



## Research article

## Enjoyment in foreign language learning: A systematic review

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## ABSTRACT

In recent years, research on enjoyment in foreign language (FL) learning has flourished. To help illuminate the existing scope of inquiry and guide future research, this paper presents a systematic review of 118 empirical studies on FL learning enjoyment published between 2014 and 2023. Each study was coded according to its research context, methodological features, and research focus. The results indicate (1) a heavy focus on adult English as a foreign language (EFL) learners whose first languages are Chinese or Persian within traditional classroom learning settings; (2) a strong preference for quantitative methods; and (3) a prominent focus on enjoyment's antecedents and effects. Drawing upon these findings, we recommend that future research (1) addresses the experiences of language learners from diverse demographic backgrounds in a wider variety of learning settings; (2) applies multimodal methods to thoroughly assess the experience of enjoyment from both objective and subjective perspectives; and (3) explores the nature of enjoyable teacher-student or student-student socio-emotional interaction in greater depth.

## 1. Introduction

With the introduction of positive psychology into applied linguistic research, enjoyment, one of the positive emotions most frequently experienced when learning a foreign language (FL) [1], has received increasing attention in research [2]. Similarly to other positive emotions such as joy, hope, and pride, enjoyment tends to broaden individual's momentary repertoires of thoughts and actions and build their psychological resiliency and personal resources [3], thereby facilitating academic achievement and language acquisition [4]. Enjoyment also serves to counter the lingering effects of negative emotions in the face of challenges, thus fostering psychological resilience and well-being [5,6].

Enjoyment arises when we extend ourselves or challenge our limits to accomplish something novel or unexpected, and is distinct from pleasure, which can simply occur whenever our biological needs are met [7]. A key component of enjoyment is thus a sense of novelty or accomplishment that entails intellectual focus, heightened attention, and optimal challenge, ultimately resulting in psychological growth [8]. In line with Spielberger's [9] classic distinction between trait and state emotions, enjoyment can be further delineated into the general dispositional tendency to experience enjoyment (trait enjoyment) and the actual momentary occurrence of enjoyment (state enjoyment). Trait enjoyment is an enduring positive personality characteristic that remains relatively stable over time, whereas state enjoyment is a temporary condition that is sensitive to real-time changes in the surrounding environment [10]. Both trait and state enjoyment are prerequisites for flow experience, a state of complete absorption in the current experience, and the driving force behind motivation in FL learning [11,12].

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Recently, there has been a surge in the publication of systematic reviews on a range of subdomains of FL research, such as task-based learner production [13], collaborative writing in face-to-face settings [14], and teacher emotions [15]. The findings of such reviews have yielded a fine-grained intellectual synthesis of previous studies and pointed out useful directions for future research, enabling researchers, policymakers, teachers, and students to trace the evolution of knowledge and take steps to refine their language teaching and learning practices [15,16]. As a new subdomain of FL research, enjoyment research has undergone rapid growth in published findings over the past decade [17], which has contributed to the emergence of two qualitative reviews. First, Zeng [18] reviewed 17 articles regarding FL enjoyment published between 2014 and 2021. Focusing on the conceptualization of enjoyment in the literature, this review identified that enjoyment varies across instructional or cultural contexts and interacts with a myriad of language learning variables. Taking a step further, Botes et al. [19] reviewed 56 enjoyment-related publications from 2014 to 2022 to look into the relationship between enjoyment and four major language learning variables, namely anxiety, willingness to communicate, academic achievement, and self-perceived achievement. The review showed that enjoyment was negatively correlated with anxiety and positively correlated with the other three variables. These two reviews provide an in-depth understanding of the conceptual framework of enjoyment and confirm its value in FL learning. However, several facets of enjoyment studies have not been well examined, such as the research settings where enjoyment is situated, the methodology used to measure enjoyment, and research preferences for enjoyment. Investigating these facets could generate significant insights to help language researchers or teachers develop effective context-based interventions that increase learners' enjoyment [20]. Therefore, a systematic review is conducted in this study to address three following research questions (RQs):

