



Journal of Shabwah University for Humanities and Applied Sciences

Volume 4 Issue 1
June 2026

(A Biannual Refereed Scientific Periodical)

ISSN 3006-7547 (Print)
ISSN 3006-7553 (Online)

Republic of Yemen - Shabwah - Shabwah University



Blended Learning in Yemeni EFL Contexts: A Systematic Review of Benefits, Challenges, Models, Strategies, Outcomes, and Perceptions

Dr. Sameer Ahmed Awadh Boset

Assistant Professor of English and Translation, Faculty of Languages and Translation, University of Aden, Aden, Yemen

en.sameer1@gmail.com

Abstract

Blended Learning (BL), which synergizes traditional face-to-face instruction with online learning, has become a pivotal pedagogical strategy worldwide. In the context of Yemen, a nation beset by protracted conflict and infrastructural fragility, BL may present a critical lifeline for educational continuity, particularly in the vital field of English as a Foreign Language (EFL). This systematic review synthesizes and critically appraises the existing body of research on BL within Yemeni EFL and broader educational contexts to delineate its specific benefits, challenges, models, strategies, outcomes, and stakeholder perceptions. Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, a comprehensive search of six academic databases from 2010 to 2024 was conducted. An initial pool of 582 records was screened, resulting in the inclusion of 8 peer-reviewed studies that met the rigorous criteria. The findings reveal that while the application of BL in Yemen is nascent and predominantly focused on higher education, it offers significant benefits for EFL instruction, including enhanced learner autonomy, increased access to authentic materials, and flexible learning opportunities. However, its efficacy is severely hampered by systemic challenges such as inadequate technological infrastructure, limited digital literacy among students and instructors, and a lack of institutional policies tailored for EFL pedagogy. The review highlights the prevalent use of Flipped Classroom and Hybrid models and discusses their suitability for communicative language teaching. Perceptions among stakeholders are generally positive, yet tempered by the practical difficulties of implementation. This review consolidates current knowledge and provides targeted recommendations for EFL educators, curriculum developers, and policymakers to foster a more resilient, effective, and equitable BL ecosystem for language education in Yemen. It also identifies critical research gaps, calling for more focused inquiry into EFL-specific pedagogical strategies, longitudinal outcomes, and the role of mobile learning in mitigating infrastructural barriers.

Paper Information

Received: 25/05/2025

Accepted: 09/09/2025

Issued: 18/07/2026

Keywords

blended learning, educational technology, conflict-affected contexts, pedagogical models, digital literacy

Introduction

The Global Rise of Blended Learning in EFL Education

In the landscape of 21st-century education, Blended Learning (BL) has emerged as a transformative and enduring pedagogical paradigm. Defined as the thoughtful integration of traditional, instructor-led, face-to-face instruction with technology-mediated online learning components (Graham, 2013), BL seeks to harness the "best of both worlds" (Garrison & Kanuka, 2004, p. 96). It offers a flexible, personalized, and interactive learning environment that transcends the temporal and spatial constraints of conventional classrooms. This approach has gained particular traction in the field of English as a Foreign Language (EFL) education, where the goals of fostering communicative competence, providing exposure to authentic language, and developing learner autonomy are paramount. Blended models allow for the delivery of explicit grammar instruction and vocabulary drills through self-paced online

modules, thereby liberating valuable in-class time for interactive, communicative activities such as debates, role-plays, and collaborative projects (Bozkurt, 2022). The integration of multimedia, authentic online resources, and computer-mediated communication tools further enriches the language learning experience, catering to diverse learning styles and enhancing student motivation and engagement (Ashraf et al., 2021).

The Yemeni Context: Education in a State of Protracted Crisis

The promise of BL takes on a profound sense of urgency and necessity when viewed through the lens of Yemen's educational system. For over a decade, Yemen has been embroiled in a devastating conflict that has crippled its national infrastructure and precipitated a severe humanitarian crisis (OCHA, 2024; ICRC, 2023). The education sector has been a primary casualty, with thousands of schools damaged or destroyed, millions of children out of school, and the entire system teetering on the brink of collapse (Taher et al., 2022; UNICEF, 2024). In higher education, universities struggle with intermittent closures, displacement of faculty and students, and a dire scarcity of resources, all of which severely disrupt the continuity and quality of learning (ICRC, 2023).

