



HAL
open science

How Intense and Authentic Communication in Foreign Language Classes Has a Positive Effect on Learner Emotions

Jean-Marc Dewaele, Delphine Guedat-Bittighoffer, Elouise Botes, Marie-Ange Dat

► **To cite this version:**

Jean-Marc Dewaele, Delphine Guedat-Bittighoffer, Elouise Botes, Marie-Ange Dat. How Intense and Authentic Communication in Foreign Language Classes Has a Positive Effect on Learner Emotions. *Canadian Modern Language Review / La revue canadienne des langues vivantes*, 2024, 80 (4), pp.262-284. 10.3138/cmlr-2023-0012 . hal-04793662

HAL Id: hal-04793662

<https://hal.science/hal-04793662v1>

Submitted on 20 Nov 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

How intense and authentic communication in the Foreign Language class has a positive effect on learner emotions¹

Jean-Marc Dewaele, Institute of Education, University College London; Birkbeck, University of London, UK

Delphine Guedat-Bittighoffer, Université d'Angers, France

Elouise Botes, University of Luxembourg, Luxembourg

Marie-Ange Dat, Université de Nantes, France

Correspondence should be addressed to Jean-Marc Dewaele, Institute of Education, University College London, 20 Bedford Way, London WC1H 0AP, UK. Email: j.dewaele@bbk.ac.uk

Abstract

This cross-sectional mixed methods study investigates how intense and authentic communication shapes learners' enjoyment (FLE), anxiety (FLCA) and boredom (FLCB) in class. Participants were 181 beginning English foreign language learners aged eleven in three secondary schools in France. Statistical analyses revealed that pupils in classes with a special focus on intense and authentic communication experienced significantly more FLE and less FLCA and FLCB than their peers in standard classes. Structural equation modelling revealed that intense and authentic communication had the strongest (positive) effect on FLE, followed by negative effects on FLCB and FLCA. FLE was found to be negatively correlated with FLCA and FLCB while FLCA and FLCB shared a positive correlation. An axiological analysis of the qualitative data showed that pupils in intense, authentic communication classes reported more FLE, less FLCB and equal FLCA compared to peers in the standard teaching classes. Pedagogical implications are presented.

Keywords: Teaching method, English Foreign Language, Foreign Language Enjoyment, Foreign Language Classroom Anxiety, Foreign Language Boredom

Résumé

Cette étude transversale à méthodes mixtes présente comment une communication intense et authentique façonne le plaisir (FLE), l'anxiété (FLCA) et l'ennui (FLCB) des apprenants en classe. Les participants étaient 181 apprenants débutants en anglais, langue étrangère, âgés de 11 ans, issus de trois écoles secondaires en France. Les analyses statistiques ont révélé que les élèves des classes privilégiant une communication intense et authentique ont expérimenté significativement plus de FLE et moins de FLCA et FLCB que leurs pairs des classes standards. La modélisation d'équations structurelles a révélé qu'une communication intense et authentique avait un effet (positif) le plus fort sur le FLE, suivi par des effets négatifs sur le FLCB et le FLCA. Le FLE s'est avéré être corrélé négativement avec FLCA et FLCB, tandis que FLCA et FLCB étaient positivement corrélés. Une analyse axiologique des données qualitatives a montré que les élèves des classes de communication intense et authentique rapportaient plus de FLE, moins de FLCB et un FLCA égal par rapport à leurs pairs des classes d'enseignement standard. Les implications pédagogiques sont présentées.

¹ Preprint of Dewaele, J.-M., Guedat-Bittighoffer, D., Botes, E. & Dat, M.A. (2024). How intense and authentic communication in the Foreign Language class has a positive effect on learner emotions. *Canadian Modern Language Review*, 80(4), 262–284. <https://doi.org/10.3138/cmlr-2023-0012>

Introduction

Since the publication of Dewaele and MacIntyre (2014) that introduced the concept of Foreign Language Enjoyment (FLE) to the field of Second Language Acquisition, several hundreds of studies have been published adopting a holistic approach where positive and negative learner emotions are combined in a single research design. Researchers have focused on learner-internal, learner-external and interacting sources of variation in FL learner emotions. A long list of independent variables emerged having significant effects on learners' positive and negative emotions. One of the most striking findings with implications for the teaching profession was that the teacher has a strong effect on FLE and Foreign Language Boredom (Li, 2021) but has much less effect on FL Classroom Anxiety (FLCA) (Dewaele & Dewaele, 2017; Dewaele, Witney, Saito & Dewaele, 2018; Dewaele, Saito & Halimi, 2022; Elahi Shirvan & Taherian, 2021). These effects have been found around the world with learners studying a wide variety of FLs. So far, no study – to our knowledge- has focused specifically on how the teaching method could shape learner emotions in regular FL classes. Only two studies, Li and Xu (2019) and Jin, MacIntyre and Dewaele (2021), have reported the effect of a short supplementary training to shape the emotions of FL learners in addition to their regular FL classes.

Learner emotions matter in FL learning because they have been shown to be good predictors of FL performance and progress (Botes, Dewaele & Greiff, 2020a, b, 2022a; Li, 2021). It is therefore crucial that FL classes are happy places where learners explore and thrive. Individual teacher behaviour, such as joking, using the FL frequently in class, being appropriately un/predictable (Dewaele et al., 2022) does contribute to a positive atmosphere but it is clear that at a higher level, the teaching method can affect learner emotions. One such method is the Neurolinguistic Approach (NLA) developed by Canadian researchers Germain and Netten (2004, 2005) based on the idea that intensive spontaneous oral communication in a FL as part of authentic social interactions can boost language fluency and proficiency that provide the basis for the later development of reading and writing skills. The NLA has been shown to be effective in Canada and is currently being introduced in France. The present study will investigate whether young learners of English as a foreign language (EFL) in NLA classes in France experience more FLE, less FLCA, and less FLCB than their peers in EFL classes following a more standard format that combines grammar and writing in an actional perspective and a communicative approach. In other words, we want to explore the possibility that the success of the NLA may be related to emotional factors and not just the cognitive factor postulated by Germain and Netten (2004, 2005).

Literature review

The explosion of research on multiple learner emotions makes it increasingly challenging to present it in single, neat categories. We will thus present the literature on FLCA, FLE and FLCB separately, with the understanding that most studies actually included at least two emotions and that language emotions are likely experienced in conjunction with complex interactions between emotions themselves (Botes, Dewaele & Greiff, 2022b). The emergence of Positive Psychology in applied linguistics, which contributed to the growth of a more holistic perspective on learner emotions will be presented at the end of the section on FLCA. After sections on FLE and FLCB, we will present a separate section on the most recent studies that combined FLE, FLCA and FLCB in a single research design, as does the current study. The literature review will conclude with a section on the education system in France and a presentation of the teaching method (NLA) that is the independent variable in the current study.

Foreign Language Classroom Anxiety (FLCA)

The most researched learner emotion is undoubtedly FLCA (MacIntyre, 2017). The pioneering study by Horwitz, Horwitz and Cope (1986) provided researchers with a psychometrically solid instrument consisting of 33 items, which could be used and slightly adapted to fit different learner populations (MacIntyre, 2017). Horwitz et al. (1986) defined FLCA 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” (p. 128). The root cause of FLCA was “the discomfort some language learners have when they must interact in the language but are unable to present themselves authentically when doing so” (Horwitz, 2017, p. 42). Learners who are typically perfectly able to project an accurate image of themselves in their first language(s), suddenly feel on slippery ground when having to do the same thing in a FL. This could lead to increased self-consciousness, worry of standing out or looking like a clumsy fool in front of teacher and peers. In time these negative feelings and emotions can coalesce into FLCA that flares up every time the FL has to be used. As such FLCA shares characteristics of both states (which are situation-specific) and traits (which are more stable and enduring) (Horwitz, 2017). The nature of FLCA thus changes over time, becoming increasingly trait-like. MacIntyre (2017) pointed out that FLCA is highly dynamic, as it is “continuously interacting with a number of other learner, situational and other factors including linguistic abilities, physiological reactions, self-related appraisals, pragmatics, interpersonal relationships, specific topics being discussed, type of setting in which people are interacting and so on” (p. 23).

Anxious learners experience physiological symptoms such as sweating, tachycardia, a dry mouth and psychological symptoms such as self-doubt, concentration problems and paralysis when having to use the FL. As a result, learners may be forced into silence, resulting in a sense of marginalisation and low self-worth. The FL becomes perceived as a threat which creates a negative spiral as limited focus hinders the absorption of teacher input and understanding of material, which leads to weak performance and slow progress, further inflating FLCA (MacIntyre & Gregersen, 2012). This is exactly what the meta-analysis by Botes et al. (2020a) of 67 studies (with a total of 99 effect sizes) confirmed. It showed a moderate negative relationship between FLCA and general FL academic achievement. A more detailed analysis revealed that FLCA is negatively linked with performance of the four skills in the FL (speaking, listening, reading and writing). Horwitz (2017) fought against a common misunderstanding of the original Horwitz et al. (1986) paper that “Communication Apprehension plus Test Anxiety plus Fear of Negative Evaluation formed an equation that resulted in Foreign Language Classroom Anxiety” (p. 31).

