Foreign language writing enjoyment: Conceptualization, sources, and measurement

Xianwen Chen
School of Foreign Languages
Sun Yat-sen University, China;
Centre for Linguistics and Applied Linguistics
Guangdong University of Foreign Studies, China
chenxw36@mail.sysu.edu.cn

Hai Xu
Centre for Linguistics and Applied Linguistics
Guangdong University of Foreign Studies, China
xuhai1101@gdufs.edu.cn

Xian Zhang
Department of Linguistics
University of North Texas, USA
xian.zhang@unt.edu

Abstract

Due to the paucity of research on foreign language writing enjoyment (FLWE) among mixed-major EFL undergraduates, this article explores the multi-dimensional conceptualization, causes, and measurement of FLWE within this student group. The two-phase investigation involved over 3,000 participants. Phase 1 utilized interviews and questionnaires to gather students' perceptions of FLWE and its sources. The findings illuminate FLWE as a multidimensional construct, with the writing topic emerging as the primary source of enjoyment, followed by text type and feedback. Phase 2 focused on developing and validating a 17-item Foreign Language Wring Enjoyment Scale (FLWES), which demonstrates sound reliability and validity. Unlike existing measures that mainly targeted limited dimensions of enjoyment among junior secondary students who are exposed to a limited range of text types primarily for examination purposes, or English majors, our instrument delves deeper into FLWE experienced by EFL undergraduates across disciplines. Our research contributes to a profound understanding of FLWE and opens avenues for measuring enjoyment in various language skills and cultural contexts.

Keywords: foreign language writing enjoyment; control-value theory; FLWES; conceptualization; validation.

Resumen

Debido a la escasez de investigaciones sobre el disfrute de la escritura en idiomas extranjeros (DEIE) entre los estudiantes universitarios de EFL de diferentes especialidades, este artículo explora la conceptualización multidimensional, las causas y la medición del DEIE dentro de este grupo estudiantil. La investigación, realizada en dos fases, involucró a más de 3,000 participantes. En la primera fase, se emplearon entrevistas y cuestionarios para recopilar las percepciones de los estudiantes sobre el DEIE y sus fuentes. Los hallazgos revelaron al DEIE como un constructo multidimensional, con el tema de escritura emergiendo como la principal fuente de disfrute, seguido por el tipo de texto y la retroalimentación. La segunda fase se enfocó en desarrollar y validar una Escala de Disfrute de la Escritura en Idiomas Extranjeros (DEIE) de 17 items, que demostró una fiabilidad y validez sólidas. A diferencia de las medidas existentes, nuestro instrumento profundiza en el DEIE experimentado por estudiantes de pregrado de EFL en diferentes disciplinas, contribuyendo así a una comprensión más profunda del DEIE y abriendo caminos para medir el disfrute en diversas habilidades lingüísticas y contextos culturales.

Palabras clave: escritura para disfrutar de una lengua extranjera; teoría del valor de control; EDELE; conceptualización; validación.

1. Introduction

Over the past decade, the rise of Positive Psychology in SLA has prompted researchers to shift away from the predominant focus on negative emotions, mostly foreign language anxiety (Cheng, 2004, 2017; Dewaele et al., 2008; Horwitz, 2010; Horwitz et al., 1986), to positive emotions, particularly enjoyment (Dewaele & Li, 2020). During this time, multiple measurement tools have been developed to gauge overall foreign language enjoyment (e.g., Botes et al., 2021; Dewaele & MacIntyre, 2014, 2017; Jin & Zhang, 2018; Li et al., 2018). However, some researchers have also started to attend to language-skill-specific enjoyment, such as foreign language writing enjoyment. For example, Tahmouresi and Papi (2021), were trailblazers in discovering the positive correlation between foreign language enjoyment and writing motivation. Notably, enjoyment in this research was gauged using an adapted form of Teimouri's (2017) joy scale, with further investigation needed to validate its factor structure and construct. Li et al. (2023) also reported that writing enjoyment positively influenced L2 writing achievement.

Regarding the assessment of foreign language writing enjoyment (FLWE), Jin (2023) crafted the English Writing Enjoyment Scale with reference to Scherer's (2000) component process model of emotion. Li et al. (2023) constructed the Foreign

Language Writing Enjoyment Scale, which specifically comprises two factors: Private and Teacher. These instruments, however, have limitations when assessing writing enjoyment in various language learning settings. Firstly, both scales do not fully capture the spectrum of writing enjoyment experiences among EFL undergraduates. Jin's (2023) scale exclusively addresses the multifaceted nature of enjoyment without exploring its underlying experiences and origins. Li et al. (2023) established a dual-factor structure. Yet, it boils down to two factors: Private and Teacher-Related, which may inadequately capture the entirety of foreign language writing enjoyment among diverse-major college students. Secondly, Li et al.'s (2023) factor structure was based on Dewaele and MacIntyre's (2014) 21-item foreign language enjoyment scale, which was crafted relying on expert knowledge rather than undergoing psychometric validation. Specifically, beyond the 7 items obtained from Ryan et al.'s (1990) Interest/Enjoyment subscale, the remaining items were grounded in scholarly expertise. Additionally, both tools lack widespread applicability among EFL undergraduates from various disciplines. Jin's (2023) scale was developed using data exclusively from undergraduate English majors at two specific universities. Li et al.'s (2023) is geared towards junior secondary students. Furthermore, prior studies did not provide a conceptualization of foreign language writing enjoyment (FLWE) and report its major causes.

To address these gaps, we present a research project that investigates the conceptualization of FLWE, its major triggers, and its assessment, using data from more than 3,000 undergraduate EFL learners.

2. Literature review

2.1. *Enjoyment: Definition, dimensionality, antecedents, and dichotomy*

To define "enjoyment", Csikszentmihalyi (2008, 2014) distinguished between pleasure and enjoyment. Pleasure refers to a state of satisfaction arising from fulfilling one's basic physiological drives (e.g., bodily ease). Enjoyment, on the other hand, can be conceptualized as the emotion overriding a human's homeostatic needs. In essence, enjoyment is characterized by "a sense of novelty and accomplishment" (Csikszentmihalyi, 2008, p. 46). It is what leads to personal growth and long-term happiness (MacIntyre & Dewaele, 2019).

Within Pekrun's (2006) control-value theory of achievement emotions framework, enjoyment can be approached from three perspectives: (a) valence: positive vs. negative; (b) activation: high-arousal vs. low-arousal; (c) objective focus: process-oriented vs. results-driven. Accordingly, enjoyment can be described as a positive, high-arousal emotion experienced during the process of activities or tasks (Pekrun & Perry, 2014).

