Causes and Effects of Boredom in Online Foreign Language Learning: A Systematic Review and Future Perspectives

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Abstract

In recent years, boredom in online foreign language learning has become a prominent area of research. An in-depth discussion of the current status of research on boredom in online language learning can both enhance the theoretical contributions to applied linguistics and explore practical strategies for reducing boredom and improving the quality of online teaching. This paper adopts a literature review methodology to select high-quality research published during the period of 2020--2025, summarizing the research themes from four dimensions: the definition and dynamic changes in boredom, its relationship with learner-related factors, its interaction with environmental factors, and its impact on learning effectiveness. This review systematically analyses the research subjects and methods used in these studies. The findings indicate that most existing studies have focused on college students, with a heavy reliance on quantitative methods such as questionnaires and a lack of qualitative and interdisciplinary approaches. Additionally, current research tends to overlook the specific characteristics of boredom as related to particular foreign language skills and online platforms. Future research should further expand the themes and adopt multidisciplinary research approaches to offer a more comprehensive understanding.

Keywords

boredom in foreign language classrooms, online teaching interventions, factors influencing boredom, individual learner differences, impact of the teaching environment, applied linguistics

1. Introduction

At the beginning of the 21st century, scholars at home and abroad began to pay attention to the importance of emotions in second language acquisition, driven by the rise of positive psychology research on emotions. Early studies focused mainly on foreign language anxiety (Gao & Li, 2016), with limited attention given to the emotion of boredom. It was not until after 2020 that research on boredom in foreign language learning grew exponentially, gradually becoming an important topic within the academic community. In the postepidemic era, online teaching has emerged as a central mode of foreign language learning. Accordingly, the issue of boredom in online foreign language learning has become increasingly prominent, evolving into a popular research area.

The study of boredom in online foreign language learning holds practical significance. On the one hand, boredom is considered a key factor influencing learners' engagement and academic performance, which may lead to distraction, decreased motivation, and ultimately hindering academic success (Li & Ye, 2022). On the

other hand, with the widespread adoption of online learning platforms, alleviating boredom has become an urgent concern in the field of education to improve the quality of online foreign language learning. Therefore, systematically reviewing existing research on boredom in online foreign language learning, analysing research themes, methodologies, and target populations, and outlining future research directions are highly valuable and practical.

This paper reviews research on boredom in online foreign language learning and analyses the key themes, research methods and subjects. It also offers an outlook on future research in this area, with a particular focus on themes and methodologies.

2. Empirical Research on Boredom in Online Foreign Language Learning

Research on boredom in foreign language learning in the field of applied linguistics entered an accelerated phase in 2020 (Li & Lu, 2022), in which the number of studies on online teaching increased gradually. Using the CNKI database (China National Knowledge Infrastructure), the author reviewed 10 studies on boredom in online foreign language learning published between 2020 and February 23, 2025.

2.1 The Definition and Dynamics of Boredom in Online Foreign Language Learning

Boredom is an unpleasant psychological state characterized by low physical and cognitive engagement, accompanied by distorted time perception and avoidance tendencies (Putwain et al., 2018). In the context of foreign language learning, boredom has been defined as a negative, low-activation academic mood (Li & Dewaele, 2020), which is an important factor affecting academic performance (Li, 2021). In digital learning environments, boredom is more likely to occur because of insufficient interactivity and unattractive content (Derakhshan et al., 2021).

Scholars have adopted various approaches to define and measure boredom. For example, the boredom proneness scale developed by Farmer and Sundberg (1986) conceptualizes boredom from the perspective of personality traits, whereas Goetz et al. (2014) employ a multidimensional scale to differentiate between "surface boredom" and "deep boredom" on the basis of contextual factors. The Foreign Language Classroom Boredom Scale (FLCBS), developed by Li and Dewaele (2020), has been widely used to assess boredom in language learning. Its dimensions include insufficient cognitive arousal, task meaninglessness, avoidance motivation, etc.