Evidence for the unidimensionality of FLCA emerged in Botes, van der Westhuizen, Dewaele, MacIntyre and Greif (2022) who used a dataset collected via social media from FL learners to carry out their psychometric validation of the 8-item Short-Form FLCAS developed by MacIntyre (1992). Exploratory and confirmatory factor analyses revealed that the S-FLCAS has a unidimensional structure. The instrument showed good internal consistency, solid convergent and discriminate validity. In addition, the measure showed itself “to be fully invariant across age, gender, educational levels, and L1 groups” (Botes, van der Westhuizen et al., 2022, p. 1). (See supplementary material).

One of the most insidious effects of FLCA in the classroom is that it can dampen learners’ Willingness to Communicate (WTC). Learners may decide to play it safe by remaining silent and hiding behind the backs of their peers (cf. Dewaele, 2019; Elahi Shirvan, Khajavy, MacIntyre & Taherian, 2019; Li, 2021; Li, Dewaele, Pawlak & Kruk, 2022; King, 2013).

FLCA is also linked to sociobiographical variables. Dewaele and MacIntyre (2014), whose participants ranged in age from 11 to 75, found that teenagers and young adults in their 20s reported the highest levels of FLCA. Levels of FLCA were lower among pre-teens and adults in their 30s and older. As Horwitz et al. (1986) explained, FLCA develops gradually over time through repeated experience. Neutralising FLCA among pre-adolescents could help them avoid higher levels of FLCA later in life. Dewaele and Dewaele (2018) pointed out that starting to speak in the FL class is comparable to jumping in a swimming pool from a height. It is impossible to test the temperature with the big toe and there is a nagging worry about resurfacing in the water without the swimsuit, exposing oneself to ridicule. Arnold (2006) pointed out that the self-concept of adolescents is strongly linked to the way they are viewed by their peers, and that anxiety can arise from their disapproval. This was confirmed in Dewaele and Dewaele (2017) who found that the predictors of FLCA shifted over time for their FL learners aged 12 to 18 years in two London secondary schools. The FLCA of the 12-to-13 year-olds was most strongly predicted by their language level while relative standing in the group became the strongest predictor of FLCA in the older age groups.

The introduction of Positive Psychology to the field of applied linguistics by MacIntyre and Gregersen (2012) brought a much-needed breath of fresh air. Researchers realised that the obsession with FLCA had contributed to a deficit perspective in both FL research and FL teaching. A more holistic perspective was needed that looked at the effects of both positive and negative emotions (Dewaele, Chen, Padilla & Lake, 2019; Wang, Derakhshan & Zhang, 2021). Positive Psychologist Barbara Fredrickson pointed out that positive emotions have “the ability to broaden people’s momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources” (2003, p. 219). Crucially, positive emotions can neutralise the lingering effects of negative emotions and strengthen resilience and life-satisfaction (Cohn, Fredrickson, Brown, Mikels & Conway, 2009). The authors refer to the positive feedback loop that emerges as positive emotions contribute to ego resilience that “generates positive emotions, suggesting an upward spiral in which ego resilience and positive emotions maintain and build on one another” (p. 367).

Jin et al. (2021) used a Positive Psychology intervention to lower FLCA using with a pre-post test design with 88 Chinese EFL students. Students in the experimental group were asked to reminisce about their FL achievements and emotional experiences in the FL and to keep a diary about them. After one month, students in the experimental group scored significantly lower on FLCA than the control group. The reminiscing was also found to be more frequently linked to positive than to negative emotions. Positive Psychology led to a growing realisation that a different perspective of the learners is required. Rather than seeing learners as passive containers waiting to be filled with linguistic knowledge and skills that would allow them to score high on tests, learners’ well-being and flourishing become a central part of the picture (MacIntyre, Gregersen & Mercer, 2019). Although many researchers acknowledge the fact that FL learners are psychologically vulnerable and need positivity, challenge and fun to progress, it takes time for these new views to filter through in the education system (Scott-Brewer, 2013; Hilton, 2022).

Foreign Language Enjoyment

Dewaele and MacIntyre (2014) was a convergent parallel mixed methods study using an online questionnaire that drew responses from 1746 FL learners from around the globe. The dual focus on FLE and FLCA was inspired by Positive Psychology and the aim was “to move beyond simplistic notions of good and bad, motivated and demotivated, successful and unsuccessful learners” (MacIntyre, et al., 2019, p. 8). Drawing on the work of

Csikszentmihályi (1990) on flow and on their own teaching experiences, Dewaele and MacIntyre (2014) created a 21-item FLE scale that covered both the personal and social aspects of FLE in the classroom. Dewaele and MacIntyre (2016) compared FLE and FLCA to the right and left feet of learners, and defined FLE 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 (...) enjoyment occurs when people not only meet their needs, but exceed them to accomplish something new or even unexpected” (pp. 216-217). The first research question in Dewaele and MacIntyre (2014) was the nature and the relationship between FLE and FLCA. A very strong negative correlation would suggest that they were opposite poles on a single dimension. However, only a weak negative correlation was found between FLE and FLCA, suggesting that they are independent dimensions. It meant that learners who scored high on FLE tended to experience less FLCA but that it was perfectly possible for learners to experience both intense FLE and FLCA simultaneously, or neither if they felt emotionally disengaged. This pattern was confirmed in the meta-analysis of 56 studies by Botes et al. (2022a), with a moderate negative relationship between FLE and FLCA. The study also found a large positive relationship between FLE and Willingness to Communicate and a moderate positive relationship between FLE and FL academic achievement.

Dewaele and MacIntyre (2014) established that learners who were highly multilingual, proficient, self-confident in their class, educated, and older were more likely to experience high levels of FLE and low levels of FLCA. Gender stood out, with female participants reporting simultaneously higher FLCA and higher FLE. Analysis of reports of enjoyable episodes showed that peaks in FLE were linked to specific classroom activities that allowed students to work autonomously with peers, resulting in some form of authentic use of the FL with peers in the development of games, role plays, interviews, films and presentations. Later research revealed that FLE was mainly linked to learner-external variables such as teacher and peers (for overviews, see Dewaele, 2022). Dewaele and MacIntyre (2019) found that reports on enjoyable episodes in the FL class referred most frequently to situations that involved interactions with both teacher and peers.

In their pseudo-longitudinal¹ investigation of emotions of 189 British FL learners, Dewaele and Dewaele (2017) found that the predictors of FLE changed with age. The FLE of the youngest participants was most strongly predicted by their relative standing in the group while attitude towards the teacher and the FL became stronger predictors of FLE in the older age groups.

Very few intervention studies focusing on learner emotions have been carried out so far. One of the few is Li and Xu (2019) who ran a 6-week Positive Psychology intervention in parallel with regular EFL classes to boost learners’ emotional skills in a secondary school in China. Researchers had group discussions about emotions with the EFL teacher and students in the experimental group and asked them to keep a diary. Statistical analyses showed that levels of Trait Emotional Intelligence and FLE had gone up significantly while FLCA had decreased in the experimental group. In contrast, no change occurred in the control group.

Myhre, Dewaele, Fiskum & Holand (2023) carried out an intervention study comparing indoor and outdoor EFL classes on FLE and FLCA of 106 young teenage Norwegian EFL learners. A total of 67 learners used English while walking in a park near the school and the remaining 39 had regular classes at school. The mixed-methods study revealed a weak positive effect on FLE but no effect on FLCA. However, analysis of interviews revealed that learners in the outdoor group reported feeling less bored, more willing to communicate, safer, less pressured because fewer people were listening to their speech.

Although the mixed methods study by Resnik and Dewaele (2020) did not look explicitly into the effect of teaching method on FLE and FLCA because the focus was on a comparison of the emotions of 768 secondary- and university-level students in their German L1 and their EFL classes, the findings revealed that students experienced both less enjoyment and less anxiety in their L1 classes. Qualitative feedback suggested that the L1 classes were perceived to be insufficiently challenging while the English classes were more exciting and fun. The authors concluded that this may be due to the different didactic approach of German L1 and EFL teachers.

Responding to the call for shorter, psychometrically solid instruments, Botes et al. (2021) re-used the Dewaele and MacIntyre (2014) database to explore the factor structure of FLE. A 3-factor hierarchical model emerged with a higher-order FLE factor. The first factor referred to teacher appreciation, the second factor represented personal enjoyment, and the third factor reflected social enjoyment. The new Short Foreign Language Enjoyment Scale (S-FLES) containing 9 items was found to have very good fit statistics for the factor structure, as well as good internal consistency, convergent validity, and discriminant validity (see supplementary material).