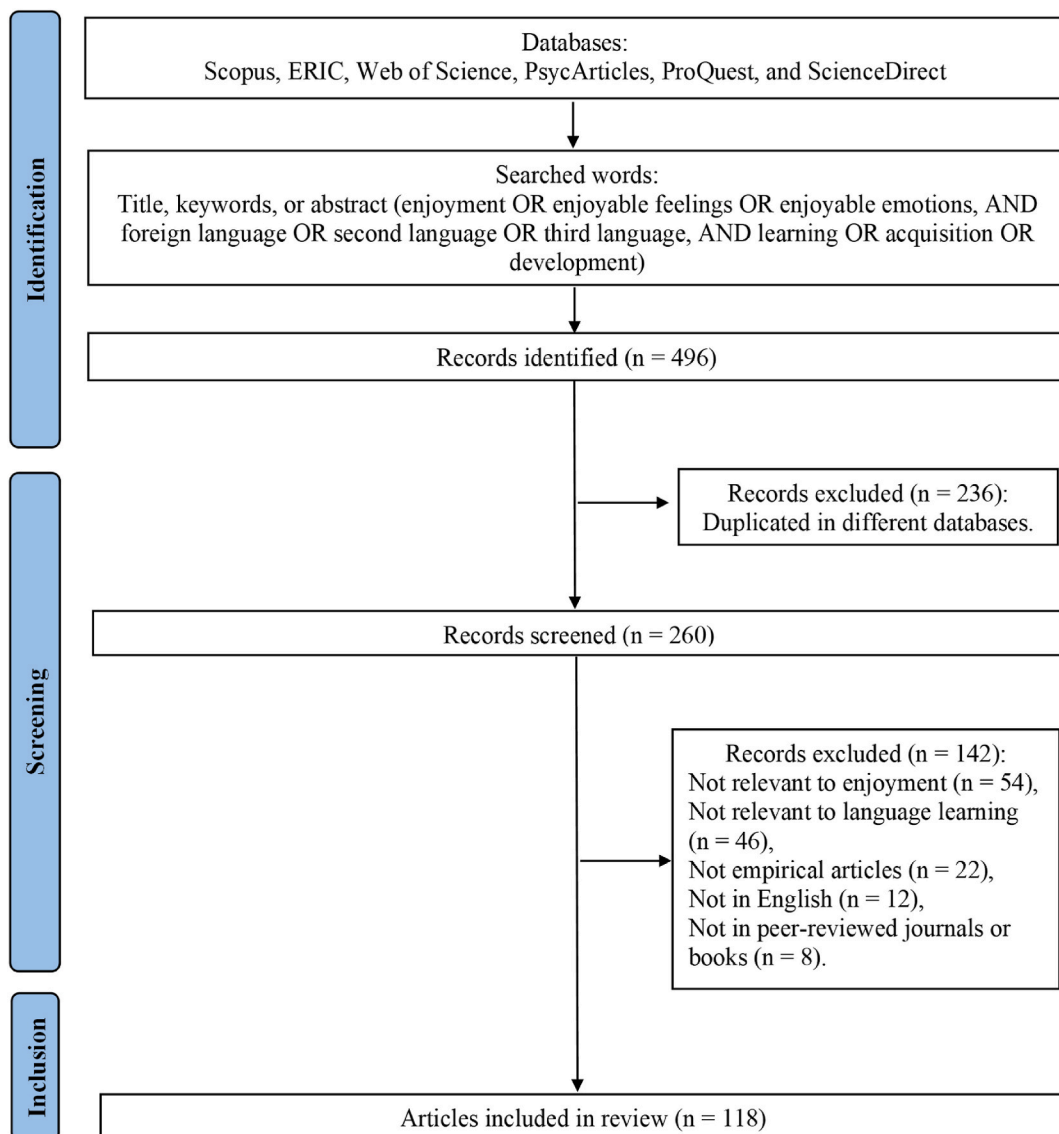


Fig. 1. Flowchart of the study selection procedure.

1. What are the research contexts in studies on enjoyment in FL learning?
2. What are the methodological features of studies on enjoyment in FL learning?
3. What topics have been investigated in studies on enjoyment in FL learning?

## 2. Methods

### 2.1. Review procedure

Given that Dewaele and MacIntyre [21] initiated the exploration of enjoyment in applied linguistics in 2014, this review focuses on studies on FL learning enjoyment that were published from January 2014 to October 2023. To ensure that the articles included in this review were relevant to the stated research aims, a set of inclusion criteria was established prior to conducting the systematic search. First, the articles had to focus on the enjoyment of FL learners or enjoyable experiences in FL learning. Second, they had to be empirical studies that provided adequate information regarding the theoretical framework used, methods employed, and results obtained. Third, the articles had to have been published in peer-reviewed journals or books. Fourth, the articles had to be written in English.

