

The influence of motivation, anxiety, and enjoyment in online Chinese classes among undergraduate English speakers

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Abstract. This study used a Chinese self-rated scale, questionnaires, and follow-up interviews to examine online CFL learners' motivation, anxiety, and enjoyment, along with their subscales. Chinese self-rated scores were analyzed to explore the relationship between these factors and Chinese language competency among 611 English-speaking undergraduate CFL learners. Results showed moderate motivation and enjoyment, lower anxiety, positive correlations between motivation, enjoyment, and Chinese self-rated scores, and negative correlations with anxiety. General motivation, anxiety, and enjoyment significantly predicted Chinese achievement. Speaking anxiety and extrinsic motivation drive were specific predictors of Chinese competence when considering subscales. The findings highlight the importance of motivation, anxiety, and enjoyment in online CFL learning, especially for speaking and listening classes.

Keywords: online language learning, learning motivation, foreign language anxiety, foreign language enjoyment, Chinese as a foreign language

1. Introduction

In Foreign Language (FL) studies, individual differences have been widely admitted to influence FL learners' achievement [1, 2]. Individual differences are frequently studied topics, such as age, learning style, motivation, anxiety, etc. [3, 4]. While many facets of individual differences have been extensively explored, the majority of research to date has been conducted in traditional face-to-face settings, with less focus on online settings due to the rise in popularity of online learning following the COVID-19 epidemic. Therefore, more FL studies should focus on the online context, as online teaching no longer complements traditional classroom instruction. The trend for online language learning is likely to extend [5]. Compared to other languages, online Chinese as a Foreign Language (CFL) learning is irreplaceable for technology change and education reform, which is critical for cultural transmission and expanding the area of Chinese learning. Meanwhile, the demand for learning Chinese is increasing because of the steady economic and higher social status globally, so digital transformation would energize the high quality of CFL development worldwide [6-8].

FL learning necessitates prolonged dedication, persistent effort, and tenacity regardless of the FL situation (online or offline) [9]. Irrespective of aptitude and IQ, motivation has always been the most important factor in the success of FL learning. This is because of the challenges associated with measuring tools and potential ethical dilemmas [10-12]. In addition, FL emotions are another affective factor for language achievement, with the earliest attention on the negative emotion for Foreign Language Anxiety (FLA) by Horwitz et al., Dewaele and MacIntyre, the negative effect on FL learning caused by FLA have been evidenced, so does the adverse effect on Foreign Language Enjoyment (FLE) [13, 14]. When Seligman and Csikszentmihalyi introduced the positive psychology in FL emotions, the holistic approach to FL learners' learning experience was raised, including negative and positive emotions [15]. FL learners always experienced enjoyment as the common positive emotion, positively associated with their FL achievement [16]. However, although the FLA and FLE have opposite effects on FL achievement, they are not the "two sides of the coin." They are just separate dimensions [17].

Additionally, language learners may have more trouble facing challenges during online study concerning their motivation, anxiety, and enjoyment. More empirical research in the context of online language learning is needed because online learning necessitates more technical support and self-regulation [18]. With instructors' immediate feedback or practical assistance, students may feel more energized and motivated [19, 20]. As a result, motivation, anxiety, and enjoyment may exhibit different outcomes for online situations [21-23]. Moreover, Indo-European languages, mainly English as a Foreign Language (EFL), accounted for the majority of research on FL learners' emotions [22]. The research attention on Languages Other Than English

(LOTE) has been called to deepen our standing for complexities in motivation during FL learning, as emotions can fuel motivation, linking negative and positive emotions with motivation is necessary, although the empirical studies concerning with these three factors from different perspectives began to emerge recently, the correlation, predictive effect for considering language achievement is still under-explored, especially for online specific classes [24-27]. This study explores online CFL learners' general profiles of motivation, anxiety, and enjoyment in listening and speaking classes, including the subscales under each factor. Online speaking and listening classes were easier to conduct than online writing and reading classes, so the goal was to reduce the disparity between the feelings of different types of language classes. The online microphone and listening comprehension test allow for direct reflection of the immediate learning outcomes. Next, using Chinese-self-rated cores, ascertain the relationship between these variables and Chinese language proficiency. Finally, look at the predictive potential of each Chinese self-rated score variable.

2. Literature review

2.1. Motivation in foreign language learning

The concept of motivation was brought to people's attention from a very early time, from Saville & Barto's general definition, to achieve the goal, motivation as a mechanism will let people tend to expend effort [28]. some components are contained to construct the motivation, like "desire to attain the goal, significant goal or need, belief in the likely success or failure of learning L2, etc." (pp.96). In FL learning, as stated by Gardner, motivation to learn a language is a desire to seek satisfaction from learners' learning experience, which is a distinct behavior for individuals to exert effort [29]. In terms of the classification of motivation, two pairs of motivation have happened in FL learning, which is widely explored by different researchers, like intrinsic vs. extrinsic motivation, integrative motivation vs. instrumental motivation, which constitutes the types of motivation [31-34]. Here, motivation plays a crucial role in learning a language, and when the importance of motivation entered into scholars' view, much research using different theoretical frameworks from motivation to prove its work on FL learning [31, 35, 36].

Additionally, most studies have admitted that FL learners with higher motivation may perform better [2, 34, 37]. To better understand the concept of motivation in FL learning, four types of motivation were discussed in detail by different scholars. Intrinsic motivation is the inner force that allows FL learners to enjoy and be satisfied by learning the target language [38]. Extrinsic motivation is when FL learners can obtain external rewards such as money and recognition [39]. Integrative and instrumental motivation are contained in the Social-Psychological model, which refers to the favorite attitude toward the target language or language group [35]. FL learners pursue practical advantages like social status, respectively. Later, the L2-Motivational Self System was conducted to expand the view of motivation, and the most critical possible selves are ideal and ought-to selves and have been discussed a lot in the FL studies [33, 34, 40, 41]. To measure instrumental and integrative motivation, The Attitude/Motivation Test Battery (AMTB) was developed by Gardner and consisted of different degree levels for answering about 116 questions [29]. Following that, other researchers, such as Vallerand et al. and Noels et al., and the referential measurement scale used in this study is from Xu et al., which includes the intrinsic and extrinsic motivation, which is more thorough and appropriate for online CFL learning [23, 30, 42].

Because the original concept of motivation was developed in English-speaking countries, most studies were implemented for EFL learners, also in French, Japanese, Spanish, etc [43-49]. In the context of CFL, the motivation analysis for learners is also popular [50-54]. From their studies, among CFL learners, inconsistent results between motivation and Chinese Language proficiency, the root cause may be due to the cultural differences between different countries. Motivation was still, nevertheless, a strong positive predictor of learning Chinese. However, given the context of online learning, the state of online FL motivation studies remains unclear, suggesting that further research is required in the context of online motivation FL learning [23]. In the meantime, while there wasn't as much discussion for the online motivation CFL study as there was for the other languages, they all discovered a connection between motivation and Chinese learning achievement or performance, and they all offered instructional recommendations with some tactics that improve the online CFL experience for both teachers and students [23, 55-58]. However, the CFL online study situation still needs to be clarified due to different ages, sexes, countries, etc. Consequently, further CFL research should consider the existing problem, and the result will be more persuasive.