The control-value theory contends that two proximal antecedents (i.e., control and value appraisals) can directly induce achievement emotions. Control appraisals pertain to an individual's controllability over their actions and outcomes whereas value appraisals include intrinsic (e.g., inherent interest in English) and extrinsic value (e.g., utilitarian functions of English). It follows that enjoyment could arise when individuals have positive control and value appraisals of an ongoing activity (Pekrun, 2006).

Furthermore, distal antecedents (i.e., situation-specific emotions, goals, beliefs, cognitive abilities, and gender) and situational antecedents (i.e., task quality, motivating factors, autonomous tasks/settings, and positive feedback) indirectly influence achievement emotions through the proximal appraisals (Pekrun, 2006). Regarding foreign language enjoyment, some situational antecedents (e.g., positive classroom atmosphere, teacher support, positive feedback, autonomous and creative tasks) were also found to contribute to this emotion (e.g., Botes et al., 2021; Dewaele & MacIntyre, 2014, 2017; Li et al., 2018).

In line with the trait-state dichotomy of emotion (Pekrun, 2006), FLE can be dichotomized into trait and state types. Trait enjoyment refers to learners' habitual positive responses to general learning situations (e.g., school). Notably, it can also be experienced recursively in a specific situation (e.g., habitual enjoyment felt in English learning situations), which is known as situation-specific enjoyment (e.g., foreign language writing enjoyment). State enjoyment, however, describes enjoyment experienced momentarily in reaction to a specific situation at a specific time (Frenzel, Goetz, & Pekrun, 2009). What differentiates situation-specific from state enjoyment is temporal scope but situational context. While a distinction was made between situation-specific and state FLE in general, whether this classification method is applicable to writing-specific enjoyment remains uncertain.

2.2. Assessment of foreign language writing enjoyment

The field of SLA has witnessed increased scholarly interest in enjoyment with the advent of positive psychology (MacIntyre, 2016; MacIntyre & Mercer, 2014). This interest has resulted in the development of various instruments for assessing foreign language enjoyment (e.g., Botes et al., 2021; Dewaele & MacIntyre, 2014, 2017; Li et al., 2018). Nonetheless, some researchers have begun to pay attention to enjoyment specific to language skills, shifting from general classroom enjoyment. For example, studies have found a positive correlation between foreign language writing enjoyment, learners' motivation and L2 writing performance (Li et al., 2023; Tahmouresi & Papi, 2021). A few studies have also examined the measurement of foreign language writing enjoyment. Drawing upon Scherer's (2000) component process model of emotion, Jin (2023) devised the English Writing Enjoyment Scale. Concurrently, Li et al. (2023)

created the Foreign Language Writing Enjoyment Scale, comprising two distinct components: Social and Teacher-Related Enjoyment. Nevertheless, these measurement tools may not completely unveil the experiences and sources of writing enjoyment for EFL undergraduates with diverse majors. Specifically, Jin's (2023) scale comprises four dimensions concerning the inherent attributes of enjoyment: cognition, motivation, affect, and expression, while overlooking its fundamental sources. Conversely, Li et al.'s (2023) scale, while featuring two factors (Social and Private) borrowed from Dewaele and MacIntyre's (2014, 2016) Foreign Language Enjoyment Scale, ultimately simplifies to two dimensions: Private and Teacher-Related. Nevertheless, these two aspects alone may not offer a comprehensive portrayal of the sources of foreign language writing enjoyment encountered by EFL undergraduates with interdisciplinary majors. In addition, Li et al.'s (2023) instrument drew inspiration from Dewaele and MacIntyre's (2014) tool, which was crafted relying on expert insights, foregoing the process of psychometric validation. Specifically, 14 out of 21 items drew extensively from scholarly knowledge, excluding the 7 items derived from Ryan et al.'s (1990) Interest/Enjoyment subscale. Furthermore, both tools lack widespread utility among the multidisciplinary EFL undergraduates. In particular, Jin (2023) constructed the scale solely based on data gathered from English majors recruited from two universities. According to Putwain et al. (2018), academic emotions are subject to domain specificity, indicating that they should be tailored to specific subjects. Apparently, English majors may possess unique academic self-perceptions and values related to English, differing from non-English majors. Li et al.'s (2023) is intended for adolescents in secondary school. Compared with college students with varied text exposure and rich writing backgrounds, junior secondary learners are confined to specific text types (i.e., narration, description, and letter writing) for exam purposes. This may impede researchers from exploring the intricacies of writing enjoyment. In addition, previous studies did not present a multi-facet conceptualization of foreign language writing enjoyment (FLWE) or document its main causes. To bridge these gaps, we initiated conceptualizing FLWE from a multi-dimensional perspective, investigating its primary catalysts, and measuring it through data collected from over 3,000 college EFL students.

Specifically, this study aimed to address the following research questions:

1. Do Chinese EFL undergraduate learners experience enjoyment specific to English writing? If yes, how do learners conceptualize foreign language writing enjoyment (FLWE) in EFL settings?
2. What are the sources of FLWE?
3. What is the factor structure of FLWES?
4. Is the Foreign Language Writing Enjoyment Scale (FLWES) reliable and valid to measure FL writing enjoyment?

3. Method

A two-phase study was conducted. As illustrated in Table 1, Phase 1 applied a qualitative and descriptive method to identify the occurrence and sources of FLWE and to conceptualize the construct. Phase 2 connected the qualitative results from Phase 1 with quantitative methods to develop and validate the FLWES, following Devellis and Thorpe's (2021) multiple stages of item pool generation (scrutinized and refined through expert review, pilot testing, and item analysis), scale development, and scale validation.

Table 1: Research roadmap

Study	Steps	Participants	Instrument	Data analysis	Tool
Phase 1 Occurrence, conceptualization, and sources of FLWE	Qualitative stage	n_1 = 30	Interview	Qualitative analysis	Nvivo 12 Plus
		N_1 = 470	Open questionnaire		
Phase 2 Development and validation of the FLWES	Quantitative stages Initial item pool	Qualitative findings concerning sources of FLWE in Phase 1 lay the groundwork for item pool generation in Phase 2.			
	Expert review	N_2 = 6	60-item FLWES	Face validity	Manual
	Pilot testing	N_3 = 128	49-item FLWES	Face validity	Manual
	Scale development	N_4 = 1015	item FLWES	EFA	SPSS 25.0

Study	Steps	Participants	Instrument	Data analysis	Tool
	Scale validation	N_5 = 1670	Item FLWES	CFA Construct, convergent, discriminant, and criterion validity	Amos 23.0 SPSS 25.0
		n = 113	17-item FLWES	Test-retest reliability	SPSS 25.0

Note. FLWES = Foreign Language Writing Enjoyment Scale; EFA = Exploratory Factor Analysis; CFA = Confirmatory Factor Analysis.