Based on these criteria, we searched six databases, Scopus, ERIC, Web of Science, PsycArticles, ProQuest, and ScienceDirect, using the Peer-Reviewed Instructional Materials Online (PRIMO) database search tool. The following combination of keywords was used to identify eligible articles in databases: enjoyment OR enjoyable feelings OR enjoyable emotions, AND foreign language OR second language OR third language, AND learning OR acquisition OR development. This search returned 496 articles (see Fig. 1). We then assessed the eligibility of these retrieved articles in line with the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines [22]. During the assessment, we initially used EndNote to remove 236 duplicate results that were indexed in multiple databases, leaving a total of 260 works. The first and second authors then scrutinized all 260 articles independently by reviewing the abstract of each study to determine whether it met the inclusion criteria set out above. If the abstract did not provide sufficient information to decide whether or not to include the article, or if there was disagreement about the article's inclusion, these two authors examined the full text to determine the article's eligibility for inclusion. This screening procedure excluded a total of 142 articles, including 54 articles irrelevant to enjoyment (e.g., articles focusing on negative emotions), 46 articles irrelevant to language learning (e.g., articles on musical enjoyment), 22 articles that were not empirical studies (e.g., commentaries), 12 articles that were not written in English, and eight articles that were not from peer-reviewed journals or books (e.g., conference papers). Ultimately, we obtained a sample of 118 articles for further analysis. As shown in Table 1, these 118 articles were published in 32 peer-reviewed journals from January 2014 to October 2023. Fig. 2 illustrates the publication of these articles over time, indicating a growing interest in the enjoyment of FL learning in recent years.

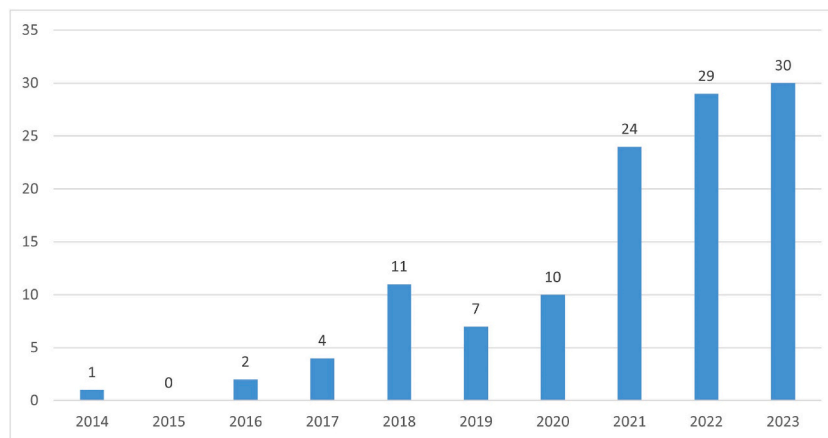
### 2.2. Data analysis

We developed a coding scheme (see Table 2) to extract information from each study pertaining to three primary themes set out in the research questions: (1) research contexts, (2) methodological features, and (3) research foci. The first and second authors further refined and elaborated upon the coding scheme by applying it to 20 articles. In this phase, the two authors frequently discussed coding discrepancies and modified the coding scheme accordingly. Modifications made at this stage included the reorganisation of categories and the inclusion of new code examples. After finalizing the coding scheme, the first author coded all 118 articles included in this

**Table 1**  
Source journals for studies on enjoyment in FL learning.

Journal	<i>f</i>	%
System	15	12.7
Language Teaching Research	13	11.0
Journal of Multilingual and Multicultural Development	13	11.0
Frontiers in Psychology	13	11.0
Studies in Second Language Learning and Teaching	12	10.2
Innovation in Language Learning and Teaching	8	6.8
Studies in Second Language Acquisition	6	5.1
The Modern Language Journal	4	3.4
Eurasian Journal of Applied Linguistics	4	3.4
International Journal of Bilingual Education and Bilingualism	3	2.5
Journal of Intercultural Communication Research	3	2.5
Perceptual and Motor Skills	2	1.7
Current Psychology	2	1.7
International Journal of Environmental Research and Public Health	2	1.7
Other journals*	18	15.3

Note: \*One study from each of the following journals: Applied Linguistics, Applied Linguistics Review, Asian-Pacific Journal of Second and Foreign Language Education, British Journal of Applied Linguistics, Chinese Journal of Applied Linguistics, Electronic Journal of Foreign Language Teaching, English Language Teaching, European Journal of Applied Linguistics, International Journal of Emotional Education, Journal of Language and Linguistic Studies, Journal of Second Language Writing, Journal of the European Second Language Association, Journal of Language and Education, Language Learning, Sage Open, Sustainability, Theory and Practice of Second Language Acquisition, and Vivat Academia.



