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Reducing anxiety in the foreign language classroom: A positive psychology approach¹

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Abstract

This paper reports on a study that took a positive psychology approach to foreign language anxiety reduction. More specifically, it investigated whether reminiscing about language achievements could effectively diminish the learners' foreign language classroom anxiety. It also explored the patterns nested in the reminiscing process. To this end, 88 first language Chinese university students of English were randomly assigned into experimental (n = 43) and control groups (n = 45), who filled out a short-form anxiety scale before and after a 30-day intervention. The experimental group students were also requested to record what they had reminisced about as well as their emotional experiences during each lab session. The results showed that the dimensional and overall levels of anxiety decreased significantly over time in the experimental group but remained stable in the control group. In addition, textual analysis showed that the experimental group students recalled their progress in particularly speaking, listening, writing, reading, vocabulary, grammar, and pronunciation, as well as non-language proficiency progress such as increased cross-cultural knowledge and testing ability. This reminiscing was linked to more frequent positive emotions than negative emotions. The findings and their implications for foreign language anxiety research and foreign language teaching and learning were discussed.

Keywords: English, Chinese university students, Positive psychology approach, Reminiscing about language achievements, Foreign language classroom anxiety

1. Introduction

Anxiety has long been recognized as an issue for language teachers and learners alike. The accumulated evidence reveals that anxiety consistently has a negative effect on foreign language (FL) learning (for reviews see MacIntyre, 2017; Teimouri, Goetze, & Plonsky, 2019). In response, there have been some attempts to develop anxiety-reduction strategies that can be applied in language learning situations (e.g.,

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Nagahashi, 2007; Galante, 2018; Toyama & Yamazaki, 2021a). These strategies show some evidence of being effective, but they tend to require a great deal of time and investment of energy from both teachers and students due to the complexity of their procedures (e.g., a 4-month drama program in Galante (2018); see Toyama & Yamazaki (2021b) for a systematic review of the experimental studies on the strategies for FL anxiety reduction). More research thus is needed in this area and there must be a concerted effort to explore anxiety interventions that are both effective and can be easily applied.

Inspired by the positive psychology call for studies of emotion in SLA (Dewaele, Chen, Padilla, & Lake, 2019; Dewaele & Li, 2020), we set out to address the need for FL anxiety interventions that can be shown empirically to be effective. Specifically, we looked to develop a user-friendly intervention designed to combat FL anxiety by asking students to remember successes, that is to "reminisce" about their previous FL achievements. Reminiscing is supported by broad theoretical orientations offered by Oxford (2016) and specific theorizing about regulatory strategies to deal with emotions (e.g., Bryant, Smart, & King, 2005; Smith & Bryant, 2019). Our interest in the present mixed-method study lies in two areas, (1) does the reminiscing process show evidence of reducing quantitative ratings of anxiety and (2) what happens as students think about and emotionally experience when reminiscing about language success in their context?

2. Literature review

FL learners face many challenges that can be anxiety-arousing (Oxford, 2016; Horwitz, 2017). Horwitz, Horwitz, and Cope (1986) conceptualized such anxiety as FL anxiety and MacIntyre & Gardner (1994) defined it as "the feeling of tension and apprehension specifically associated with [foreign language] contexts" (p. 284). Later studies showed that FL anxiety encompasses "a suite of anxieties" (Horwitz, 2016, p. 72), which is related to classroom-based learning and specific language skills such as speaking and reading (e.g., Pae, 2013; Cheng, 2017). Among the conceptualizations of FL anxiety, FL classroom anxiety (FLCA) has been most studied (Teimouri et al., 2019).

FLCA can be exacerbated by factors both internal and external to the learner. With respect to learner-internal processes, empirical research has shown that both actual and perceived FL proficiency levels are important influences on FLCA (Jin, de Bot, & Keijzer, 2015b; Jee, 2018; Liu, 2018; Jiang & Dewaele, 2019). Learners with a (self-perceived) low level of language proficiency tend to suffer more from anxiety in the FL classroom, which may lead them to underestimate the quality of their FL mastery, leading to a vicious cycle (MacIntyre, Noels, & Clément, 1997). In addition, FLCA is linked to broad personality dimensions such as trait Neuroticism (Dewaele, 2013, 2017a), as well as lower-order personality dimensions such as lower self-esteem (Liu & Zhang, 2008; Jin et al., 2015b), less positive orientation towards

oneself, other people, and the future (Jin & Dewaele, 2018), higher perfectionism (Gregersen & Horwitz, 2002; Dewaele, 2017b), and a loss of linguistic self-confidence (Clément, Dörnyei, & Noels, 1994). Personality traits can predispose tendencies that lead to cognitive and social processes by which anxiety maintains itself (Chamorro-Premuzic, von Stumm, & Furnham, 2011).

Learner-external factors linked to FLCA can be found in the learning environment to which learners are exposed. Zhang (2001) found that Chinese first language students who were taught with a communicative approach in Singapore were less anxious than those taught with grammar-translation method in China, which reflects the effect of teaching methods/approaches on learners' FL anxiety levels (see also De Smet, Mettewie, Galand, Hiligsmann, & Van Mensel, 2018). In addition, the social climate in the FL classroom also plays a role in learners' anxiety. Twenty-one out of the 24 Japanese university participants of English in Effiong's (2016) qualitative study agreed that they would feel anxious in a quiet class, which also showed that perceived teacher and peer unfriendliness could trigger learners' anxiety in class.

FLCA is of concern to both teachers and learners not only because it can be an unwelcome experience but also because it has been shown to negatively affect the learning process. Emotionally, anxiety arousal can be unpleasant, frustrating, and upsetting, and at high levels can make learners fearful, inept, and physically ill (Horwitz et al., 1986). Behavioral reactions to these learner-internal factors include trying to memorize speech content and withdrawing from communication situations such as a classroom presentation (Gregersen, MacIntyre, & Meza, 2014; Dewaele, 2019). To lessen their anxiety, learners can disengage from the very types of classroom participation that teachers promote for enhancing success in learning and performance (Hu & McCormick, 2012; Oga-Baldwin & Nakata, 2017). For example, a study of Turkish EFL learners showed that anxious learners used a wide variety of strategies to eschew FL use (Şimşek & Dörnyei, 2017), including avoiding eye contact with teachers and choosing to hide at the back of the class. Cognitively, FLCA consumes cognitive resources needed for information processing by directing part of attention to learning task-irrelevant thoughts, rendering FL learning less effective than it might otherwise be (MacIntyre & Gardner, 1994; Castillejo, 2019). Interpersonally, FL anxiety also weakens learners' capacity for anticipating the interlocutor's responses and self-monitoring their own utterances in social contexts (Jeong et al., 2016) and, more seriously, can sometimes paralyze learners' thinking (Gregersen, MacIntyre, & Olson, 2017; Simsek & Dörnyei, 2017). Anxious learners tend to perceive less teacher and student support in the classroom (Jin, de Bot, & Keijzer, 2017). As the number of anxiety reactions accumulate over time, their long-term effects on FL performance can be quite negative.