Within this fragile ecosystem, EFL education faces a dual challenge. On the one hand, English proficiency is increasingly recognized as a critical skill for academic and professional advancement, offering a gateway to global knowledge and opportunities. On the other hand, traditional EFL instruction, which relies heavily on consistent classroom interaction and access to resources, is exceptionally vulnerable to the disruptions caused by the ongoing crisis. It is in this challenging milieu that BL emerges not as a mere pedagogical enhancement, but as a potential cornerstone for resilience and reform—a vital mechanism to sustain language education against overwhelming odds (Al-Qudimi & Hameed, 2024; USAID, 2023). By offering flexible learning pathways, BL can mitigate the impact of school closures, provide access to students in remote or insecure areas, and leverage technology to bridge resource gaps (Bock et al., 2021).

Rationale and Significance of the Review

Despite the growing global literature on BL and its clear potential for the Yemeni context, its application within the nation's EFL programs remains a relatively new and under-researched phenomenon (Al-Qudimi & Hameed, 2024). While a handful of studies have begun to explore BL implementation in Yemeni universities, they often focus on general educational settings or provide a snapshot of a specific intervention. A comprehensive synthesis that specifically examines the multifaceted dimensions of BL within Yemeni EFL contexts, its benefits, the unique challenges it faces, the pedagogical models and strategies being employed, its learning outcomes, and the perceptions of key stakeholders (students and instructors), is conspicuously absent. This systematic review aims to fill this critical gap.

By systematically identifying, appraising, and synthesizing the available empirical evidence, this study provides a consolidated understanding of the current state of BL in Yemen with a specific focus on its implications for EFL. The significance of this review is fourfold:

For EFL Educators and Practitioners: It offers evidence-based insights to inform the design and implementation of contextually appropriate and pedagogically sound blended EFL courses that account for local constraints and leverage available technologies.

For Policymakers and Institutional Leaders: It provides a foundation for developing strategic policies that support the sustainable integration of BL into the national education system, particularly for critical subjects like English.

For Researchers: It maps the existing research landscape, identifies significant gaps (e.g., lack of studies on specific language skills, primary/secondary levels), and proposes a clear agenda for future inquiry.

For International Aid Organizations: It informs the design of targeted interventions aimed at strengthening Yemen's education sector through general technology-enhanced learning solutions, as well as specialized solutions tailored specifically for language acquisition.

Research Questions

To achieve these objectives, this systematic review is guided by the following research questions, which have been adapted to focus on the EFL context, with the potential for examining their generalizability:

What are the primary benefits and outcomes of implementing blended learning in Yemeni EFL and related educational contexts?

What are the most significant challenges and barriers hindering the effective adoption of blended learning for EFL instruction in Yemen?

What blended learning models and pedagogical strategies are being utilized, and how suitable are they for the communicative goals of EFL education?

What are the reported perceptions of Yemeni EFL students and instructors regarding the use of blended learning?

Literature Review

Theoretical Underpinnings of Blended Language Learning

The effective design and implementation of blended learning, particularly for language acquisition, are best understood through a combination of educational technology and second language acquisition (SLA) theories. This review draws upon several key frameworks to analyze the findings from the Yemeni context.

The Community of Inquiry (CoI) Framework. Developed by Garrison et al. (2000), the Community of Inquiry (CoI) framework is central to understanding the dynamics of online and blended learning environments. It posits that a meaningful educational experience is created through the interplay of three core elements:

Social Presence: The ability of learners to project their individual personalities and establish interpersonal relationships, which is crucial for reducing anxiety and building confidence in language practice.

Cognitive Presence: The extent to which learners can construct and confirm meaning through sustained reflection and discourse. In EFL, this relates to negotiating meaning, co-constructing knowledge, and engaging in critical thinking in the target language.

Teaching Presence: The design, facilitation, and direction of cognitive and social processes. For EFL instructors, this involves designing effective tasks, providing timely feedback, and facilitating communicative interaction both online and offline.

The CoI framework provides a robust lens for evaluating whether a blended EFL course is merely a content repository or a vibrant, interactive community conducive to language acquisition.

The Technology Acceptance Model (TAM). Introduced by Davis (1989), the Technology Acceptance Model (TAM) is instrumental in explaining why users accept or reject a new technology. It suggests that user intention is primarily determined by two beliefs:

Perceived Usefulness: The degree to which an individual believes that using a particular technology will enhance their performance. For an EFL student, this could be the belief that a language app will improve their vocabulary or that an online forum will improve their writing skills.

