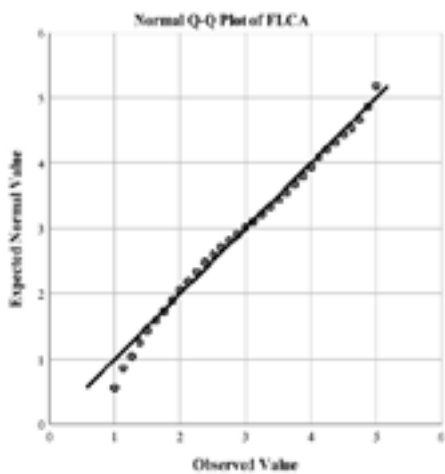


Figure 3 – Q-Q plot for FLCA

Differences in background variables of the learners of English and LOTE

A series of preliminary independent t-tests revealed that the learners of English differed significantly from the learners of LOTEs on a number of background variables (see table 2). The LOTE participants were significantly older, less educated, more multilingual, less advanced in their target language, which they had studied for a shorter time. According to Plonsky and Oswald (2014), the effect sizes (Cohen's *d*) range from very small to large.² A Pearson Chi² tests that the proportion of male learners was marginally higher in the EFL group ($Chi^2 = 3.76, p = .052$). Close to half of the LOTE participants had English as an L1 ($n = 403, 48.8\%$).

Table 2 – Mean scores, distributions and differences in the background variables of the 761 EFL and 828 LOTE participants (Independent t-tests)

Variable	EFL	LOTE	<i>t</i>	<i>Df</i>	<i>p</i>	Cohen's <i>d</i>
Age	22.6	25.2	-5.98	1261.3	.0001	.297
Education level	3.2	3.0	3.45	1355.9	.001	.175
Number of languages known	3.3	3.7	-6.20	1563.5	.0001	.310
Level of FL mastery	3.3	2.3	14.61	634.8	.0001	1.011
Years of FL study	9.6	7.7	7.70	1583	.0001	.387

Procedure

The research design and questionnaire obtained approval from the Ethics Committee at the first author's research institution. After piloting an early version of the questionnaire, a final version of was put on-line on Google Docs and an open call was addressed to FL learners around the world, asking them to forward the call to friends, teachers or students. This snowball sampling is a form of nonprobability sampling (Ness Evans & Rooney, 2013).

Results

A number of independent t-tests were run to find out whether the learners' target language was linked to their frequency of Flow experience in class, and to their levels of FLA and FLCA. Learners of LOTE reported being in a state in flow

² "For mean differences between groups, *d* values in the neighborhood of .40 should be considered small, .70 medium, and 1.00 large" (Plonsky & Oswald, 2014, p. 889).

for a significantly larger proportion of time than learners of English (see table 3 and figure 4). Learners of LOTE also scored significantly higher on FLE and lower on FLCA (see table 3 and figure 5). In other words, the learners of LOTE seemed to have a more positive classroom experience than learners of English. However, according to Plonsky and Oswald (2014), the effect sizes are very small.

Table 3 – Mean scores, distributions and differences in the dependent variables of the EFL and LOTE participants (Independent t-tests)

Variable	EFL	LOTE	<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
Proportion of time in Flow	59.06	61.75	2.88	1586	.004	.145
FLE	3.80	3.88	3.75	1585.6	.0001	.179
FLCA	2.79	2.66	3.26	1587	.001	.157