2.2. Anxiety in foreign language learning

Anxiety plays an irreplaceable role in FL learning, especially in the interest of research on the learners' negative emotions for decades. Firstly, Spielberger defined anxiety more precisely as a subjective feeling like tension, nervousness, and worries that people cannot control by themselves as the automatic nervous system activates it [59]. While other negative emotions, such as disgust, boredom, and anger, have also been extensively discussed and played a crucial role in FL learning, Foreign Language Anxiety (FLA) has received the most attention and has been shown to be essential to Second Language Acquisition (SLA) since the early 1970s [60, 61]. Generally, FLA is defined in Horwitz, Horwitz & Cope's study as "a distinct complex construct of self-

perceptions, beliefs, feelings, and behaviors related to the classroom language learning arising from the uniqueness of language learning process” (p.128), at that time, the specific approach of evaluation for FLA has been widely used which is known as the Foreign Language Classroom Anxiety Scale (FLCAS), which is still frequently used in the recent FLA studies, although Luo created the Chinese version for anxiety scale which may better match the context for Chinese learning, the FLCAS is always the mainstream in the FLA study [13, 62]. Horwitz et al. drew the three anxiety performances in the FLA: communication apprehension, test anxiety, and fear of negative evaluation [13]. Referring to the author’s statement, the anxiety raised by communicating with people in the classroom is communication apprehension. Fear of negative evaluation is like the literal meaning that learners fear being evaluated negatively. Test anxiety is the fear that refers to failure in classroom performance, like making errors.

Moreover, these three aspects of FLA also matched the hypothesis that the FLA negatively influences language learning performance; much research has proved that the phenomenon of anxiety interferes with the FL and performance [63, 64]. In addition, some studies confirmed the negative effect of FLA on FL learning achievement, while others indicated that anxiety might facilitate FL learning [65-67]. Nevertheless, the relationship between FLA and FL learning is ambiguous from contradictory results in different study contexts, though the overall admitted results showed a negative relationship between FLA and FL achievement [27, 68, 69].

Over the past few decades or in recent years, studies on FLA have been consistent and have broadly applied in different language study contexts, such as in French, English, Chinese [23, 27, 62, 70-75]. Regardless of whether the target language is English, Chinese, or other languages, most studies reflect the negative effect of anxiety on FL learning, especially in the CFL context, and all these findings indicated that CFL learners’ level of anxiety will decrease when they learn Chinese for a longer time. It is worth noting that, according to the statement of Horwitz et al., FLA centers on speaking and listening [13]. Hence, the strongest predictor of FL performance was communication apprehension, which means FLA research on speaking and listening is more precise. Some Chinese FLA studies searched for writing anxiety [76]. The majority of studies were carried out in the context of English as a Foreign language (EFL), but no research has examined speaking and listening anxiety in CFL classes specifically. This is because speaking and listening anxiety are primarily considered in FLA, and both types of anxiety positively correlate with FLA [13, 77, 78]. Furthermore, as noted by Russell, there is a dearth of research examining learners’ emotions in an online setting [79]. Online FLA has received less attention than regular offline courses, where the majority of studies were conducted. It is much less the case with CFL online studies, and learners’ FLA findings differ from those of other studies [21, 23]. The situation for CFL online study is even less, and the results for FLA are different from learners, which means there are no adequate studies to prove whether the negative relationship between FLA and FL performance is true in the online context [21, 23].

2.3. Enjoyment in foreign language learning

When positive psychology first came into the public eye thirty years ago, it caused people’s perspectives to shift from being overly fixated on improving life’s flaws to emphasizing its positive aspects as well [15]. Positive emotion from subjective experience (well-being, hope, contentment, etc.) and positive personal qualities (love, courage, interpersonal skills, etc.) are the core foci of positive psychology. After the rise of positive psychology, similar ideas were brought into the area of SLA, which opened a new perspective for researchers to excavate a broader range of FL learners’ emotions [80]. Undergoing the emotions of FL learners has aroused attention. A mass of studies only focuses on onefold negative emotions like anxiety [14]. The shape of paying more attention to positive emotion led to more studies on pride, enjoyment, hope, and other factors [25, 81, 82]. In Dewaele and MacIntyre’s study, the FLE accounts for the most significant positive emotion amount experienced by FL learners [17]. Therefore, it is worthy of centralizing the positive emotion, especially the enjoyment of FL learning. From the beginning stage, Csikszentmihalyi separated pleasure and enjoyment, as enjoyment is a more complex positive feeling than pleasure, which is only an adaptive feeling [83]. Dewaele and MacIntyre defined the FLE as “a complex emotion, a positive feeling that FL would experience in the friendly instrumental environment to capture interact dimensions of the challenge and perceived ability that reflects the human drive for success in the face of difficult tasks, to accomplish something new or even unexpected,” (pp. 216-217) [17]. To measure the FLE, the Foreign Language Enjoyment Scale (FLES) was designed by Dewaele and MacIntyre, which uses a Likert Scale rating from 21 items consisting of personal feelings about the FL classes, peers, and teachers [14]. It should be mentioned that FLE-Social and FLE-Private are two factors measured by FLES. FLE-Social is about positive feelings from others, like atmosphere, teachers, peers, etc.; FLE-Private is the positive feelings about their private enjoyment [17]. After that, Li et al. added FLE-Teacher and FLE-Atmosphere to measure the enjoyment in the Chinese context and considered to have an impact on both FLE-Private and FLE-Social, which enriched aspects of analyzing the FELS [84].

The FLE studies have expanded and applied to various FL learning situations, for example, in Spain, Germany, China [25, 27, 54, 72, 84, 85]. In the context of China, the structure of FLE was divided into 3-factor, namely FLE-Private, FLE-Teacher, and FLE-Atmosphere; the result of this study for three factors indicated Chinese FLE experienced mainly by the teacher, which revealed the dominance for teacher, who controlled the FL learners and FL atmosphere [84]. Given that FLE does, in fact, have a direct impact on FL accomplishment, several recommendations and ideas for raising FLE began to emerge, with reference to the

aforementioned studies [86]. Teachers' friendliness was found to be the best predictor of FLE; hence, if teachers are enthusiastic, FLE will grow, and FL ennui will decrease [87, 88].

Varying from the FLA covered a plethora of research on CFL. Although many studies have been done in the Context of China, most studies are focused on EFL, with only a little attention on CFL [25, 27, 72, 84]. Unfortunately, despite the increasing of people learning Chinese, there was no EFL study on the Chinese Situation until Zhang and Tsung did research on CFL which the result showed that personal fulfillment directly leads to CFL enjoyment, which the result is similar to the almost studies under the EFL settings, but with some differences in the FLE-Social like interpersonal contexts [56]. The little variations between the various language learners could be an indication of cultural disparities. Furthermore, a study on online CFL learners gives a new perspective on the subject and demonstrates how much CFL is enjoyed [22]. To widen the research horizon on language learners' emotions, more studies on the CFL setting should be conducted as one study on the enjoyment of online CFL learning is not representative.

