

A Review of Key Challenges in Blended Learning in Second Language Education

ZHANG Linling

Chongqing Technology and Business University, Chongqing, China

Blended learning, an educational approach integrating traditional classroom face-to-face instruction with online resources, has been extensively practised worldwide in second language education. Compared with the plentiful studies on the strategies and effectiveness of blended learning in L2 education, much less attention has been paid to the key challenges confronted by instructors and learners in various settings. This study investigates and makes a systematic review of the key challenges in blended learning in the broad L2 contexts by examining the related literature. The review of 89 most related literature revealed four key challenges that were identified by these previous studies reported in the journal articles and book chapters. The findings contribute to the existing knowledge about the existing and potential obstacles and difficulties in blended learning in L2 education. The study also draws practitioners' attention to professional development with regard to digital and technological literacy and the need for institutional and policy support.

Keywords: key challenges, blended learning, second language education

Introduction

Blended learning, an educational approach integrating traditional classroom face-to-face instruction with online resources, has been extensively practised worldwide in various L2 instruction and learning contexts, particularly in English as a second (ESL) and a foreign language (EFL) educational settings. Driven by the educational digitalization and post-pandemic pedagogical changes in recent years, blended learning was acknowledged to have taken the advantages of both traditional face-to-face instruction and the abundant online learning resources and even significantly reshaped the landscape of L2 learning. Previously, a large number of studies have explored the specific strategies and the effectiveness of blended learning in enhancing L2 teaching and learning (e.g. Babazade, 2024; Yang & Chano, 2025; Nusong & Watanapokakul, 2025; Savandha, Daffa, & Kamilia, 2025). For instance, Savandha, Daffa, and Kamilia's (2025) study among 120 Indonesian high school English learners as the research sample, found that blended learning effectively enhanced the quality and outcome of their English learning, particularly by increasing their active participation and engagement. Meta-analyses have also provided compelling evidence for its overall effectiveness of blended learning in enhancing language learning outcomes. Yang, Kuang, Jiang, and Jiang (2025), in a three-level meta-analysis of 373 effect sizes from 207 empirical studies, found a significant overall positive impact of blended teaching on English learning outcomes.

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ZHANG Linling, Ph.D., Lecturer, School of Foreign Languages, Chongqing Technology and Business University, Chongqing, China.

Compared with the plentiful studies that validated the effectiveness and efficacy of implementing blended learning, so far much less attention has been paid to the real challenges and obstacles encountered by L2 instructors and learners in pedagogical practices. According to some studies, the wide employment of blended learning in L2 education has been with substantial challenges in certain regions, including issues such as technical difficulties and teachers' reluctance to embrace it (see Sareen & Mandal, 2024; Li, Sulaiman, & Abdul Aziz, 2024). The dramatic increase in the implementation of blended learning during and after the COVID-19 pandemic also has also found to be associated with severe potentials problems (Mullen, Giralt, & Murray, 2023).

The various challenges raise critical issues with regard to the employment of blended learning as a new approach to modern education and an in-depth exploration of them is considered highly necessary and meaningful. This study, therefore, addresses the issue by conducting a systematic literature review through the synthesizing of the empirical findings from peer-reviewed studies published during 2014 and 2025. It aims to contribute to the existing overall knowledge about blended learning and the defects with this approach so as to inform the future L2 instructional and learning practices as well as future related research.

Literature Review

Generally, the term “blended learning” (also known as “Hybrid learning”) is broadly defined as the teaching and learning strategy that integrates both face-to-face and online learning environment and resources for the purpose of enhancing learning experiences and outcomes (Yousef, Chatti, Schroeder, & Wosnitza, 2015). This study, locating itself in the context of L2 education, treats blended learning as a L2 instructional approach in which the teaching and learning of a good proportion of course content is conducted online through various digital platforms and other technological tools, in combination with real-time face-to-face teaching hours spent in classrooms. Blended learning capitalizes the strengths of both traditional classroom education and online learning by providing both opportunities of real-time instructor and learner interaction and the easy, flexible accessibility of the rich online resources. At the same time, it mediates the weaknesses of traditional classroom teaching and full-time online education.