Foreign language learning boredom

FL language learning boredom (FLLB) is the third learner emotion that is attracting increased attention from researchers because of its pervasiveness in education. It refers to an unpleasant psychological and emotional state that combines feelings of “dissatisfaction, disappointment, annoyance, inattention, lack of motivation to pursue previously set goals and impaired vitality” (Kruk & Zawodniak, 2018, p. 177). Pawlak et al. (2020) developed the *Boredom in Practical English Language Classes Questionnaire (BPELC)* using data from 107 Polish-speaking English majors. Quantitative analyses revealed boredom was linked to: “disengagement, monotony and repetitiveness, and (...) lack of satisfaction and challenge” (p. 1). Adopting a qualitative approach on a similar target population, Zawodniak et al. (2023) found that FLB was considered by learners to be an aversive emotion that arose from the teacher, class organisation, and choice of language tasks.

Li, Dewaele and Hu (2023) defined FL language learning boredom as “a negative emotion with an extremely low degree of activation/arousal that arises from ongoing activities (...) (that) are typically over-challenging or under-challenging” (p. 12). Using data from 2223 Chinese EFL learners, the authors developed a 7-factor FLLB scale with 32 items. The scale was validated using exploratory and confirmatory factor analyses which were complemented by validity and reliability analyses. The first factor to emerge from the analysis was Foreign Language Classroom Boredom (FLCB), which has been used independently in a number of subsequent studies.

Li (2021) collected quantitative and qualitative data from 2002 Chinese EFL learners and found that FLLB is predicted by different control–value appraisals that interacted simultaneously. Highly proficient EFL learners who were highly engaged experienced less FLLB. Analysis of interviews with learners revealed a curvilinear relationship between FLLB and control appraisal: “students got bored when they felt overwhelmingly challenged or underchallenged in English learning” (p. 329). Li (2021) pointed out that it is thus crucial for teachers to use tasks that are neither too easy nor too difficult so that FL learners can gain confidence, proficiency and control in the FL. Teachers play a central role in keeping FLLB at bay. Dewaele and Li (2021) showed that teacher enthusiasm contributed to the learning engagement of 2002 Chinese EFL learners. Teacher enthusiasm boosted learners’ FLE and

lowered their FLLB directly and indirectly. FLE mediated the effect of teacher enthusiasm positively on learner engagement while FLLB mediated the effect negatively.

Studies combining FLE, FLCA and FLCB

Researchers have recently started investigating the relationship between FLE, FLCA and FLCB, and exploring their joint effects on FL performance. Dewaele, Botes, et al. (2023) used structural equation modeling to investigate the relationships between the three emotions among 332 FL learners from around the world, to identify their sources and to establish how the emotions were linked to academic achievement. High FLE was found to be linked to significantly lower FLCA and FLCB. Highly anxious students were typically also suffering from more FLCB. Teacher's frequency of use of the FL in class was linked to increased FLE but have no effect on FLCB or FLCA. Participants reported more FLE and less FLCB with unpredictable teachers but it did not affect their FLCA. FLCA was found to have a significant negative effect on FL performance while FLE and FLCB had no effect. Learner emotions are thus linked to each other and to contextual variables.

Following a similar path, Tsang and Dewaele (2024) focused on FLE, FLCA and FLCB of 111 primary school children learning English in Hong Kong. They found that levels of these emotions were comparable to those of the secondary school learners in Dewaele and Dewaele (2017). High levels of FLE were linked with low levels of FLCA and FLCB – which themselves were positively correlated. A multiple regression analysis revealed that FLE (but not FLCA nor FLCB) predicted engagement and proficiency. The authors speculate that these young learners had not yet fully developed their FLCA and that its nefarious effects had not yet appeared. Similarly, their joy at learning English was spontaneous and all-encompassing, leaving little space for boredom and anxiety.

Also within the Chinese context, Li et al. (2022) carried out a mediation analysis to identify direct and indirect effects of the classroom environment, FLE, FLCA, and FLLB on the Willingness to Communicate of 2268 Chinese university EFL learners. Just like in the previous study, FLE was negatively related to both FLCA and FLLB. Highly anxious students were also more bored (small to medium effect sizes). Students who enjoyed themselves suffered little from boredom and anxiety and were much more willing to participate in interactions. Similar patterns emerged between the three emotions in Li and Han's (2022) study of 348 Chinese EFL learners. FLCA and FLLB were positively correlated, and both emotions were negatively linked with FLE. Regression analyses showed that FLE positively predicted final English exam scores and self-perceived English achievement. FLCA and FLLB were negatively linked with scores and achievement values but only FLCA significantly predicted final English exam scores. Pursuing this further with a longitudinal design, Li and Wei (2022) found that FLE, FLCA, and FLLB affected the performance of 954 junior secondary EFL learners in rural China differently at different points in time. FLE was the strongest and most persistent positive predictor from the start to the end of the data collections, while the negative effects of FLCA were significant only at Times 2 and 3 and FLLB had a negative effect only at Times 1 and 2.

Pawlak et al. (2022) investigated to what extent FLE, FLCA and FLB, in addition to L2 grit and perceived competence, predicted L2 motivated behaviour a of 238 Iranian EFL students. FLE was a positive and direct predictor of motivated behaviour while FLCA was a negative predictor through the mediation of consistency of interest. Surprisingly, FLB was an indirect positively predictor through the mediation of consistency of interest.

In a further study on the effect of FLE, FLCB and FLCA, Dewaele, Botes and Meftah (2023) focused on a sample of 502 Moroccan EFL learners. FLCA and FLCB were again

found to be positively correlated, while FLCA and FLCB were negatively linked with FLE. A latent dominance analysis showed that FLCA had the strongest (negative) effect on English test scores, followed by FLCB, while FLE had a weaker but still significant positive effect.

Finally, following a parallel avenue of research Dewaele, Albakistani and Kamal Ahmed (2024) collected data from 168 Arab and Kurdish English EFL learners in both in-person and emergency remote teaching classes. Levels of FLE were high in both conditions, with much lower levels of FLCA and FLCB. It could be argued that the different modality reflected in fact a different teaching method by the same teacher.

The educational system in France

The French educational system is characterised by heavy evaluative pressure. Learners face a considerable amount of testing and soon understand that getting good grades is crucial (Marquer & Pilard, 2017). This leads to high levels of anxiety and a drop in well-being (Merle, 2018). Officially, FL instruction in France is based on an actional perspective that aims at developing communicative skills in conjunction with the development of cognitive skills and the acquisition of cultural knowledge. FL instruction in France is thus pegged to the Common European Framework of Reference (n.d.). Beginning learners of English in France are aiming to reach the A1 level for oral and written communication. In practice, EFL teachers in France often focus on the development of written language, on grammar, on vocabulary and on accuracy. This leaves little time for spontaneous authentic communication in class.

The Neurolinguistic Approach (NLA)

Intensive French, later called NLA, was developed by Germain and Netten in 1997 in Anglophone Canada (Netten & Germain, 2004, 2005). Its theoretical basis is the work of Paradis (1994), which distinguishes between declarative memory (explicit knowledge) and procedural memory (implicit competence). Rather than focusing on the development of declarative memory through rote learning as is the case in standard FL teaching, the aim of NLA is to boost absorption of skills into procedural memory through intensive spontaneous oral communication with learners. It allows them to pick up “accuracy-skill” rather than “accuracy-knowledge” which cannot be deployed in real time (Netten & Germain, 2005, p. 197). Teachers are thus encouraged to adopt strategies which “focus on language use (modelling, using and correcting) in spontaneous communication throughout the lesson, without previous practice of vocabulary or forms” (p. 198). Germain (2018) later underlined the importance of authenticity of communication during classroom interactions. The intense communication has a positive impact on learners’ self-esteem and motivation. In Canada, the NLA is known as Intensive (L2) French, taught over a concentrated 5-month period. It has become a complete program, taught up to the end of high school (Guedat-Bittighoffer, Bel, Dat & Rançon, 2023). Pupils in NLA programs outperform their peers in standard programmes (Germain, 2018).

Guedat-Bittighoffer and Dewaele (2023) focused on the fluctuations in FLE, FLCA and FLCB of seven adult non-European beginners in five successive French as a foreign language classes over a three-week period. The teacher used the NLA and the classes were part of the oral phase of the Life Stories unit. During the first class, the teacher presented students with a first sentence structure about an event in his personal life and asked them to share an event in their own life using the same structure. Students were paired and had to question each other. After a while the teacher presented a different sentence structure and invited students to repeat the interactions with each other and addressing the whole group. Analysis of quantitative and qualitative data, complemented by direct observations in class and by a semi-structured

interview with the teacher revealed relative stability of the three emotions. However, FLCA peaked in lesson three, which happened to have been taught by a different teacher. A closer look at the FLE dimensions revealed that FLE teacher was also significantly lower for lesson three. It confirmed that authentic communication leads to close interpersonal relationships between the usual teacher and students, and that the emotional dynamics changed with a replacement teacher (cf. MacIntyre, 2017).