4. Phase 1: Occurrence, conceptualization, and sources of FLWE

Phase 1 had three objectives: (a) to identify the occurrence of FLWE; (b) to provide a multidimensional conceptualization of FLWE; and (c) to provide sources for generating the item pool of the FLWES in Phase 2.

4.1. Participants

Only English majors were involved in Phase 1 because English writing is a major component of their undergraduate curriculum in China. Thus, they have extensive English writing experience, making them ideal for conceptualizing and assessing FLWE.

A total of 30 undergraduate students (17 females and 13 males; average age = 19.6, SD = 1.14, range: 18-21) from six universities of differential academic rankings participated in the interview.

Another 470 undergraduate English majors aged between 18 and 22 from 18 universities filled out an open-ended questionnaire. Among them, 26% (n = 123) were males and 74% (n = 347) were females.

4.2. Instruments

Interviews with students were conducted via Tencent Meeting, a popular online video conferencing platform. The questionnaires were uploaded onto Wenjuanxin (https://www.wjx.cn/), an online questionnaire platform. The instructions and responses were given in Chinese to guarantee full comprehension. The following questions were used in both interviews and questionnaires to solicit information concerning learners' perceptions of FLWE:

a. Have you ever enjoyed English writing?

b. If yes, when?

c. And why?

d. Can you narrate a particular episode in English writing that you found enjoyable?

e. Can you provide a detailed description of the feeling of enjoyment?

4.3. Procedure

Prior to participation, all subjects signed a consent form that outlined research objectives, procedures, the anticipated length of participation, data protection issues, and the freedom to drop out of the study without consequences. Each interview lasted 30-60 minutes. The 470 students were asked to scan a QR code generated by Wenjuanxing. Then, they filled out the surveys and submitted their answers during a class session.

4.4. Data analysis

4.4.1. The existence and conceptualization of FLWE

Participants' interview and questionnaire responses were coded via NVivo 12 Plus, a professional qualitative analysis tool.

To conceptualize FLWE, students' descriptions of the feeling of foreign language writing enjoyment were coded. Initially, "in-vivo" codes (i.e., respondents' verbatim responses) were used. Twenty initial codes emerged through iterative refinement, confirmation, and categorization. For instance, excerpts such as "I have an aspiration to recite more good sentences" and "I have an aspiration to recite more input materials relevant to the writing topic" were first categorized as "have an inspiration for self-improvement", and then grouped under an overarching category "value". Afterwards, each code was reviewed and data excerpts assigned to the same node were compared. Pekrun's (2006) three-dimensional taxonomy and antecedents of achievement emotions lay the foundation for a coding scheme classifying learners' perceptions of FLWE.

Using the scheme, the interview transcripts were then coded by following the same procedures. To ensure consistency, iterative comparisons were made between codes and categories assigned to the questionnaire responses and interview transcripts. Revisions were made if any mismatches were detected. The finalized coding scheme with the frequencies of categories is shown in Table 2.

4.4.2. Sources of FLWE

After determining the occurrence of FLWE, its sources were investigated by further analyzing participants' enjoyment excerpts. Similarly, initial coding involved abstracting in-vivo codes such as "interesting topic" and "a text type relating to my personal experiences". Herein, "text type" refers to the traditional rhetorical modes of discourse – narration, description, exposition, argumentation, and letters (Biber, 1994).

Further iterations of participants' data resulted in 60 sub-theme codes, which were fine-tuned over multiple cycles of reading. Then, the codes were collapsed into broader categories. For example, "I enjoy writing when working on an interesting topic" and "Working on a topic that relates to my real-life experience is enjoyable" were two sub-categories, which were under the broader category "Topic-Related Writing Enjoyment". These nodes and sub-nodes were then organized into a hierarchy and the coding scheme was applied to each textual response. The interview transcripts were also analyzed with the same coding scheme. The finalized coding scheme consisted of seven categories and 60 sub-categories.

To guarantee trustworthy results of Phase 1, two measures were taken. Firstly, data was collected and coded in Chinese to retain the participants' original meanings. Secondly, the data was independently rated by the researcher and a trained coder, a native Chinese speaker, and a college English teacher with a doctoral degree in applied linguistics. Inter-rater reliability was high (81%). Discrepancies were resolved, leading to a final agreement rate of 92%.

4.5. Results

4.5.1. Occurrence of FLWE

In total, 30 students recalled 74 enjoyment-eliciting instances, with an average of 2.47 scenarios per participant. Additionally, the open questionnaire indicated that 93.6% of the students (440 out of 470) reported encountering enjoyment episodes.

4.5.2. Conceptualization of FLWE

In answer to the question "Can you describe the feeling of enjoyment in relation to English writing in detail?", students provided responses (see Table 2) conforming to the three dimensions (i.e., valence, activation, and object focus) and two proximal antecedents (i.e., perceived control, and value) of achievement emotions within the control-value theory framework.

Table 2: Codes and sub-codes of FLWE and their frequencies of occurrence

Codes	Sub-codes (N)				
Valence	feel joy/excited (191)	release one's trapped emotion (2)	heal emotional pain (2)	release negative emotions and let go of grief (2)	
Activation	smile self-consciously (80)	feel a heart palpitation (43)	one's hand shakes when getting excited about writing (9)	one's hand gets clammy when getting excited about writing (3)	
Object focus	want to continue writing (cannot stop writing) (107)	completely absorbed in writing (unaware of the passage of time) (104)			
Controllability	have confidence to produce a high-quality article (24)	have a positive attitude towards the writing task (22)	feel satisfied with the quality of one's writing (26)	feel the words just flow out of the pen (21)	
Value	go through many revisions (to improve the draft) (31)	cannot resist writing it up (21)	have an aspiration for self-improvement (e.g., recite more good sentences) (18)	desire to share one's writing with others (17)	pay attention to one's handwriting (1)