**Fig. 2.** Publications on enjoyment in FL learning over time.

**Table 2**  
Coding scheme.

Theme	Category	Code examples
Research contexts	Sample size	1-10; 11-100; 101-1000; >1000
	Age	Child or teenager (11-17); Adult (>17)
	Learning institution	Primary or secondary school; university; private language institute
	Learning setting	Classroom; online; outdoors
	Participants' first language	Chinese; Persian; English
Methodological features	FL	English; Spanish; Chinese
	Research design	Quantitative; qualitative; mixed
	Quantitative instruments	Cross-sectional survey; longitudinal survey; idiodynamic method; enjoyment thermometer; Q-sorting method
Research foci	Qualitative instruments	Interview; observation; qualitative survey; reflective journaling
	Nature of enjoyment	Dimensions of enjoyment; dynamics of enjoyment; measures of enjoyment
	Antecedents of enjoyment	Teacher variables; learner variables; context variables; emotional capacity
	Association of enjoyment with other emotions	Enjoyment and anxiety; enjoyment and boredom; enjoyment and love
	Effects of enjoyment	FL achievement; motivation; learning engagement; willingness to communicate

**Table 3**  
Learners' demographics.

Research context: Learner demographics	<i>f</i>	%
<b>Sample size</b>		
1-10	11	9.3
11-100	12	10.2
100-1000	76	64.4
>1000	19	16.1
<b>Age</b>		
Child or teenager (11-17)	33	28.0
Adult (>17)	71	60.2
Combination	14	11.9
<b>Learning institution</b>		
Primary or secondary school	31	26.3
University	57	48.3
Private language institution	16	13.6
Combination	13	11.0
Not reported	1	0.8
<b>Learning setting</b>		
Classroom	99	83.9
Online	13	11.0
Combination	5	4.2
Not reported	1	0.8

review. To ensure the rigour of the coding process, we invited another researcher to code 24 randomly selected articles (20.3 % of the total sample) and then examined inter-coder reliability using Cohen's kappa value. The calculated Cohen's kappa was 0.92, indicating a satisfactory agreement between the coders [23].

### 3. Results

#### 3.1. RQ1: Contextual features

To address RQ1, we examined six features of the research participants and contexts of the 118 studies included in this review, including sample size, age, learning institution, learning setting, first language and target FL. Table 3 presents a breakdown of the sample sizes, age ranges, learning institutions and settings. Most studies (80.5 %) had relatively large sample sizes (100 participants or more), facilitating the generalizability of their findings regarding FL learners' enjoyment [24]. Similar to other areas in FL research [13,14], the majority of studies in this field concentrated on adult learners (60.2 %), university learners (48.3 %), and conventional classroom settings (83 %), leaving younger learners in primary and secondary schools, learners in private language institutions, and learners in online settings under-researched.

Another two crucial features of research contexts in FL learning research are the first language and the target FL of the learners being studied. As shown in Table 4, a large number of studies examined learners whose first language was Chinese (39.0 %) or Persian (21.2 %), whereas only 15.3 % focused on learners with multiple linguistic backgrounds, although these learners are typical of the learner population in FL settings [14,25]. Other first languages represented in more than one study included Turkish, Arabic, Spanish, English, French, and Indonesian. The studies in our sample focused on learners of only seven target FLs. 78.0 % of the studies assessed learners of English as an FL, leaving learners of other FLs such as Chinese, French, Dutch, Italian, Arabic, and Thai much less examined. 13.6 % of the studies focused on learners studying various FLs, enabling researchers to analyse the effect of target languages on learners' enjoyment experience.

#### 3.2. RQ2: Methodological features

To address the second RQ regarding the research designs and instruments adopted in FL enjoyment research, we initially classified the 118 selected studies into three groups according to their use of quantitative, qualitative, or mixed method research designs. As shown in Table 5, quantitative designs were the most common by a significant margin (67.8 %), followed by mixed method designs (28.8 %) and qualitative designs (3.4 %).