2.4. Combining motivation, anxiety and enjoyment in foreign language learning

In the previous studies, the single factor of motivation, anxiety, and enjoyment in FL learning has been discussed a lot, the relationship between two factors such as FL motivation and FL anxiety, and FL enjoyment [14, 50, 72, 89-91]. By contrast, less research with three factors together in the FL studies and the existing studies examined the relative factors like motivation, anxiety, and learning strategies; anxiety, enjoyment, and expectancy value-motivation; anxiety, enjoyment and boredom [23, 27, 82, 92]. From above, the findings for these studies all indicate that factors about FL learners' emotions can influence FL performance or achievement. However, there were some differences in the effect level on each factor for FL performance or achievement. The interaction of these factors still works on FL learning. However, there is no study about motivation, anxiety, and enjoyment in CFL or other FL contexts yet. From an earlier time, the importance of studying both the positive (enjoyment) and negative (anxiety) sides of FL learners' emotions was pointed out, then the relationship between learners' emotions and motivation was linked together, as positive emotion like FLE can increase intrinsic motivation and negative emotion like FLA can weaken the motivation, which also verified in the recent studies, i.e. emotion from FL learners' can fuel their motivation [14, 93]. As previously mentioned, while academics have acknowledged the interdependence of these three elements, there is a dearth of empirical research connecting the elements of motivation, anxiety, and enjoyment in FL learning. This research is crucial because it can assist teachers in effectively boosting the motivation of FL learners from an emotional standpoint, ultimately enhancing their efficacy. To further our knowledge of the intricacy involved in FL motivation, however, more focus should be placed on Language Other Than English (LOTE). Given that the number of Chinese learners has been rising quickly in recent years, a study on the CFL context with motivation, anxiety, and enjoyment is therefore urgently needed [94].

Besides, online FL learners' emotional study includes three factors even less, notwithstanding one or two factors like anxiety, anxiety and self-efficiency, enjoyment are more than the study that contains three factors [22, 79, 95]. Given the popularity of psychological needs based on emotions, more research is needed to include both positive and negative emotions from FL learners, as they have different roles in language learning, rather than focusing only on one side, such as positive or negative [23, 96]. It is important to provide a clear picture of CFL online learning by doing the online study with motivation, anxiety, and delight, as the author noted above, which can increase the motivation of FL learners, especially in the LOTE scenario.

2.5. Research on foreign language learning in online courses

To investigate online foreign language learners' emotions, it is significant for teachers to do both negative and positive emotions to improve their online teaching. The uniqueness of online teaching requires teachers to spend more time and professional skills to make classes more efficient; it also requires learners to be more self-regulated and more motivated, as they will become more independent without supervision. So, research on online learning anxiety, motivation, Enjoyment expanded the field of emotions under the context of online foreign language learners [22, 27, 79, 95, 97-100]. Nonetheless, more studies research objects are EFL learners compared to CFL learners.

As previously stated, additional study is needed in the LOTE context and online setting, outside from EFL learners. The Ministry of Education in China released a policy known as "Post Ponent of School without Suspension of Learning" (Ting Ke Bu Ting Xue) in the early 2020s. This policy permits schools to continue teaching online and was also implemented for international students studying Chinese in Chinese universities or abroad. The emotions of online CFL learners have drawn the attention of a few researchers; studies have shown that these learners may find it more difficult to concentrate, which raises their anxiety and stress levels, though some research produced differing results [23, 101-103]. The concern of online CFL learners' negative emotions drew the attention on how to increase online CFL learners' motivation with positive emotion [22, 55, 58]. To sum up, despite the pandemic, for those international students who cannot come to China, the flexibility of online courses that does not require the space and location, online Chinese learning not only can teach Chinese to further places but also spread Chinese

culture in the long run [103]. Thus, a study that explores more emotional factors for online CFL learners is needed, which hope can lead to a higher quality of online Chinese teaching for a better understanding of learners' needs for affection.

2.6. The present study

Despite the fact that FL emotions—whether positive or negative—and motivation in FL learning have been studied for many years, the majority of these studies took place in conventional classroom settings [27, 62, 84]. However, the study examined the online FL learning situation is rare, particularly in the specific types of classes. Despite the growing interest in FL learners' psychological perspective, the study concentrates on learners' anxiety, feelings, enjoyment, or other emotions based on online situations, which are largely neglected [104]. In addition, the study combines three factors to evaluate FL learners' language achievement or self-rated achievement is inadequate, especially for CFL learners [22, 23]. Meanwhile, rarely studies focused on the specific type of language class, particularly listening and speaking classes, let alone the online context. As Horwitz et al. stated that anxiety was centered on listening and speaking, although few studies focus on one type of anxiety that is related to listening and speaking, the type of classes are not clear, as we know that the sign of language learners' anxiety would be different in different type of classes, so does the other feelings would be varied in different classes [13, 105-107]. To understand whether the FL learners' emotions and motivation are correlated in the Chinese online learning context by examining the role of motivation, anxiety, and enjoyment in self-rated scores among undergraduate CFL learners whose native language is English and who have experience studying Chinese listening and speaking classes online and choosing the English-native speaker as the research object is to reduce the bias for the difficulty level of learning Chinese. To use the result of this empirical study, hoping can offer more evidence for the role of emotional factors in FL study under the online context and provide some pedagogical implication which is suitable for teaching and learning Chinese online, especially for the listening and speaking class, as many studies have given the learning strategies and implications for the traditional offline class [108, 109].

Nevertheless, the era of the pandemic has gone. Many CFL learners who cannot come to China will still choose to study online [22]. Data showed that only 5.6% of international students are not interested in online courses, and many CFL learners are willing to study Chinese online due to its flexibility [103]. Thus, this study aims to fill the gap mentioned above and specifically seeks to answer the following research questions (RQ):

RQ1: What is the general profile of motivation anxiety, enjoyment, and self-rated Chinese proficiency in online CFL learning?

RQ2: Is there any correlational relationship between motivation, anxiety, enjoyment, and self-rated Chinese proficiency in online CFL learning?

RQ3: Whether motivation, anxiety, and enjoyment can be used to predict the CFL learner's self-rated Chinese Proficiency?

3. Methods

3.1. Participants

The study focused on undergraduate CFL students from several Chinese universities who took online Chinese courses, particularly speaking and listening classes, and whose first language was English. Of the 611 participants, the majority were from South America, making up 23.7% of the total. They ranged in age from 18 to 25+, with 272 males and 339 females. The large sample size may have contributed to the relatively balanced percentage of men and women (55.5% males and 44.5% males). Nonetheless, the proportion of female CFL learners still surpasses that of male CFL learners; language studies frequently report this phenomenon [23]. The most significant number of times for learning Chinese and learning Chinese online was 2-3 years, accounting for 35.5% (217) and 34.7% (212), respectively. Additionally, for why they choose to study Chinese as a Foreign language, the top 3 reasons are a hobby, job requirement, and admiring Chinese culture, which accounts for 60.23%, 59.08%, and 51.55%, respectively. Due to COVID-19, the HSK (Chinese language proficiency test) could not be taken. Therefore, the Self-Rated Foreign Language Proficiency could be a good assessment for indicating foreign language proficiency. In the present study, participants were asked to report their self-rated Chinese language proficiency on a 1-10 scale, which will explain the level of scale in the part of instruments, the average self-rated score was 6.68, which means most of them were around lower-intermediate to intermediate levels. Participants were informed in advance about the research purpose by their schools and head teachers to ensure they completed the questionnaires earnestly so we could get a valid result.

3.2. Instruments

In this study, the data on online CFL learning motivation, anxiety, enjoyment, and Chinese Self-Rated Language Proficiency were collected by four instruments. The first three instruments used a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree); the higher the score, the higher the motivation, anxiety, and enjoyment. All instruments were revised from the

previous scholars' measurement scales to better cater to our online CFL context, especially for listening and speaking classes. Self-rated language proficiency ranged from 1-10 for language learners to self-assessed language proficiency.