Given its affective, cognitive, behavioral, motivational, social, and neuro-linguistic effects, research is needed to identify techniques that can be used to reduce learners' anxiety and its negative effects. In this regard, Nagahashi (2007) attempted

cooperative learning and found that 38 Japanese first language university students were significantly alleviated in five key FLCA symptoms after they engaged in pair work and small group work in 12 classes taught by the researcher. In addition, techniques that promote inner peace, self-awareness, and kindness and compassion towards oneself and others can also have positive effects. Scida and Jones (2017) found that through practicing ten contemplative exercises (e.g., breath meditation, mindful movement/stretching, and gratitude writing), university students' anxiety in Spanish as an FL class significantly decreased. Further, Galante (2018) reported that after implementing a 4-month drama program, 13 Brazilian adolescents' English classroom anxiety levels lessened, suggesting teaching programs that stimulate language use have the benefit of contributing to lower anxiety levels for learners.

Jin, Zhang, and MacIntyre (2020) tested an exploratory approach to circumventing anxiety based on behavior modification. To this end, they officially signed a contract with 20 participants in the experimental group, through which the participants committed to speaking in the English classroom either in the participants' native language (Chinese) or the FL they were learning (English) over seven school days. However, 22 participants in the comparison group only received a written form, which was not officially signed, though it indeed urged participants to volunteer speaking and try their best to express themselves with no worries about others' negative evaluation when being called on by teachers in English classes in the seven days. The results showed that relative to the comparison group, the experimental group demonstrated significantly more of a decrease in FLCA over the experimental period. Analyzing the experimental group students' diary entries showed that their reduced FLCA could be attributed to increased FL learning engagement, self-efficacy, self-reflections on weaknesses and strengths in FL learning, and positive emotions, along with diminished fear, nervousness, and worries in class, all of which arose from the implementation of the contracting intervention.

The current study targeted reminiscing about FL proficiency development as a new alternative to alleviate FLCA, by which the researchers addressed a limitation that existed in previous studies of FLCA interventions. That is, most of these studies adopted curriculum-based interventions to FLCA, which are complex in procedures and thus require tight control over their process, greatly weakening their applicability. Adapting positive psychology to language learning, Oxford (2016) provided an EMPATHICS model (E = emotion and empathy; M = meaning and motivation; P = perseverance; A = agency and autonomy; T = time; H = hardiness and habits of mind; I = intelligences; C = character strengths; S = self factors such as self-efficacy, self-concept, self-esteem, and self-verification). This model highlights that nine dimensions as represented by the capitalized letters and their interactions form pillars for language learners' well-being and can be the starting points to generate strategies to combat learners' negative affective experiences. Reminiscing about specific instances of prior FL success and the development of one's proficiency over time implicates several dimensions of EMPATHICS, on the grounds that reminiscing, as a

savoring technique (Bryant & Veroff, 2007), is empowered to induce positive emotion, make awareness of language strengths more obvious to learners, and promote positive self-concepts. Indeed, numerous studies have shown that savoring techniques, including reminiscing, increase psychological well-being and dampen negative emotions (Bryant et al., 2005; Quoidbach, Wood, & Hansenne, 2009; Hurley & Kwon, 2012; Smith & Bryant, 2019). However, to date, the effects of reminiscing on FL anxiety reduction have not been tested.

The present study further explores participants' reminiscing about prior FL learning by analyzing their self-reports for (a) what had been recalled and (b) emotional experiences. As such, this study answers the call in Dewaele and Li (2020) to do more experimental research on ways to reduce negative emotions and to boost positive ones, and also to increase granularity of our understanding of the emotions experienced by learners and the effects of those emotions. The broader aim of this approach is to improve pedagogical practices in FL teaching by explicitly taking advantage of positive emotions (see MacIntyre & Gregersen, 2012, for a discussion of positive-broadening emotions in L2 learning).

The present study thus addressed two research questions:

1. Does reminiscing about FL proficiency development reduce the learners' FLCA? 2. What are the student reminiscences about their proficiency development? What emotions do they evoke?

3. Methodology

3.1. The study design

This study adopted a 2 X 2 experimental study design. Eighty-eight students of English from a Chinese university were mixed and randomly assigned to an experimental or control group with no pre-selection criteria exercised. The experimental period lasted for 30 days, a time span resembling the prior studies examining FL anxiety changes (e.g., Nagahashi, 2007; Dewaele, Comanaru, & Faraco, 2015; Dolean, 2016). At the outset and again at the end of the experimental days, all the students were tested for their anxiety levels in the English classroom.

During the experimental period, only the experimental group students performed reminiscing tasks at any time when they felt feasible. The following instructions written in Chinese were formulated in reference to Quoidbach et al. (2009) and Smith and Bryant (2019):

Please perform the tasks as follows in order: a) Take a deep breath, relax, calm yourself down, and empty your minds; b) Try to be focused on reminiscing about, as precisely as possible, English proficiency progress that you had made since entry into university, which can be minor or major in a single or multiple aspects; c) Record what you had reflected on in detail.

Students were also requested to describe their emotional experiences in each reminiscing performance

3.2. Participants

Ninety-four Chinese first language university students majoring in English in the first and second years participated in this study, who were recruited from a university in South China as a convenience sample. The experimental group had 49 participants originally, but six participants were excluded after failing to perform the reminiscing task. The remaining 43 participants included 19 Year 1 students and 24 Year 2 students, counted 42 females and one male, aged between 18 and 21 years (M = 19.40, SD = .85), and learned English for 6.67 to 15.67 years (M = 11.11; SD = 1.94). The control group had 45 participants (n = 23 for Year 1 and 22 for Year 2), counted 43 females and two males, aged between 18 and 21 years (M = 19.33, SD = .85), and learned English for 5.92 to 17.67 years (M = 10.93, SD = 2.36). The two groups resembled greatly in terms of English teachers at the time of data collection. Their similar sex ratios reflect the gender profile in Chinese universities' FL programs (Jin et al., 2020).

3.3. Instruments

3.3.1. The English classroom anxiety scale (ECAS)

The ECAS was an 11-item scale, with seven positively worded items and four negatively worded items, and a five-point, Likert response format: *strongly disagree* (1), *disagree* (2), *neither agree nor disagree* (3), *agree* (4), and *strongly agree* (5), pertaining to general anxiety in the English classroom. Positively worded items represented the presence of anxiety; negatively worded items represented the absence of anxiety. When scoring, responses to the negatively worded items were reverse-coded, so higher scores on the scale represented higher anxiety levels.

The ECAS was derived from a 33-item anxiety scale in Chinese used in Jin and Dewaele (2018) through exploratory and confirmatory factor analysis respectively with 446 and 326 Chinese university-level (non) English major students in the first, second, and third years. It assessed two dimensions. One was *Fear of English Class* (five items), the other was *Worry about Negative Evaluation* (six items). Among university students of English, the ECAS was more strongly related to FL reading, listening, writing, and speaking anxiety measures (correlation ranged from .59 to .73, all p < .001), but was less related to trait anxiety measures: $r_s = .49$, p < .005, with a test anxiety scale and r = .09, p = .59, with a trait anxiety scale, resembling the criterion validity pattern of the original scale (Horwitz, 1986; the details for developing and validating the ECAS are available from the authors upon request).