Previous studies have found that a good many factors related to instructors, learners and the environment may pose challenges and obstacles to blended learning in general. McCarthy (2015) found that teacher's perceptions of blended learning as a new approach and the skills needed for it was one of the most significant challenges. Rasheed, Kamsin, and Abdullah (2020) earlier identified that Self-regulation challenges and the skills in using the technology are the key challenges faced by the learners. For teachers, the main challenge lied in the skill of using online technology including digital teaching platforms and mobile tools. Teachers challenges are mainly on the use of technology for teaching. At the institutional level, the implementation of blended learning also requires considerable investment and resources to provide effective training support. The study by Bidarra, Rocio, Sousa, and Coutinho-Rodrigues (2024) investigated lecturers' perspectives on blended learning by means of an algorithm based on AI for the analysis of the data. Issues like poor infrastructure, lack of equipment and unreliable internet connections, together with the digital literacy among the instructors, were found to be frequently unfavorable for online learning.

These existing studies mainly revealed certain aspects of blended learning that have been unfavourable in general education. There has been a lack of comprehensive synthesis of the multiple, interrelated challenges that participants face in specifically L2 education.

Therefore, this study synthesizes the empirical findings on the issue across diverse L2 contexts, and different learner population groups.

Research Methodology

This study employed a systematic literature review (SLR) design, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (PRISMA, 2020). The PRISMA protocol provides a rigorous, transparent, and replicable framework for identifying, screening, and synthesizing relevant literature, making it well-suited for comprehensive reviews that aim to map the existing evidence base and identify patterns and gaps in a research domain (Li, Sulaiman, & Abdul Aziz, 2024).

Using “blended learning”, and “second language” as the key words, this study searched comprehensively peer-reviewed literature published between 2014 and 2025, from the databases of Scopus, Web of Science, ERIC (Education Resources Information Center), and Google Scholar. Studies with the following features are selected as meeting the criterion of inclusion, namely, focusing on blended learning or matching the definition specifically proposed as above, focusing on second or foreign language learning, having explicitly discussed challenges, barriers or obstacles, and having reported empirical data.

After the data collection, the screening and selection process followed the PRISMA four-phase flow model: identification, screening, eligibility, and inclusion. The initial database search yielded 1,137 journal articles and book chapters. After removing duplicates ($n = 245$), 872 records proceeded to title and abstract screening. The screening excluded 647 records that were clearly irrelevant. Then the remaining 225 full-text articles were retrieved and assessed for eligibility. Full-text assessment led to the exclusion of an additional 136 articles for the following reasons: insufficient focus on challenges, lack of clear distinction between online and face-to-face components, absence of empirical data. The final sample consisted of 89 peer-reviewed studies that were formally published in international journals or edited books.

Data were extracted from each study that was included, using a standardized extraction form that captured: (1) bibliographic information (authors, year, journal, title), (2) study context (country, educational level, target language), (3) research design and methodology, (4) key challenges identified, (5) strategies or recommendations proposed, and (6) limitations acknowledged by the authors.

Finally, data coding followed the thematic synthesis methodology (Thomas & Harden, 2008), which involved three stages: firstly, line-by-line coding of the extracted statements about challenges; secondly, development of the related descriptive themes; and thirdly, the discovery of analytical themes that were interpreted across studies.

Results and Discussion

Data analysis of the study revealed a complex, multi-faceted set of challenges faced by instructors, learners and institutions in executing blended learning for L2 education across a wide range of contexts and among different groups of learners. The results then were grouped into 4 thematic categories, namely: (1) Teachers’ digital competencies and preparedness; (2) Pedagogical instruction design; (3) Students’ attitudes and (4) Technological and infrastructure barriers.

Instructors’ digital competencies and preparedness. The most frequently cited challenge by the previous studies in a good many L2 educational contexts was L2 instructors’ digital competency and their mental readiness to engage in effective blended learning.