3.2.1. Background information

Background information included six items: age, gender, nationality, time for learning Chinese, time for learning Chinese online, whether you have taken part in the HSK before, and multiple-choice reason for choosing Chinese as a foreign language was designed to gather the participants' personal information.

3.2.2. Motivation

The original scales were from Vallerand, which comprehensively includes intrinsic and extrinsic motivation [42]. In Xu et al. study, the more adaptable vision of online CFL learners' motivation was used, which was revised from Noels et al. [23, 30]. The questionnaire with 18 items was used for Online CFL learners. The first nine items are questions about knowledge, accomplishment, and stimulation, which belong to intrinsic motivation, and the remaining items belong to extrinsic motivation, including regulation questions about introjected regulation, identified regulation, and external regulation. In this study, the slight changes were revised from Xu et al., e.g., "I study Chinese for the pleasure I experience when surpassing myself in my second language studies"; the suffix for all these questions was changed to "in the foreign language studies," and "I study Chinese because I choose to be the kind of person who can speak a second language" to "I study Chinese because I Choose to be the kind of person who can accept a different culture from my original country." The higher the score, the higher the motivation. ($\alpha = 0.970$) [23].

3.2.3. Anxiety

The study initially designed the questionnaire from FLCAS by Horwitz et al. [13]. However, the questions are not all in the same direction, ranging the scale from 1 (strongly disagree) to 5 (strongly agree) uniformly, so the adjusted direction of questions was modified to make it better for further data analysis, which means the questionnaire for measuring anxiety is in the inverse direction, 1 (strongly disagree) was the indicator for not get anxious, and the higher the anxiety, the lower the Chinese-self rated scores. Combining the learner's Online Learning Anxiety Scale (OCLAS) from Luo and Xu et al., the reading and writing questions were removed from the current study, as we aim to focus the online CFL listening and speaking class, so items were chosen from the listening and speaking anxiety, and added some questions like "During my online study, I feel more tense and nervous in the listening class," "During my online class, I get nervous about speaking test or speaking quiz." The 20 items were divided into two subscales: the first 10 were questions about speaking anxiety, and the last 10 were questions about listening anxiety, making the questionnaire more suitable for the listening and speaking classes under the online CFL context [23, 62]. The higher the score, the higher the anxiety ($\alpha = 0.973$).

3.2.4. Enjoyment

The Foreign Language Enjoyment Scale (FLES) in the current study was revised from Dewaele and MacIntyre and contained 21 items. However, some questions were similar, like "It is cool" and "It is fun," therefore the shorter vision of about 18-items was modified in this study, and extracted Li et al. and Wang and Jiang's ideas about separating the subscale into three aspects, i.e., FLE-private, FLE-Teacher, and FLE-Atmosphere, which responses the FLE dimension from both private and social perspectives [14, 22, 84, 110]. Additionally, to better match the CFL online context, questions were all added with the prefix "During the online study." The higher the score, the higher the enjoyment ($\alpha = 0.970$).

3.2.5. Self-rated foreign language proficiency

This study collected participants' Chinese language proficiency from self-rated Chinese scores. Although there is no doubt that the best way to assess Chinese learners' language proficiency is through the Chinese proficiency test, HSK (Hanyu Shuiping Kaoshi), the outbreak of COVID-19 has closed the standardized Chinese language test; HSK is time-consuming and complicated, thereby making the research process becomes ineffective. The same approach was conducted in previous research) [22, 23, 27, 54, 106]. The respondents were asked to self-rated their Chinese proficiency scores from 1-10. The level of their self-rated scores reflected from low (below 6), lower-intermediate (6-7), intermediate (7-8), and advanced (above 8). The question elicited was, "If the full score is 10, how much would you rate the degree of your Chinese now?" Considering participants came from different universities, the course assessment and final scores were inappropriate as they did not have the same criteria. In summary, the self-rated Chinese scores were appropriate under the CFL online context.

3.3. Follow-up interview

Prior study has used open-ended questions and follow-up interviews to make the research both subjective and objective [14, 22, 84]. This study will also take the step of having participants volunteer for the interview, asking them to describe their feelings about taking online Chinese courses, and all questions will be focused on our research topic, namely, their motivation, anxiety, and enjoyment while taking online Chinese listening and speaking classes. The language to answer questions was optional, although participants were encouraged to answer in Chinese. As all participants' native language is English in this study, English responses were accepted despite the difficulties in expressing the exact words due to inadequate Chinese competence.

3.4. Procedures

Consent was obtained from participants and relevant third parties before administering the questionnaire, and relevant third parties helped distribute questionnaires to different universities around China via the popular Chinese online survey website "WenJuanXing". The questionnaire was completed by participants over a three-month period, from June to the end of September 2023. Given the representativeness of this research, the number of respondents should be as large as possible, resulting in a longer period of data collection. All respondents whose first language is English and who have participated in online Chinese listening and speaking lessons due to the effect of COVID-19 for more than three years were eligible for our study. They were volunteered to complete the online questionnaire about their motivation, anxiety, and enjoyment of learning Chinese online for 10-15 minutes, and because the questionnaire was anonymous, and nothing about religion, participants were all international adult students in China, the ethic statement was exempted. 65 items were included in the questionnaire, which was presented in English. After that, they could optionally choose to join the open-up questions interview, and 8 of them joined the interview, giving the author more possible sources to understand the factors of motivation, anxiety, and enjoyment for online CFL learners. In the process of collecting the data, 611 valid questionnaires were left for further analysis, 7 of the finished questionnaires were inaccurate and inconsistent in their response, thus dismissing our study.

3.5. Data analysis

The quantitative data from this study were all conducted through the SPSS25. The Cronbach α reliability of this study is 0.978, which indicates that the research scales have high reliability, good stability, and consistency. When validity is above 0.9, the study has good fitness, as Kaiser stated in the Kaiser-Meyer-Olkin (KMO) test. In this study, the validity from KOM was 0.974, 0.990, 0.988 for motivation, anxiety, and enjoyment, respectively. Therefore, the data were suitable for the factor analysis. After the principal component analysis, each factor in this study was an independent variable, meaning no variable confusion occurred, and the model has high structural validity.

For answering the RQ1, the descriptive analysis was first conducted to provide the general profiles of each factor. Then, Pearson Correlation was used to examine the correlation among different variables to answer the QR2. Lastly, ANOVA was run for the regression analysis of answering RQ3. Three parts consist of the Regression model. The regression summary table comes in the first part. The degree of fitting of the model, the degree of interpretation of the independent variable corresponding to the variable, was mainly reflected by the adjusted R square of the summary table. In the next part, the ANOVA table of the regression model, the scientific rationality of the regression model is proved by the regression model. The surface regression model is scientifically reasonable and acceptable when the significance of the regression model is less than 0.05. Lastly, the third part is the model's regression coefficient, demonstrating the independent variable's regression coefficient and significance level.

The qualitative data from the follow-up interview was through the thematic analysis, which will help the author discover more sources of online CFL learners' feelings about motivation, anxiety, and enjoyment to understand online CFL's feelings and emotions.

4. Results

4.1. Descriptive analysis

Data from this study were used for descriptive analysis to answer RQ1 about the general profile in motivation, anxiety, enjoyment, self-rated Chinese scores, and each subscale under each main factor, including mean and standard deviation (see Table 1).