Note. N = frequency in the reports

As Table 2 indicates, FLWE is a positive feeling characterized by high levels of arousal during ongoing activities (e.g., "completely absorbed in writing", "unaware of the passage of time", and "cannot stop writing"). Specifically, (a) FLWE entails positive feelings instigated by certain events or situations (e.g., "feel joy/excited", "release one's trapped emotion", and "healing emotional pain"); (b) FLWE involves high levels of

emotional arousal (e.g., "feel a heart palpitation", and "one's hand shakes/gets clammy when getting excited about writing"); (c) FLWE occurs in the midst of activities, as reflected by a high level of engagement in writing; and (d) FLWE is instigated by control and value appraisals. Specifically, controllability over behaviors and outcomes can be exemplified by learners' positive attitude towards the writing task, their confidence to produce a high-quality article, and their contentment with writing outcomes. Concerning value appraisal, participants perceived writing as a means of expressing their thoughts. Furthermore, writing was highly valued for its positive intrinsic value, as proven by "aspired for self-improvement", "revised the article multiple times to improve its quality", and "paid attention to handwriting".

In line with Pekrun's (2006) dichotomy of state and situation-specific emotions, two types of FLWE emerged in students' questionnaires and interview responses, namely the state FLWE and the situation-specific FLWE. The former is a transient emotional state in relation to foreign language writing, which surfaces at a specific time point. The latter refers to a type of enjoyment unique to foreign language writing, which stems from repeated state experiences of enjoyment. These two types of FLWE can be exemplified by the following episodes.

State FLWE:

EXTRACT 1

S1 (male, aged 19). While brainstorming for my memoir, I was suddenly filled with a rush of inspiration. The words flowed effortlessly from my mind to the page, providing me with an unparalleled sense of enjoyment. (Student interview)

EXTRACT 2

S2 (female, aged 21) The teacher assigned an essay on important life decisions. Facing writer's block, I decided to craft a story. It depicts a woman's transition from recklessness to diligence in youth. Initially, people around her didn't think girls needed to strive until she witnessed a classmate's early married haggard appearance. Inspired by Principal Zhang Guimei's tale and my own experiences, writing it felt deeply resonant.

Situation-specific FLWE:

EXTRACT 3

S3 (female, aged 20). I remember once I took part in an English writing contest and I wrote about a conversation with my grandpa, who passed away years ago.

When I was confused about life, he appeared in my dream, telling me why he joined the army and what the meaning of life was. This writing experience revived the memory of my dear grandpa. Memorizing his life and honoring him in ways that reflected on the person he was when alive and what he meant to me helped me heal from pain and sadness. (Student interview)

EXTRACT 4

S4 (female, aged 18). I enjoy story continuation writing tasks. One of my favorite tasks is to write a sequel to such a story: A prisoner is faced with a decision where he must open one of two doors. Behind each door is either a lady or a tiger. They may be both tigers, both ladies, or one of each. If the prisoner opens a door to find a lady, he will marry her; and if he opens a door to find a tiger, he will be eaten alive. (Student open question)

4.5.3. Sources of FLWE

Participants' enjoyment episodes yielded 1,577 instances, which fell into seven broad categories. As shown in Figure 1, most students (37.79%, 596/1,577) owned their FLWE to the topic-related factor, followed by the text type-related factor (30.44%, 480/1,577). The feedback-related factor accounted for 14.39% (227/1,577) of the sources of FLWE. The other four categories, i.e., the task-related factor (94/1,577), class atmosphere (63/1,577), teacher support (50/1,577), and situation-specific enjoyment factor (47/1,577) contributed less to FLWE, each taking up less than 10% (5.96%, 3.99%, 3.17%, and 2.98% respectively).

Figure 1: Sources of foreign language writing enjoyment
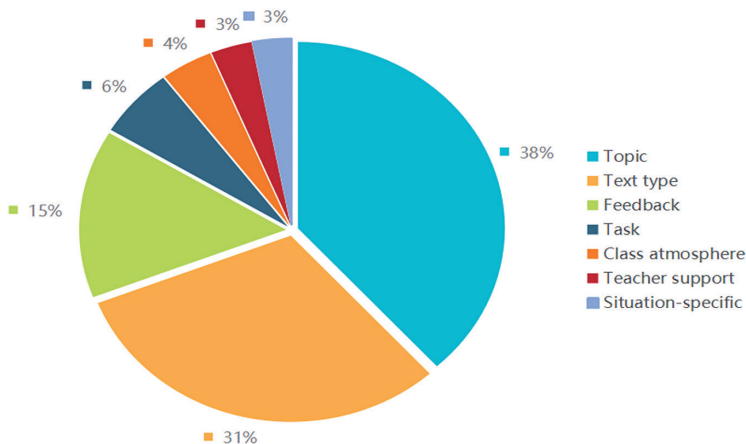
5. Phase 2: Development and validation of the FLWES

Based on the qualitative findings in Phase 1, the foreign language writing enjoyment scale (FLWES) was developed in Phase 2 by following the steps of item generation (evaluated and refined through expert evaluation, pilot testing, and item analysis), scale development, and scale validation (Devellis & Thorpe, 2021).

5.1. Participants

Phase 2 involved three different student samples. After generating an incipient item pool and having it reviewed by experts, the preliminary questionnaire was piloted on 128 undergraduate English majors recruited from a national key university. Only English majors were selected because they had substantial writing experiences because English writing was an integral part of their undergraduate education.

In the scale exploration and validation stages, both English and non-English majors were involved. Our goal was to make the findings of this study as generalizable as possible.

The phase of scale development involved another sample of 1,094 undergraduate EFL learners recruited from 21 universities across China. However, the data of 79 participants were excluded for multiple reasons such as incomplete information, self-report repetition, duplicate submissions, and repeated participation by using the same IP address that corresponded to their demographic information. As a result, 92.8% (1,015 out of 1094) of the participants provided valid responses, with a mean age of 20 (SD = 1.23), ranging from 18-24. Out of the total, 883 students were females (87%), while 132 were males (13%), with 382 (37.64%) being in Year 2, 235 (23.15%) in Year 4, 200 (19.7%) in Year 1, and 198 (19.51%) in Year 3.

The scale validation phase included another larger sample of participants (1,762) enrolled from 21 universities with different academic rankings. A total of 1,670 out of 1,762 (95%) respondents offered credible answers. In terms of gender distribution, there were 1,417 females (84.85%) and 253 males (15.15%). Regarding the grade allocation, 672 participants were freshmen (40.24%), 415 juniors (24.85%), 407 sophomores (24.37%), and 176 seniors (10.54%). The average age of the participants was 20.4 (SD = 1.24), with a range of 17-25.