In the present study, the ECAS achieved Cronbach's alpha values of .84 and .86 at Times 1 and 2 respectively. For the Fear of English Class Subscale, Cronbach's alpha was .63 and .66 at the two time points and for the Worry about Negative Evaluation Subscale, .86 and .90. Test-retest correlations over one month for the full ECAS, the

Fear of English Class Subscale, and the Worry about Negative Evaluation Subscale were significant in the experimental group (r = .82, .69, and .85 respectively, all p < .001) and in the control group (r = .82, .65, and .82 respectively, all p < .001).

3.4. Procedures

The first author invited students of English in three Year 1 classes and four Year 2 classes at a Chinese university to participate in this study. Ninety-four of them accepted this invitation. The first author met these students all together and randomly allotted them to the experimental group or the control group. Following that, these students filled out the ECAS over an online survey platform. Then, the control group students were dismissed, but the experimental group students were retained. The researcher explained the intervention tasks and distributed task sheets to the experimental group students, on each of which the instructions for performing reminiscing were described and the participants were asked to record what had been reminisced about and their emotional experiences in the reminiscing process. Upon closing this experiment, all the 94 students completed the ECAS online again. The experimental group students returned their task sheets.

3.5. Data analysis

Data analyses proceeded in three stages. The first stage was a comparison of change in anxiety in English over the pre- and post-test times between the experimental and control groups (Question 1). For that, a series of paired sample *t*-tests was performed. The second stage was to analyze the experimental group students' self-narratives of what they had reminisced about (Question 2) in a grounded theory method (Charmaz, 2006). More specifically, the first author coded the participants' self-narratives line-by-line and then categorized the codes in an iterative process. Data from the participants' narratives were coded and re-coded, and categories merged and split, by constantly comparing the properties of the codes and categories. Once the process of coding and categorizing ended, the findings, along with the raw self-narrative materials, were given to a Chinese-English applied linguistics researcher for cross-checking to ensure the participants' self-narratives were properly sorted. The first author discussed with this researcher for any discrepancy between them.

It should also be noted that during the analysis process, we sometimes used the participants' terms as codes (i.e., in vivo codes) to preserve the participants' voices (Charmaz, 2006), and in some cases the terms could be considered broader category labels. In addition, we took a broad approach to including what the participants saw as a language achievement. For example, British to American accent switching was retained even though it normally is not seen as a sign of proficiency development. In these rare cases, we still included these data in the analysis, as these English leaning aspects would more or less function in FL anxiety so long as the participants treated them as language achievements. Further, we exercised caution with code categorization in the sense that we extracted categories based on in-depth analysis into the properties of the codes and meanwhile tried to avoid over-categorizing them. For

example, the codes under the rubric of *Cognition about English* and *Cognition about English Disciplines* all pointed to increased cognition, but towards different things, warranting sorting them into separate categories. Otherwise, data analysis would be weakened in revealing the multidimensionality of what the participants had reminisced about.

The third stage was to examine the quality of participants' emotional experiences (Question 2). To be more specific, the first author counted the reported positive and negative emotions in the participants' self-narratives and particularly analyzed the causes of the negative emotions in a grounded theory method as just described, because that would inform the practical application of the reminiscing intervention and its subsequent improvement. He also made sense of the patterns of co-occurrence and switches of emotions that the participants had experienced, which more naturally emerged from repetitive scrutiny of the self-narrative materials. Once these analyses ended, the findings were cross-checked by the applied linguistics researcher. The two researchers also discussed to resolve any discrepancy between them.

4. Results

The results will be reported in two sections, organized by the research questions. First statistical analysis results that address the question of anxiety reduction in the experimental and control groups are reported. Second a qualitative analysis of what students reminisced about will be presented. Reporting the analysis will focus on three areas: identifying the aspects of perceived English proficiency development, capturing the non-proficiency aspects, and documenting the emotions experienced during the reminiscing process.

4.1. Research question 1: Quantitative data on between-group differences in anxiety over time

Investigating whether anxiety had a significant change over time for the experimental and control groups and whether the experimental group showed a greater change than the control group was conducted at the overall and dimensional levels of anxiety.

4.1.1. Between-group comparisons of overall anxiety

Paired samples *t*-test was performed after checking the normality of the differences in the between-survey ECAS scores for each group. The results showed that the changes in the ECAS scores were significant for the experimental group, t(42) = 4.46, p < .001, Cohen's d = .41, but not for the control group, t(44) = -.24, p = .81. The mean scores on the ECAS declined significantly from 36.02 (SD = 5.89) at Time 1 to 33.49 (SD = 6.43) at Time 2 for the experimental group. The mean anxiety of the control group did not change significantly from Time 1 (M = 34.62, SD = 6.58) to Time 2 (M = 34.76, SD = 5.44). The change in means is shown in Fig. 1.

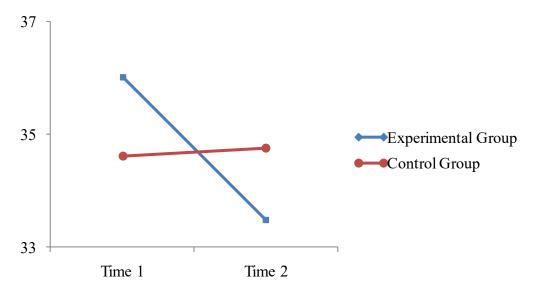


Figure 1 The changes in overall anxiety in English over time for the experimental and control groups

4.1.2. Between-group comparisons of anxiety dimensions: fear and worry
The descriptive results of the experimental and control groups' scores on the two
ECAS dimensions are presented in Table 1. As shown, the experimental group
showed decreased anxiety at Time 2, relative to Time 1 for the two ECAS dimensions,
but the control group showed an increase over time for both ECAS dimensions.

Dimensions	Times	Groups	Minimum Score	Maximum Score	М	SD
Worry about Negative Evaluation	Time 1	Experimental	8	29	21.21	4.31
		Control	6	28	20.02	4.51
	Time 2	Experimental	6	28	19.54	4.87
		Control	6	28	20.13	4.30
Fear of English Class	Time 1	Experimental	9	22	14.81	2.68
C		Control	8	19	14.60	2.78
	Time 2	Experimental	9	20	13.95	2.56
		Control	9	19	14.62	2.15

Table 1 The descriptive	results of the ECAS dimensions for
the experimental and	control groups at two time points

In order to examine the significance of the changes of anxiety levels at each of the two ECAS dimensions over time for the experimental and control groups, a series of paired-samples *t* tests was performed. The results showed that the experimental group's anxiety levels in the two dimensions significantly decreased across the two points in time, t(42) = 4.34, p < .001, Cohen's d = .36 for Worry about Negative Evaluation and t(42) = 2.75, p < .05, Cohen's d = .33 for Fear of English Class.

However, for the control group, both of the two dimensions showed no significant change over time, t (44) = -.28, p = .78 for Worry about Negative Evaluation and t (44) = -.07, p = .95 for Fear of English Class. The changes in both dimensions over time for the two groups are visually presented in Figs. 2 and 3.