From Table 1, all the questions are in the 5-point Likert Scale. The overall motivation, anxiety, and enjoyment displayed nearly the same level of mean, about 3.214, 2.787, and 3.214, an adjacent value of SD for 0.846, 0.844, and 0.851 separately. Motivation and enjoyment both had the same mean value, indicating that participants reported similar degrees of motivation, anxiety, and happiness during their Online CFL learning, indicating that attitudes towards online CFL learning are moderate.

However, in the online situation, individuals had far less anxiety. The mean and SD for subscales under each parameter, intrinsic and extrinsic motivation (motivation), are 3.212 and 3.215 for mean, 0.861 and 0.861 for SD, respectively. The mean for Speaking anxiety and listening anxiety (anxiety) are 2.778 and 2.795, and their SD is 0.850 and 0.861, respectively. The subscales of FLE-Private, FLE-Teacher, and FLE-Atmosphere (Enjoyment), respectively, had a mean of 3.211, 3.227, 3.214, and SD of 0.867, 0.892, 0.883.

Furthermore, the mean value of each questionnaire item ranges from 3.17 to 3.26, indicating a balanced distribution, and the standard deviation of each questionnaire item ranges from 0.988 to 1.089, which showed a small dispersion of sample data. The basic requirements of the research hypothesis for analyzing data in this paper were satisfied by the shape of large sample data. In the present study, the participants' mean Chinese Self-Rated score was 6.679 (SD = 1.853), which belongs to the lower-intermediate Chinese proficiency group.

Table 1. Descriptive statistics for motivation, anxiety, enjoyment, and their subscales

	<i>N</i>	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
motivation	611	1.220	4.670	3.214	.846	-.325	-.533
intrinsic motivation	611	1.000	4.889	3.212	.861	-.287	-.532
extrinsic motivation	611	1.111	4.889	3.215	.861	-.308	-.477
anxiety	611	1.300	4.850	2.787	.844	-.310	-.493
Speaking anxiety	611	1.100	4.900	2.778	.850	-.313	-.440
Listening anxiety	611	1.000	4.900	2.795	.861	-.270	-.503
enjoyment	611	1.220	4.720	3.214	.851	-.288	-.560
FLE-private	611	1.100	4.900	3.211	.867	-.271	-.546
FLE-teacher	611	1.000	5.000	3.227	.892	-.226	-.466
FLE-atmosphere	611	1.000	5.000	3.214	.883	-.262	-.475

4.2. Correlation analysis

The Pearson Correlation analysis was used by the author to break the RQ2 study into two parts. The general connection between motivation, anxiety, enjoyment, and Chinese self-rated scores is presented first, followed by the correlational link between each subscale under motivation, anxiety, enjoyment, and Chinese self-rated scores. Table 2 shows that motivation significantly correlates with Anxiety and Enjoyment ($p < 0.05$), and the correlation coefficients are -0.547 and 0.468, respectively. Also, the correlation between Anxiety and Enjoyment is strong ($p < 0.05$), with a coefficient of -0.551. The result of general factors reflects a strong interaction in our study. When considering the Chinese self-rated scores and these general factors together, Chinese self-rated scores demonstrate a significant correlation between motivation, anxiety, and enjoyment as well ($p < 0.05$). The correlation coefficients are 0.541, -0.616, and 0.501, respectively. Anxiety correlates most robustly with Chinese self-rated scores, followed by motivation and enjoyment.

Table 2. Correlation between motivation, anxiety, enjoyment, and Chinese self-rated scores

		motivation	anxiety	enjoyment
Chinese self-rated score	Pearson Correlation	.541**	-.616**	.501**
	Sig. (2-tailed)	.000	.000	.000
	<i>N</i>	611	611	611
motivation	Pearson Correlation	1	-.547**	.468**
	Sig. (2-tailed)		.000	.000
	<i>N</i>	611	611	611
anxiety	Pearson Correlation	-.547**	1	-.551**
	Sig. (2-tailed)	.000		.000
	<i>N</i>	611	611	611
enjoyment	Pearson Correlation	.468**	-.551**	1
	Sig. (2-tailed)	.000	.000	
	<i>N</i>	611	611	611

**. Correlation is significant at the 0.01 level (2-tailed).

As seen from Table 3, when analyzing subscales, each sub-factor, that is, intrinsic and extrinsic motivation, Speaking and Listening anxiety, FLE- Private, FLE-Teacher, FLE-Atmosphere, also indicates a strong correlation with Chinese self-rated scores ($p < 0.05$), the correlation coefficients are 0.528, -0.535, -0.614, 0.601, 0.501, 0.473 and 0.466, respectively. All of these data show a strong relationship between each variable. Furthermore, the statistics for subscales show that each sub-factor correlates differently in Chinese self-rated scores, i.e., extrinsic motivation correlates higher than intrinsic motivation, speaking anxiety correlates higher than listening anxiety, and FLE-Private correlates higher than the other two subscales under enjoyment.

Table 3. Correlations between each subscale under motivation, anxiety, enjoyment, and Chinese self-rated scores

		intrinsic motivation	extrinsic motivation	Speaking anxiety	Listening Anxiety	FLE- private	FLE- teacher	FLE- atmosphere
Chinese self-rated score	Pearson Correlation	.528**	.535**	-.614**	-.601**	.501**	.473**	.466**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000
	N	611	611	611	611	611	611	611

** . Correlation is significant at the 0.01 level (2-tailed).

4.3. Regression analysis

Concerning RQ3, the ANOVA regression analysis was run for the predictive effect of participants' general motivation, anxiety, and enjoyment on their self-rated Chinese scores (Model 1). Then, the second step will include the subscales under each factor for the detailed analysis (Model 2). The dependent variable here was Chinese self-rated scores. Model 1 with general motivation, anxiety, and enjoyment as predictors, subscales were worked as predictors in model 2, two models both account for approximately total self-rated Chinese scores, 45.6% (Adjusted $R^2 = 0.456$), indicating the fit degree of models are general.

For model 1, which is a general motivation, anxiety, and enjoyment, the regression coefficient for each factor is 0.548, -0.844, and 0.375, the F value of regression is 171.192, and the significance is 0.000, which is less than 0.05, demonstrating that at least one independent variable is significant (see Table 4 and Table 5). It is worth noting that motivation, anxiety, and enjoyment were all significant predictors for Chinese self-rated scores (< 0.05), motivation ($0.250 = 0.000$), anxiety ($0.384 = 0.000$), enjoyment ($0.172 = 0.000$), reflecting a stronger prediction in anxiety than others on Chinese self-rated scores, successively by the motivation and enjoyment (see Table 6). The VIF value also indicated no significant collinearity among these three variables. $p\beta = p\beta = -p\beta = p$.

For model 2, including the subscales under motivation, anxiety, and enjoyment, the F value of regression model 2 is 73.969. At least one independent variable in the regression model is significant, as the significance is 0.000, less than 0.05 (see Table 7 and Table 8). Thus, suggesting a scientific, reasonable, and acceptable regression model. However, the measurement for predicting Chinese self-rated scores differed when dividing three factors into subscales. The regression results showed that only extrinsic motivation ($\beta = 0.220$, $p = 0.008$) and speaking anxiety ($\beta = -0.331$, $p = 0.000$) had a significant impact on the Chinese self-rated scores ($p < 0.05$) (see Table 9). The regression coefficients are 0.473 and -0.721, showing that the higher the extrinsic incentive and the lower the Speaking anxiety, the bigger the impact on the Chinese self-rated score. Furthermore, speaking anxiety is the most efficient predictor of affecting Chinese self-rated scores, therefore the more speaking anxiety you have, the lower your Chinese self-rated scores will be. When extrinsic motivation is high, more Chinese self-rated scores will be obtained. In contrast, others have no significant impact on Chinese self-rated scores ($p > 0.05$). Additionally, the VIF index also reflected no collinearity in all subscales.