For the reliability test, 120 students among the 1,670 participants were invited to participate in the retest of the FLWE Scale. In the end, 113 participants submitted reliable "test–retest" responses, with 87.61% (99) being females and 12.39% males (14). Among them, 68 (60.18%) participants were in Year 1, 25 (22.12%) in Year 4, and 20 (17.7%) in Year 2, with an average age of 19.2 (SD = 1.31).

5.2. Procedures

5.2.1. Initial item pool

Based on the qualitative data in Phase 1, a preliminary set of 60 items was formed. A factor structure was proposed for categorizing these items based on the control-value theory (Pekrun, 2006). The seven proposed factors were (a) Situation-Specific FLWE (Factor A), (b) Topic-Related FLWE (Factor B), (c) Text Type-Related FLWE (Factor C), (d) Feedback-Related FLWE (Factor D), (e) Task-Related FLWE (Factor E), (f) Teacher Support-Related FLWE (Factor F), and (g) Classroom Atmosphere-Related FLWE (Factor G).

5.2.2. Expert review

The preliminary scale was evaluated by three applied linguists and three Chinese instructors with extensive teaching experience in EFL writing. Their task involved (a) evaluating the extent to which each item accurately measured FLWE, (b) judging whether the individual item was well-articulated, and (c) determining whether each item was assigned to its appropriate category (Devellis & Thorpe, 2021). Any discrepancies were addressed through further discussion and corresponding revisions were made. Finally, 11 items were removed, resulting in the 7-factor, 49-item FLWES. The FLWES was then devised as a 5-point Likert scale, with the level of assent spanning from "strongly disagree" to "strongly agree".

5.2.3. Pilot testing

A pilot study was undertaken utilizing a sample of 128 undergraduate English majors. After completing the questionnaire, the students were asked whether they had any difficulties with the questions, and if so, to specify items that they found problematic. Based on students' feedback, 5 items were modified in terms of wording.

5.2.4. Item analysis

Extreme Group Method was employed along with Corrected Item-Total Correlation (CITC) (Dörnyei & Dewaele, 2022). The upper 27% group was compared with the lower 27% group in terms of item difficulty index. CITC evaluates the correlation between individual items and the overall test score (Devellis & Thorpe, 2021). Results indicated that all items were acceptable except an item under Factor D: I tend to enjoy writing more when I'm not being graded by my teacher. It was thus eliminated. All 48 items had acceptable CITC scores, with all the correlations between each item and its subscale above 0.40 (Field, 2013).

5.2.5. Scale development and validation

After scrutinizing the preliminary item pool, the scale was administered to a development sample, aiming to finalize the scale (Devellis & Thorpe, 2021, p.130). To confirm whether the instrument was reliable and valid, the FLWES was then distributed to another group of students designated as the validation sample.

5.2.6. Validation instruments

To assess the FLWES's criterion validity, two widely recognized measures were utilized, namely Pekrun et al.'s (2011) Achievement Emotions Questionnaire (AEQ) Enjoyment Subscale and Li et al.'s (2018) Foreign Language Enjoyment Scale (FLES). The Enjoyment subscale consists of 6 items measuring the degree of enjoyment experienced during academic tasks. The 11-item FLES, comprising 3 factors, namely FLE-Teacher, FLE-Private, and FLE-Atmosphere, gauges enjoyment in foreign language learning. Specifically, the extent to which scores on the FLWES were related to those obtained from the above two questionnaires (Devellis & Thorpe, 2021, p.42).

5.3. Data analysis

To confirm the items of the FLWES, an initial exploratory factor analysis (EFA) was performed using SPSS 25.0. Prior to the extraction of the factors, Kaiser-Meyer-Olkin (KMO) was employed along with Bartlett's Test of Sphericity to determine the suitability of the collected data for factor analysis. The Principal Component Analysis (PCA) extraction method and the Varimax rotation method with Kaiser Normalization were then applied to simplify the scale's structure.

To fine-tune the scale, the scale developed from the early EFA was administered to a different sample of students. Specifically, several types of validity tests were conducted through Confirmatory Factor Analysis (CFA) using AMOS 23.0 software, including construct validity, discriminant validity, and convergent validity. Criterion validity was evaluated by computing Pearson product-moment correlations between scores obtained on the total FLWES and the two well-established instruments mentioned earlier. Furthermore, two kinds of reliability tests were performed, namely internal consistency and test–retest. The first was examined via Cronbach's Alpha, and the second, the Pearson correlation coefficient between the scores obtained on the first and second occasions (Devellis & Thorpe, 2021).

5.4. Results

5.4.1. Scale development

The EFA findings indicated that the scale had a KMO index of 0.879, exceeding the threshold value of 0.70 (Kaiser, 1974). Additionally, Bartlett's test ($p < 0.001$) was significant at the .001 level, implying that the data were suitable for factor analysis. Following Field's guidelines (2013, p. 692), the following items were excluded: (a) items that demonstrated a low factor loading (below 0.4); (b) items that exhibited significant cross-loadings exceeding 0.4; and (c) items that were incongruous to other related items under the same factor.

Finally, 22 items were selected from the preliminary set of items, resulting in a 7-factor FLWE Scale (see Table 3). After Varimax rotation, the proposed factor - Feedback-Related Writing Enjoyment (Factor D), however, consisted of only three items with substantial loadings, with two of these items cross-loading on another factor. Thus, this factor was removed. Specifically, the remaining 6 factors were: (a) Situation-Specific FLWE (Factor A), (b) Writing Topic-Related (Factor B), (c) Text Type-Related (Factor C), (d) Task-Related (Factor E), (e) Teacher Support-Related (Factor F), and (f) Classroom Atmosphere-Related (Factor G). These factors accounted for 64.48% of the variance.

Table 3: EFA results ($n = 1,015$)

Factor A Situation–Specific		Factor B Topic		Factor C Text Type		Factor E Task		Factor F Teacher Support		Factor G Classroom Atmosphere	
A1	0.665	B1	0.710	C1	0.640	E1	0.732	F1	0.737	G1	0.829
A2	0.744	B2	0.758	C2	0.828	E2	0.684	F2	0.878	G2	0.819
A3	0.651	B3	0.704	C3	0.812	E3	0.678	F3	0.876	G3	0.581
A4	0.696			C4	0.478			F4	0.597		
A5	0.717										

Note. Loadings less than 0.40 were excluded from the analysis.