Focusing on the quantitative and mixed method studies, we then examined the use of specific quantitative instruments for statistical data collection (see Table 6). Cross-sectional surveys were the predominant method (78.0 %) in this domain; this approach allows researchers to gauge FL learners' levels of enjoyment at a particular time point, such as at the end of a semester [1] or upon the

**Table 4**  
Learners' linguistic information.

Research context: Learners' linguistic information	<i>f</i>	%
<b>First language</b>		
Chinese	46	39.0
Persian	25	21.2
Turkish	5	4.2
Arabic	4	3.4
Spanish	3	2.5
English	2	1.7
French	2	1.7
Indonesian	2	1.7
German	1	0.8
Japanese	1	0.8
Korean	1	0.8
Polish	1	0.8
Romanian	1	0.8
Thai	1	0.8
Norwegian	1	0.8
Combination	18	15.3
Not reported	4	3.4
<b>Target FL</b>		
English	92	78.0
Chinese	4	3.4
French	2	1.7
Dutch	1	0.8
Italian	1	0.8
Arabic	1	0.8
Thai	1	0.8
Combination	16	13.6

**Table 5**  
Research design.

Methodological features: Research design	<i>f</i>	%
Quantitative design	80	67.8
Qualitative design	4	3.4
Mixed method design	34	28.8

**Table 6**  
Research instruments.

Methodological features: Research instruments	<i>f</i>	%
<b>Quantitative instruments</b>		
Cross-sectional survey	92	78.0
Longitudinal survey	12	10.2
Idiodynamic method	8	6.8
Enjoyment thermometer	3	2.5
Q-sorting method	1	0.8
<b>Qualitative instruments</b>		
Qualitative survey	28	23.7
Interview	22	18.6
Reflective journaling	6	5.1
Observation	4	3.4

completion of learning tasks [26]. In contrast to cross-sectional surveys, which only provide a snapshot of enjoyment at a single point in time, longitudinal surveys were employed in some studies (10.2 %) to examine trends in enjoyment over an extended period of time. For example, Elahi Shirvan and Taherian [27] implemented a 21-item, five-point survey which was administered four times over the course of a semester to measure changing levels of enjoyment during an EFL course. Given that emotions can arise and dissipate in an instant [28], a few studies adopted idiodynamic (8.0 %) and enjoyment thermometer (6.8 %) approaches to trace the trajectories of enjoyment on a moment-to-moment timescale. The idiodynamic method asks learners to rate their enjoyment per second on a scale from -5 (low enjoyment) to +5 (high enjoyment) as they watch a recorded video of their language learning process [8]. Similarly, enjoyment thermometers (2.5 %) allow learners to mark their per-minute levels of enjoyment on thermometer-styled figures spanning from 0 (low enjoyment) to 10 (high enjoyment) while learning their target language in class [29]. One study (0.8 %) used the Q-sorting method to explore the subjective perspectives of FL learners regarding enjoyment. In the Q-sorting procedure of this study [30], participants were directed to rank 47 enjoyment-related statements over an 11-column bell-shaped grid along a continuum ranging from -5 (most disagreement) to +5 (most agreement). Each participant's ranking of these statements reflected their unique viewpoints on enjoyment [30].

Table 6 provides an overview of the qualitative data collection instruments used in the qualitative and mixed method studies. Qualitative surveys and interviews were the two most popular qualitative methods, employed in 23.7 % and 18.6 % of the 118 included studies, respectively. Qualitative surveys typically used one open-ended question to prompt FL learners to recall and describe

**Table 7**  
Research foci.

Research foci	<i>f</i>	% out of 118 studies
<b>Antecedents of enjoyment</b>	<b>69</b>	<b>58.5</b>
Learner variables	29	24.6
Teacher variables	19	16.1
Context variables	14	11.9
Emotional capacity	7	5.9
<b>Effects of enjoyment</b>	<b>47</b>	<b>39.8</b>
FL achievement	22	18.6
Learning engagement	9	7.6
Willingness to communicate	9	7.6
Active use of language learning strategies	4	3.4
Motivation	2	1.7
Sense of classroom community	1	0.8
<b>Nature of enjoyment</b>	<b>23</b>	<b>19.5</b>
Dynamics of enjoyment	16	13.6
Dimensions of enjoyment	4	3.4
Measures of enjoyment	3	2.5
<b>Association of enjoyment with other emotions</b>	<b>22</b>	<b>18.6</b>
Anxiety	15	12.7
Boredom	6	5.1
Love	1	0.8