Table 4. Model 1 summary (regression analysis of motivation, anxiety, enjoyment, and Chinese-self-rated scores)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.677	.458	.456	1.367

Table 5. Model 1 ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	960.225	3	320.075	171.192	.000
	Residual	1,134.901	607	1.870		
	Total	2,095.126	610			

Table 6. Model 1: motivation, anxiety, enjoyment and Chinese self-rated scores coefficients

Model	Unstandardized Coe.		Standardized Coe.	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.064	.509		11.917	.000		
1 motivation	.548	.080	.250	6.813	.000	.661	1.513
anxiety	-.844	.085	-.384	-9.871	.000	.589	1.698
enjoyment	.375	.080	.172	4.668	.000	.657	1.522

a. Dependent Variable: Chinese self-rated score

Table 7. Model 2 summary: regression analysis of intrinsic motivation, extrinsic motivation, speaking anxiety, listening anxiety, FLE-Private-Teacher, FLE-Atmosphere, and Chinese self-rated socres

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.680a	.462	.456	1.367

Table 8. Model 2 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
2 Regression	967.911	7	138.273	73.969	.000b
Residual	1127.215	603	1.869		
Total	2095.126	610			

Table 9. Intrinsic motivation, extrinsic motivation, speaking anxiety, listening anxiety, FLE-Private, FLE- Teacher, FLE- Atmosphere and Chinese self-rated scores coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.059	.510		11.878	.000		
intrinsic motivation	.076	.180	.035	.421	.674	.127	7.852
extrinsic motivation	.473	.178	.220	2.648	.008	.130	7.708
2 Speaking anxiety	-.721	.204	-.331	-3.531	.000	.102	9.825
Listening Anxiety	-.130	.202	-.060	-.641	.522	.101	9.884
FLE-private	.090	.200	.042	.450	.653	.102	9.807
FLE-teacher	.162	.143	.078	1.134	.257	.189	5.289
FLE-atmosphere	.128	.173	.061	.739	.460	.132	7.604

4.4. Follow-up interview

Follow-up interviews aim to seek more sources to understand CFL learners' feelings in the online context, specifically for their motivation, anxiety, and enjoyment. It also contains questions about whether participants would like to choose an online CFL course and their reasons. Here, 8 participants volunteered to join the interview.

Whether the online Chinese listening and speaking classes motivate their Chinese study, they all respond positively. Six of them mentioned the flexibility, which classes will not be restricted due to the location and space, e.g., participant F (Male, 23-25), "Online Chinese listening and speaking is so essential for me as I am always busy with my work, allows me to study Chinese whenever and wherever as possible." Participant E (Male, 20-22), "It is a good option for me to take Chinese listening and speaking online because it is flexible and relaxing as I can motivated more by the freedom to choose the time for taking the course, rather than push to the fixed time." Also, some participants reflected that there are more resources online they can use to help their Chinese learning, "the more resources were provided online, such as the online video, audio, and software, all these

can be used for understanding more about Chinese culture, social background, so motivate me more.” (Participant C, female, 23-25).

For Anxiety, students were asked which sort of Chinese listening and speaking lessons they would feel more anxious about (offline or online), and they all responded that offline CFL learning makes them more anxious. The key reason was regulated time, real-time interaction, and face-to-face conversation. Traditional Chinese listening and speaking class requires lots of conversation and communication, making me feel nervous and anxious, because I concerned with my accent or fluent speaking speed.” (Participant D, Male, 25+); Participant B (Male, 23-25), “The fixed time for taking classes at the right place, always consume more time and money, which means more cost burden will happen, and when I got other assessment or work, the time will be limited so that the pressure will be more.”

Participants responded to the enjoyment from various viewpoints depending on their own experiences. Some learners enjoy cultural diversity as online Chinese classes can gather people from all over the world (Participant A, female, 25+; Participant D, male, 25+). Some learners reported that they would not be embarrassed by the interaction via online chat box, and they had more time to speak Chinese, which reduced their anxiety about face-to-face communication (Participant F, male, 23-25; Participant G, female, 18-19;)

All of the participants preferred to study Chinese speaking and listening online rather than offline. The reasons for this are convenience, flexibility, a personalised learning experience, high contact and feedback efficiency, and the cultural diversity of different fellows and teachers. One Participant G (female, 18-19) mentioned the teacher perspective, “During the online Chinese listening and speaking, I can have more opportunity meet more Chinese teachers from different places, like mainland China, HongKong, Taiwan, so they will have different language background and cultural experience, allowing me to have a more comprehensive language learning experience, so I can grasp more skills on Chinese speaking, especially for some dialect.”

5. Discussion

The current study indicated the general motivation, anxiety, and enjoyment of listening and speaking classes among undergraduate online CFL learners. The prediction of motivation, anxiety, and enjoyment for Chinese self-rated scores for undergraduate CFL learners in an online context. The results showed a moderate level of general motivation (Mean = 3.214) and enjoyment (Mean = 3.214) and a lower level of anxiety (Mean = 2.787). Considering the subscales for these three variables, extrinsic motivation (Mean = 3.215), listening anxiety (Mean = 2.795), and FLE-Teacher (Mean = 3.227) accounted for the highest scores under general motivation, anxiety, and enjoyment. When considering the Chinese self-rated scores as the dependent variables, all the general factors about motivation, anxiety, and enjoyment significantly predict the self-rated Chinese language proficiency, motivation, and enjoyment had positive predictions on Chinese self-rated scores, whereas anxiety worked negatively. However, referring to the subscales, only extrinsic motivation and speaking anxiety predict the Chinese self-rated scores ($p < 0.05$), in which extrinsic motivation was, to some extent, a positive predictor. Speaking anxiousness, on the other hand, was a negative predictor. Furthermore, the interview revealed a good attitude towards online CFL learning, which is understandable given that the more online CFL learners there are, the more attention should be paid to the target population of online Chinese learners.

5.1. Motivation in CFL learning

Participants in this study, as mentioned before, might compelled to take part in online CFL learning due to the lockdown and quarantine of the COVID-19 pandemic. The follow-up interviews revealed that they are willing to enroll in online classes, especially for listening and speaking. However, as the pandemic lasted for a long time (more than three years), there is doubt about the motivation level of their willingness [23]. Previous studies showed different results of motivation levels under different contexts: stable motivation in offline and online situations, the motivation level is generally high in the online context [20, 55, 56, 111]. The different results imply the way of measuring, sample size, different backgrounds of language learners, different target languages, etc.

This study showed that motivation was positively correlated with enjoyment of Chinese self-rated scores and negatively correlated with anxiety. Additionally, there is Moderate general motivation for learning Chinese online (Mean = 3.214). Similarly, when looking at the subscales, both intrinsic and extrinsic motivation were moderate, with extrinsic motivation slightly higher than intrinsic motivation. General motivation is the most powerful predictor of Chinese self-rated scores. However, when the subscales were examined, only the power of extrinsic drive remained for predicting Chinese language competency. The overall result of motivation is consistent with previous studies, but the finding of extrinsic motivation was inconsistent with prior studies [18, 20, 23, 56, 112, 113]. From these studies, intrinsic motivation was the significant predictor of Chinese language proficiency. Therefore, the reasons should be analyzed, and further studies need to explore more under different settings.