Perceived Ease of Use: The degree to which an individual believes that using the technology will be free of effort. In a context like Yemen, with limited digital literacy and infrastructure, this factor is particularly critical.

TAM provides a critical framework for contextualizing the challenges associated with the adoption of BL in Yemen. It underscores that, regardless of a tool's pedagogical robustness, its effectiveness is contingent upon students' and instructors' ability to use it efficiently and their recognition of its value for learning (language learning).

Second Language Acquisition (SLA) Theories in a Blended Context. Beyond general learning theories, the principles of SLA are vital. The Interaction Hypothesis (Long, 1996) argues that language acquisition is facilitated by comprehensible input and interactional modifications that occur when learners negotiate for meaning. BL environments can be designed to maximize such interactions, for example, through synchronous video chats with native speakers or asynchronous discussion forums where learners provide peer feedback. Similarly, Vygotsky's (1978) Sociocultural Theory emphasizes learning as a social process, where learners co-construct knowledge within their "Zone of Proximal Development" (ZPD). Blended models can support this through collaborative online projects and teacher-facilitated group work in the face-to-face component, providing the scaffolding necessary for language development.

Blended Learning in Crisis and Resource-Constrained EFL Contexts

The application of BL in crisis-affected regions is a growing field of study. Research from contexts such as Syria, Palestine, and refugee settings has shown that BL can provide essential educational continuity, offer psychosocial support through online communities, and deliver flexible learning to displaced populations (Ashraf et al., 2021). However, these studies consistently underscore the formidable challenges posed by inadequate infrastructure, the digital divide, and the need for specialized teacher training to adapt pedagogy for trauma-informed and culturally sensitive online instruction.

In Yemen, the literature reflects this dual reality of promise and peril. Studies have begun to explore BL's potential to enhance EFL programs (Al-Qudimi & Hameed, 2024) and foster collaborative skills among university students (Al-Mekhlafi et al., 2022). Yet, these same studies invariably highlight the severe barriers that impede its success: unreliable internet,

frequent power outages, a lack of personal devices, and insufficient training for both faculty and students (Ahmed & Zaini, 2022; Amrani et al., 2023; Qasem & Viswanathappa, 2016). The work of Al-Qudimi and Hameed (2024), for instance, provides a focused look at EFL learners' perceptions in Yemen, revealing an appreciation for the flexibility of BL but also significant frustration with technical and institutional shortcomings. This systematic review builds upon such foundational works to create a more holistic and synthesized picture, specifically through the lens of EFL education across the nation.

Methodology

This study employs a systematic review methodology to rigorously identify, evaluate, and synthesize all relevant research concerning blended learning in Yemen, with a specific analytical focus on its application and implications within EFL contexts. The review adheres strictly to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021) to ensure transparency, rigor, and replicability.

Search Strategy

A comprehensive literature search was conducted on September 3, 2024, across six major academic databases known for their coverage of education, technology, and social sciences: Scopus, Web of Science, ERIC, Google Scholar, PubMed, and ResearchGate. The search strategy was designed to be broad enough to capture all relevant studies while remaining focused on the core concepts. It employed Boolean operators (AND/OR) to combine keywords related to the pedagogical approach, geographical location, and educational domain. The primary search string was: ("blended" OR "hybrid") AND ("Yemen" OR "Yemeni") AND ("education" OR "higher education" OR "university" OR "learning" OR "EFL"). The term "blended" was used in favor of the more restrictive "blended learning" to include variations such as "blended teaching" or "blended instruction," ensuring a more comprehensive initial retrieval.

Inclusion and Exclusion Criteria

A two-stage screening process (title/abstract and full-text) was conducted by two independent reviewers to apply a set of predefined inclusion and exclusion criteria. Disagreements were resolved through consensus or consultation with a third reviewer. The criteria, detailed in Table 1, were designed to select high-quality, empirical studies directly relevant to the research questions.

Table 1. Inclusion and Exclusion Criteria for the Systematic Review

Category	Inclusion Criteria	Exclusion Criteria
Publication Type	Published peer-reviewed journal articles, full conference papers, and doctoral/master's theses with empirical data.	Unpublished preprints, books, book chapters, opinion pieces, blogs, non-research reports, and abstracts without full text.
Language	Studies published in English.	Studies in other languages without accessible English translations.