one of their most enjoyable learning events [1]. Interviews, in contrast, employed a series of in-depth questions to delve deeper into FL learners' enjoyable episodes. These interview questions covered various facets of enjoyment, such as the factors that contribute to enjoyment [31] and the reasons for changes in enjoyment levels [32]. In-depth interviews were conducted with individuals or small groups. For example, Myhre et al. [33] conducted interviews with three and four EFL learners in an experimental group and a control group, respectively, to assess enjoyment differences between outdoor and indoor language learning contexts. Reflective journaling was used in 5.1 % of the studies adopting qualitative and mixed methods [34] to document learners' moments of enjoyment by requiring them to write and reflect on their language learning experiences. Observation was used in four studies (3.4 %), and differed from the three subjective self-report techniques discussed above as it was intended to gather objective data on enjoyment by observing the facial expressions, body postures, and other physical features of FL learners in their natural learning environment. For instance, Talebzadeh et al. [35] recorded learners' smiling, laughter, and head nodding to locate moments of enjoyment in their interactions with instructors.

### 3.3. RQ3: Foci of enjoyment research

To identify the primary topics examined in the enjoyment studies in our sample (RQ3), we coded each study's research topics into four categories: antecedents of enjoyment, effects of enjoyment, nature of enjoyment, and association of enjoyment with other emotions (Table 7). The antecedents of enjoyment, specifically the causes or triggers of enjoyment, were the most frequently examined among these (58.5 % out of 118 studies). A number of studies (24.6 %) revealed that learners who were female [36] or older [21], who came from higher-socioeconomic-status families [37] with a growth mindset [38] or a positive attitude towards FL [39], or who achieved a higher level of multilingualism [40], FL proficiency [41], intrinsic and extrinsic motivation [42] or grit [43], tended to experience more enjoyment. Many studies (16.1 %) also identified teacher variables that contributed to FL learners' enjoyment, including teachers' frequent use of FL [44], unpredictability [45], friendliness [11], jocularity [46], extroversion [47], and use of activating teaching methods [48] and learning support [49]. Additionally, several studies (11.9 %) found that some language learning activities or environments could boost learners' enjoyment. These included optimally challenging learning tasks [50], outdoor learning environments [33], FL private tutoring [37], real-time online language learning [51], informal digital language learning [52], and web-based language learning [53]. Furthermore, a few studies (5.9 %) found that learners' emotional capacities, such as trait emotional intelligence [17] and emotional regulation abilities [26], were conducive to increases in their enjoyment.

The effects of enjoyment were the second-most prevalent research category, accounting for 39.8 % of the included studies. Many studies (18.6 % of 118 studies) demonstrated that enjoyment could facilitate learners' self-perceived and actual FL academic achievement in general [54] and in specific domains, including writing [55], speaking [56], and vocabulary [57]. Other studies focused on participation in learning, showing that enjoyment tends to increase learners' learning engagement (7.6 %; e.g. Ref. [58]), enhance their willingness to communicate (7.6 %; e.g. Ref. [59]), encourage the active use of learning strategies (3.4 %; e.g. Ref. [60]), boost flagging motivation (1.7 %; e.g. Ref. [61]), and foster a strong sense of classroom community (0.8 %; e.g., Ref. [62]).

Studies on the nature of enjoyment were less common, representing 19.5 % of the sample. A significant portion of these (13.6 % of the 118 studies) focused on the dynamics of enjoyment, and observed that enjoyment fluctuated to varying degrees both within and between individuals over a range of temporal scales, including seconds, minutes, weeks, and months [32,63]. Some studies (3.4 %) focused on understanding the factors underpinning enjoyment in various FL learning contexts. For example, in the Chinese as a FL learning context, Zhang and Tsung [31] revealed three dimensions of enjoyment: personal fulfilment, interpersonal relations, and social bonds; these differ from those (i.e., English learning, teacher support, and student support) identified by Jin and Zhang [10] in an EFL learning context. Meanwhile, researchers in a few studies (2.5 %) sought to develop valid and reliable instruments to measure the enjoyment that FL learners experience in specific language learning environments. For example, using Dewaele and MacIntyre's [21] 21-item FL enjoyment scale, Wang et al. [64] created a new 11-item online enjoyment scale to assess learners' enjoyment in a web-based language learning environment.