Instructors play a crucial role in initiating blended learning and engaging students in the various online and face-to-face learning activities. To play their role, instructors need to be equipped with the skills needed for effectively utilizing the various digital learning platforms and mobile tools. The studies reviewed consistently identified the instructors' lack of sufficient technological digital skills as a significant barrier to the effective implementation of blended learning across different settings. Irsyad, Ramadhan, and Mukhaiyar (2025) discovered some gaps that existed in the technological knowledge as the primary barriers and found that many instructors had little knowledge about how to design effective teaching and learning content online and transform it into meaningful learning activities. Li, Sulaiman, and Abdul Aziz (2024) found that many L2 instructors had no sufficient knowledge about the technologies to be employed in blended learning environment including material management systems and interactions tools.

- The lack of sufficient technological and digital literacy, on one hand, generated from the lack of institutional support of staff training and preparing them for online teaching and its integration with classroom teaching. As was shown by some studies, instructors often complained about the insufficient opportunities for professionalized training in digital skills, even though they were willing to develop the related competence. The lack of high-quality and sustained professional training often draw instructors back from instructional design and pedagogical improvement (Mullen, Giralt, & Murray, 2023). Aldhilan, Afzal, and Gul (2025)'s study, through semi-structured interviews, found that teachers often struggled with content design, digital task management and solving technological problems as a result of lack of sufficient training.

- The leading challenge related to L2 instructors also stems from their cognition, beliefs and particularly the resistance and skepticism against the effectiveness of blended learning, especially because they perceive that blended learning often increase the workload (Irsyad, Ramadhan, & Mukhaiyar, 2025). Le, Allen, and Johnson (2022) also found among L2 instructors in 10 Vietnam universities that the additional workload and time consumption perceived by gave rise to their skepticism and signification demotivation from engaging in blended learning.

Pedagogical and instructional design. The complexity in the pedagogical and instructional design required in blended learning also poses as a very significant challenge. While instructors' insufficient technological knowledge and skills often pose visible challenges, the complexity in combing and coordinating online L2 instruction and learning with face-to-face classroom teaching in an effective way constitutes the invisible challenge. Studies revealed that instructors often considered it highly difficult to achieve the coherent and meaningful integration of different modes of instruction (Li, Sulaiman, & Abdul Aziz, 2024). The complexity in the overall pedagogical designing is demanding and time-consuming as well. The fact that failure in achieving coherence often leads L2 instructors to fearing that learners may suffer from fragmented learning experiences and the overall effect of conducting blended learning becomes difficult to detect. Rasheed et al. (2020) also pointed out that in real teaching, the difficulty of creating coherent, meaningful integration between two distinct modalities affect instructors in different ways across the Global North and South contexts, suggesting that the pedagogical design challenge is universal but manifests in context-specific ways.

Students' attitudes. Students' negative attitudes, often together with negative emotion such as boredom constitutes another great challenge encountered in blended learning in L2 education.

Learners often hold disengaging attitudes towards online study. Liu and Xie (2024), employing a mixed-method methodology, investigated the experiences of some Chinese university English learners and found that students experienced significantly higher degree of boredom in online learning environment than in traditional

classrooms. The boredom, which led to significant negative attitudes and emotions, derived from students' perception of the learning activities and tasks as being challenging, monotonous and lengthy. Tan & Chen (2025) investigated students' different levels of anxiety in blended L2 writing learning. It was found that a high proportion of students felt stronger anxiety when they did online writing than in real-time classrooms, especially when they were asked to do collaborative writing online.

According to the study by Li (2022) into some Chinese university L2 learners' experiences of blended learning during and after the COVID-19, students engaged in blended learning often had a strong sense of isolation and lack of sense of presence in the study community. The strong feeling of being isolated was found to be from lack of the usual social interaction and presence. It was also found that a sense of presence and belong to a learning community can have a significant impact on L2 learners' mentality. This study also highlighted the importance of pedagogical designing that can inspire learners' sense of presence and meaningful peer interactions.