From a dynamic perspective, boredom is not a static emotion; rather, it evolves over time and in response to changes in the teaching context. The control-value theory proposed by Pekrun et al. (2010). states that learners' sense of control and value judgment of the task are the core elements determining their emotional state; boredom increases significantly when tasks fail to challenge learners or fail to capture their interest. Dewaele and Li (2020) also emphasized the interaction between boredom and factors such as task difficulty, frequency of interaction, and situational awareness. In addition, boredom levels tend to be higher in online environments than in traditional face-to-face teaching environments and show a growing trend. For example, Derakhshan et al. (2021) reported that although boredom may occur at the beginning of an online English class, it tends to peak at the end of the course. Wang (2023) conducted a questionnaire survey of 66 English learners in a college in Northeast China and selected three students for semistructured interviews. This study revealed that the degree of boredom among college English learners increased in both online and offline teaching settings, with online teaching resulting in a more significant rise in boredom levels.

2.2 Research on the Relationship between Online Foreign Language Learning Boredom and Learner Factors

According to Wen and Wang (2004), factors influencing second language learning can be classified into innate factors (e.g., intelligence and language ability), acquired factors (e.g., learning motivation), and mixed factors (e.g., learning styles). On the basis of this framework, this paper divides learner factors into three categories and examines their relationships with boredom.

First, innate factors such as intelligence and language ability affect learners' mastery and sense of control over language tasks. When the learning tasks are either too easy or too difficult, it may reduce the sense of control, thereby inducing boredom (Pekrun, 2006). For example, Derakhshan et al. (2021) reported that some

Iranian university students reported boredom due to content that was either excessively repetitive or mismatched in difficulty, leading to cognitive dissonance.

Acquired factors, such as learning motivation, academic buoyancy and emotional intelligence, are widely recognized as important influences on learners' emotional states. Wang and Hui (2024) combined structural equation modelling (SEM) and psychological network analysis (PNA) to explore the relationships among academic buoyancy, emotions (anxiety, enjoyment, and boredom), and online English learning engagement (OELE). They reported that academic buoyancy positively predicts enjoyment and OELE but negatively predicts anxiety and boredom; boredom has the strongest negative effect on learning engagement. In addition, Li and Dewaele (2020), using the framework of control-value theory (CVT), conducted a questionnaire on 348 Chinese college students and reported that trait emotional intelligence (TEI) and learning gain together negatively predict boredom. These findings suggest that learners with greater emotional regulation and cognitive appraisal abilities are less likely to experience boredom.

Finally, learning style and self-efficacy are mixed factors. Learning style refers to a learner's preferred learning style, and mismatches between teaching style and learning style can contribute to boredom (Goetz et al., 2014). Similarly, learning self-efficacy, or confidence in one's ability to complete tasks, has also been shown to be negatively correlated with boredom (Pekrun et al., 2010).

The studies reviewed suggest that boredom in online foreign language learning is influenced by a combination of learner factors, such as cognitive, affective, and stylistic elements. Therefore, enhancing learning motivation, academic buoyancy, and emotional regulation may be effective strategies for alleviating boredom in online foreign language learning.

2.3 Research on the Relationship between Online Foreign Language Learning Boredom and Environmental Factors

Wen and Wang (2004) defined external factors that influence the quality of foreign language learning as cultural background, learning conditions, the teaching environment and learning tasks. In the context of online learning, this paper categorizes teaching equipment, content and interpersonal interactions as key environmental factors that are closely related to boredom in online foreign language learning.

First, issues related to teaching equipment and technology are direct triggers of learners' boredom. Li and Li (2024) analysed the boredom level of senior high school students in online foreign language learning and examined the relationships between external environmental factors (e.g., hardware, activity design, teacher–student relationships) and boredom. They reported that external factors had a significant effect on boredom, with equipment being the most influential factor, followed by teaching quality and interpersonal factors. Chansaengsee (2023) addresses technological challenges by exploring the use of virtual reality (VR) to improve the online learning experience. He surveyed 285 Thai adolescents about their preferences for online learning methods through questionnaires. On the basis of these results, he designed a four-station VR classroom for an English writing course and reported that VR technology significantly increased motivation and reduced boredom.