Table 4: CFA results (*n* = 1,670)

	X²	*df*	CFI	TLI	SRMR	RMSEA [90% C.I.]
Benchmark			> 0.90	> 0.90	< 0.08	< 0.08
22-item (6 factors)	1392.234*	194	0.930	0.917	0.055	0.061 [0.058, 0.064]
17-item (5 factors)	488.431*	109	0.939	0.924	0.058	0.058 [0.053, 0.063]

Note. *significant at 0.01 level; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; SRMR=Standardized Root Mean Square; RMSEA = Root Mean Square Error of Approximation

5.4.2. Construct validity

Confirmatory factor analysis was carried out to ascertain if the six-factor structure identified in the exploratory factor analysis could be replicated in a new set of participants (Brown, 2015). AMOS 23.0 was used to examine a structural equation model. Multiple fit indices were utilized, including goodness of fit (χ^2/df), the Comparative Fit Index (CFI), Root-Mean-Square Error of Approximation (RMSEA), Tucker-Lewis index (TLI), and standardized root mean square residual (SRMSR). Table 4 displays the fit indices for the 22-item suggested model. Except for the normed chi-square (χ^2/df), which was 7.176, all other fitness indicators met the desired threshold values (Kline, 2016).

To enhance the suitability of the measurement model, adjustments were made by scrutinizing the standardized factor loadings and modification indices. Two items (A3 and A5) with factor loadings below 0.5 were then deleted, resulting in a 20-item scale. Furthermore, upon a thorough analysis of the modification indices, no extremely high MI values were detected (higher than 40).

5.4.3. Convergent validity

To establish convergent validity, item-total (ITC) values were scrutinized, together with composite reliability (CR), and variance extracted by constructs (AVE). To achieve acceptable convergence, the index values of ITC, CR, and AVE should reach 0.3, 0.7, and 0.5 respectively (Devellis & Thorpe, 2021). As demonstrated in Table 5, all 20 items had loadings higher than 0.5. AVE values of all constructs were greater than 0.5 except for the factor of Task-Related Writing Enjoyment (Factor E). And its CR was 0.638 (less than 0.7). These results suggested that the model fit for this subscale was less than optimal. Thus, the three items loading on Factor E were eliminated to obtain a 17-item scale of five factors. Additional CFAs indicated strong support for the model (see Table 5 and Figure 2).

Table 5: Assessment of each subscale's convergent validity and model fit indicators (*n* = 1,670)

Factor	Name	Item	Name	Convergent validity					Model fit indicators			
				λ	P	AVE	CR	x²/df	P	CFI	RMSEA	SRMR
Factor A	Situation–Specific	A2	SS1	0.762	0.000	0.639	0.841	0.001/0	0.000	1.000	0.000	0.000
		A4	SS2	0.828	0.000							
		A5	SS3	0.806	0.000							
Factor B	Topic	B1	TO1	0.783	0.000	0.575	0.802	0.000/0	0.000	1.000	0.000	0.000
		B2	TO2	0.796	0.000							
		B3	TO3	0.706	0.000							
Factor C	Text Type	C1	TT1	0.744	0.000	0.606	0.859	27.139/2	0.000	0.992	0.087	0.019
		C2	TT2	0.772	0.000							
		C3	TT3	0.870	0.000							
		C4	TT4	0.719	0.000							
Factor F	Teacher Support	F1	TS1	0.741	0.000	0.594	0.853	52.234/2	0.000	0.983	0.095	0.024
		F2	TS2	0.742	0.000							
		F3	TS3	0.846	0.000							
		F4	TS4	0.745	0.000							
Factor G	Classroom Atmosphere	G1	CA1	0.756	0.000	0.607	0.821	0.000/0	0.000	1.000	0.000	0.000
		G2	CA2	0.830	0.000							
		G3	CA3	0.746	0.000							

Note. SS = Situation-Specific; TO = Topic; TT = Text Type; TS = Teacher Support; CA = Classroom Atmosphere

Figure 2: The five-factor foreign language writing enjoyment model
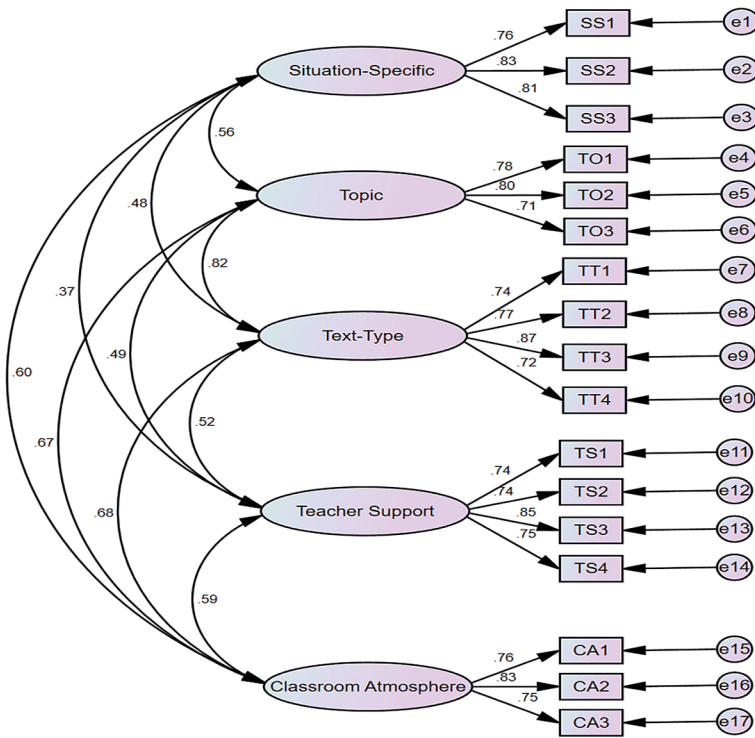
Note. SS1 = Situation-Specific (item 1); TO1 = Topic (item 1); TT1 = Text-Type (item 1); TS1 = Teacher Support (item 1); CA1 = Classroom Atmosphere (item 1); e1 = errors/residuals of its corresponding item (SS1 in this case)

Normality tests were also performed for all items on the scale. Results showed that they had Skewness and Kurtosis values ranging from -0.795 to -0.244 and 0.110-1.844 respectively, all of which fell within the typical normality ranges of -3 to 3 and -10 to 10, each meeting their respective criteria (Kline, 2016).