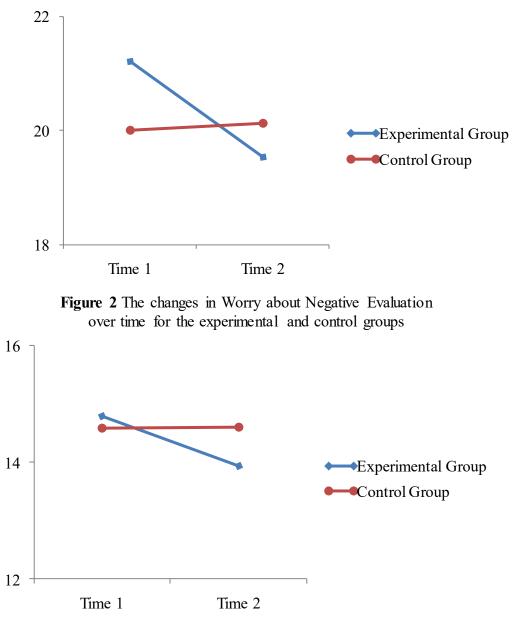


Figure 3 The changes in Fear of English Class over time for the experimental and control groups

4.2. Research question 2: Qualitative data on reminiscing topics

The data concerning the topics about which learners reminisced reflected a complex set of interconnected cognitive, emotional, social, pedagogical, and self-reflective processes. Among the 43 experimental group students, one student performed the reminiscing task 17 times, 15 students performed reminiscing 22–29 times, and the remaining 27 students performed it 30–40 times. Twenty-seven participants reminisced at least once a day over a 30-day experimental period. The participants

reported a variety of areas in which they thought they had progressed. In addition, some students reported setbacks in their English learning as they reminisced about their progress. In what follows, we will present in more detail what the participants had reminisced about with excerpts adopted from their self-narratives (see the italicized; pseudonyms were used for the participants).

4.2.1. English proficiency topics

The English proficiency categories and their main subcategories are presented in Table 2 (The full list of the subcategories is available on request). As shown, the aspects of English proficiency mentioned most often were related to specific skill areas: speaking, listening, writing, reading, as well as vocabulary, grammar, and pronunciation. With respect to speaking, listening, writing, reading, grammar, and pronunciation, the participants more often noted perceived development in general terms. As for vocabulary, the participants emphasized a larger vocabulary size rather than an increased ability to use vocabulary.

Table 2 The reminisced English proficiency aspects
Categories and Subcategories (Student Number)
Categories and Subcategories (Student Number)
Speaking (43) Miscellaneous aspects of English development (16) Generally perceived speaking ability (34) Generally perceived English proficiency (8)
Listening (42) Specific tasks accomplishment (15) Generally perceived listening ability (33) Reading tasks accomplishment (7) Ability to understand listening materials (26)
English knowledge (12) Writing (42) Generally perceived English knowledge development (10) Generally perceived writing ability (31)
Debate (8) Reading (41) Generally perceived debate ability (6) Generally perceived reading ability (30) Reading speed (22) Recitation (7)
Recitation speed of English articles (4) Vocabulary (39) Generally perceived size of words (33) English sense (6)

Generally perceived English sense (6) Grammar (37) Generally perceived grammatical development (29) Automation of English output (5) English output in oral performance (3) Pronunciation (35) Generally perceived pronunciation ability (30) Understanding of paralinguistic cues (2) Rising and falling tones (2) Translation (20) Generally perceived translation ability (16) Sensitivity to English (1) Generally perceived sensitivity to English (1) Formulaic sentences (16) Idiomatic expressions (11)

Note: Student number refers to the number of students endorsing a category or its sub-categories

When I was in senior high school, I could not proficiently express my own ideas. The sentences I produced at that time were broken. After one year I studied at university, I am able to relatively freely and proficiently express myself in spoken English. (Jiang Yu)

I have made progress in listening during the process of English learning. At the very beginning, I completely did not understand, but only a few words. (Zhang Han)

At the very beginning of university, writing a 200-word composition was long enough for me. I only used simple sentences then. Now I can write 250 words and try to use compound sentences. After attending the training for the writing contest held by the Foreign Language Teaching and Research Press, I can write two 500-word compositions on computer in two hours. My brain goes faster than others when writing; I can write more quickly. (Wang He)

After I consciously practiced the 5-pass reading technique for two to three weeks, I feel that I have made process in reading. I can understand better the articles that used to be difficult for me. (Zhu Jing)

Nevertheless, some participants indeed provided more detailed accounts of what they had achieved in each of the above-mentioned aspects. For example, some students reported specific progress in reading aloud, communication, speech delivery, and stage performance in English, while some reported authentic language use, rich contents, structural cohesion, and stylistic appropriateness in writing. The

pronunciation aspects that had been referred to included phonogram pronunciation, stress, intonation, liaison, elision, accent, etc.

In senior high school, English leaning simply meant doing exercises. However, there are opportunities to read out in English in Integrate English classes and those for other courses at university. My reading aloud ability has made certain progress now, albeit not huge. For example, I am not in hurry to read out a sentence all in one breath any more, but with correct phrasing. (Li Jing)

After I entered university, my writing level has improved somewhat ... Thanks to my teacher's instruction, I can write all types of essays now and know how to design the structure of an essay and how to use advanced vocabularies in it. (Jin Ping)

I feel more familiar with the pronunciation and categorization of English phonograms and am able to teach English phonograms to learners at a very young age. Phonogram learning was completely neglected before, so I even did not know how many vowels and consonants there were. Now I have already fully mastered English phonograms. (He Yi)

Translation and acquisition of formulaic sentences were mentioned less frequently, the mostly noted subcategories of which were generally perceived translation ability and acquisition of idiomatic expressions, in particular slangs.

I took translation lesson today. Though it has been a long time not to have translation class, I feel my progress in translation is great. In all kinds of English to Chinese or Chinese to English translation, what I translated was basically the same to the correct answers. I believe if one wants to make progress in translation, she/he must do a lot of practices in usual days. Otherwise, translation ability would not be improved. (Dong Fei)

Through studying with more professional teachers and classmates at university, I have known a lot of interesting colloquialisms and slangs. (Ding Yun)

A diverse set of other English proficiency aspects were endorsed much less often. Some students referred to progress in language related skills (recitation and debate), while others emphasized acquisition of English knowledge. Some students focused their attention on overall language development, while others recalled successfully accomplishing a specific task (e.g., learning an English song and delivering a speech). Further, some students stressed progress in practical use of language, while others particularly noted understanding of language properties and mental processing of language.

Recitation is not as difficult as before. During the process of recitation, I also can exercise changes of intonation. (Yue Mei)

I reminisced about the process in English knowledge and in spoken English. (Zou Ting)

The Integrated English course can help to develop one's comprehensive abilities. From this course, I have learned how to use English to summarize a passage and explain the meaning of English words and sentences. (Xie Jun)

I understand that using reduction and stress can make the meaning of words in a sentence more salient. (Liu Ying)

With accumulated reading and listening, I sometimes speak English unconsciously. (Wu Luan)

4.2.2. Non-English proficiency topics

The students also reported non-language proficiency aspects in which they thought that they had improved since entering university (see Table 3 for the categories and their main subcategories. The full list of the subcategories is available on request). Among them, cross-cultural knowledge about English-speaking countries, English tests handling, learning ability, and psychological resources were reflected on by more than half of the participants. With respect to cross-cultural knowledge, the most frequently addressed subcategories were concerned with cultures and history of English-speaking countries. As for English tests handling, the listening test was most often mentioned, followed by the reading test and then generally perceived test ability. **Table 3 The reminisced non-English proficiency aspects**