Disappointment in blended learning, particularly the online sector, may be conducive to learners' low motivation in becoming highly engaged in blended learning as well. Zhao and Song (2022) investigated the emotional profiles of learners in a Chinese, employing questionnaire surveys and focus group interviews with 89 participants who had undergone a L2 course in the mode of blended learning for one semester. Data analysis indicated that learners generally went through more intense emotions in face-to-face classes than online. One important factor for students' negative emotion and consequently negative attitudes toward blended learning was their disappointment with the online sector of their study. The disappointment further led to students' low degree of readiness before class and less willingness to participate in the whole process of learning.

Negative emotions nearly invariably lead to learners' lack of self-regulation and autonomy, which are often considered essential elements for successful L2 learning and particularly crucial for the blended learning environment. Studies revealed that quantities of students struggled with the self-regulation demands of blended learning, which is characterized by high degree of flexibility afforded in online resources and pedagogical materials.

Technological and infrastructure barriers. The barriers posed by technological and infrastructure needed for practising blended learning are related to the hardware and software availability and technical support for both instructors and learners. Though internet accessibility has become basic infrastructure in many parts of the world such as China and other developed countries, it remains an issue in many less developed regions of the world. The unreliable and unstable internet connections in the Global South were found to be one of the challenges that need to be tackled in promoting blended learning in related areas (Sareen & Mandal, 2024). This is particularly associated with the digital inequality in many regions of the world where learners have very limited access to online resources and personal technological devices. Hill and Smith (2023) investigated the through an interpretative, qualitative study of strategy documents and expert interviews across different institutions. Their study found that there was a strong need for flexibility, inclusivity and accessibility, which could only be afforded and supported by strategic leadership and governance structure based on which the technological infrastructure can facilitate the blended learning. In the post-pandemic age, to normalize blended learning and support sustained widespread adoption, institutions should devise institutional visions that establish support, structure and shared strategy for constructing the digital and technological infrastructure.

Many studies described situations where technical problems could not be promptly resolved due to limited IT staff, after-hours constraints, or a lack of clear support protocols. This issue was particularly acute in institutions

that had rapidly adopted blended learning without commensurate investment in technical infrastructure and support personnel (Irsyad, Ramadhan, & Mukhaiyar, 2025; Li, Sulaiman, & Abdul Aziz, 2024).

It is noteworthy that although the systematic review of the most related literature revealed four key challenges in blended learning across various L2 educational settings, they are not isolated from each other. Rather, these four challenges constitutes a complex, interrelated system of obstacles that might impede the implementation of blended learning and tend to be detrimental to the learning outcomes jointly. The challenges span technological, pedagogical, psychological and institutional areas and are actually mutually influential. For instance, when connectivity is unreliable or platforms are difficult to navigate, students become frustrated and disengaged, teachers struggle to implement well-designed activities, and the coherence between online and face-to-face components is undermined.

Conclusion

This study investigated the key challenges in blended learning in L2 education across a wide range of contexts, by means of a systematic review of the most related literature. Data were collected from 89 journal articles and book chapters that were formally published. The systematic literature review revealed four key challenges in the implementation of blended learning for L2 education, namely, Teachers' digital competencies and preparedness, Pedagogical instruction design, Students' attitudes and Technological and infrastructure barriers. According to these studies, these four factors contributed most to the difficulty encountered by L2 instructors and learners. These factors are deeply embedded in the structural, cultural, and human dimensions of language teaching and learning.

These findings may add to the existing knowledge about and shed light on blended L2 education, especially in current AI age when the integration of AI instruments into blended learning seems to be clearly necessary and constructive to its effectiveness. For the real-time blended learning, the findings about the key challenges may provide a roadmap for anticipating and mitigating common challenges in the integration of AI tools for blended learning. The discovery of these four key challenges may also increase the practitioners' awareness about the need for promoting personal professional skills and calling for institutional and policy support.

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