5.4.4. Discriminant validity

Discriminant validity refers to how much the measurements of distinct constructs are separate from each other (Bagozzi, et al., 1991, p. 425). To ensure discriminant validity, for each subscale, the square root of AVE must exceed its corresponding r^2 (correlation coefficient) (Devellis & Thorpe, 2021). All constructs had AVE values higher than their matching r^2, suggesting that there was a strong level of discriminant validity for each subscale (see Table 6 and Figure 2).

5.4.5. Criterion validity

To assess the scale's criterion validity, its association with other established scales measuring similar constructs was investigated (Bachman & Palmer, 2010). Results showed that the FLWES yielded significant correlations with Pekrun et al.'s (2011) Achievement Emotions Questionnaire (AEQ) Enjoyment Subscale (r = 0.64, r^2 = 0.4, p < 0.001) and with Li et al.'s (2018) Foreign Language Enjoyment Scale (FLES) (r = 0.84, r^2 = 0.7, p < 0.001).

Table 6: Subscale discriminant validity (n = 1670).

Subscale		r2					AVE
		A	B	C	F	G	
Factor A	Situation-Specific	--					0.639
Factor B	Topic	0.314**	--				0.575
Factor C	Text Type	0.230**	0.672**	--			0.606
Factor F	Teacher Support	0.137**	0.240**	0.270**	--		0.594
Factor G	Classroom Atmosphere	0.360**	0.449**	0.462**	0.348**	--	0.607

Note. ** significant at .01 level

5.4.6. Reliability tests

The FLWES underwent two types of reliability tests, namely the internal consistency (measured by Cronbach's Alpha) and test-retest at a two-week interval. The global FLWES and its five subscales demonstrated high reliability, as evidenced by Cronbach's Alphas of 0.913, 0.841, 0.799, 0.854, 0.848, and 0.816 respectively.

Results of test-retest reliability also indicated a high level of stability for both the overall scale and its five subscales, with reliability values of 0.927, 0.911, 0.852, 0.905, 0.883, and 0.804 respectively (Devellis & Thorpe, 2021).

6. Discussion

The novelty of this study lies in conceptualizing foreign language writing enjoyment (FLWE) from a multi-dimensional perspective and investigating its causes and assessment. In Phase 1, FLWE was found to be a multi-faceted construct. Writing topic emerged as the primary source of FLWE, with text type and feedback coming next. Based on the qualitative findings in Phase 1, Phase 2 developed the FLWES.

Results showed that the FLWES was a reliable and valid instrument gauging FLWE. This section explains how the findings help advance emotion research in foreign language writing.

6.1. The occurrence and conceptualization of FLWE

The first research question sought to explore the occurrence and conceptualization of FLWE among EFL undergraduates from various majors. The interview and questionnaire transcripts suggested that enjoyment is a frequent phenomenon in foreign language writing, echoing findings from prior research (Jin, 2023; Li et al., 2023). The results also indicated that FLWE is a positive emotion distinguished by heightened arousal while engaging in foreign language writing, driven by control and value appraisals. It can be categorized into situation-specific and state FLWE. Specifically, FLWE can be conceptualized from a multidimensional perspective by incorporating (a) the three dimensions, (b) antecedents, and (c) the state/situation-specific dichotomy of achievement emotions (Pekrun, 2006). This demonstrates the applicability of control value theory in defining writing-specific foreign language enjoyment. Previous research, however, did not provide a conceptualization of FLWE, let alone employ a multidimensional approach. Not only does this endeavour deepen our understanding of the nature of FLWE, but it also offers insights into defining enjoyment related to other language skills, such as listening, reading, and speaking.

6.2. Sources of foreign language writing enjoyment

The second research question concerns the sources of FLWE. Our findings not only confirm the positive role of classroom atmosphere, teacher support, peers' active involvement, and tasks fostering autonomy and innovation in triggering enjoyment (e.g., Botes et al., 2021; Dewaele & MacIntyre, 2014, 2017; Li et al., 2018), but also expand the sources of FLWE by including some factors that have been overlooked in extant literature such as situation-specific enjoyment, writing topic, text type and feedback. The identification of situation-specific writing enjoyment aligns with Pekrun and Perry's (2014) assertion that situation-specific emotions, as a type of distal antecedents, affect achievement emotion through control and value appraisals. According to the students' report, they consistently enjoyed writing in a foreign language and found enjoyment in the process of learning and using English through writing. In addition, they regularly experienced enjoyment in improving English proficiency through writing. These findings suggest that the students appraised the value of English writing both intrinsically and extrinsically. Participants also found enjoyment in writing about topics they were skilled in, text types they were familiar with, or those relating to personal experiences. These topics and text types were reported to have helped mitigate the negative impact of task difficulty, a situational antecedent, on

their writing enjoyment. According to Pekrun and Perry (2014), learners' perceived control can be influenced by task difficulty, thus impacting emotions. Additionally, learners' writing enjoyment could be increased when they found writing topics interesting and valuable for discussion. This echoes Pekrun and Perry's (2014) claim that tasks accommodating individual needs can facilitate positive emotions associated with activities. Furthermore, text types that allow individuals to express their ideas or emotions can evoke writing enjoyment. This aligns with Tsai et al.'s (2008) proposition that autonomous tasks can enhance learners' perceived control and intrinsic value of the activity, thus generating positive emotions in writing. Feedback is also considered crucial for eliciting achievement emotions in learning environments characterized by frequent assessments (Pekrun & Perry, 2014). In terms of teacher support, this research confirms that teachers' instructional methods have a significant impact on learners' enjoyment (e.g., Botes et al., 2021; Dewaele & MacIntyre, 2014, 2017; Li et al., 2018). A step further was taken by specifying teacher support into four types (i.e., teaching writing strategies, offering sample articles, providing language cues, and supplementing input materials relevant to the writing topic). Different from prior research, teachers' passion for teaching could be found to improve students' writing enjoyment. Just as Frenzel et al. (2009), and Dewaele and Li (2021) suggest, teachers' enthusiasm for teaching can enhance students' value appraisals, thus promoting associated emotions.

6.3. *The measurement of FLWE*

In response to the third research question regarding the factor structure of the FLWES, we established a 17-item FLWES consisting of 5 dimensions: (a) Situation-Specific FLWE, (b) Topic-Related FLWE, (c) Text Type-Related, (d) Teacher Support-Related, and (e) Classroom Atmosphere-Related.