Categories and Subcategories (Student Number)	Categories
and Subcategories (Student Number)	
Cross-cultural knowledge about	
Psychological resources - interest (16)	
English-speaking countries (31)	Interest
in the English language (7)	
Cultural aspects of English-speaking countries (25)	
Self-breakthrough (16)	
English tests handling (31)	
Generally perceived self-breakthrough in English speaking (6)	
Listening test ability (18)	
g	Cognition
about English learning (16)	8
Learning abilities - miscellaneous others (30)	
Cognition about English learning (6)	
English memorization (9)	
	Teaching
skills (15)	Teaching
Learning ability - learning strategies (24)	
Teaching instruments preparation (12)	
Learning methods and approaches (10)	
Learning methods and approaches (10)	Generally
	Generally

perceived knowledge (15) Psychological resources - miscellaneous others (23) Generally perceived knowledge development (15) Reduced fear of English speaking (9) Classroom performance (13)Psychological resources - confidence (22) Class participation (6) Confidence in spoken English (11) English calligraphy (13) Thinking qualities (20) Handsomeness (12) Thinking in English (8) Academic writing knowledge/abili ty (12) Learning habits (20) Literature searching (6) Frequent listening training (8) Intercultura 1 communication competence (7)Learning attitudes (19) Intercultural communication competence (6) Attitudes towards English reading (7) Connoisseurship (6) Specific subjects knowledge (19) English literary works (5) Linguistics (16) Recording (6) Knowledge of cross-linguistic differences (2) Stenography ability (5) Chinese-English differences (1) Other miscellaneous abilities (6) Recognition winning (2) English song singing (4) Teacher recognition (2) Cognition about English (5) English learning awareness (2) / Awareness of English sense training (1)

Cognition about English disciplines (4)

Note: Student number refers to the number of students endorsing a category or its sub-categories

Last semester we had the British History course, from which I have learned a lot about British history and cultures. That helps me to know about the country I probably will go in the future. (Xu Ming)

I can understand a large part of the listening section in the College English Test -Band 4. (Kong Bing)

Recently, I practiced five-out-of-seven reading comprehension. This type of reading comprehension was quite easy in senior high school, but really difficult at university. With these practices, I feel I have made a bit progress. (Jin Ping)

Learning abilities were related to knowledge of learning theories and approaches, English memorization, learning materials identification and integration, exercises management, etc., and covered instructed learning and self-directed learning. Confidence and interest were two mostly reported dimensions of psychological resources on which the participants felt that they had improved, which were followed by enjoyment, relaxation, reduced anxiety and fear, etc. Further, confidence was mainly associated with speaking in English, consistent with very often mentioned progress in speaking skills among the participants; interest was more frequently reported in relation to the English language.

I tended to learn English by myself before. Now I feel comfortable with group-based cooperative learning. (Huang Dan)

What really matters in speaking is not only proficiency level, but, more importantly, improvisational performance ability. Now I am more brave, more confident, more fluent, and louder in improvisational English speaking. (Zhang Yuan)

My feeling towards English before was helplessness, but now it is interest. (Wu Luan)

Other non-language proficiency aspects that were endorsed less frequently pertained to thinking qualities, learning habits, learning attitudes, specific English subjects, perceived self-breakthrough in English learning, and cognition about English learning. The much less endorsed included teaching skills, classroom performance, academic writing, intercultural communication competence, and so forth. In short, the experimental group indicated many improvements associated with affects, cognition, behaviors, abilities, skills, awareness, aesthetic, and knowledge base. I have learned to think or solve problems [from the perspectives of English cultures]. (He Meng)

I have developed a habit of note-taking at any time and place in order to record the knowledge that I have learned in fragmented time. (Yuan Han)

In today's listening class, I stood up bravely and answered the teacher's question. In previous listening classes, I always did not actively answer questions. However, I stood up bravely today. I feel I made a great progress. (Xiao Di)

At the beginning of university, I felt fairly uncomfortable with teaching only in English. I often did not understand my teachers. I felt anxious when the classes were going on. Now I can understand most part of what the teachers said and thus I can follow the teachers' train of thought. (Zhang Han)

In the process of materials searching, I have more frequently referred to foreign websites. I have paid more attention to correct citation. (Zou Ting)

4.2.3. Emotional topics

The participants experienced a wide range of emotions during reminiscing, as listed in Table 4. In general, positive emotions outnumbered the negative ones approximately 3:1 in frequency (n = 1159 for positive emotions and 409 for negative emotions)although the number of emotion types were similar for positive (49 categories) and negative (45 categories) emotions. The most prominent positive emotion was happiness, cited far more often than other major positive emotions including confidence, contentment, sense of accomplishment, pride, and enjoyment, which were ascribed to diverse causes. For example, Wang Ling noted, "My progress in listening and speaking made me happy"; Xu Ming reported, "I was very happy about having chances to deliver speech at university"; and Zhang Fen mentioned, "Thinking of being praised by the teacher led to my happiness". Among the negative emotions, none seemed to stand out more often than the others, though sadness was referred to more than other emotions. The negative emotions were shown to be linked to (perceived) low language proficiency and ability; limited progress and efforts in English learning; learning difficulties; repulsion for learning; learning, examinations, and work pressure; disadvantages in inter-personal comparison; weakness in learning methods; failures in task performance or learning; and inter-peer discrepancies in opinions, as well as self-depreciating thoughts. In addition, the specific content of language instruction generated emotion for some learners: thinking of the book, The Little Princess, led to Liu Ying's sadness, because she felt this book was "very cruel". Furthermore, negative emotions were also related to the reminiscing process itself. That is, some participants encountered difficulties in finding what could be reflected on and thus experienced negative emotions. For instance, Chen Lan recorded, "The progress I wrote was very general. I could not figure out in what aspects I had made

progress. I felt pessimistic in my heart"; Wang Ze noted, "The progress I could reflect on was becoming less and less. I felt oppressed and helpless".

Positive emotions	Frequencies	Negative emotions	Frequencies	
Happiness	378	Sadness	38	
Confidence	96	Restlessness	32	
Contentment	86	Anxiety	25	
Positive emotion	63	Confusion	25	
Sense of accomplishment	52	Nervousness	23	
Pride	44	Fear	22	
Enjoyment	43	Distress	21	
Норе	39	Sense of difficulty	19	
Satisfaction	37	Negative emotion	18	
Excitement	33	Misery	16	
Sense of motivation	26	Boredom	13	
Interest	26	Embarrassment	13	
Fun	23	Worry	13	
Calmness	23	Helplessness	12	
Self-appreciation	20	Panic	10	
Relaxation	18	Annoyance	9	
Desire	17	Disinterest	9	
Surprise	16	Unconfidence	8	
Sense of fulfillment	15	Disappointment	7	
Like	14	Feeling of pressure	7	
Sense of encouragement	11	Dissatis faction	6	
Gratitude	7	Upset	6	
Comfort	7	Dislike	5	
Sense of luckiness	6	Regret	5	
Optimism	6	Discontentment	4	
Envy	6	Exhaustion	4	
Sense of well-being	6	Pity	4	
Enthusiasm	5	Sense of self-blame	4	
Sense of novelty	4	Shame	4	
Absence of repulsion	3	Disgust	3	
Touchingness	3	Frustration	3	
Passion	3	Sense of self-depreciation	3	
Absence of annoyance	2	Discouragement	2	
Reduction of panic	2	Displeasure	2	
Worship	2	Sense of inferiority	2	
Love	2	Sense of repulsion	2	
Sense of glory	2	Unhappiness	2	
Sense of superiority	2	Absence of love	1	
Relief	1	Discomfort	1	

