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"I feel AI is neither too good nor too bad": Unveiling Chinese EFL teachers' perceived emotions in generative AI-Mediated L2 classes

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ABSTRACT

Despite the recent growth in the integration of artificial intelligence (AI) into second/foreign language (L2) education, its emotional side has been ignored, to date. In order to address this gap, the present qualitative study aimed to explore the typology of emotions that Chinese English as a foreign language (EFL) teachers had experienced in their AI-based L2 classes. Drawing on the technology acceptance model (TAM) and control value theory (CVT), a sample of 50 EFL teachers were interviewed individually. The results of thematic analysis showed that Chinese EFL teachers, in this study, had experienced a variety of positive and negative emotions due to AI technologies. The most frequently experienced positive emotions were 'enjoyment', 'excitement', 'motivation', and 'satisfaction'. Conversely, the participants had most repeatedly experienced negative emotions of 'anxiety', 'stress', 'worry', and 'frustration' in their AI-based classes. The findings are discussed in light of prior research and suggestions and implications are presented to EFL teachers and educators.

1. Introduction

Recently, the use and discussion of artificial intelligence (AI) and its associated tools have received increasing attention in the educational arena (Derakhshan et al., 2024; Fathi et al., 2024; Huang et al., 2024; Lin & Wang, 2024; Tlili et al., 2023; Wang et al., 2023b; Wu et al., 2024). Despite its newness to many second/foreign language (L2) educators, AI is constantly praised for contributing to various aspects of teaching and learning (Rudolph et al., 2023; Wang and Wang, 2024; Yan, 2023). Nowadays, in many contexts, generative AI-tools and chatbots are used by teachers, students, and teacher educators to inject cutting-edge technologies into English language education (Derakhshan & Ghiasvand, 2024; Farrokhnia et al., 2023; Yang & Zhao, 2024). Previous studies have reported the positive and negative influences of generative AI tools like ChatGPT and Bard on L2 education, especially the acquisition of language skills and scaffolded learning (Bin-Hady et al., 2023; Wang and Reynolds, 2024; Yan, 2023). Moreover, the challenges and problems that AI-based L2 education incurs have been the focus of a growing body of research (Klimova et al., 2023; Sun & Mei, 2022; Wang, Wang, et al., 2024; Zhi et al., 2024). To date, the expanding literature has just revolved around the benefits and setbacks of using AI in L2 teaching and learning, yet the emotional aspects of such integration have remained unaddressed.

Like other modalities of L2 instruction, AI-based teaching and learning involves emotionality and the typology of teachers' emotions directs AI acceptance and adoption (Gao et al., 2024; Yang & Zhao, 2024). Since AI is rather new in EFL contexts, the degree of value assigned to its implementation and the controllability of the tools/bots shape teachers' perceived emotions during the process. This claim is supported by the technology acceptance model (TAM, Davis, 1989) and control value theory (CVT, Pekrun, 2006). TAM suggests that the acceptance of technologies is determined by the users' behavioral intention, perception of technology usefulness, and perceived ease of use (Davis, 1989). Hence, the more EFL teachers find AI useful, convenient, and manageable the more they would experience positive emotions (Wang, Gao, et al., 2023). CVT posits that emotions are formed by one's cognitive appraisal of a task/activity and its degree of control and value (Pekrun, 2006). So, the more EFL teachers find AI integration useful, controllable, and valuable, the more they may experience positive emotions. This shows how emotionally vulnerable and sensitive EFL educators might be in the face of AI. However, researching the intersection of emotions and AI has only started to appear in the literature. In one of the first empirical studies in this domain, Wong et al. (2022) argued that AI tools produce positive emotions and constructs in