Category	Inclusion Criteria	Exclusion Criteria
Time Frame	Publications from January 2010 to September 2024, to capture the evolution of BL in Yemen during the recent period of conflict and technological change.	Studies published before 2010.
Geographical Focus	Studies conducted in Yemeni educational contexts with Yemeni participants.	General BL studies with no specific data on Yemen; studies on Yemeni populations outside Yemen.
Study Focus	Studies where blended learning (or hybrid learning) is a primary focus, examining its implementation, effectiveness, challenges, perceptions, models, or outcomes.	Studies on purely online (e-learning) or purely face-to-face learning; studies where BL is only mentioned in passing without substantive data.
Methodology	Empirical studies (qualitative, quantitative, or mixed-methods) with a clear research design and data analysis.	Purely theoretical papers, technical reports without educational application, and studies with significant methodological flaws.
Accessibility	Full-text available through databases, institutional access, or direct author contact.	Paywalled or otherwise inaccessible full-text articles.

Study Selection and Data Extraction

The study selection process is detailed in the PRISMA 2020 flow diagram (Figure 1). The initial search yielded 582 records. After removing 181 duplicates, 401 records remained. Title and abstract screening led to the exclusion of 300 records that were irrelevant to the topic, not focused on Yemen, or were non-empirical. The remaining 101 full-text articles were assessed for eligibility. Of these, 93 were excluded for reasons such as not focusing on education ($n=29$), having only a brief mention of BL ($n=34$), lacking relevant empirical data ($n=23$), or having an unclear methodology ($n=7$). This rigorous process resulted in a final selection of 8 studies that met all inclusion criteria and were included in the qualitative synthesis.

For each of the 8 included studies, data were systematically extracted using a standardized form. The extracted information included: (a) bibliographic details (authors, year, publication venue); (b) study characteristics (research design, subject area, educational level); (c) participant details (data source, sample size); and (d) key findings related to the thematic areas of this review (benefits, challenges, models, strategies, outcomes, and perceptions). The extracted data were then synthesized thematically to address the research questions.

Results

The synthesis of the 8 included studies provides a detailed snapshot of the landscape of blended learning research in Yemen. This section presents the characteristics of these studies and organizes the key findings thematically to align with the review's research questions, with a continuous focus on their relevance to the EFL context.