Second, lecture content and instructional design also play key roles in the emergence of boredom. Derakhshan et al. (2021) conducted questionnaires and semistructured interviews and reported that boredom among Iranian EFL learners developed due to monotonous lectures, a lack of interaction, technological problems, and poorly designed tasks; increasing classroom interaction, improving technological infrastructure, and using interesting learning materials were effective strategies for reducing boredom.

Additionally, interpersonal interaction significantly influences boredom in online learning environments. Wang's (2024) survey of 216 Chinese EFL teachers identified reduced teacher–student interaction as a core reason for shared feelings of boredom among both teachers and students. Many teachers reported that online teaching was more monotonous than face-to-face teaching, which was due to a lack of interaction and low student engagement. Strategies such as improving teaching methods, enhancing interaction, and using more efficient technological platforms were found to alleviate boredom. Li and Li (2024) noted that positive teacher–student relationships and peer interactions could reduce boredom and enhance students' engagement and sense of belonging in the online classroom.

2.4   Research on the Impact of Online Foreign Language Learning Boredom

Boredom in foreign language learning can have detrimental effects on both psychological and behavioral processes (Li, 2021). Solhi (2024) studied the effects of negative emotions (e.g., anxiety, boredom, and demotivation) on students' willingness to communicate. By analysing data from 290 Turkish university students via structural equation modelling, Solhi (2024) reported that foreign language classroom anxiety (FLA) and demotivation had a direct effect on learners' willingness to communicate, whereas boredom did not have a direct effect, it indirectly influenced communication willingness through mediating variables such as demotivation. Li and Ye (2022) integrated control-value theory, expansion-construction theory, and happiness theory to explore the relationship between emotions (pleasure, anxiety, and boredom) and learning effectiveness in online foreign language classrooms. Their findings indicated that pleasure positively predicts learning effectiveness, whereas boredom and anxiety negatively predict it; anxiety was found to be a significant predictor of test scores, whereas pleasure and boredom were predictors of self-assessed learning effectiveness.

2.5   Literature Evaluation

In terms of themes, studies on boredom in online foreign language learning are categorized into research on its sources, development, and impacts. Source-oriented studies focus on the relationships between boredom and learner factors, such as the links between boredom and trait emotional intelligence (Li & Dewaele, 2020) and academic buoyancy (Wang & Hui, 2024). These studies also examine the impact of environmental factors, including equipment, instructional methods, and interpersonal interactions, on boredom (Chansaengsee, 2023; Derakhshan et al., 2021; Li & Li, 2024; Wang, 2024). Developmental studies have focused on the dynamics of boredom in online foreign language learning (Kruk et al., 2024), as well as comparisons with traditional offline teaching environments (Wang, 2023). Impact-oriented studies have examined the predictive effects of boredom on learners' performance (Li & Ye, 2022) and willingness to communicate (Solhi, 2024).

With respect to research methodology, following Gao et al.'s (2001) classification of empirical research in applied linguistics, the ten related studies can be divided into six mixed-method studies and four quantitative studies. The majority of the research subjects were college students (seven studies, including two focusing specifically on English majors), whereas only two studies examining secondary school students and one focusing on teachers were included. Data collection primarily involved questionnaires and interviews, with many studies utilizing scales adapted from the Foreign Language Learning Boredom Scale (FLLBS) and the Foreign Language Classroom Boredom Scale (FLCBS) (Li & Dewaele, 2020). Overall, existing research tends to focus on college students, with limited attention given to the boredom experienced by secondary school students and teachers. This narrow focus may restrict the applicability of the findings across different educational stages. In addition, most of the current studies adopt quantitative methods and lack in-depth qualitative studies, which cannot fully reveal the differences in individuals' experiences of boredom. Therefore, future studies would benefit from integrating qualitative methods such as interviews and classroom observations to explore the dynamics of boredom and its influencing factors more comprehensively.

3.   Prospects of Online Research on Boredom in Foreign Language Learning

In the author's view, future research on boredom in online foreign language learning should focus on two key areas for further development: expanding the diversity of research topics and adopting a broader range of research methods.