Referring to the current study, the way of measuring Chinese language Proficiency was through Chinese self-rated scores. Extrinsic motivation is a significant predictor of Chinese language proficiency, which has inconsistent findings with the studies by previous researchers (;) but consistent with some studies from Fachtmann et al., Chen and Jang, Wen, etc. [20, 23, 30, 34, 114,

115]. When looking at the subscales, both intrinsic and extrinsic motivation were moderate, with extrinsic motivation slightly higher than intrinsic motivation. General motivation is a major predictor of Chinese self-rated scores. When the subscales were examined, however, only the power of extrinsic drive was left to predict Chinese language competency. According to previous research, nationality might be the reason for high intrinsic motivation as the predictor of Chinese language proficiency. People with a high index of happiness will have more fun and pleasure, like people from Thailand and the U.S., so participants from these areas showed a high intrinsic predictor for the target language proficiency, as they got more social welfare and less pressure for getting extra rewards [116, 117]. However, participants from Africa in this study accounted for the second most considerable amount ($N = 140, 22.9\%$). The world average happiness index from 2021 was 5.5, and the average happiness index in Africa was 4.5, hence, the happiness index was lower than average, which means the living standard was low with high pressure, people living in this situation should pay more effort on their way of living, and less joy or enjoyment would be obtained from the worse living standards [118]. This can be explained by the statistics we got from the questionnaire “Why you choose to study Chinese as a Foreign language?” 59.08% of participants chose the “Job requirement” option, responding by the extrinsic motivation for more external rewards, i.e., the more business opportunities, the more the chance to get higher prestige [35].

Most participants in this study experienced 2-3 years of online CFL learning, which is the period of COVID-19, the requirements for self-regulation and self-determination in online settings are more important, the problem of deferred feedback and immediate interaction between peers and teachers will not happen frequently, as our objective class was focusing on listening and speaking, without writing and reading [20, 119]. Although motivation played a minor influence on Chinese learning achievement, it was shown to be highly correlated with anxiety in this study, implying that higher motivation can reduce anxiety. Thus, more skills, such as learning strategies, should be promoted to facilitate their language learning abilities, and technical issues should be resolved to improve the efficiency of communication in the online context, which can motivate more language learners who choose to study online in the future [20, 56, 92, 103].

5.2. Anxiety in CFL learning

Anxiety is the irreplaceable psychological affective factor that influences language learners' achievement, which means language learners have negative feelings about their communication apprehension, exams, or speech from the public [13]. During the pandemic, online learning became mainstream for most subjects. However, the sudden transition to teaching and learning online makes unskilled students feel anxious about their isolation and struggle with motivation. As a result, during the COVID-19, online anxiety research for language learners increased and revealed some disparities in anxiety levels across target languages, such as a high level of anxiety in online English studies, a moderate anxiety level in Chinese, and so on [23, 106, 120].

The statistics of general anxiety level in online learning for CFL learners in this study was lower (Mean = 2.787), and the subscales for listening and speaking anxiety were also lower. Anxiety and its subscales were negatively correlated with motivation, enjoyment, and Chinese self-rated scores. Also, general anxiety performed the highest negative prediction effect for Chinese language proficiency via the self-rated scores, which is consistent with the negative influence of anxiety in prior online CFL learners' achievements studies [23, 62, 113, 121]. Meanwhile, the result is also consistent with other languages, e.g., English, Spanish, etc [72, 107, 122-127]. When considering subscales under anxiety, as the author conducted the research based on online Chinese listening and speaking classes, the listening and speaking anxiety were negatively correlated with Chinese self-rated scores. Nevertheless, the situation changed when analyzing the prediction of Chinese language proficiency via subscales from anxiety. Only speaking anxiety significantly predicts Chinese self-rated scores and the coefficient was relatively high, about -0.721.

From the results above, the generally lower level of anxiety but a higher level of speaking anxiety among online CFL learners may cause some confusion. Firstly, previous research was mainly done during the COVID-19 (Russell, 2020, but this study was conducted after the pandemic, which means all participants had experienced online CFL learning before, which means they recall their memories of answering questionnaires [23, 79]. Additionally, they might have been more familiar with techniques and skills for online language courses for several years, as 34.7% of our participants studied Chinese online for 2-3 years. According to Chen's research, online Chinese learning can reduce learners' overall anxiety by providing ample online resources, adequate support from peers and teachers, and a self-directed learning process [21]. The courses for this study focused on listening and speaking lessons because speaking anxiety was found to be a better predictor of Chinese language proficiency. It is obvious that language learners require more immediate output than in reading and writing classes, and hearing comprehension does not directly reflect in non-face-to-face circumstances. Language learners might thus conceal their misunderstandings in a virtual environment. This finding was consistent with Zhang's Zhang and Nimehchisalem's study but inconsistent with Chen's study [21, 107, 128]. The effect of speaking anxiety did not reach a consensus for language study. This might be due to different requirements in specific courses, although the general anxiety's negative impact on foreign language study has been recognized widely. Consequently, more empirical research should be done to test the different types of anxiety affecting language learners' achievement.

Finally, as noted in the preceding section, the rationale for employment needs as the choice for participants in this survey to pick Chinese as a foreign language accounted for 59.08% ($N = 361$), with the hobby accounting for the most significant number

(60.23%, $N = 386$). Whatever your pastime or career requires, a solid speaking skill in a foreign language is proof that you understand the language. According to Fu and Brown & Lee, speaking is the producing, receiving, and processing of making meaning happen through interaction. Therefore, the stronger predictor for speaking anxiety of Chinese language proficiency can be explained [129, 130].

5.3. Enjoyment in CFL learning

Taking back to the early 2000s, the more attention on foreign language learners' emotions called by Dewaele, positive emotions(enjoyment) originated later than negative emotions (anxiety), so less attention was paid in an earlier time [131]. After the concept of enjoyment was operationalized by Dewaele and MacIntyre, more balanced research between positive and negative is needed to move the research area beyond the simplistic aspect of good and bad [14, 93]. During the pandemic, additional obligations for language learners under the ERT imposed negative sentiments of isolation, hence the level of online enjoyment in the initial study was notably low [132]. Online enjoyment revealed various results after adopting online language learning, namely a high degree of enjoyment in online Chinese study and a moderate level in English study [22, 85].

The result of this study showed a moderate level of enjoyment (Mean = 3.214), and the subscales under enjoyment were also moderate, which is inconsistent with Zhang and Tsung, Wang and Jiang [22, 56]. The differences could be explained by the fact that the average Chinese language level in this study was lower-to-intermediate, so language learners' enjoyment may have decreased, particularly in the listening and speaking classes, where they need to output more and make many mistakes due to the lower language proficiency. Secondly, the study was conducted after the pandemic, and most participants experienced the online Chinese cores for about 2-3 years ($N = 212$, 34.7%). Their freshness and passion might be diminished for a long time.