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educators (e.g., wellbeing, engagement, grit, and rapport) within EFL contexts. Likewise, Ghafouri (2024) found AI contributing to L2 teacher-student rapport and grit in Iran. Using a survey and a semi-structured interview, Yang and Zhao (2024) also identified a range of positive and negative emotions among 498 Chinese EFL students, who were taught through generative AI tools. Derakhshan and Ghiasvand (2024) ran a seminal study on research-active EFL teachers in Iran and asserted that AI-mediated L2 education could be an evil or an angel depending on how it is implemented. There is sufficient evidence behind the benefits and misfits of AI for L2 education, but the emotional angel of such interface has remained weak in the current scholarship. Furthermore, the scant studies on the perceived AI-induced emotions are limited to EFL students' perspectives (e.g., Yang & Zhao, 2024) and teachers' feelings have been ignored by researchers. This is against the emotional basis of L2 teaching, which is considerably reported to be surrounded by numerous positive and negative emotions (Derakhshan, 2022; Derakhshan et al., 2023). Therefore, this study is momentous for providing a new insight into the emotional basis of AI-mediated L2 teaching for EFL educators and policy-makers. The innovative aspects of this study are the use of a qualitative design, which provides deeper insights compared to surveys and the examination of emotionality in relation to AI technologies, as a novel area of research.

2. Literature review

2.1. AI and L2 education: Pros and cons

In the past couple of years, AI injection into L2 teaching and learning has transformed their associated rigid approaches making them more personalized and interesting (Pokrivcakova, 2019; Wang & Xue, 2024; Zhi & Wang, 2024). There have been developed different AI-driven chatbots for L2 teachers and students to cater immersive opportunities to practice English (Huang et al., 2023). AI tools have provided L2 educators with simulated interactions, personalized feedback, and rich learning experiences that secure their academic performance and practice (Tsivitanidou & Ioannou, 2021). AI can tailor the teaching-learning process to individuals' styles, preferences, and needs (Chen et al., 2021). It has also significantly developed L2 assessment and grading practices, as well (Derakhshan & Ghiasvand, 2024). Other scholars considered instantaneous correction and feedback of AI tools essential for an engaging L2 education process (Kartal & Yeşilyurt, 2024; Wang et al., 2021). Another growing trend has been related to the use of intelligent robots in L2 education (Leoste et al., 2022). AI chatbots, especially ChatGPT has been found influential in improving EFL teachers' lesson planning, teaching practices, and assessment of L2 writing (Mena Octavio et al., 2024). AI contributes to assessment given its potential to provide immediate, personalized feedback that might foster dynamic assessment and automated writing assessment techniques (Huang et al., 2022). AI can also manage large language data, which is useful in complex linguistic, corpus, and syntactic analyses (Kartal & Yeşilyurt, 2024).

According to Rustan (2022), AI technologies can develop L2 educators' socio-cultural understanding of language education. AI chatbots can be created and used in L2 classes to design tasks and increase classroom engagement, motivation, and interactions (also called chatbot-assisted language learning). Chatbots can efficiently measure language proficiency, as well (Kuhail et al., 2023). Today, AI calls for a shift in L2 education towards innovative, naturalistic, and user-centric approaches, as noticeable in the rapid growth of AI-based tools (Kartal & Yeşilyurt, 2024). AI signifies how well novel technologies can support and shape engaging educational practices in all disciplines (Zou et al., 2023). Despite these contributions, research shows that AI may hurt L2 education, as well. According to Derakhshan and Ghiasvand (2024), AI bots are like a double-edged sword, which can ruin creativity and academic integrity, increase cheating and plagiarism, and spread fabricated information in the field. The opponents of AI also referred to its problems such as poor regulations, decontextualization, and lack of data reliability, authenticity, security (Haqueet et al., 2022; Rudolph et al., 2023). So far, the scholarship has mostly focused on the advantages and disadvantages of AI for EFL students and their learning process. The teacher side of the story has limitedly been attend to by L2 researchers. As a shift of pedagogical approach may lead to emotional changes in EFL teachers, it is postulated that the adoption of generative AI tools may produce different emotions among them. However, the emotionality of teachers in relation to AI technologies has been widely neglected. While the literature reports enough of the contributions of AI to L2 education, there is a dearth of research on the affective side, as explained bellow.