This factor structure was evaluated by a series of reliability and validation tests that address the fourth research question regarding the reliability and validity of the FLWES as a measure of writing enjoyment. The FLWES was constructed based on the qualitative findings from Phase 1. This scale is proven to be a valid and reliable instrument through factor analyses and multiple assessments of validity and reliability. It is designed to provide researchers worldwide with a reliable means of gauging foreign language writing enjoyment experienced by undergraduate EFL learners. Importantly, the FLWES can be modified to suit various language learning contexts.

Unlike earlier scales (e.g., Jin, 2023; Li et al., 2023), which focused on writing enjoyment among two specific universities or secondary school students, our study involved a diverse group of EFL undergraduates representing various disciplines. These participants had extensive exposure to English writing, allowing for a more

comprehensive understanding of foreign language writing enjoyment. Notably, they reported engaging with a wide range of text types, including narration, description, exposition, argumentation, and letters. In contrast, secondary school students, primarily for examination purposes, have limited access to narration, description, and letters. Furthermore, the factor structure of our scale provides a holistic perspective of the origins of foreign language writing enjoyment among undergraduate EFL students. In contrast, prior scales focused solely on the essence of enjoyment or limited their examination to the social and private aspects of enjoyment experienced by secondary school students.

The current FLWES, to our knowledge, represents the first instrument particularly developed to measure FLWE among a wide population of undergraduate EFL learners. This endeavour may open a new fruitful area for developing more scales assessing enjoyment in relation to other language skills (i.e., reading, listening, and speaking), across diverse language contexts. Most importantly, our initial attempt may afford new insights into the skill-specificity of other achievement emotions.

7. Theoretical and pedagogical implications

The results carry both theoretical and pedagogical significance. Theoretically, the findings advance our knowledge of the multidimensional nature and measurement of foreign language writing enjoyment (FLWE), which can open up some interesting avenues for further investigations into enjoyment with other language skills or even other skill-specific achievement emotions. Additionally, the results also suggest that control-value theory is applicable in conceptualizing and assessing foreign language writing enjoyment.

Pedagogically, findings from this study imply a need for appropriate writing tasks and a positive classroom atmosphere in EFL writing so as to evoke learners' enjoyment, as suggested by existing research. Given the pivotal role of writing topics and text types in inducing FLWE as revealed by this study, foreign language teachers could assign writing topics that learners find engaging or deserving of discussion. Additionally, teachers can offer writing topics that align with students' strengths, utilize text types familiar to them, or relate to their personal experiences. Educators can also enhance students' writing enjoyment by offering text types that permit students to express their feelings or ideas without any constraints. Regarding feedback as a source of writing enjoyment, the types of feedback such as teacher, peer (Tigchelaar & Polio, 2017), and negotiated (Nassaji, 2017) are found to be related to the outcome of writing, which can boost or impede enjoyment. Therefore, we encourage teachers to incorporate more writing activities that offer negotiated feedback. Moreover, some learners were found to experience situation-specific enjoyment. Pekrun and Perry

(2014) posited that situation-specific emotions, categorized as distal antecedents, affect achievement emotions via proximal antecedents. Such a finding uncovers the necessity for developing or strengthening learners' situation-specific FLWE in the long run. Additionally, providing various kinds of support (i.e., sample articles, language cues, and input materials) can help boost writing enjoyment. Furthermore, showing enthusiasm for teaching writing can help to boost students' enjoyment. In essence, using the FLWES can assist in pinpointing the specific factor(s) of FLWE to improve writing performance. Obtaining a thorough analysis of learners' FLWE through this approach can lead to better decisions about instructional strategies to boost FLWE.

The findings in this study are subject to limitations. Although FLWES has been shown to be a valid and reliable measure of FLWE, caution should be exercised that validation is an iterative and continuous process (Devellis & Thorpe, 2021, p. 113). As such, the scale warrants further validation in distinct foreign language learning environments. Additionally, the development of the FLWES opens up opportunities for mixed-method longitudinal investigations into how learners' FLWE evolves.

8. Conclusion

This study conceptualized and devised a measure of FLWE (see Appendix 1) from a multi-dimensional perspective. It also explores the various sources of FLWE. The results corroborated the applicability of the control value theory in conceptualizing skill-specific achievement emotion, specifically FLWE. Consequently, this research enhances our understanding of FLWE, shedding light on its nature, origins, and assessment.

Findings from this study inspire further inquiry into the skill-specific nature of enjoyment or other achievement emotions. Additionally, this research offers a credible instrument that can be customized to suit diverse foreign language learning contexts.

Acknowledgements

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Appendix 1: The Foreign Language Writing Enjoyment Scale (FLWES)

Factor (subscales) and items	Factor loading
Factor 1 Situation-Specific Writing Enjoyment	
(1) I habitually enjoy improving my English level through writing.	0.762
(2) Writing a foreign language (i.e., English) is enjoyable.	0.828
(3) I regularly find enjoyment in the process of learning and using English through writing.	0.806
Factor 2 Topic-Related Writing Enjoyment	
(4) I enjoy writing about an interesting topic.	0.783
(5) I tend to enjoy writing about topics I am good at because I have something to say.	0.796
(6) Working on a topic worthy of discussing is enjoyable because I can express my thoughts through words.	0.706
Factor 3 Text type-Related Writing Enjoyment	
(7) I enjoy writing a text type that allows me to express my opinions.	0.744
(8) I enjoy writing a text related to my personal experiences.	0.772
(9) Writing in a text type that enables me to express my emotions is enjoyable.	0.870
(10) Writing a text type that is familiar to me is enjoyable.	0.719
Factor 4 Teacher Support-Related Writing Enjoyment	
(11) I tend to have enjoyment in English writing if my teacher analyzes writing strategies and skills before I start to write.	0.741
(12) I tend to experience enjoyment in English writing if my teacher provides us with a sample article before I start to write.	0.742
(13) I tend to feel enjoyment in English writing if my teacher offers us language cues.	0.846
(14) I tend to enjoy English writing if my teacher offers us some input (e.g., a video clip or a reading passage) related to the writing topic before I start to write.	0.745
Factor 5 Classroom Atmosphere-Related Writing Enjoyment	
(15) I enjoy learning from peers who have a good command of English writing.	0.756
(16) My peers' positive attitudes towards English writing can positively influence my writing attitude, thus enhancing writing enjoyment.	0.830
(17) The teacher's own enthusiasm for English writing can enhance my writing enjoyment.	0.746