Table 4 Positive and negative emotions experienced in reminiscing

Fearlessness	1	Guilt	1
Sense of fighting spirit	1	Lack of self-assurance	1
Sense of belonging	1	Oppression	1
Willingness	1	Pessimism	1
Mercy	1	Sense of face losing	1
Reduction of anxiety	1	Sense of crisis	1
Sense of recognition	1		
Sense of acceptance	1		
Reduction of pressure	1		
Absence of shyness	1		

It is noteworthy that participants could experience a single emotion or multiple positive and/or negative emotions in one reminiscing session. In the latter case, emotions either unfolded over time or co-occurred at one time point, as Chen Xi noted that "I had never thought that I had the ability to read English literary works in their original versions before. I felt surprised and happy". Moreover, the participants reported experiencing only one emotional change mainly from positive to negative, or went through more switches of positive and negative emotions. As an example, Wang He noted, "During the process of reminiscing, I felt that I was little by little getting better. I felt happy and a bit satisfied. I was relieved because my efforts paid off. Meanwhile, I thought that my process was not greater than other students, so I also had some disappointment and desire to surpass others". This reflects the continuous competition of different emotions while reminiscing. On this point, Dong Fei had the following illustrations: Various aspects of progress in English learning came to my mind. I instantly had a feeling of pride. However, when I thought about the setbacks in English leaning, I was down in the dumps. I felt that many emotions fought in my mind. The one that won took control.

5. Discussion

5.1. The effect of the intervention on anxiety alleviation

A series of paired-samples *t* tests showed that the experimental group experienced a significant decrease in both overall FLCA level and in both dimensions of this anxiety construct. The untreated control group showed no significant changes overall and in either dimension of the ECAS. The findings suggested that reminiscing about FL proficiency development can be an effective approach to FLCA reduction, supporting the studies in SLA that highlight combating learners' FL anxiety through an intervention inspired by positive psychology (Scida & Jones, 2017; Charoensukmongkol, 2019). Oxford's (2016) EMPATHICS framework highlights the multiple dimensions on which such interventions may operate, including positive emotions (Dewaele & MacIntyre, 2016), positive self-concepts (Katzir, Kim, & Dotan, 2018), and improving self-efficacy in FL proficiency and learning (Jin et al., 2015b; Luo, 2018).

In addition, the experimental group participants were instructed not to attend to their

current concerns. The intervention sessions for them were not timed, so the participants would not be pressured to do the tasks. On most occasions of reminiscing, the participants experienced positive emotions. All this set up the essential preconditions for the instigation of savoring in the participants, in particular, people must be relatively exempt from pressing social and esteem needs and concentrate on attending to their present experience (Bryant & Veroff, 2007). Moreover, people must have some degree of awareness of the positive feelings they are experiencing (Bryant & Veroff, 2007). Thus, the significant decrease in anxiety levels in the experimental group provides some evidence that savoring can play a role in reducing FL anxiety and undoing its negative effects, thus extending the application of savoring from general psychology to language domains (e.g., Hurley & Kwon, 2012; Smith & Bryant, 2019). Nevertheless, effect sizes of the experimental group's anxiety reduction were small (Plonsky & Oswald, 2014). This is to be expected in a time-limited intervention as part of a long-term learning process. This points to the effect of stabilization of FL anxiety arising from the participants' long-term exposure to FL learning (Jin, de Bot, & Keijzer, 2015a; Pan & Zhang, 2021), which likely requires a longer-term intervention to bring in greater anxiety reduction. In addition, the ECAS was used to elicit the participants' anxiety generally perceived in English class at the tertiary stage. A long time period referenced in the ECAS items might partially explain the small effect sizes identified for the experimental group. Further, it is also possible that the negative emotions that the participants experienced interacted with the functions of positive emotions and affected their appreciation of language achievements, which is directly linked to learners' lower anxiety levels in the FL classroom (Jin et al., 2015b).

5.2. Self-reports of reminiscing process

Data analysis showed that the experimental group students reminisced about multiple aspects of English proficiency, led by four language skills – speaking, listening, writing, and reading – being most frequently mentioned, followed by vocabulary, grammar, and pronunciation, then a miscellaneous category of others such as translation and acquisition of formulaic sentences. This hierarchical structure in the participants' reminiscing might, to a certain degree, reflect the importance assigned to different aspects of FL learning by Chinese students and thus their FL learning beliefs. In addition, the participants reminisced about generally perceived development in the English proficiency aspects; a relatively small number of students reported progress in the more specific dimensions of an aspect of proficiency. It may be that students tend to generalize their progress and successes towards their long-term goal and have some difficulties in extracting information about more subtle or specific exemplars of language progress, as the cases of Chen Lan and Wang Ze.

The participants also suggested that they felt progress from the time of entry into university in many non-proficiency aspects such as learning abilities, cognitive qualities, and professional skills. In addition, some students became more confident, more interested, and/or more self-motivated in English learning. Therefore, giving the

participants a chance to recall their language proficiency development triggered them to take a closer look at their learning trajectory, making the students realize their multi-faceted gains in language learning, not just language proficiency. The students recognized the complexity of language learning: it is not only a cognitive process, but is made up of behavioral, social, cultural, and aesthetic dimensions, all with "emotional flavorings" (MacIntyre, Dewaele, Macmillan, & Li, 2019, p. 58).

Mixed with positive reminiscing, participants also occasionally recalled setbacks in English learning and reported experiencing negative emotions during reminiscing. Recalling setbacks suggests that being English majors, participants likely had both high expectations about their English proficiency and a diversity of experiences in their language development. It might also tap into the tendency for self-criticism and modesty in these Chinese students (Sampson, 2020). Reporting negative emotions indicates that the process of reminiscing, which creates both positive and negative emotions, itself requires active intervention, so that students can take conscious control of focusing on the difficulties they have faced. By deeply attending to a variety of successes and positive emotions, a student can become more mindful of occasional difficulties and negative emotions (Charoensukmongkol, 2019). As the emotion process comes under greater learner control, negative emotions are less likely to overwhelm positive emotions creating a place for negative experiences within an awareness of gains over time. It follows that negative emotions are an inevitable part of the learning process. Rather than seeking the absence of negative emotions, it might be preferable for teachers and students to consider the ratio of positive to negative emotional experiences; reporting relatively more positive emotions has been shown to correlate with language learning motivation (MacIntyre & Vincze, 2017).

The reminiscing topics offered by the students exemplify the complexity and integration of emotion and cognition in language leaning. The above data suggest that even requesting a focus on gains and positive aspects of learning will remind learners of negative experiences as well. An understanding of how the two are integrated and understood by the learners, and the relative weight given to each type of experience may be an important question. The current findings of emotion switches in the course of reminiscing implicate that the interventions such as reminiscing about language proficiency development can affect that process of integrating experiences, giving the learner a greater sense of self-actualization and in turn a sense of meaning to language learning (Oxford, 2016).