To sum up, the literature review has shown that research on learner emotions has shifted in the past decade from an exclusive focus on FLCA to a more holistic perspective including a wider range of positive and negative emotions. Applied linguists have started to identify the causes and the effects of these emotions, but so far nobody seems to have investigated whether the teaching method itself can contribute to the shaping of learner emotions in regular FL classrooms. Pedagogical research around the NLA has focused mostly on learner performance but not on learner emotions. Finally, little research has focused on the FL emotions of young beginners in intact classes, which allow researchers to control confounding variables. The current study is thus intended to start filling that gap.

Research questions

1. Are there individual group-level differences in FLE, FLCA, and FLCB between the NLA and the standard instruction group?
2. Did the teaching method (NLA vs standard) influence the level of FLE, FLCA, and FLCB when examined in conjunction?
3. What did the pupils have to say about their classes?

Methodology

Participants

Participants were recruited from three French secondary schools in the same region. Four beginner EFL classes in the three schools were taught with NLA while the other four classes were taught English using the standard approach. The three participating NLA teachers had received a five-day instruction seminar (Dat, Guedat-Bittighoffer, Starkey & Le Gal, 2022).

A total of $n = 181$ pupils participated in the project, with $n = 102$ female participants and $n = 79$ male participants. The average age of participants was 11.19 years ($SD = .396$). All participants had French as a first language, 28 pupils had a second simultaneous first language and another four pupils had a third L1. Pupils had four weekly one-hour EFL classes spread over 4 ½ days. The French academic year lasts 36 weeks. Finally, English classes are part of the standard curriculum in France (Hilton, 2022).

Research design

The research design could be described as a mixed method approach using a convergent parallel design (Creswell & Plano Clark, 2011). The quantitative and qualitative data (responses to two open questions) were collected concurrently at the same stage using a printed questionnaire, analysed separately, while the results were interpreted together. The qualitative results were used to explain and support the quantitative results.

Instruments

The first instrument was the nine-item S-FLES ($\alpha = .898$; $\omega = .902$) (Botes, Dewaele & Greiff, 2021). The S-FLES included one higher-order factor of FLE, which was indicated by three subfactors, namely Personal Enjoyment ($\alpha = 0.740$; $\omega = 0.742$), Social Enjoyment ($\alpha =$

0.719; $\omega = 0.756$), and Teacher Appreciation ($\alpha = 0.908$; $\omega = 0.920$). Items included were, for example, ‘I enjoy my English class’ and ‘My English teacher is encouraging’. All items were measured on a five-point Likert scale from “strongly disagree” to “strongly agree” (see appendix).

The second instrument was the eight-item S-FLCAS ($\alpha = 0.834$; $\omega = 0.836$) (Botes, van Westhuizen et al., 2022). Items included were, for example, “I get nervous and confused when I am speaking in my language class”. All items were measured on a five-point Likert scale from “strongly disagree” to “strongly agree” (see appendix).

The third instrument was the eight-item FLCB subscale ($\alpha = 0.907$; $\omega = 0.909$) of the full 32-item FLLB Scale (Li et al., 2023). The subscale was selected as it specifically referred to boredom within the context of the classroom and was therefore similar in context to the enjoyment and anxiety measures used. Items included were, for example, “My mind begins to wander in FL class” and “It is difficult for me to concentrate in the FL class”. All items were measured on a five-point Likert scale from “strongly disagree” to “strongly agree” (see appendix).

The questionnaire ended with two open-ended questions asking pupils to describe a positive and a negative experience in their English class. About half of the pupils ($n = 92$) described a positive experience resulting in 14,874 words and a similar proportion ($n = 96$) of pupils described a negative one, which yielded 15,678 words. The combined database of 30,552 words was subjected to an axiological analysis (Kerbrat-Orechionni, 2009). To hear pupils’ voices, we chose data extracts that were most representative of positive and negative axiological orientations, most poignant, and which we deemed to be most interesting.

Data collection procedure

After obtaining ethical approval from their research institutions and approval from the three participating schools, two of the authors explained to the headmasters, the teachers and the pupils’ parents what the study would entail. Anonymity was guaranteed. A total of 181 pupils filled out the printed French version of the questionnaire, six months into the school year.

Data Analysis

Descriptive statistics and correlations between all variables were calculated in SPSS 28.01.01. The one-way ANOVAs and structural equation model (SEM) were tested in JASP (version 0.16.1; JASP Team, 2022). The SEM model was tested with maximum likelihood estimation with standard error. A dummy variable was used to capture the teaching method in the dataset, with 0 used to indicate the standard teaching method and 1 used to indicate the NLA method. The three emotions were modelled as latent variables, with FLCA and FLCB both indicated by their respective eight items. FLE was indicated by the sum-score of each of its subfactors and therefore had three indicator variables. FLE was not modelled utilising the individual items due to statistical power constraints imposed by the smaller sample size. For the current model, with a sample size of $n = 181$ and 20 observed variables, the sample does not quite meet the necessary $n = 200$ needed in order to provide 10 cases per each observed variable (Nunnally, 1967). However, the model does meet the more lenient requirements of 5 cases per observation proposed by Bollen (1989). We therefore aimed to interpret the model fit with caution, mindful that Type I and II errors may be present due to lower sample size (Wolfe & Song, 2015). The fit of the SEM was examined via the fit indices and cut-offs proposed by Kenny (2020), specifically the Root Mean Square Error of Approximation ($RMSEA < .08$), Standardised Root Mean Square Residual ($SRMR < 0.08$), the Comparative Fit Index ($CFI > 0.90$), and Tucker-Lewis Index ($TLI > .90$). In addition, we examined the

normed chi-square, which is ratio of the chi-square (χ^2) to the degrees of freedom of the model (χ^2/df), and determined model fit if the ratio was less than 3 (Kline, 2005).

The qualitative analysis was based on Kerbrat-Orecchioni's (2009) framework on subjectivity in discourse. At the most granular level, the axiological analysis focused on the adjectives, adverbs, nouns and verbs that participants used to describe their positive and negative emotions. All affective adjectives that reflect an emotional stance about a person or situation ("this funny teacher", "a scary teacher") and evaluative axiological adjectives that give a value judgment about a person or situation ("the teacher is funny", "the teacher is scary") were identified (Kerbrat-Orecchioni, 2009). Similarly, evaluative axiological adverbs were highlighted. These reflect a positive or negative judgment about an action ("she speaks clearly", "he explains poorly") (p. 133). Next, evaluative axiological nouns which can equally be negative or positive ("anxiety", "jokes") (p. 83) were listed. Finally, axiological verbs which can reflect a positive or negative stance ("I enjoy", "She belittles") (p. 119) were identified. The next step in the analysis was to establish how the individual axiological words fitted in broader axiological orientations.

Results

Descriptive Statistics and Correlation Coefficients

Descriptive statistics for the three emotion variables of the entire sample, as well as descriptive statistics of the separate teaching method groups can be found in Table 1 and the correlation matrix of the full sample can be found in Table 2.

Table 1

Descriptive Statistics

	<i>M</i>	<i>SD</i>	Min	Max	Skewness	Kurtosis
<i>Full sample (n = 181)</i>						
FLE	3.362	1.010	1	5	-.276	-.103
FLCA	2.674	.982	1	5	.439	-.442
FLCB	2.533	1.089	1	5	.350	-.945
<i>NLA group (n = 89)</i>						
FLE	3.904	.846	1	5	-1.300	1.574
FLCA	2.411	.831	1	5	.611	.525
FLCB	2.035	.821	1	5	.632	-.415
<i>Standard group (n = 92)</i>						
FLE	2.838	.879	1.3	4.90	.395	-.554
FLA	2.926	1.052	1	5	.145	-.883
FLCB	3.015	1.103	1	5	-.168	-1.031

Table 2.

Correlation Coefficient Matrix

	1.	2.	3.
1. FLE	-	-.398**	-.732**
2. FLCA		-	.466**
3. FLCB			-

** $p < 0.001$

ANOVA results

The three one-way ANOVAs were tested in order to examine group-level differences between the NLA and standard classes in terms of their classroom emotions. Firstly, a statistically significant difference was found with regards to FLE ($F(1, 179) = 69.101$; $p < 0.001$) with a large effect size of $\eta^2 = .279$ (Cohen, 1988). The NLA classes therefore had a significantly higher level of FLE ($M = 3.904$) in comparison to the standard classes ($M = 2.838$).