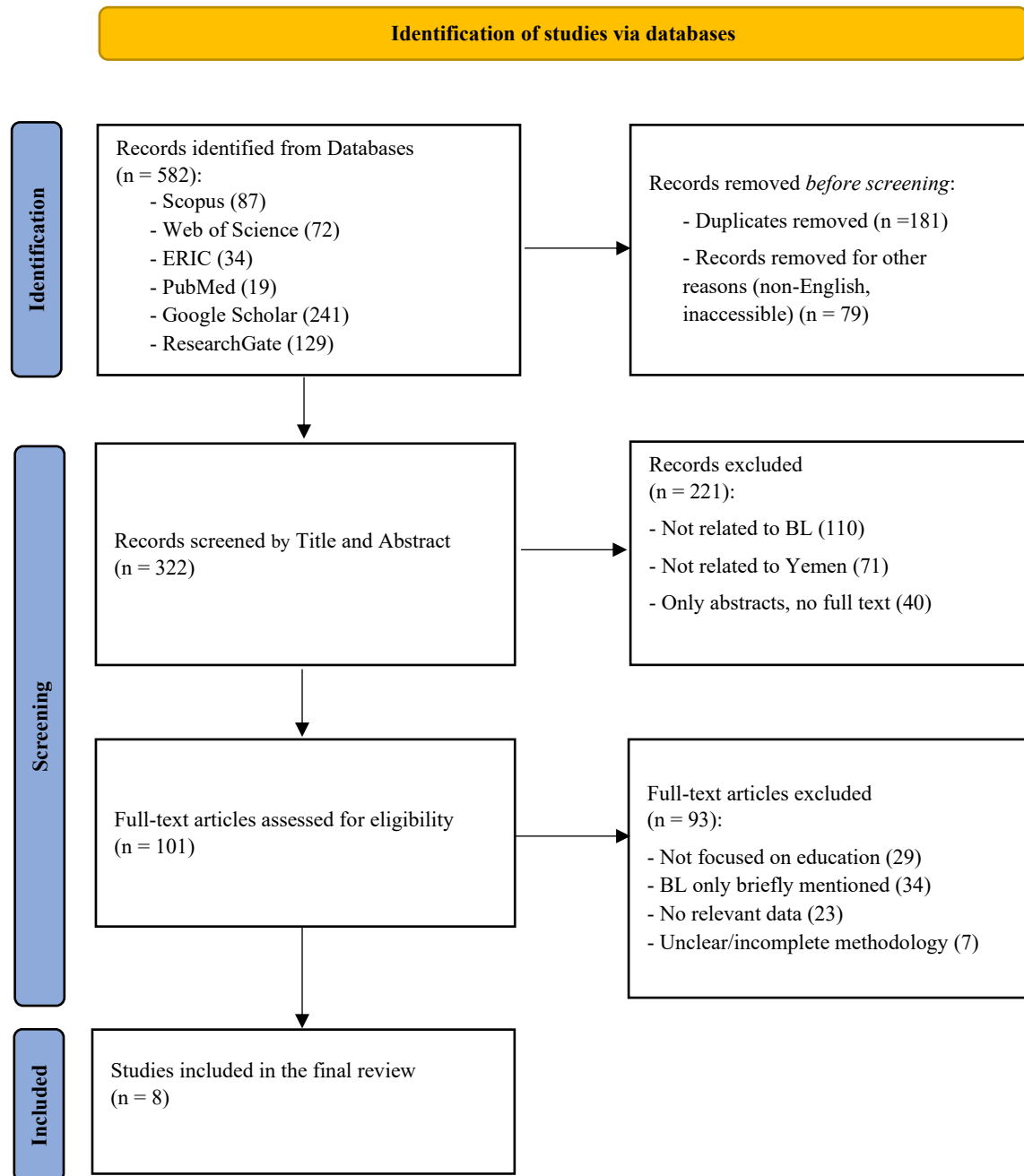


Figure 1. PRISMA 2020 Flow Diagram of the Study Selection Process. From "The PRISMA 2020 statement: an updated guideline for reporting systematic reviews," by Page et al. (2021), *BMJ*, 372, n71 (<https://doi.org/10.1136/bmj.n71>). Copyright 2021 by the authors.

Overview of Included Studies

The 8 studies included in this review were published between 2016 and 2024, indicating that research on this topic in Yemen is a recent and emerging field, likely catalyzed by the increasing necessity for alternative educational models. A critical finding is the overwhelming concentration on higher education: 7 of the 8 studies (87.5%) were conducted in universities. Only one study (Qasem & Viswanathappa, 2016) addressed the secondary education level, and

no studies were found focusing on primary or vocational education. This highlights a significant gap in the literature.

Methodologically, the studies show a preference for quantitative survey-based research, aimed at capturing the perceptions and attitudes of large student cohorts. However, a number of studies also incorporated qualitative components (e.g., teacher interviews) or analyzed institutional data, providing a more textured understanding. Table 2 provides a detailed synthesis of the characteristics of the included studies, with an added column to clarify each study's relevance to EFL.

Table 2. Synthesis of Characteristics of the Included Studies

No	Authors & Year	Subject Area	Education al Level	Data Source(s)	Relevanc e to EFL	Key Thematic Focus
1	Alaidaros et al. (2024)	Education Technolog y / BL	Higher Education	Students (n=210), Institutional Reports	Indirect	Student perspectives on BL; Technology integration challenges.
2	Al-Qudimi & Hameed (2024)	BL in EFL Programs	Higher Education (Language Institute)	EFL Students (n=150), Teacher Interviews (n=15)	Direct	EFL learners' perceptions and challenges with BL.
3	Amrani et al. (2023)	Technolog y-Based Education	Higher Education (Engineering)	Engineeri ng Students (n=300), Faculty Surveys (n=45)	Indirect	Barriers to effective technology use in higher education.
4	Ahmed & Zaini (2022)	Technolog y-Based Education	Higher Education (Public & Private)	Universit y Students (n=500), ICT Staff (n=10)	Indirect	Challenges of e-learning/BL implementation.
5	Al-Mekhlafi et al. (2022)	Education Technolog y / BL	Higher Education (Public)	Universit y Students (n=180), LMS Logs	Indirect	Perceptions, attitudes, and collaborative knowledge construction in BL.
6	Aldholay et al. (2020)	Online Learning / Informatio n Systems	Higher Education (Public)	Universit y Students (n=400),	Indirect	Impact of leadership on online/blended learning adoption.