3.1   Enriching Research Topics

Future research on boredom in online foreign language learning should aim to broaden its scope in both themes and perspectives. First, with the increasing use of online teaching platforms, teachers are incorporating diverse tools to support their instruction, such as DingTalk, Rain Classroom, and TED Talks. However, the impact of these tools on learner boredom has not yet been fully studied. Future studies could compare the effectiveness of various online platforms in alleviating boredom, thereby optimizing the selection and utilization of teaching tools. Second, while current research has focused mainly on the overall impact of boredom on foreign language learning, there is a lack of focus on specific language skills, such as listening, speaking, reading, and writing. Future research should explore the mechanism of boredom and its countermeasures within the context of skill-specific learning, offering more targeted suggestions for improving

online instruction. Finally, existing studies have focused mainly on university students, with limited research on the boredom experienced by secondary school students and foreign language teachers. Given the psychological differences between learners of varying ages and the potential for teachers to experience boredom during the teaching process, future research should broaden the target population. This will help establish a more comprehensive theoretical framework and provide more precise interventions tailored to different groups.

3.2   Adoption of Multiple Research Methods

Future research should broaden its methodological approach by incorporating a variety of research methods to better understand boredom in online foreign language learning. First, an interdisciplinary approach can be introduced. For example, eye-tracking technology could be employed to monitor learners' gaze points and duration while watching online course videos, analysing the relationship between their concentration levels and course content. Similarly, electroencephalography (EEG) could be used to observe changes in brain activity as learners engage in repetitive language tasks, helping to uncover the neural mechanisms underlying boredom. Second, qualitative research methods should be utilized to gain deeper insights into learners' subjective experiences and emotional changes, addressing the limitations of quantitative approaches. For example, semistructured interviews with high school students could reveal their emotional fluctuations during long-term online classes. Additionally, classroom observations could document students' behavioral responses during interactive and didactic sessions, identifying teaching behaviors that contribute to boredom. Narrative analysis of students' learning diaries could also track the dynamic evolution of boredom throughout the learning process. Moreover, scales, such as the Foreign Language Classroom Boredom Scale (FLCBS) (Li & Dewaele, 2020), which can be adapted to online learning environments, exist. Future studies could expand this tool to include new dimensions such as "technological issues" or "lack of interactivity". Additionally, a more targeted approach could involve developing simplified versions for younger learners, such as junior high school students, or specialized versions for corporate employees undergoing online training. These adaptations increase the accuracy and applicability of the scale across diverse learner groups and contexts.

4.   Conclusion

4.1   Summary of the Current Situation

This paper provides a comprehensive review of empirical studies on boredom in online foreign language learning; analyses the themes, research methodologies, and target populations in the literature; and systematically summarizes the core findings in this field. First, the dynamics of boredom in online foreign language learning are influenced by the interaction of task control, value judgment and teaching context. Second, both learner-related factors (such as emotional intelligence, academic buoyancy, and learning style) and environmental factors (including technological equipment, instructional content, and interpersonal interactions) collectively contribute to the experience of boredom. Among these factors, factors such as lack of interactivity, task difficulty, and technical issues are important triggers of boredom. Finally, boredom has a notably negative effect on learning effectiveness and willingness to communicate, and the level of boredom is generally greater in online learning settings than in offline learning settings.

4.2   Future Prospects

Research on emotions in online foreign language learning has gained significant attention in recent years; however, this area requires further expansion by scholars, particularly in terms of broadening research topics and adopting diverse research methodologies. Current research focuses on college students, with insufficient attention given to secondary school students, teachers, and workplace learners. Future research should explore emotional differences across these diverse groups. Additionally, existing research tends to concentrate on the overall learning experience, with limited exploration of boredom in specific skills such as listening, speaking, reading, and writing. There is also a lack of studies examining boredom across different online platforms (e.g., DingTalk, Rain Classroom). Future studies could investigate the characteristics of boredom in specific learning contexts, incorporating targeted interventions and developing scales tailored to various teaching and learning scenarios. In terms of methodology, while quantitative research remains dominant, there is a need to integrate qualitative analysis and interdisciplinary techniques. This approach helps uncover the underlying mechanisms

of boredom in online foreign language learning and develop effective intervention strategies. Such research will provide valuable insights for optimizing online teaching practices and improving learner engagement.

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Conflicts of Interest

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