2.2. Emotions in AI-based L2 education

Like ordinary L2 education, AI-based approaches to teaching and learning English involve emotions (Gao et al., 2024; Guo, 2020; Yang & Zhao, 2024; Wang, Sun, et al., 2023). This emphasis on the emotional aspects of technology-integration into L2 education is commensurate with increasing trends in positive psychology (PP) and the affective turn to applied linguistics (Prior, 2019). There is a bulk of evidence regarding the psycho-emotional states of EFL teachers and students in light of technologies (Hapsari & Wu, 2022; Idroes et al., 2023; Liu & Wang, 2024; Wang, Sun, et al., 2022; Wang, Pan, et al., 2023; Wang, Gao, et al., 2024). It has been asserted that positive emotions such as enjoyment, motivation, and engagement emerge in L2 educators due to innovations in technology (Dörnyei, 2020; Li & Xing, 2021; Wang et al., 2022). Since AI has recently gained the momentum in L2 teaching, it may take various emotions with itself. As noted by Farrokhnia et al. (2023), AI technologies can decrease anxiety and work stress through personalized and adaptive tools. In speaking skills, AI can improve enjoyment and critical thinking, while it prevents speaking apprehension (Hapsari & Wu, 2022). The emotional nature of L2 teaching demands a shift toward the affective side of AI-mediated L2 education, which is missing in the literature. So far, researchers have not taken emotions induced by AI technologies seriously and this runs counter to the affective turn that places feelings at the center of education. There are some studies that tried to elucidate the emotional aspects of AI-integration in L2 speaking skills (El Shazly, 2021; Han, 2020; Hapsari & Wu, 2022). However, only the learner's perspective has been taken into account.

In a recent study on 498 Chinese EFL students, Yang and Zhao (2024) found a range of positive and negative emotions induced by AI technologies. The most frequent positive emotions were enjoyment, pride, happiness, inspiration, and interest. Conversely, fear, pressure, embarrassment, and boredom were the most frequently experienced negative emotions during AI-mediated L2 classes. Part of such emotional experiences might be novelty and lack of familiarity of AI tools that normally cause anxiety, stress, and fear in educators (Wang, 2023). While researching the benefits and problems of AI technologies for L2 teaching and learning is commendable, the negligence of the affective domain is a fatal blow. There is a critical gap in the role of emotion and heart in AI, as a whole (Merriam, 2022). This emotional force is even more vital in L2 education, which deems emotions to be called education. Nevertheless, most of the studies on AI and L2 education are about different chatbots and their contribution to different aspects of L2 education. If there is a study on AI-induced emotions, it is still limited to students' perspectives and teachers, who are the cores of educational systems, and their emotions have been overlooked by L2 researchers. There is few (if any) research that unveils the typology of AI-induced emotions as perceived by EFL teachers. To address this gap, this qualitative study aimed to unpack Chinese EFL teachers' emotions in light of generative AI-mediated L2 education. Specifically, it made an effort to answer the following research question:

1. What types of emotions (positive, negative) do Chinese EFL teachers perceive in their generative AI-mediated L2 classes?

3. Method

3.1. Participants

In this study, 50 Chinese EFL teachers were selected by convenience sampling technique. There were 17 males and 33 females in the sample. Their age ranged from 28 to 47 years old. They majored in applied linguistics (13), foreign language education (12), linguistics, teaching technology (5), translation (15), and educational psychology (5). The participants had a teaching experience level of four years (11), seven years (26), and above 10 years (13). Their academic degrees were Diploma (4), BA (7), MA (14), and Ph.D. (25). The recruitment criteria were twofold: first, they were willing to actively participate in the study after being informed of its specific objectives and procedures. Second, all participants had prior experience using AI for language learning.

3.2. Instrument

3.2.1. Semi-structured interview

In order to understand the typology of emotions induced by generative AI technologies and the teachers' perceptions of using such innovations, a semi-structured interview was employed by the researchers. This tool was selected because interviews allow researchers to get access to the respondents' perceptions and experiences of a phenomenon in an interactive way. The interview was held in English. There were four interview questions after the demographic part (Appendix). The interviews were carried out online using Skype software. The audios were recorded for later analyses. Each interview lasted 20 min on average. The participants were encouraged to explain their views as much as possible. The interview was friendly and interactive making the participants feel free to elaborate on their ideas.