5.3. Limitations and implications

This study is not without limitations. First, the participants were almost all females, who tend to experience more emotions in FL learning than males (Dewaele, MacIntyre, Boudreau, & Dewaele, 2016; Dewaele, Witney, Saito, & Dewaele, 2018). That might leave more room for the female participants to show a change in anxiety levels during the current intervention; it remains unclear whether reminiscing about FL proficiency development leads to stronger or weaker effects for male students.

Second, this study only exercised intervention on the experimental group. The control group students thus were left out of benefiting from the reminiscing activities. Although they were not harmed in any way from being in a non-treatment condition, there is an ethical debate about withholding potentially positive interventions from certain groups of research participants. Future research projects of this type might design 'reversal' of the method across groups - an additional research phase in which the current experimental group is untreated and the control group is instructed to begin reminiscing. An expanded method would be better able to document the effect of reminiscing activities on FL anxiety. Third, we did not plan a pre-task training session for the experimental group students, which otherwise might have helped these students to focus more on the specific aspects of their language achievements and control or mindfully attend to the negative emotions that might occur while reminiscing. Fourth, we did not conduct a long-term, post-hoc investigation to understand the ongoing effects the participants experienced and whether learners continued to use reminiscing as a strategy after the study was over. Other research on positive psychology interventions has shown that the participants who continue to use interventions after an experimental study is over experience the strongest and most sustained positive gains (Seligman, Steen, Park, & Peterson, 2005). In other words, although this study can only shed light on the immediate consequence of the targeted intervention technique, a longer-term study of the degree of learners' continuing use or abandonment of the strategy would be warranted.

Regardless of these limitations, the findings have implications for problems that have concerned teachers and students alike. The current study is among the first to combine positive psychology with FL anxiety research using an experimental design (Jin et al., 2020). The finding that reminiscing about language proficiency development resulted in a significant decrease of the Chinese learners' anxiety levels in English is encouraging. It suggests that FL anxiety intervention techniques from positive psychology can be effective in the short term. Second, exercises aimed at boosting learners' subjective well-being should be introduced into educational programs (MacIntyre, Gregersen, & Mercer, 2019). Our study suggests that an exercise such as reminiscing, with a relative emphasis on savoring success, can lead to an overall decrease in anxiety, even though it appears to activate memory for both positive and negative experiences. Third, the small effect sizes as identified for reminiscing activities further suggested that FL anxiety levels could become relatively entrenched, which means they remain a threat to further FL learning. Thus, teaching professionals should avoid creating a high level of anxiety in learners (Horwitz, 2017). Fourth, students should be introduced to the complexity of gaining proficiency across domains, which would allow them to set concrete learning goals and eventually lead to the advancement of their holistic proficiency level.

6. Conclusion

This study provides evidence that reminiscing about language proficiency development significantly lowered Chinese students' anxiety levels in English. The

effect may be attributed to increased understanding of English proficiency and a growing awareness of the psychological aspects of English learning, including self-growth and self-actualization of personal values as learners. In addition, when the learners generate positive emotions emanating from the reminiscing tasks, the result of the reflective intervention technique could be strengthened and the effects of negative emotions reduced and better regulated. The current findings suggest that the positive psychology intervention toolkit offers potentially effective techniques to reduce negative emotions and boost positive emotions resulting in happier and more proficient FL learners.

References

Bryant, F. B., Smart, C. M., & King, S. P. (2005). Using the past to enhance the present: Boosting happiness through positive reminiscence. *Journal of Happiness Studies*, *6*, 227–260.

Bryant, F. B., & Veroff, J. (2007). *Savoring: A new model of positive experience*. Mahwah, NJ: Lawrence Erlbaum Associates.

Castillejo, S. P. (2019). The role of foreign language anxiety on L2 utterance fluency during a final exam. *Language Testing*, *36*, 327–345.

Chamorro-Premuzic, T., von Stumm, S., & Furnham, A. (Eds.). (2011). *The Wiley-Blackwell handbook of individual differences*. Chichester, UK: Wiley-Blackwell.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, UK: Sage.

Charoensukmongkol, P. (2019). The role of mindfulness in reducing English language anxiety among Thai college students. *International Journal of Bilingual Education and Bilingualism*, 22, 414–427.

Cheng, Y.-S. (2017). Development and preliminary validation of four brief measures of L2 language-skill-specific anxiety. *System*, 68, 15–25.

Clément, R., Dornyei, Z., & Noels, K. A. (1994). Motivation, self-confidence, and group cohesion in the foreign language classroom. *Language Learning*, 44, 417–448.

De Smet, A., Mettewie, L., Galand, B., Hiligsmann, P., & Van Mensel, L. (2018). Classroom anxiety and enjoyment in CLIL and non-CLIL: Does the target language matter? *Studies in Second Language Learning and Teaching*, *8*, 47–71.

Dewaele, J.-M. (2013). The link between foreign language classroom anxiety and psychoticism, extraversion, and neuroticism among adult bi-and multilinguals. *The*

Modern Language Journal, 97, 670-684.

Dewaele, J.-M (2017a). Psychological dimensions and foreign language anxiety. In S. Loewen, & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 433–450). New York, NY: Routledge.

Dewaele, J.-M (2017b). Are perfectionists more anxious foreign language learners and users? In C. Gkonou, M. Daubney, & J.-M Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 70–90). Bristol, UK: Multilingual Matters.

Dewaele, J.-M. (2019). The effect of classroom emotions, attitudes toward English, and teacher behavior on willingness to communicate among English foreign language learners. *Journal of Language and Social Psychology*, *38*, 523–535.

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*, 1–13.

Dewaele, J.-M., Comanaru, R-S., & Faraco, M. (2015). The affective benefits of a pre-sessional course at the start of study abroad. In R. Mitchell, N. Tracy-Ventura, & K. McManus (Eds.), *Social interaction, identity and language learning during residence abroad* (pp. 95–114). Eurosla Monographs Series 4.

Dewaele, J.-M., & Li, C. (2020). Emotions in second language acquisition: A critical review and research agenda. *Foreign Language World*, 196, 34–49.

Dewaele, J.-M., & MacIntyre, P. D. (2016). Foreign language enjoyment and foreign language classroom anxiety: The right and left feet of the language learner. In P. D. MacIntyre, T. Gregersen, & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 215–236). Bristol, UK: Multilingual Matters.

Dewaele, J.-M., MacIntyre, P. D., Boudreau, C., & Dewaele, L. (2016). Do girls have all the fun? Anxiety and enjoyment in the foreign language classroom. *Theory and Practice of Second Language Acquisition*, 2(1), 41–63.

Dewaele, J.-M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research*, 22, 676–697.

Dolean, D. D. (2016). The effects of teaching songs during foreign language classes on students' foreign language anxiety. *Language Teaching Research*, 20, 638–653.

Effiong, O. (2016). Getting them speaking: Classroom social factors and foreign language anxiety. *TESOL Journal*, 7, 132–161.

Galante, A. (2018). Drama for L2 speaking and language anxiety: Evidence from Brazilian EFL learners. *RELC Journal*, 49, 273–289.

Gregersen, T., & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non-anxious language learners' reactions to their own oral performance. *The Modern Language Journal*, *86*, 562–570.

Gregersen, T., MacIntyre, P. D., & Meza, M. D (2014). The motion of emotion: Idiodynamic case studies of learners' foreign language anxiety. *The Modern Language Journal*, *98*, 574–588.