For the Pearson Correlation analysis, enjoyment was positively correlated with motivation and Chinese self-rated scores and negatively correlated with anxiety. Also, the FLE-Private, FLE-Teacher, and FLE- The same association existed between atmosphere and general enjoyment. General enjoyment was the least positive predictor of Chinese language competency via self-rated scores, although it still significantly predicted Chinese-rated scores. Nonetheless, the scenario was different when all subscales were considered combined. None of them predict the Chinese self-rated scores considerably. The finding of a significant correlation between enjoyment and language achievement was consistent with former studies in various language learning contexts, reflecting the language achievement would be higher if learners' get higher enjoyment [22, 27, 69, 133]. Also, the higher enjoyment for online learning can lead to higher language proficiency, indicating a cheerful willingness to study a language online. For the subscales under enjoyment, FLE-Private has the strongest correlation among the other two subscales, as FLE-Private refers to the private pleasure surrounding their exciting experiences and excellent performance [84]. From the follow-up interview, the question ask for enjoyment, the responses provide more reasons that FLE-Private was strongest correlated with their Chinese language proficiency as well, such as "I can know more about different cultures and customs" (Participant A, Percipient D), "I can have more chance to speak with people from different background" (Participant E), "I can construct a good interaction between teachers and peers through online listening and speaking classes" (Participant C, Participant F). Additionally, comparing the participants' average age of 18.6 in Jiang and Dewaele and the age range from 12-19 in Dewaele and Dewaele, the results reflected a higher effect on FLE-Teacher, it is easy to understand participants with younger age rely more on the teacher for their language studies [134, 135]. In comparison, participants in our study were mainly from 20-22 ($N = 295$, 48.28%), which is reasonable to have a higher effect on FLE-Private than FLE-Teacher, as they focus more on their feelings than others.

The general enjoyment exhibited a substantial positive prediction on Chinese language competence via rating scores, but when the subscales analysis was included, none of the enjoyment subscales were significant predictors of Chinese performance. The former result is consistent with the questions in questionnaires about the reason for choosing Chinese as a foreign language (hobby, the most significant amount, 60.23%), which also agreed with Loh's claim, the belief that language learners' ability and interests are two ideas that happen synchronously for younger students [12]. Demonstrating an interest in learning Chinese would lead to their enjoyment in predicting Chinese language proficiency. The predictive effect for FLE is inconsistent with previous studies but consistent with Dewaele and Alfawzan and Li et al., this may be due to different sample size and age group comparing with inconsistent studies' result, as the consistent results with current results were had large sample size, and the age level was higher [21, 22, 69, 84]. Language learners of higher age, particularly adult learners, may be more self-regulated in the context of online learning, as less supervision and control by instructors may lead them to get more freedom and learning spaces, whereby higher language achievement may happen as their enjoyment increases. Besides, according to Jin and Zhang's statement, the support from teachers and peers was indirectly related to language achievement, particularly for adult learners [86]. More attention should be paid to interpersonal relations and emotional responses, which are indispensable in boosting language learners' enjoyment. Because many subscales were included for detailed analysis, the dependent variable's influence level (Chinese self-rated scores) would be varied for this study, making all subscales work differently in Chinese achievement. However, there is no consensus on the predictive effects of enjoyment on language achievement. Further research should provide more empirical statistics to prove the predictive power of enjoyment for language achievement in different methods (Actual test scores, self-rated scores, etc.).

6. Conclusion

The current study used a mixed method to investigate the general motivation, anxiety, and enjoyment profiles for undergraduate online CFL learners whose native language is English, especially for listening and speaking classes. The correlation between general motivation, anxiety, and enjoyment was examined, including the subscales under each general factor with the Chinese self-rated proficiency. Finally, it investigated the predictive influence of general motivation, anxiety, and enjoyment on Chinese language achievement using Chinese self-rated scores, including subscale prediction. This study followed COVID-19, the first attempt to determine motivation, anxiety, enjoyment, and Chinese language competency from the point of online CFL learning using self-rated scores. In the online CFL listening and speaking lessons, the results demonstrated moderate enthusiasm and satisfaction, as well as a lower degree of worry. The correlation between motivation, anxiety, enjoyment, and Chinese self-rated proficiency was significantly strong, demonstrating a positive correlation between motivation, enjoyment, and Chinese self-rated scores and a negative correlation between anxiety, motivation, enjoyment, and Chinese self-rated scores. The same correlation was seen in their subscales, and in terms of prediction, general motivation, anxiety, and enjoyment all predicted Chinese language achievement strongly. Only extrinsic motivation and speaking anxiety were significant predictors of Chinese self-rated language competency when the subscales were considered combined. The follow-up interview and open questions gave additional sources for analysing the feelings of online CFL learners.

The limitations of this study cannot be ignored. On top of that, the method for testing Chinese language learners' proficiency was only through the self-rated scores, which was relatively subjective. Further studies could follow the previous studies by Gardner and MacIntyre, Wang and Jiang, and Xu et al., combining both objective (standardized test, classroom level, etc.) and subjective methods to make the way of assessing Chinese learning achievement becomes comprehensive and more persuasive, although some objective language achievement like the standardized test was not used so widely, due to the difficulties to access, time-consuming [22, 23, 70, 71, 136-138]. As a result, future research should examine a viable way for objectively and subjectively obtaining a more valid language proficiency. The limitation then concerns the participants. All participants in this study were native English speakers. However, whether they are taking online CFL classes in China or not, as well as their diverse cultural backgrounds for learning Chinese, were not taken into account, as the existence of taking online language learning may impact learners' learning emotions [22]. Apart from that, the majority Chinese level of our participants were lower-intermediate, so the results may not be consistent with those advanced learners.

There is no doubt that online learning necessitates more pedagogical practise and technical support, which means that when the study focused on emotional factors in the online context, language achievement could be influenced by a broader range of factors such as teacher-student interaction, peer interactions, and technical issues [139, 140]. As a result, while this study investigated happy and negative feelings for CFL online learners, additional research perspectives such as teachers and online platforms... should be examined. The qualitative data in this study was too small, and a large sample size for matching quantitative resources may be more persuasive for analyzing the emotional results. This is the first study to focus on specific Chinese online classes (speaking and listening). One research cannot be representative. More research should be conducted in different types of courses to make emotional analysis more accurate. Furthermore, most online studies were conducted during the pandemic. As the trend for online study will continue due to technological change and digital improvements, more online learning in the post-pandemic should be done.

Three implications were proposed for future research. First, because of its convenience, the new trend of online teaching is extensively adopted. Online CFL learning provides for Chinese cultural transmission and Chinese instruction, allowing language learners to study Chinese frequently and overcome traditional offline Chinese limits such as geography, location, and time [103]. From Zheng's claim, education reform and technological change will lead the modes of teaching and learning differently, particularly in the "Virtual Exchange," even with the revolution of time may happen as more online language learning and online education in the future [6]. Consequently, it could be predicted that more online teaching will be introduced in higher education, whether synchronous or asynchronous, and the interactive support between offline and online teaching may be frequently used for CFL learning [6, 141]. So, more technical support is needed to avoid difficulties in learning online [142]. Secondly, the assessment method should be reconsidered. The reality of the assessment results may be questioned without face-to-face supervision, and respecting different language courses, the requirements for satisfying the course requirements may differ. As a result, teachers should pay careful attention to task value, and a clear learning object should be examined in order to construct an appropriate assessment [141, 143]. Finally, e-portfolios may be a tool for students to reflect on what they have learnt in order to compensate for delayed feedback [141]. E-portfolio content may include the learner's blog, comments, and reactions to online activities, which can give more accurate sources for analysing the individual and emotional components of language learners.

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