3.3. Data collection procedure

The data of this qualitative study were collected using an interview with a sample of 50 Chinese EFL teachers, who were teaching English to Chinese students in different academia located in Hangzhou city. A set of interview questions were developed at the outset of the study. They were double-checked by two experts for their content validity and relevance to the goals of the research project. Some revisions were suggested by the experts and one irrelevant item was deleted. Then a piloting phase was done with 5 sample EFL teachers representing the population. After approving the suitability of the interview questions, the researchers invited different EFL teachers interested and willing to attend the study using emails and social media groups. After one week, 50 teachers agreed to take part in an online interview on scheduled and agreed times. The interviews were audio-recorded using a computer software along with Skype. The ethical concerns such as privacy, confidentiality, and freedom of continuing or withdrawing from the study were clearly observed by the researchers. The goal of the study was explicitly explained to all respondents. There was no conflict of interest among the researchers and participants. They all voluntarily attended the interview sessions. The interviews were held in a friendly way with warm-up questions and probing items to dig deep into the participants' perceptions and experiences of AI-induced emotions. The time of the interviews was agreed not to be during the participants' working hours. After three weeks, the whole interview data were gathered carefully. Then the researchers organized the audio files for later transcription and analysis, explained below.

3.4. Data analysis

The interview data were carefully transcribed by the researchers before running the data analysis. All audios and transcriptions were examined to ensure their accuracy and matching. Next, thematic analysis was manually carried out to extract common patterns of beliefs and perceptions regarding the perceived emotions in AI-mediated L2 teaching. Braun and Clarke's (2006) model was followed to extract the themes. First, the transcriptions were read many times to understand the overall picture of the data. Second, the researchers tried create some initial codes from the interview responses in light of the research objectives. A range of codes related to teacher emotions were prepared. Third, the initial codes were connected and mixed together in order to create some larger themes. The themes were larger than codes in this stage. Fourth, the themes were reviewed carefully to see if they reflect the goal and research question of the study. Fifth, the researchers re-examined the extracted themes and assigned names and labels to them. Some phrasal refinements were done in this stage. Lastly, a qualitative report was created to demonstrate the findings of the data analysis using real interview answers after the pertinent themes. It is essential to note that as the study focused on the typology of teacher emotions, the themes were in the form of specific emotions (either positive or negative).

The next critical step in this qualitative research was ensuring the rigor of the findings. To do so, different principles of trustworthiness were ensured by the researchers (Lincoln & Guba, 1985). First, a thick description was provided by reporting different information about the participants and research process to observe 'transferability' principle. This step is essential for replication. Second, the extracted themes and codes were re-examined and approved by the participants through 'member-checking' principle. Moreover, the list of themes were given to another data coder, who was a professor of L2 education in China to ensure inter-coder reliability index ($r = .76$). The next principle was 'confirmability', which was ensured by asking a separate researcher to examine all the steps taken to collect and analyze the data. He was a close friend with ample experience and knowledge of qualitative research. Finally, 'positionality' of the researchers in relation to the data and findings was tried to be 'neutral' as much as possible. Previous experiences and beliefs were put aside when analyzing the interview responses.

4. Findings

4.1. Perceived positive emotions in AI-mediated L2 teaching

The results of thematic analysis of the last two interview questions were used to answer this research question that sought out the typology of AI-induced emotions among Chinese EFL teachers. Concerning the positive emotions experienced by the participants, the results indicated that Chinese EFL teachers had experienced seven positive emotions during their integration of AI into their instruction (Fig. 1).

The most frequently repeated positive emotions across the interviews were 'enjoyment', 'excitement', and 'motivation' to teaching. As mentioned by one of the teachers "*I feel AI is neither too good nor too bad. But, for me, it brings enjoyment when I see my students conversing with generative AI. This positive emotion is constantly passed on to me, making the teaching process even more enjoyable than ever*" (Teacher 12). Another participant referred to the reason of enjoyment by stating "*I feel the joy of teaching because AI tools can help me better understand students' learning needs and provide more targeted teaching content and feedback*" (Teacher 3). The second positive emotion was 'excitement' in support of which a respondent declared "*I feel excited because the use of generative AI adds new tools and methods to teaching, which helps to innovate teaching*" (Teacher 2). Moreover, the interaction that student could have with AI bots were considered "*exciting for both teachers and learners since AI is a novel way of education that stimulates interest and engagement in language learning*" (Teacher 4). The role of AI in stimulating progression in students was also seen as "*a great source of motivation for teachers*" (Teacher 14). The next experienced positive emotions were 'satisfaction' and 'accomplishment'. In this regard, a teacher maintained "*teachers may feel a sense of satisfaction and accomplishment when they see their students are engaged in interactions with generative AI and progress in their academia life*"

Fig. 1. Positive emotions experienced by Chinese EFL teachers in AI-mediated L2 teaching.