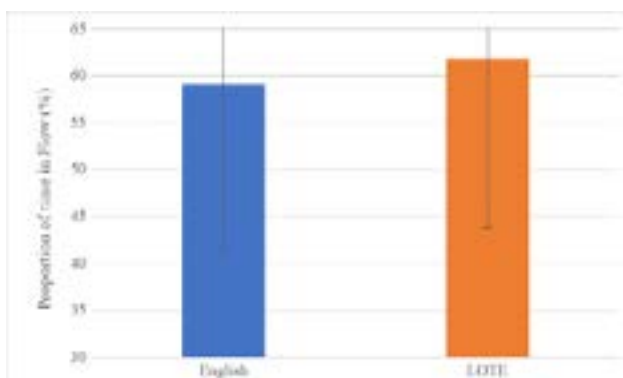


Figure 4 – Proportion of time in Flow for learners of English and LOTE

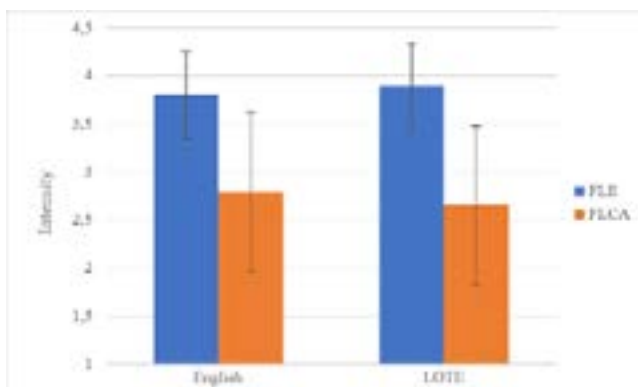


Figure 5 – Intensity of FLE and FLCA for learners of English and LOTE

To answer the second research question on the relationship between our three dependent variables, we ran separate Pearson correlation analyses between FLE, FLCA and proportion of time in Flow in the dataset of learners of LOTEs and English. We then compared the significance of the difference between the two correlations using the software designed by Soper (2021).

Firstly, a significant negative relationship emerged between FLE and FLCA for the group of learners of LOTEs ($r(826) = -.376, p < .0001$). A similar but slightly weaker relationship ($z = -1.0, p = .31$) was found for the group of learners of English ($r(760) = -.332, p < .0001$).

Secondly, a significant positive relationship emerged between FLE and proportion of time in Flow for the group of learners of LOTEs ($r(826) = .678, p < .0001$). A similar but significantly weaker ($z = 2.44, p < .015$) relationship was found for the group of learners of English ($r(760) = .606, p < .0001$).

Thirdly, a significant negative relationship emerged between FLCA and proportion of time in Flow for the group of learners of LOTEs ($r(826) = -.255, p < .0001$). A similar but very slightly weaker relationship ($z = -.59, p = .55$) was found for the group of learners of English ($r(760) = -.227, p < .0001$). In other words, FLE is more strongly associated with the proportion of time in Flow than FLCA (a large effect size compared to a small effect size, according to Plonsky & Oswald, 2014), and the relationship is slightly stronger among learners of LOTEs than among learners of English.

Discussion

The starting point of the current investigation was the observation that learners' classroom emotions were clearly affected by micro-level variables, namely learner-internal variables and teacher-centred variables. A small number of studies had shown that, in addition to micro-level variables such as personality, motivation and attitudes, or language profile, a number of meso-level and macro-level variables, namely the type of school and the community to which the students belonged, had an effect on the perception of the language being taught (both L1s and FLs) and classroom emotions (De Smet et al., 2018; Dewaele & Proietti Ergün, 2020a, b; Resnik & Dewaele, 2020). The results were not clear-cut, as some differences in FLE and FLCA were found to be linked to the target language but not always in the expected direction. English FL classes seemed to generate more enjoyment and less anxiety in De Smet et al. (2018) and Resnik and Dewaele (2020), but it was hard to attribute this to the status of English as

a global language or to the didactic approach of the EFL teacher. Dewaele and Proietti Ergün (2020a) found few differences in learners' emotions in Turkish L1 and Italian FL classes. In contrast, Dewaele and Proietti Ergün (2020) did find lower levels of FLCA in English FL classes than in Italian FL classes, but levels of FLE and attitudes/motivation did not differ between both FLs.

The answer to the first research question in the current investigation into learners who had a large variety of L1s revealed that significant differences existed in the intensity of FLE and FLCA and in the proportion of time in flow in English FL classes and in LOTE classes. Participants reported significantly higher levels of FLE, lower levels of FLCA and a higher proportion of time in flow in LOTE classes than in EFL classes, though the effect size was very small.

To explain this finding, it is worth checking a number of significant differences in background variables between both groups. Compared to the LOTE participants, the EFL learners were significantly younger, slightly less female-dominant, less multilingual, more highly educated and more advanced in English, which they had studied for a longer time. It means that no group combined all the characteristics linked to higher FLE, more flow and lower FLCA, namely being older, female, more multilingual, more educated, more advanced in the FL and studying it for longer (Dewaele & MacIntyre, 2014, 2021).