Gregersen, T., MacIntyre, P. D., & Olson, T. (2017). Do you see what I feel? An idiodynamic assessment of expert and peer's reading of nonverbal language anxiety cues. In C. Gkonou, M. Daubney, & J.-M Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 110–134). Bristol, UK: Multilingual Matters.

Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly*, 20, 559–562.

Horwitz, E. K. (2016). Factor structure of the Foreign Language Classroom Anxiety Scale: Comment on Park (2014). *Psychological Reports, 119*, 71–76.

Horwitz, E. K. (2017). On the misreading of Horwitz, Horwitz, and Cope (1986) and the need to balance anxiety research and the experiences of anxious language learners. In C. Gkonou, M. Daubney, & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 31–47). Bristol, UK: Multilingual Matters.

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70, 125–132.

Hu, S., & McCormick, A. C. (2012). An engagement-based student typology and its relationship to college outcomes. *Research in Higher Education*, *53*, 738–754.

Hurley, D. B., & Kwon, P. (2012). Results of a study to increase savoring the moment: Differential impact on positive and negative outcomes. *Journal of Happiness Studies*, *13*, 579–588.

Jee, M. J. (2018). Foreign language anxiety in relation to affective variables: Learners of Korean as a foreign language in Australia. *Australian Review of Applied Linguistics*, 41, 328–348.

Jeong, H., Sugiura, M., Suzuki, W., Sassa, Y., Hashizume, H., & Kawashima, R. (2016). Neural correlates of second-language communication and the effect of language anxiety. *Neuropsychologia*, *84*, e2–e12.

Jiang, Y., & Dewaele, J.-M. (2019). How unique is the foreign language classroom enjoyment and anxiety of Chinese EFL learners? *System*, 82, 13–25.

Jin, Y., de Bot, K., & Keijzer, M. (2015a). The anxiety-proficiency relationship and the stability of anxiety: The case of Chinese university learners of English and Japanese. *Studies in Second Language Learning and Teaching*, *5*, 41–63.

Jin, Y., de Bot, K., & Keijzer, M. (2015b). Factors associated with foreign language anxiety: A study of Chinese university learners of Japanese and English. *Dutch Journal of Applied Linguistics*, 4, 67–85.

Jin, Y., de Bot, K., & Keijzer, M. (2017). Affective and situational correlates of foreign language proficiency: A study of Chinese university learners of English and Japanese. *Studies in Second Language Learning and Teaching*, *7*, 105–125.

Jin, Y., & Dewaele, J.-M. (2018). The effect of positive orientation and perceived social support on foreign language classroom anxiety. *System*, 74, 149–157.

Jin, Y., Zhang, L. J., & MacIntyre, P. D. (2020). Contracting students for the reduction of foreign language classroom anxiety: An approach nurturing positive mindsets and behaviors. *Frontiers in Psychology*, *11: 1471*, 1–11.

Katzir, T., Kim, Y.-S. G., & Dotan, S. (2018). Reading self-concept and reading anxiety in second grade children: The roles of word reading, emergent literacy skills, working memory and gender. *Frontiers in Psychology*, *9: 1180*, 1–13.

Liu, M. (2018). Bilingual/multilingual learners' willingness to communicate in and anxiety on speaking Chinese and their associations with self-rated proficiency in Chinese. *International Journal of Bilingual Education and Bilingualism*, 21, 54–69.

Liu, M., & Zhang, W. (2008). An exploration of Chinese EFL learners' foreign Language anxiety, personality and self-esteem. *Journal of Applied Linguistics*, *5*, 181–203.

Luo, H. (2018). Predictors of Foreign Language anxiety: A study of college-level L2 learners of Chinese. *Chinese Journal of Applied Linguistics*, 41, 3–24.

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). Bristol,

UK: Multilingual Matters.

MacIntyre, P. D., Dewaele, J.-M., Macmillan, N., & Li, C. (2019). The emotional underpinnings of Gardner's attitudes and motivation test battery. In A. H Al-Hoorie, & P. D MacIntyre (Eds.), *Contemporary language motivation theory: 60 years since Gardner and Lambert (1959)* (pp. 57–79). Bristol, UK: Multilingual Matters.

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44, 283–305.

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.

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*, 262–274.

MacIntyre, P. D., Noels, K. A., & Clément, R. (1997). Biases in self-ratings of second language proficiency: The role of language anxiety. *Language Learning*, 47, 265–287.

MacIntyre, P. D., & Vincze, L. (2017). Positive and negative emotions underlie motivation for L2 learning. *Studies in Second Language Learning and Teaching*, 7, 61–88.

Nagahashi, T. L. (2007). Techniques for reducing foreign language anxiety: Results of a successful intervention study. 秋田大学教養基礎教育研究年報, 9, 56-63.

Oga-Baldwin, W. L. Q., & Nakata, Y. (2017). Engagement, gender, and motivation: A predictive model for Japanese young language learners. *System*, 65, 151–163.

Oxford, R. L. (2016). Toward a psychology of well-being for language learners: The "EMPATHICS" vision. In P. D. MacIntyre, T. Gregersen, & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 10–87). Bristol, UK: Multilingual Matters.

Pae, T.-I. (2013). Skill-based L2 anxieties revisited: Their intra-relations and the inter-relations with general foreign language anxiety. *Applied Linguistics*, 34, 232–252.

Pan, C., & Zhang, X. (2021). A longitudinal study of foreign language anxiety and enjoyment. *Language Teaching Research*. https://doi.org/10.1177/1362168821993341

Plonsky, L., & Oswald, F. L. (2014). How big is 'big'? Interpreting effect sizes in L2

research. Language Learning, 64, 878–912.

Quoidbach, J., Wood, A. M., & Hansenne, M. (2009). Back to the future: The effect of daily practice of mental time travel into the future on happiness and anxiety. *The Journal of Positive Psychology*, *4*, 349–355.

Sampson, R. J. (2020). The feeling classroom: Diversity of feelings in instructed 12 learning. *Innovation in Language Learning and Teaching*, *14*, 203–217.

Scida, E. E., & Jones, J. N. (2017). The impact of contemplative practices on foreign language anxiety and learning. *Studies in Second Language Learning and Teaching*, 7, 573–599.

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60, 410–421.

Şimşek, E., & Dörnyei, Z. (2017). Anxiety and L2 self-images: The 'anxious self'. In C. Gkonou, M. Daubney, & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 51–69). Bristol, UK: Multilingual Matters.

Smith, J. L., & Bryant, F. B. (2019). Enhancing positive perceptions of aging by savoring life lessons. *Aging & Mental Health*, 23, 762–770.

Teimouri, Y., Goetze, J., & Plonsky, L. (2019). Second language anxiety and achievement: A meta-analysis. *Studies in Second Language Acquisition*, 41, 363–387.

Toyama, M., & Yamazaki, Y. (2021a). Anxiety reduction sessions in foreign language classrooms. *The Language Learning Journal, 49*, 330–342.

Toyama, M., & Yamazaki, Y. (2021b). Classroom interventions and Foreign Language anxiety: A systematic review with narrative approach. *Frontiers in Psychology*, 12, Article 614184, 1–15.

Zhang, L. J. (2001). Exploring variability in language anxiety: Two groups of PRC students learning ESL in Singapore. *RELC Journal*, 32(1), 73–91.