(Teacher 11). Another contribution of AI was the generation of teaching interest in teachers "*because AI is new to many educators and this novelty increases the rate of interest in teachers to devote more time and energy to their job*" (Teacher 41). The final experienced positive emotion by the participants of this study was 'confidence'. As put by a teacher, "*talking to AI robots and seeing students moving with recent technologies makes me, as a teacher, confident of my decisions and practices in the classroom*" (Teacher 31).

4.2. Perceived negative emotions in AI-mediated L2 teaching

With regard to negative emotions, the results of thematic analysis demonstrated that Chinese EFL teachers had experienced more negative emotions compared to positive emotions (Fig. 2). In particular, the participants claimed to experience nine negative emotions in light of AI-mediated teaching. The most frequently experienced negative emotions were 'anxiety', 'stress', 'worry', and 'frustration'. The reason for experiencing 'anxiety' and 'worry' was explained by one of the participants, who declared "*in classes using generative AI, I occasionally feel some anxiety and worry, especially about the potential for misleading responses from AI tools or their inability to handle complex contexts*" (Teacher 3). It was also stated that "*AI limits students' creativity of language expression and this makes me anxious in the class*" (Teacher 50).

Teachers' stress was also frequently repeated by interviewees. For example, it was asserted that "*teachers may experience increased stress because using AI technologies requires additional preparation, learning, and the ability to cope with technology glitches and student questions*" (Teacher 5). Another teacher said "*personally, I am worried that overreliance on generative AI may undermine students' basic skills and problem-solving abilities, thus creating technology dependence anxiety*" (Teacher 6). The next three common negative feelings were 'frustration', 'confusion', and 'pressure'. As noted a teacher, "*when teachers see students have problems with adopting AI, they may feel a little frustrated because of not being able to well stimulate the students' interest and enthusiasm*" (Teacher 13). Another teacher attributed her frustration to resources in schools by saying that "*some schools or districts may not have adequate resources to support the use of generative AI-mediated instructional methods, which can cause teachers frustration*" (Teacher 19). Regarding 'confusion', it was stated that "*AI is a new technology in education and I don't really know what is correct to do. I am in a state of confusion at the moment*" (Teacher 8). The next negative emotion was 'pressure', which was experienced by the participants. It was claimed that "*using generative AI-mediated teaching methods puts a heavy pressure on teachers to update their expertise*" (Teacher 11). Furthermore, the participants referred to 'disappointment', 'dissatisfaction', and 'embarrassment' as the next perceived negative emotions in their AI-based instructions. As mentioned by one of the respondents, "*the feeling of disappointment caused by the lack of improvement in performance at the beginning is a common emotional state experienced by many teachers*" (Teacher 32). Another person said "*teachers may feel that their teaching skills and methods have not been fully exercised and improved, which may hinder their professional development and lead to dissatisfaction and frustration*" (Teacher 20). The last reported negative emotion was 'embarrassment", which was caused by "*technical weakness of teachers and generative AI tools' mistakes or provide inaccurate answers that are embarrassing in many cases*" (Teacher 41).

To conclude the findings, the results of interview analysis showed that Chinese EFL teachers had experienced a range of positive and negative emotions during their AI-mediated L2 teaching. They reported to experience seven positive emotions, but nine negative emotions, in general. The most frequent positive emotions included 'enjoyment', 'excitement', 'motivation', and 'satisfaction'. On the contrary, the participants stated that they had most frequently experienced negative emotions of 'anxiety', 'stress', 'worry', and 'frustration' in their AI-based classes. The findings show the diversity of emotional states among Chinese EFL teachers in light of AI-based L2 education.