The relationship between enjoyment and other emotions in language learning was the least common research category, accounting for 18.6 % of the 118 included studies. The largest subgroup of studies in this category (12.7 %) observed that while enjoyment is negatively correlated with anxiety, the strength of this negative relationship fluctuates over the course of language learning, ranging from negligible to medium-strong [8,56]. This finding suggests that enjoyment and anxiety are not the opposite ends of the same emotional spectrum, but rather independent emotions with separate roles in language learning activities [65]. Furthermore, several studies (5.1 %) identified a strong negative correlation between enjoyment and boredom, implying that a boost in FL learners' enjoyment could mitigate their boredom [12,39]. It is also worth mentioning that one study (0.8 %; [34]) linked enjoyment to another essential positive emotion, love, revealing that love for the target language could make up for decreases in enjoyment and sustain language learning efforts in the face of challenges and adversity.

## 4. Discussion

This study synthesises existing studies, examining the contexts, methodologies, and foci of research on FL enjoyment from 2014 to 2023, in order to inform future research endeavours. This section summarises the major findings and discusses their implications for future research.

#### 4.1. Research contexts

One noteworthy pattern found in this research field is its heavy focus on adult learners within university contexts. This pattern, while similar to other areas of FL research [13,14], does highlight the need for more attention to be paid to young learners in primary and secondary school settings and private language institutions. Also noteworthy is the fact that the vast majority of the studies (83.9 %) were conducted in in-person classroom settings, with limited attention paid in the field to online settings. Thanks to the advancement of online learning technology, language learning nowadays is no longer limited to the confines of a classroom. Unlike students in traditional classrooms, learners in online environments may experience physical isolation in space and emotional isolation from teachers and peers, resulting in a distinct emotional experience [66,67]. Therefore, as a crucial positive emotion that influences the efficacy of all language learning, including that in online contexts [68], the enjoyment of online learners warrants more attention.

Several other patterns regarding research contexts are also notable. First, over half of the research (60.2 %) concentrated on FL learners whose first language was Chinese (39.0 %) or Persian (21.2 %), leaving the enjoyment of learners with other first languages understudied. As Pavlenko [69] noted, concepts relating to emotions vary across languages, suggesting that different languages may have distinct conceptual representations of emotions. For example, the emotion of anger has different implications in Japanese and English [70]. The issue of non-equivalence of emotions across languages highlights a need for future research to engage FL learners with diverse linguistic backgrounds, including those who are bilingual or multilingual. At the same time, most studies (78.0 %) centred on EFL learners, leaving the research unable to fully capture the enjoyment experience of learners of other languages. Prior research has indicated that learners' target languages may influence their emotional experiences [3]. In De Smet et al.'s [71] study, for example, English learners reported more enjoyment than Dutch learners. Therefore, future research on enjoyment could contextualize more findings within non-English learning scenarios to provide a fuller picture of learners' experiences of enjoyment.

#### 4.2. Research methods

Research in this domain has demonstrated a strong tendency toward quantitative methods (67.8 %) over mixed methods (28.8 %) and qualitative methods (3.4 %), which is in line with the methodological trend in the research on teacher emotions [15]. The dominance of quantitative methods may be attributed to the prevalence of investigations into the antecedents and effects of enjoyment in this field of inquiry. However, emotion is a multi-layered phenomenon that incorporates psychological beliefs, physiological reactions, and physical expressions, making it difficult to capture and understand using solely quantitative data [72]. Hence, the mixed-method approach should be encouraged in the future to increase the reliability and nuance of findings by obtaining and integrating diverse complementary data within each phase of the research process [73].

When collecting quantitative data, this body of research has mainly relied on cross-sectional surveys (75.0 %) and has only occasionally adopted longitudinal surveys, the idiodynamic method, the enjoyment thermometer, and the Q-sorting method. The widespread use of cross-sectional surveys may be related to the popularity of the trait-like view of emotions in FL research, which characterises emotions as relatively stable and long-term traits that can be assessed at a single point in time [10,74]. However, enjoyment is not only a static emotional disposition but also a dynamic emotional state [8]. When regarded as a dynamic experience, enjoyment is subject to momentary fluctuations shaped by the constantly changing interaction of both expected and unexpected factors in FL learning [63]. More longitudinal designs, including the use of longitudinal surveys, the idiodynamic method, and the enjoyment thermometer, should be adopted in future research to examine the dynamic trajectories of enjoyment across multiple timescales spanning from seconds to years.