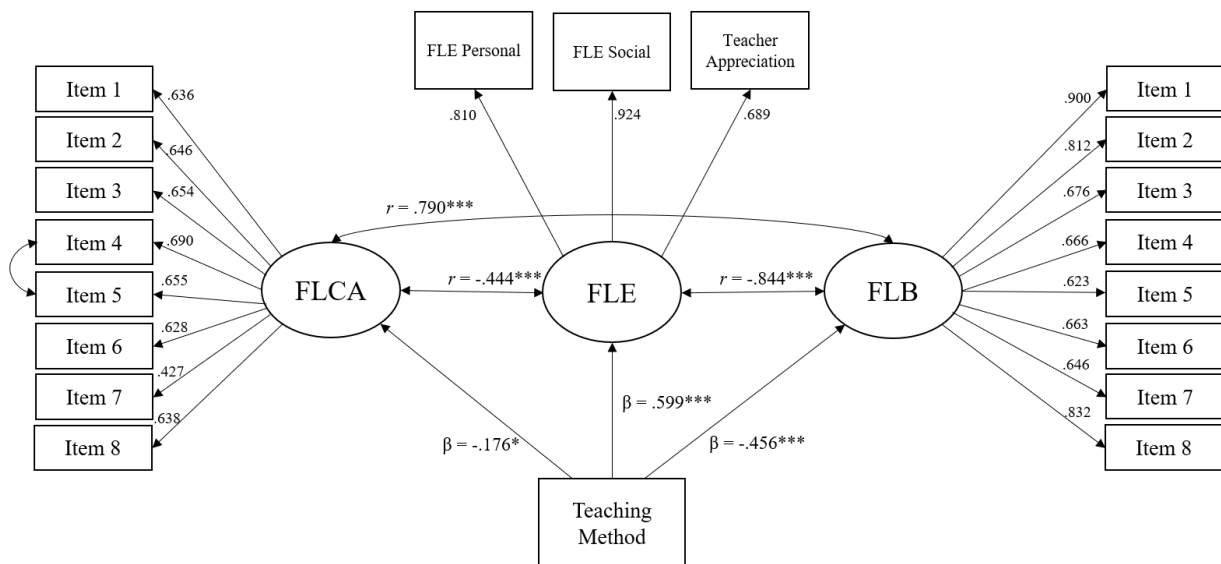
In turn, a statistically significant difference was found in the level of FLCA between NLA and standard classes ($F(1, 179) = 13.336$; $p < 0.001$), with a medium effect size of $\eta^2 = 0.069$. NLA classes therefore had a significantly lower level of FLCA ($M = 2.411$) in comparison to standard classes ($M = 2.926$). Lastly, a significant difference was also found in FLCB ($F(1, 179) = 45.750$; $p < 0.001$) with a large effect size of $\eta^2 = .204$. Therefore, NLA pupils ($M = 2.035$) had a significantly lower level of FLCB in comparison to pupils in standard classes ($M = 3.015$).

Overall, the results of the three independent one-way ANOVAs demonstrated that statistically significant differences were found for all three emotions when comparing NLA and standard classes, with the difference favouring NLA classes. Pupils in an NLA class therefore had a higher level of enjoyment and lower levels of anxiety and boredom in comparison to their peers in standard EFL classes. However, the ANOVAs did not take into account the inter-relationships between the three emotions and could not model the three emotions in a single equation, nor could it account for measurement error. As such, a structural equation model will be used to examine the relationship between teaching method and the three FL emotions in a single model.

Structural Equation Modelling

Overall, the model achieved a reasonable fit (see Figure 1), with an RMSEA and SRMR at or below the cut-off of 0.08 ($RMSEA = 0.080$; $SRMR = 0.073$; Kenny, 2020). In addition, the χ^2/df ratio was 2.17 ($\chi^2 = 352.169$; $df = 162$), below the cut-off of 3 recommended by Kline (2005). In addition, the CFI was slightly above the minimum of 0.90 ($CFI = 0.901$; Kenny, 2020). The only fly in the proverbial ointment was the TLI, which fell below the recommended .90 ($TLI = 0.884$; Kenny, 2020). All factor loadings were sufficient, with item 7 of the S-FLCAS being somewhat lower than the item loadings (0.427), however still meeting the required 0.4 loading advised by Field (2013).

The teaching method dummy variable significantly regressed onto all three emotion variables of FLE ($\beta = .599$; $p < 0.001$), FLCA ($\beta = -.176$; $p < 0.05$), and FLCB ($\beta = -.456$; $p < 0.001$). As such, the NLA teaching method therefore substantially predicted a higher FLE, a lower FLCA and a lower FLCB. In addition, significant correlations were observed between all latent variables, with FLE negatively correlated with FLCA ($r = -.444$; $p < 0.001$) and FLCB ($r = -.844$; $p < 0.001$). Lastly, FLCA and FLCB shared a positive correlation ($r = .790$; $p < 0.001$).



Note. All factor loadings significant at a $p < 0.001$ level. $^{***}p < 0.001$ $^{**}p < 0.01$ $^{*}p < 0.05$

Figure 1. Structural Equation Modelling Result.

Axiological analysis of the qualitative data

The axiological analysis of pupils' comments revealed four orientations: evaluative pressure, anxiety, enjoyment, and boredom linked to teaching method. Figure 2 presents the distributions of these orientations in the standard and the NLA groups.

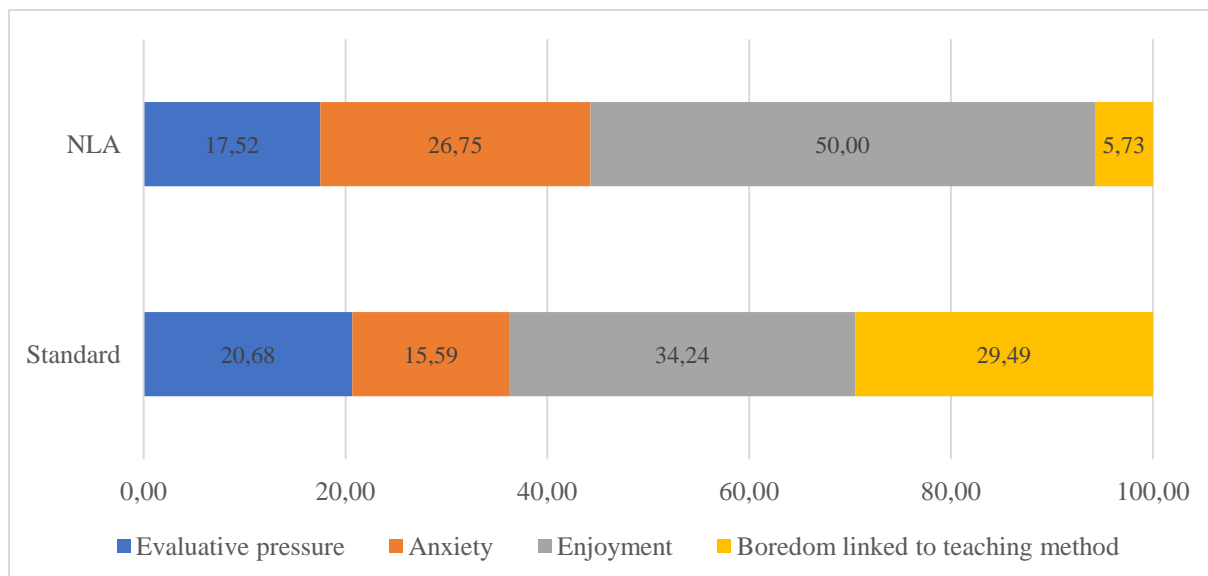


Figure 2. Distribution (in %) of axiological orientations in the NLA and the standard classes

The evaluative pressure was reported by pupils in both the standard and the NLA classes (Figure 2). Learning English was inextricably associated with grades and this permeated the whole EFL experience. Many pupils, like P1², reported feeling frustrated about disappointing grades:

“While she is turning in the assessments, most of the time I just get one letter or one dash wrong and bam, I can’t get the best grade and it frustrates me because I think the grades are super hard. It annoys me!” (P1)

This evaluative pressure is generated by the school, occasionally by the pupils themselves sometimes but also by the parents. P2 reports that despite the pressure, she is doing well:

“When I am in evaluation, it stresses me because my parents don’t want bad answers so it stresses me a lot but since the beginning of the year, I have greens all the time, even if it stresses me.” (P2)

Figure 2 shows that the proportion of comments about the omnipresence of anxiety was superior in the NLA group. For P3, FLCA was very much linked to the setting, namely standing in front of the class with everybody looking at them and ending up crushed by shame or literally paralysed:

“It was the day we do the English oral and when I speak in front of everyone. I was stressed and I couldn’t do it because I was ashamed.” (P3)

Although evaluative pressure was a constant source of FLCA, good grades on a test could provide a temporary uplift as P4 reported:

“I felt good when I got good grades in English class.” (P4)

Figure 2 shows that half of the comments in the NLA group were about FLE which was often linked to encouraging and positive teachers creating a good atmosphere that combined hard work and laughter, as P5 pointed out:

“For example, this morning we did some really good stuff! Example: we worked while laughing, we were also serious.” (P5)