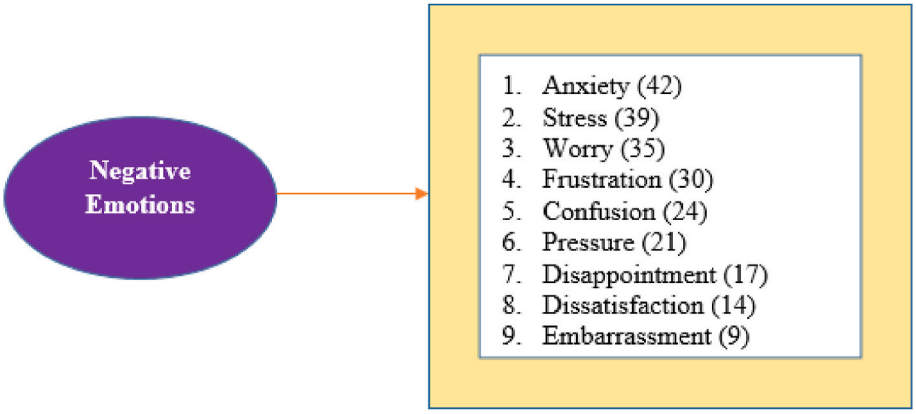

Fig. 2. Negative emotions experienced by Chinese EFL teachers in AI-mediated L2 teaching.

5. Discussion

This study sough to figure out the typology of AI-induced emotions among a sample of Chinese EFL teachers, who were teaching English through AI technologies in their classes. The findings are discussed, compared with prior research, and possible justifications are presented for each finding separately. The analysis of data collected by interviews revealed that Chinese EFL teachers had experienced a variety of positive and negative emotions during their AI-mediated L2 instruction. As for positive emotions, they argued to experience 'enjoyment', 'excitement', 'motivation', and 'satisfaction' most frequently in their instruction. These feelings are consistent with the results of previous studies on the emotional aspects of AI-integration into L2 education (Farrokhnia et al., 2023; Hapsari & Wu, 2022; Li & Xing, 2021; Liu & Wang, 2024). This finding brings further light to the role of emotions in AI-based L2 teaching as highlighted by Yang and Zhao (2024). The findings also evince the transmission of 'the affective turn to applied linguistics' from traditional education to AI-mediated ones (Prior, 2019). It seems that positive emotions exist in any teaching modality provided that teachers are aware of their regulation. This is an indication of how emotion-based trends to education like PP can enlighten L2 teaching praxis. A justification for these positive emotions among Chinese EFL teachers could be their positive view of AI adoption and its manageability. This interpretation is theoretically in line with CVT and TAM. To be more precise, the participants had experienced positivity probably because they had understood the value and controllability of AI tools despite their newness. This appraisal may have caused them form a positive attitude towards AI and ultimately experiencing positive emotions. Moreover, TAM supports the findings possibly because the participants had accepted the new AI technologies to be injected into L2 education. This acceptance could be due to the usefulness and convenience of AI technologies in fostering L2 teaching and learning processes. Another justification could be the teachers' willingness and openness to novelty and technology advancement in the academia. The findings can also be explained by the broadening and contagious nature of positive emotions, which can grow incrementally. The emotional literacy level of the participants may be another justification for the extracted positive emotions. They may have attended the study with enough knowledge and awareness of positive emotions involved in AI-based L2 education. Such literacy could be due to pre-service and in-service professional development programs delivered to Chinese EFL teachers.