It is likely that the age difference and the difference in the degree of multilingualism between both groups could in fact reflect a variable that was not measured, namely attitude towards the FL and motivation to study it, combined with a unique desire among those who did not have English as an L1 to acquire a new FL besides English. Dörnyei and Al-Hoorie (2017) worried that the status of English would deplete learners' motivation to study other FLs. The current study suggests that this is not necessarily the case. Slightly over half of our LOTE participants had already acquired English as a FL before deciding to acquire a new FL. They may thus have relied on existing FL learning strategies and considered the learning of a new FL as the kind of unique personal challenge. It is likely that the proportion of participants in the EFL group who were forced to take English classes because it was part of their curriculum was higher than in the LOTE group. We could thus speculate that the proportion of language nerds was higher in the LOTE group. As a consequence, it could be argued that the very small difference we found between both groups was in fact only superficially linked to the target language, and that confounding variables might be responsible for the findings.

The analyses linked to the second research question, which focused on differences in the relationships between our three dependent variables in

the groups of LOTE learners and English learners, revealed some interesting, systematic differences between both groups. The relationships were slightly stronger in the group of LOTE learners than in the group of English learners, and the difference was statistically significant in the case of positive relationship emerged between FLE and proportion of time in Flow. The significant difference is between two positive correlations (.678 vs .606), which can both be interpreted as strong correlations (Plonsky & Oswald, 2014), with LOTEs showing just a little more strength of relationship. This pattern of results resonates with the finding in Resnik and Dewaele (2021), who found that the relationship between FLE and FLCA was much stronger in 'in-person' teaching, when participants also reported significantly higher levels of both FLE and FLCA than in online teaching. A closer look at the three sub-dimensions of FLE showed that Teacher Appreciation remained stable across both contexts while both social and personal enjoyment fell sharply in the online teaching. The authors speculated that online classes limit the emotional involvement in the social interactions and disrupt the relationship between the faster heartbeat characteristic of doing something anxiety-provoking and challenging in front of peers and teacher, and the sweet feeling of having met a challenge successfully. Similarly, we could speculate that those who were studying a LOTE were aware that they were learning a distinctive language, in addition to English that they had already mastered, and they realized that it would require their full emotional commitment to be successful. In contrast, it is likely that a larger proportion of learners of English were simply following the established curriculum in their institution. They would not have experienced an equally strong feeling of doing something extraordinary, resulting in a slightly weaker relationship between FLE, FLCA and proportion of time in flow.

The current study has a number of limitations that we already acknowledged in Dewaele and MacIntyre (2014), such as the issues of participant self-selection, of gender imbalance and of the dominance of Westerners. In addition, out of statistical considerations we created two groups of participants of roughly the same size, namely EFL learners versus learners of LOTEs. It could be argued that this amalgamation is artificial, as the fact that French, German, Spanish, Portuguese and Dutch do not have the same global status as English does not imply that they share a common quality. We do feel, however, that running a single ANOVA with very different sample sizes would have increased the risk of distortion. Finally, the findings cannot be attributed to differences in the sociobiographical profiles of the two groups. LOTE participants were significantly older and more multilingual than the English learners (characteristics linked to higher FLE, larger proportion

of time in flow and lower FLCA, cf. Dewaele & MacIntyre, 2014; 2021), but they were also less educated and less advanced in their target language, which they had studied for a shorter time (characteristics linked to lower FLE, smaller proportion of time in flow and higher FLCA, cf. Dewaele & MacIntyre, 2014, 2021).

The current study has no obvious pedagogical implications, except that teachers of LOTEs can rejoice at the thought that learners who decide to study a FL that is not English might actually enjoy the classes more and experience less anxiety than their peers in EFL classes. In other words, learning a less global FL can actually be more fun.

Conclusion

The target language was found to have a significant but very small effect on the intensity of FLE and FLCA, as well as on the proportion of time in a state of flow among our 1589 participants. The 761 EFL learners reported lower levels FLE and a lower proportion of class time in a state of flow, as well as higher levels of FLCA than 825 learners of LOTEs. It suggests that the global status of English does not imply that learners around the world automatically have a more positive emotional experience in English classes. We suggest that this finding might be linked to the unique profile of learners of LOTEs. Finally, we also found that the relationships between FLE and the proportion of time in a state of flow was significantly stronger in the group of learners of LOTEs than in the group of English learners. We interpret this as a second, independent indication that learners of LOTEs are strongly emotionally involved in the learning of their LOTE.

To conclude, what this study has shown is that, in addition to multiple micro- and meso-level learner-internal and learner-external variables that shape learners' FLE and FLCA, one macro-level independent variable, namely the status of the language in the world, also has a small effect on the classroom emotions of a large international sample of FL learners.

Author's contribution

We declare that both the authors contributed equally to every aspect of the study.

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