P6 described the boost in self-esteem linked to a temporary appointment as class assistant by the teacher:

“I felt good when I went to do the teacher’s assistant because I was happy because I was in front of everyone and I was happy because I didn’t make mistakes because I had a sheet of paper.” (P6)

Interesting and fun activities, especially independent projects and mini-projects -which are an important characteristic of NLA units- were mentioned as sources of FLE and of excitement. P7 even remembered the number of times she had spoken up and been to the board:

“I was good the day we did an activity about Halloween that was fun, I talked 7 times and went to the board twice.” (P7)

Figure 2 shows that close to a third of comments in the standard group referred to what was labelled “Boredom linked to teaching method” in the EFL classes. P8 and P9 complained about monotony in delivery and in classroom activities:

“I didn’t really experience a positive emotion in English class. I find it boring and I would prefer it to be more dynamic” (P8)

“I feel good when the bell rings, I don’t get excited during class, it doesn’t interest me more than that.” (P9)

Discussion

The answer to the first research question is positive as three one-way ANOVAs revealed significant individual group-level differences in learner emotions. Pupils in the NLA classes reported significantly more FLE, less FLCA and FLCB than their peers in the standard instruction classes. The effect size was large for FLE and FLCB and it was moderate for FLCA. Intense authentic communication in English allowed pupils to function despite their anxiety, to nurture their enjoyment and to banish boredom. As Dewaele and MacIntyre (2016) put it, pupils were able to engage in playful discovery of new ways to express and to present themselves. By taking repeated small risks to speak up in class, they realised that they were able to communicate and that making mistakes was no big deal. Pupils in the NLA classes still experienced FLCA which can be explained by the fact that NLA forces everybody to speak, even those with only rudimentary knowledge and skills in English. This lack of linguistic resources may have paralysed learners in standard classes while in the NLA classes FLCA did not melt away but became manageable. We speculate that pupils’ self-confidence, excitement and curiosity grew in the NLA classes, which put them on the way to increased fluency and proficiency in English (Dewaele, Guedat-Bittighoffer & Dat, 2024).

The answer to the second research question is also positive as the teaching method did indeed affect the level of FLE, FLCA, and FLCB when examined in conjunction. Structural Equation Modelling revealed that the NLA teaching method predicted a much higher FLE, a lower FLCA and a much lower FLCB. This finding resonates with previous work that showed that the teacher has less control over learners’ FLCA than over their FLE and FLCB (Dewaele et al., 2018; Dewaele & MacIntyre, 2019; Li, 2021, Li et al., 2022). Enthusiastic teachers using stimulating and challenging tasks can boost FLE and lower FLCB, contributing to an optimal classroom environment where learners will be engaged and motivated (Dewaele & Li, 2021; Pawlak et al., 2020, 2022, 2024; Zawodniak et al., 2023). What the present study shows is that teachers can create an optimal environment where the focus is on actual authentic communication -even with limited linguistic means- which allows learners to flourish.

The final research question focused on pupils' voices and how they could help make sense of the statistics. The axiological analysis revealed that learners in the NLA groups made proportionally more comments about enjoyment compared to learners in the standard groups who made more comments about boring activities in the EFL class. A closer look at pupils' words revealed that their emotions were linked to a wide variety of learner-internal and learner-external variables, thus confirming previous research on slightly older populations (Dewaele, Botes et al., 2022; Dewaele, Saito et al., 2022; Dewaele & Li, 2021; Dewaele et al., 2018; Elahi Shirvan & Taherian, 2021; Li, 2021; Wang et al., 2021; Zawodniak et al., 2023).

Pupils in both groups complained about the evaluative pressure that is characteristic of the French education system (Soulie & Gobin, 2021). Some pupils reported boredom arising from a lack of exciting activities in class and teaching materials that were not adapted to their needs and interests which risked dragging them into a negative feedback loop (Cohn et al., 2009). All pupils also reported positive emotions linked to good grades or praise from the teacher after a good performance. It confirmed Li et al.'s (2023) conclusion that students who are excited and enjoy themselves join the classroom interactions. Humour and laughter were mentioned as sources of FLE.

It seems that intense, authentic communication has a powerful positive effect on FL learners' emotions which have been shown to strengthen motivation, engagement, Willingness to Communicate, and which in turn may lead to better performance, more communication, faster progress, better test results, resulting in a positive feedback loop as described in Cohn et al. (2009) and Botes et al. (2020b).

The study is not without limitations. The relatively small sample size, the age of participants and the use of questionnaires meant that latent group differences had to be investigated with a dummy predictor instead of invariance testing. Sample size also prevented us from considering the multilevel structure of the data. Moreover, our cross-sectional design did not allow us to capture the dynamic character of the learner emotions, although the participants' observations gave us a glimpse of fluctuations linked to classroom activities and people.

The results have also some clear pedagogical implications. By pushing learners to engage in spontaneous, authentic communication in class, EFL teachers introduce an element of exhilarating challenge that may be lost in standard EFL classes despite them being officially actional and communicative following the recommendations of the CEFR (n.d.). We argue that increased enjoyment and excitement allows learners to control their anxiety better, creating the perfect combination of emotions to fully participate in classroom interactions without the crippling fear of making errors. In the longer term, it means pupils will perform better and progress faster, partially freeing them from the fear of getting poor grades and dealing with the social and academic consequences. In other words, the NLA allows learners to escape the institutional stranglehold on FL teaching and learning. It allows learners to escape from a general deficit view and it turns them instead into intrepid and courageous linguistic adventurers eager to use the new language to open new horizons.

Conclusion

The originality of the current study lies in its choice of independent and dependent variables, the combination of advanced statistical techniques with a qualitative method rooted in the French academic tradition, and the focus on 11-year-old beginners in intact EFL classes.

This study is the first -to our knowledge- to focus specifically on the effect of intense, authentic communication on learner emotions in regular EFL classrooms. It was found to

have the strongest (positive) effect on FLE, followed by a strong negative effect on FLCB and a slightly weaker – but still significant- effect on FLCA. In other words, compared to pupils in standard classes, pupils in NLA classes experienced more enjoyment tackling communicative challenges, were more excited about their EFL classes, and -though they still experienced anxiety- they were not crippled by it. The axiological qualitative analysis of pupils' feedback provided independent confirmation that pupils in NLA classes were flourishing. Causes for FLE, FLCA and FLCB were broadly comparable to previous studies, with the difference that evaluative pressure was a commonly mentioned reason for FLCA in both groups.

To conclude, the NLA teaching method which is centred around the notion that FL learners need to engage in intense authentic communication from the very start of their FL journey, clearly contributes to a constellation of learner emotions that has the potential to create a positive feedback loop that could carry them all the way to advanced fluency and proficiency.

Author biographies

Jean-Marc Dewaele is Honorary Professor at the Institute of Education, University College London, and Emeritus Professor at Birkbeck, University of London. He is former president of the *International Association of Multilingualism*, the *European Second Language Association* and is current president of the *International Association for the Psychology of Language Learning*. He is General Editor of the *Journal of Multilingual and Multicultural Development*. He received the Distinguished Scholar Award from the *European Second Language Association* in 2022 and was ranked as the 3th most influential linguist in the world in the Stanford rankings 2023.

Delphine Guedat-Bittighoffer is Associate professor in Applied Linguistics at the University of Angers in France. She is interested in the impact of emotions on the process of second language learning among adolescent migrants in a school context, and more generally, among learners acquiring a L2 in both school and university settings. She led the research project *Neurolinguistic Approach for Migrant Adolescents*, which aims to measure the impact of this learning method. She is also leading the Erasmus+ Cooperative Partnerships project SLS4Teens (Second Language Learning for All Teenagers) from 2023 to 2026 in four European countries.

Elouise Botes is a postdoctoral researcher at the Cognitive Science and Assessment Institute at the University of Luxembourg. She graduated with a PhD in Psychology in 2021 and has since done postdoctoral research at the University of Vienna and the University of Luxembourg. Her research examines individual differences in language learning through advanced quantitative methods. She is an inter-disciplinary researcher, combining concepts from Educational Psychology and Applied Linguistics in her work. She is a registered psychologist and the co-vice chair of the Emotions special interest group at the International Association for the Psychology of Language Learning.

Marie-Ange Dat is Associate professor in Language Sciences at Nantes University in France. She teaches applied linguistics at the French teachers training Institute (INSPE), and she is a member of the Nantes linguistics laboratory (LLING). First French as a second language teacher, then Italian elementary school teacher, she is interested in the acquisition of spontaneous oral L2 speech by beginners in a guided environment. Her research concerns the entire school context, from elementary to secondary school, where her current research projects focus more specifically on the issues of automation, fluency and syntactic precision.