With respect to negative emotions, it was found that the participants had most frequently experienced 'anxiety', 'stress', 'worry', and 'frustration' in their AI-based classes. These emotions partly echo those reported by Yang and Zhao (2024), who claimed that AI had induced different negative emotions such as fear, pressure, embarrassment, and boredom in China. Moreover, the findings agree with Farrokhnia et al. (2023), who declared that AI may lead to anxiety and stress in L2 educators. The experience of negative emotions might be due to the teachers' emotional vulnerability in relation to AI technologies. Another reason could be their resistance to change and accept cutting-edge technologies in L2 contexts. The participants' low digital literacy and unpreparedness for AI tools may triggers to these negative emotions. It can then be asserted that the participants had not completely controlled the process of AI-integration (Wang, Gao, et al., 2023). This lack of control might have led to negative emotions, which is undergirded by CVT of emotions (Pekrun, 2006). In severe cases, it was found that AI had induced 'confusion', 'dissatisfaction', and 'embarrassment' in teachers. This signifies that Chinese EFL teachers, in this study, possessed a low digital literacy. That is why, they reported to experience seven positive emotions, but nine negative emotions. They were more prone to negative emotions probably because of the novelty of AI and their own unfamiliarity and doubt in adopting AI. The apprehension that one experiences in the face of diversity and challenge may explain such propensity toward negative emotions. This is in line with Hapsari and Wu (2022), who contended that AI creates a sense of fear and apprehension in L2 contexts preventing its proper implementation. The participants' personality traits and teaching styles may also justify the frequency of negative emotions. For example, a teacher with a rigid teaching style and stressful personality may not be willing to apply AI in his/her classes. Thus, the likelihood of negative emotions increases. The teachers' mindsets and attitudes may also explain the typology of AI-induced emotions in the present study (Wang, Gao, et al., 2023). Although this study provided a broad picture of AI-induced emotions in Chinese EFL classes, it ignored how such emotions could be regulated properly by teachers.

6. Conclusion and implications

This study aimed to showcase the type of emotions that Chinese EFL teachers had experienced in their AI-mediated L2 classes. The findings imply that like traditional L2 teaching, AI-based teaching entails emotions and psycho-affective factors. It can be concluded that the typology of AI-induced emotions depends on various factors among which the acceptance of AI, openness to diversity, resources, and professional development courses play a critical role in emotionally preparing EFL teachers to AI technologies. Another conclusion is that the experience of positive or negative emotions is a reflection of teachers' digital literacy in the changing world of education. Without such literacy, the possibility of going through negative emotions is much more than positive ones. In light of the findings, it is also asserted that EFL teachers are more prone to negative emotions at the moment because AI is a new concept and approach to most of them. The newness of AI bots naturally creates fear, stress, and anxiety in EFL teachers, especially novice teachers with low technological, pedagogical, and content knowledge.

The findings of the study may have implications for EFL teachers, teacher educators, policy-makers, and researchers. First, EFL teachers may find the study insightful for disclosing common emotional experiences induced by AI tools in L2 classes. They can get prepared to manage them in their own contexts, too. Second, the findings can help teacher educators in that AI-based training courses can be devised and delivered to many EFL teachers coming from different backgrounds and experience levels. At the moment, few training courses are provided to EFL teachers to face the challenges of AI technologies. The next contribution of the study relates to language policy-makers, who can put AI technologies at the core of their policies. They can encourage different stakeholders to accept AI tools and elaborate on their benefits for L2 education, as a whole. Finally, the findings can inform L2 researchers in that they can get a fresh understanding of AI-induced emotions in L2 teaching, which is ignored in the literature. Moreover, they can focus on the limitations of the present study and complement it in their own future investigations. More precisely, this study used a small sample of EFL teachers, which could be expanded to large scale studies in the future. The use of pure qualitative research design via an interview can be complemented by quantitative, mixed-methods studies, and triangulated approaches to data collection. Another limitation was that the emotion regulation of EFL teachers were not examined in this study, which can be studied in the future. Additionally, the interview data provided no sign of emotional change and dynamism, hence further research is suggested to use time-series analyses and longitudinal explorations of AI-induced emotions among EFL teachers. Finally, L2 researchers are advised to study the role of culture, teaching experience, and discipline in experiencing positive and negative emotions in AI-based L2 classes.

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CRediT authorship contribution statement

Yumin Shen: Writing – original draft, Formal analysis, Data curation. **Hongyu Guo:** Writing – original draft, Supervision, Methodology.

Declaration of competing interest

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

Data availability

Data will be made available on request.

Appendix

Part 1: Background Information:

Age:
Gender:
Field of Study:
Teaching Experience Level:

Part 2: Interview Questions

1. As an EFL teacher, what generative AI bots and chatbots have you used in your L2 classes? Can you list them?
2. What do you think of the use of generative AI in L2 classes?
3. What positive emotions have you experienced in L2 classes, where generative AI has been employed? Please explain your feelings.
4. What negative emotions have you experienced in generative AI-mediated L2 classes? Would you please elaborate on such feelings?

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