Among studies adopting qualitative and mixed method research designs, qualitative surveys (23.7 %) were the instrument most commonly used, in contrast to the research on teacher emotions, in which interviews were the predominant qualitative tool [15]. The popularity of qualitative surveys can be attributed to the fact that the instrument's open-ended questions are usually presented alongside quantitative cross-section surveys to a wide population, enriching the interpretation of the quantitative results [1,3]. It is also noteworthy that only 3.4 % of the included studies used an observational approach, which might suggest a lack of objective data in this research field. Unlike qualitative surveys or interviews focusing on learners' subjective perceptions or interpretations of enjoyment, observation affords the opportunity to trace the real-time verbal (e.g., encouraging and joking) and nonverbal (e.g., laughing and head nodding) indicators of enjoyment throughout the language learning process [72,75]. This kind of objective observation is essential to building a detailed understanding of the situational circumstances that give rise to enjoyment in a given time and place. Moreover, considering that emotional arousal involves changes in the activity of the visceral nervous system [76], future studies could also incorporate measurement of physiological indicators, including heart rate, skin conductance response, blood pressure, to track the occurrence and intensity of enjoyment in real time.

#### 4.3. Research foci

To better understand this area of research, we also identified the key aspects of enjoyment examined in the 118 studies. Our findings reveal that majority of these studies focused on understanding the antecedents (58.5 %) and effects (39.8 %) of enjoyment, a pattern that resembles that of research on teacher emotions [15]. Based on these studies, enjoyment is a personal, complex, and dynamic sensation shaped by a wide range of variables related to the learner, teacher, and learning context, which facilitates the processes and outcomes of FL learning [1,29,77]. This perspective on enjoyment suggests an individual-oriented assumption prevalent in the research on language learning emotions, which conceptualizes learner emotions as a private, intrapsychic construct responding to internal and external stimuli in the complex world of language learning [78]. Although this individualistic conceptualization of



emotions has offered valuable insights into the emotional aspects of language learning, it has been criticized by many researchers [78, 79] for neglecting the interpersonal and communicative nature of emotions. As argued by Swain [80] and Poehner and Swain [81], emotions are derived from social interactions and discursively constructed. As such, the unit of analysis should be the interactive conversation or dialogue between individuals in which emotions are felt and expressed rather than the individuals themselves [82]. This points to a need for future research to investigate how enjoyment is formed or shaped through discourse within the bounds of teacher-student or student-student interactions within the language learning context.

Only 18.6 % of the studies in our sample examined enjoyment's relationships with other emotions associated with FL learning, such as anxiety, boredom, and love. The limited number of studies in this category and the limited number of other emotions they address might yield only a limited understanding of how enjoyment interacts with other emotions over the course of language learning. As pointed out by Sampson [83], learning an FL is an emotional process in which learners may experience a wide range of emotions, including enjoyment, surprise, gratitude, excitement, surprise, and disappointment, even within the same lesson or activity. Thus, more work is needed to establish connections between enjoyment and a broader variety of emotions beyond anxiety, boredom, and love, and to investigate how these emotions weaken or strengthen one another and develop into particular emotional phenomena relevant to language learning.

## 5. Conclusion

This study presents a systematic review of 118 empirical studies on the topic of enjoyment in FL learning published between 2014 and 2023. In considering the research implications listed above, it is crucial to acknowledge the limitations of the present study. First, this review exclusively focuses on articles published in peer-reviewed journals or books, leaving out empirical research in research reports, conference proceedings, theses, and dissertations. In addition, while the scope of our review was confined to works written in English, as one of the most prominent positive emotions in FL learning, enjoyment has been the subject of numerous publications in other languages. Future reviews should strive to overcome these limitations in order to gain a broader view of research in this area.

As an increasingly flourishing field of research, empirical research on language learning enjoyment has explored a wide variety of topics in pursuit of an understanding of the complexity and dynamics of enjoyment and its relationships to diverse variables in language learning. Research efforts in this domain of inquiry revolve primarily around adult EFL learners from China and Iran studying in in-person language classes, and tend to employ an array of quantitative research approaches. By presenting a clear picture of the contexts, methodological approaches, and findings to date in this area, our study identifies limitations in research contexts, methods, and foci, and offers recommendations to inform future research efforts. Despite several concerns we raise regarding prior research we appreciate the persistent efforts of researchers in this field, which have greatly enhanced our understanding of enjoyment in FL learning, and we anticipate more empirical investigations that propel us forwards in this promising area of research.

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## Data availability statement

Data included in article/supplementary material/referenced in article.

## CRediT authorship contribution statement

**Zhipeng Zhang:** Validation, Software, Resources, Methodology, Investigation, Conceptualization. **Xuesong (Andy) Gao:** Validation, Supervision, Resources, Methodology, Conceptualization. **Ting Liu:** Resources, Methodology, Investigation, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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