References

- Arnold, J. (2006). Comment les facteurs affectifs influencent-ils l'apprentissage d'une langue étrangère? *ÉLA. Études de linguistique appliquée*, 4, 407-425. <https://doi.org/10.3917/ela.144.0407>
- Bollen, K.A. (1989). *Structural Equations with Latent Variables*. Wiley.
- Botes, E., Dewaele, J.-M., & Greiff, S. (2020a). The Foreign Language Classroom Anxiety Scale and academic achievement: An overview of the prevailing literature and a meta-analysis. *The Journal for the Psychology of Language Learning*, 2, 26–56.
- Botes, E., Dewaele, J.-M., & Greiff, S. (2020b). The power to improve: Effects of multilingualism and perceived proficiency on enjoyment and anxiety in foreign language learning. *European Journal of Applied Linguistics*, 8(2), 128. <https://doi.org/10.1515/eujal-2020-0003>
- Botes, E., Dewaele, J.-M., & Greiff, S. (2021). The development of a Short-Form Foreign Language Enjoyment Scale. *The Modern Language Journal*, 105(4), 858-876. <https://doi.org/10.1111/modl.12741>
- Botes, E., Dewaele, J.-M., & Greiff, S. (2022a). Taking stock: A meta-analysis of the effects of Foreign Language Enjoyment. *Studies in Second Language Learning and Teaching*, 12(2), 205-232. <https://doi.org/10.14746/ssllt.2022.12.2.3>
- Botes, E., Dewaele, J.-M., & Greiff, S. (2022b). By the old gods and the new: The effect of the congruence and incongruence of foreign language classroom anxiety and enjoyment on self- perceived proficiency. *The Modern Language Journal*, 106(4), 784-797. <https://doi.org/10.1111/modl.12807>
- Botes, E., van der Westhuizen, L., Dewaele, J.-M., MacIntyre, P.D., & Greiff, S. (2022) Validating the Short-Form Foreign Language Classroom Anxiety Scale (S-FLCAS). *Applied Linguistics*, 43(5), 1006–1033. <https://doi.org/10.1093/applin/amac018>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Routledge.
- Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion*, 9(3), 361–368. <https://doi.org/10.1037/a0015952>
- Common European Framework of Reference for Languages (CEFR) (n.d.) <https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions>
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and Conducting Mixed Methods Research*. Sage (2nd ed.).
- Csikszentmihályi, M. (1990). *Flow: The psychology of optimal experience*. Harper Collins.
- Dat, M.A., Guedat-Bittighoffer, D., Starkey, R., & Le Gal, S. (2022). L'apprentissage d'une langue seconde (L2) au collège avec l'approche neurolinguistique (ANL) : transmission implicite de l'oral ? In N. Sorba (Ed.), *Transmettre les langues : pourquoi et comment ?* (pp. 215-229). L'Harmattan.
- Dewaele, J.-M. (2019). The effect of classroom emotions, attitudes toward English, and teacher behaviour on Willingness to Communicate among English foreign language

- learners. *Journal of Language and Social Psychology*, 38(4), 523–535.
<https://doi.org/10.1177/0261927X19864996>
- Dewaele, J.-M., Albakistani, A., & Kamal Ahmed, I. (2024). Levels of foreign language enjoyment, anxiety and boredom in emergency remote teaching and in in-person classes. *The Language Learning Journal*, 52(1), 117-130.
<https://doi.org/10.1080/09571736.2022.2110607>.
- Dewaele, J.-M., Botes, E., & Greiff, S. (2023). Sources and effects of foreign language enjoyment, anxiety, and boredom: A structural equation modeling approach. *Studies in Second Language Acquisition*, 45(2), 461-479.
<https://doi.org/10.1017/S0272263122000328>
- Dewaele, J.-M., Botes, E., & Meftah, R. (2023). A three-body problem: The effects of foreign language anxiety, enjoyment, and boredom on academic achievement. *American Review of Applied Linguistics*, 43, 7-22. <https://doi.org/10.1017/S0267190523000016>
- Dewaele, J.-M., Chen, X., Padilla, A.M, & Lake, J. (2019). The flowering of positive psychology in foreign language teaching and acquisition research. *Frontiers in Psychology*, 10, 2128. <https://doi.org/10.3389/fpsyg.2019.02128>
- Dewaele, J.-M., & Dewaele, L. (2017). The dynamic interaction in foreign language classroom anxiety and foreign language enjoyment of pupils aged 12 to 18. A pseudo-longitudinal investigation. *Journal of the European Second Language Association*, 1(1), 12-22. <http://doi.org/10.22599/jesla.6>
- Dewaele, J.-M., & Dewaele, L. (2018). Learner-internal and learner-external predictors of Willingness to Communicate in the FL Classroom. *Journal of the European Second Language Association*, 2, 24-37. <http://doi.org/10.22599/jesla.37>
- Dewaele, J.-M., Guedat-Bittighoffer, D., & Dat, M.A. (2024). Foreign Language Enjoyment overcomes Anxiety and Boredom to boost oral proficiency in the first year of English Foreign Language learning. *International Journal of Applied Linguistics*.
<https://doi.org/10.1111/ijal.12607>
- Dewaele, J.-M., Saito, K., & Halimi, F. (2022). How teacher behaviour shapes Foreign Language learners' Enjoyment, Anxiety and Motivation: A mixed modelling longitudinal investigation. *Language Teaching Research*. <https://doi.org/10.1177/13621688221089601>
- Dewaele, J.-M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237–274. <https://doi.org/10.14746/ssllt.2014.4.2.5>
- Dewaele, J.-M., & MacIntyre, P. (2016). Foreign Language Enjoyment and Foreign Language Classroom Anxiety. The right and left feet of FL learning? In P. MacIntyre, T. Gregersen & S. Mercer (Eds.), *Positive Psychology in SLA* (pp. 215-236). Multilingual Matters.
- Dewaele, J.-M., & MacIntyre, P.D. (2019). The predictive power of multicultural personality traits, learner and teacher variables on Foreign Language Enjoyment and Anxiety. In M. Sato & S. Loewen (Eds.), *Evidence-based second language pedagogy: A collection of Instructed Second Language Acquisition studies* (pp. 263-286). Routledge.
- Dewaele, J.-M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety in the FL classroom: The effect of teacher and learner variables. *Language Teaching Research*, 22(6), 676-697. <https://doi.org/10.1177/136216881769216>

- Elahi Shirvan, M., Khajavy, G.H., MacIntyre, P.D., & Taherian, T. (2019). A meta-analysis of L2 Willingness to Communicate and its three high-evidence correlates. *Journal of Psycholinguistic Research*, 48, 1241–1267. <https://doi.org/10.1007/s10936-019-09656-9>
- Elahi Shirvan, M., & Taherian, T. (2021). Longitudinal examination of university students' foreign language enjoyment and foreign language classroom anxiety in the course of general English: latent growth curve modeling. *International Journal of Bilingual Education and Bilingualism*, 24(1), 31-49. <https://doi.org/10.1080/13670050.2018.1441804>
- Ellis, R., & Barkhuizen, G. (2005). *Analysing Learner Language*. Oxford University Press.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
- Fredrickson, B. L. (2003). The value of positive emotions. *American Scientist*, 91(4), 330-335.
- Germain, C. (2018). *The Neurolinguistic Approach (NLA) for Learning and Teaching Foreign Languages – Theory and Practice*. Cambridge Scholars Publishing.
- Guedat-Bittighoffer, D., Bel, D., Dat, M.A., & Rançon, J. (Eds.) (2023). Enseigner avec l'Approche neurolinguistique. Quel apport pour l'apprentissage des langues ? [Special Issue] *Revue de linguistique et de didactique des langues*, 68. <https://doi.org/10.4000/lidil.11845>
- Guedat-Bittighoffer, D., & Dewaele, J.-M. (2023). Fluctuations des émotions éprouvées par des apprenants débutants dans cinq cours de Français Langue Etrangère: Une étude de cas multiples. *Language, Interaction, and Acquisition - Langage, Interaction et Acquisition*, 14(2), 279-305. <https://doi.org/10.1075/lia.22025.gue>
- Hilton, H. (2022). *Enseigner les langues avec l'apport des sciences cognitives*. Hachette.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125–132. <https://doi.org/10.1111/j.1540-4781.1986.tb05256.x>
- Jellab, A., & Marsollier, C. (Eds.). (2019). *Bienveillance et bien-être à l'école. Pour une école humaine et exigeante*. Berger-Levrault.
- Jin, Y. X., Dewaele, J.-M., & MacIntyre, P.D. (2021). Reducing anxiety in the foreign language classroom: A positive psychology approach. *System*, 101, 102604. <https://doi.org/10.1016/j.system.2021.102604>
- Kerbrat-Orecchioni, C. (2009). *L'énonciation, de la subjectivité dans le langage*. Armand Colin (4th ed.).
- King, J. (2013). *Silence in the second language classroom*. Springer.
- Kruk, M., & Zawodniak, J. (2018). Boredom in practical English language classes: Insights from interview data. In L. Szymański, J. Zawodniak, A. Łobodziec, & M. Smoluk (Eds.), *Interdisciplinary views on the English language, literature and culture* (pp. 177–191). Zielona Góra: Uniwersytet Zielonogórski.
- Li, C. (2021). A control-value theory approach to boredom in English classes among university students in China. *The Modern Language Journal*, 105, 317–334.

- Li, C., Dewaele, J.-M., & Hu, Y. (2023). Foreign language learning boredom: Conceptualization and measurement. *Applied Linguistics Review*, 14(2), 223-249. <https://doi.org/10.1515/applirev-2020-0124>
- Li, C., Dewaele, J.-M., Pawlak, M., & Kruk, M. (2022). Classroom environment and willingness to communicate in English: The mediating role of emotions experienced by university students in China. *Language Teaching Research*. <https://doi.org/10.1177/13621688221111623>
- Li, C., & Han, Y. (2022). The predictive effects of foreign language anxiety, enjoyment, and boredom on learning outcomes in online English classrooms. *Modern Foreign Languages* (《现代外语》), 45(2), 207–219.
- Li, C., & Wei, L. (2023). Anxiety, enjoyment, and boredom in language learning amongst junior secondary students in rural China: How do they contribute to L2 achievement?. *Studies in Second Language Acquisition*, 45(1), 93-108.
- Li, C., & Xu, J. (2019). Trait emotional intelligence and classroom emotions: A positive psychology investigation and intervention among Chinese EFL learners. *Frontiers in Psychology*, 10, 472193. <https://doi.org/10.3389/fpsyg.2019.02453>
- MacIntyre, P. D. (1992). Anxiety and language learning from a stages of processing perspective (Unpublished doctoral dissertation). The University of Western Ontario, London, ON, Canada. Retrieved from <https://ir.lib.uwo.ca/digitizedtheses/2155>
- MacIntyre, P. D. (2017). An overview of language anxiety research and trends in its development. In C. Gkonou, M. Daubney, & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 11–30). Multilingual Matters.
- MacIntyre, P. D., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 2, 193–213. <https://doi.org/10.14746/ssllt.2012.2.2.4>
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2019). Setting an agenda for positive psychology in SLA: Theory, practice, and research. *The Modern Language Journal*, 103(1), 262-274. <https://doi.org/10.1111/modl.12544>
- Marquer, S., & Pilard, P. (2017). *Évaluer au collège*. Réseau Canopé.
- Merle, P. (2018). *Les pratiques d'évaluation scolaire. Historique, difficultés, perspectives*. Presses Universitaires de France.
- Myhre, S.T., Dewaele, J.-M., Fiskum, T.A., & Holand, A.M. (2023). Anxiety and enjoyment among young teenagers learning English as a second language outdoors: A mixed-methods study. *Innovation in Language Learning and Teaching*, 17(4), 827-844. <https://doi.org/10.1080/17501229.2022.2161550>
- Netten, J., & Germain, C. (2004). Theoretical and research foundations of intensive French. *Canadian Modern Language Review*, 60(3), 275-294. <https://doi.org/10.3138/cmlr.60.3.275>
- Netten, J., & Germain, C. (2005). Pedagogy and second language learning: Lessons learned from Intensive French. *Canadian Journal of Applied Linguistics*, 8(2), 183–210. <https://journals.lib.unb.ca/index.php/CJAL/article/view/19775>

- Paradis, M. (1994). Neurolinguistic aspects of implicit and explicit memory: Implications for bilingualism. In N. Ellis (Ed.), *Implicit and explicit learning of Second Languages* (pp. 393-419). Academic Press.
- Pawlak, M., Kruk, M., & Zawodniak, J. (2024). *Teachers Reflecting on Boredom in the Language Classroom*. Equinox.
- Pawlak, M., Kruk, M., Zawodniak, J., & Pasikowski, S. (2020). Investigating factors responsible for boredom in English classes: The case of advanced learners. *System*, *91*, 102259. <https://doi.org/10.1016/j.system.2020.102259>
- Pawlak, M., Zarrinabadi, N., & Kruk, M. (2022). Positive and negative emotions, L2 grit and perceived competence as predictors of L2 motivated behaviour. *Journal of Multilingual and Multicultural Development*, *45*(8), 3188–3204. <https://doi.org/10.1080/01434632.2022.2091579>
- Resnik, P., & Dewaele, J.-M. (2020). Trait emotional intelligence, anxiety and enjoyment in first and foreign language classes. *System*, *94*, 102324. <https://doi.org/10.1016/j.system.2020.102324>
- Scott Brewer, S. (2013). Entre émotions et contrôle de soi : un enjeu essentiel pour l'autonomie dans l'apprentissage des langues. *Revue de linguistique et de didactique des langues*, *48*, 189-208. <https://doi.org/10.4000/lidil.3331>
- Soulier, L., & Gobin, P. (2021). Les émotions à l'école (1). Les sources psychologiques des émotions à l'école. In P. Gobin, V. Baltazart, A. Simoes-Perlant, & N. Stefaniak (Eds.), *Emotions et apprentissages* (pp. 287-309). Dunod.
- Tsang, A., & Dewaele, J.-M. (2024). The relationships between young Chinese EFL learners' classroom emotions, engagement and EFL proficiency. *Applied Linguistics Review*, *15*(5), 2015-2034. <https://doi.org/10.1515/applirev-2022-0077>
- Wang Y., Derakhshan, A., & Zhang, L. J. (2021). Researching and practicing positive psychology in second/foreign language learning and teaching: The past, current status and future directions. *Frontiers in Psychology*, *12*, 731721. <https://doi.org/10.3389/fpsyg.2021.731721>
- Wolfe, E.W., & Song, T. (2015). Comparison of models and indices for detecting rater centrality. *Journal of Applied Measurement*, *16*(3), 228-241.
- Zawodniak, J., Kruk, M., & Pawlak, M. (2023). Boredom as an aversive emotion experienced by English majors. *RELC Journal*, *54*(1), 22-36. <https://doi.org/10.1177/0033688220973732>

APPENDIX

INSTRUMENTS

Short Form Foreign Language Enjoyment Scale

1 = Pas du tout d'accord, 2 = Pas d'accord, 3 = Ni d'accord ni pas d'accord, 4 = D'accord, 5 = Tout à fait d'accord

1. La/le prof d'anglais est encourageant/e
2. La/le prof d'anglais est gentil/le
3. La/le prof d'anglais est toujours prêt/e à aider
4. J'aime cette classe en anglais
5. J'ai appris des choses intéressantes en classe d'anglais
6. Je suis fier/e de mes progrès en anglais
7. Nous sommes solidaires les un.es avec les autres en cours d'anglais
8. Nous rions beaucoup en classe d'anglais.
9. Nous avons des blagues et des histoires partagées en classe d'anglais.

Short Form Foreign Language Classroom Anxiety Scale French

1 = Pas du tout d'accord, 2 = Pas d'accord, 3 = Ni d'accord ni pas d'accord, 4 = D'accord, 5 = Tout à fait d'accord

1. J'ai toujours l'impression que les autres élèves parlent mieux anglais que moi.
2. Je peux sentir mon cœur battre quand je vais être appelé.e en cours d'anglais.
3. Je n'ai pas peur de faire des erreurs en cours d'anglais.
4. Je me sens confiant.e lorsque je parle en cours d'anglais.
5. Je deviens nerveux/se et tout se mélange dans ma tête lorsque je parle dans mon cours d'anglais.
6. Je commence à paniquer quand je dois parler sans préparation en cours d'anglais.
7. Cela me gêne de proposer des réponses dans mon cours d'anglais.
8. Même si je suis bien préparé.e pour le cours d'anglais, je me sens anxieux.

Foreign Language Classroom Boredom Scale French

1 = Pas du tout d'accord, 2 = Pas d'accord, 3 = Ni d'accord ni pas d'accord, 4 = D'accord, 5 = Tout à fait d'accord

1. La classe d'anglais m'ennuie.
2. Je commence à bâiller dans la classe d'anglais parce que je m'ennuie.
3. Je suis dans la lune dans la classe d'anglais
4. Je ne suis que physiquement présent dans la classe d'anglais, mon esprit est ailleurs.

5. J'ai du mal à me concentrer dans la classe d'anglais.
6. Le temps passe lentement dans la classe d'anglais.
7. Je m'agite et je ne peux pas attendre la fin du cours d'anglais.
8. Je pense toujours à ce que je pourrais faire d'autre pour faire passer le temps plutôt que d'être dans ce cours d'anglais.

¹ In a pseudo-longitudinal design 'samples of learner language are collected from groups of learners of different proficiency levels at a single point in time. A longitudinal picture can then be constructed by comparing the devices used by the different groups according to their proficiency' (Ellis & Barkhuizen, 2005, p. 97).

² We refer to our participants by numbering them P1, P2 ... etc. Participants' comments in French were translated by us.