No	Authors & Year	Subject Area	Education al Level	Data Source(s)	Relevanc e to EFL	Key Thematic Focus
				Admin Records		
7	Aldholay et al. (2018)	Online Learning / Higher Education	Higher Education (Public)	Universit y Students (n=350), IT Audits	Indirect	Usage, challenges, and performance in online/blended environments.
8	Qasem & Viswanat happa (2016)	Education Technolog y / BL	Secondary Education	Secondar y Teachers (n=60), Policy Document s	Indirect	Teacher perceptions of ICT/BL integration and professional development.

Thematic Findings

The analysis of the eight studies revealed several recurring themes that directly address the research questions of this review.

Benefits and Outcomes of Blended Learning (RQ1). Across the studies, BL was associated with several key benefits. The most consistently reported advantage was **enhanced flexibility and accessibility**. Students appreciated the ability to access learning materials at any time and from any location, allowing them to learn at their own pace (Al-Mekhlafi et al., 2022; Al-Qudimi & Hameed, 2024). For EFL learners, this is particularly beneficial as it allows for repeated exposure to and practice with difficult linguistic concepts, pronunciation models, and authentic audio-visual materials. Another significant benefit was **improved student engagement and autonomy**. The integration of interactive online tools, multimedia content, and collaborative platforms was found to increase student motivation and encourage more active participation compared to traditional lecture-based formats (Alaidaros et al., 2024). Al-Mekhlafi et al. (2022) specifically noted that a blended course improved students' collaborative knowledge construction performances, a crucial skill for communicative language learning. Finally, several studies pointed to the **development of digital literacy and 21st-century skills** as an important outcome, preparing students for a technologically advanced world (Aldholay et al., 2020; Qasem & Viswanathappa, 2016).

Pervasive Challenges and Barriers (RQ2). Despite the benefits, the implementation of BL in Yemen is fraught with formidable challenges. The most critical and frequently cited barrier across all studies was **infrastructural deficiency**. This includes unreliable and slow internet connectivity, frequent and prolonged power outages, and a lack of institutional investment in robust IT infrastructure (Ahmed & Zaini, 2022; Amrani et al., 2023). For EFL, this directly impacts the viability of synchronous activities like video conferencing for speaking practice and hinders access to high-bandwidth resources like authentic videos or interactive websites.

A second major challenge is the **low level of digital literacy and lack of training** for both students and instructors. Al-Qudimi and Hameed (2024) found that while EFL students were positive about BL, they struggled with the technical aspects of the platforms. Similarly, Qasem and Viswanathappa (2016) highlighted that teachers felt unprepared to integrate technology effectively without adequate professional development. This points to a critical gap between the deployment of technology and the human capacity to utilize it for pedagogical ends.

Socio-economic barriers also featured prominently. The high cost of internet data and the lack of personal computing devices (laptops or smartphones) for many students create a significant digital divide, exacerbating existing inequalities (Ahmed & Zaini, 2022). Finally, the studies identified a **lack of clear institutional policies and pedagogical support**. The absence of a national strategy or standardized institutional guidelines for BL leads to fragmented, ad-hoc implementation, often driven by individual instructors rather than a systemic vision (Aldholay et al., 2018; Amrani et al., 2023).

Blended Learning Models and Strategies (RQ3). The reviewed literature indicates that Yemeni institutions are experimenting with several common BL models. The **Flipped Classroom model** was frequently mentioned, where students review lecture materials (e.g., pre-recorded videos, readings) online before class, and use face-to-face time for interactive, application-oriented activities. This model is particularly well-suited for EFL, as it aligns with the principles of Communicative Language Teaching (CLT) by maximizing in-class time for meaningful interaction and communication practice.

The more general **Hybrid Learning model**, which combines a significant portion of online learning with reduced face-to-face sessions, was also common. This model provides the flexibility needed to ensure educational continuity amidst the country's unpredictable security situation. Furthermore, several studies highlighted the growing importance of **Mobile Learning (m-learning)**. Given the high penetration of mobile phones compared to laptops, leveraging mobile devices to deliver content and facilitate communication is seen as a pragmatic strategy to overcome infrastructure and device limitations (Aldholay et al., 2020). Learning Management Systems (LMS) like Moodle and Google Classroom were the most common platforms used to host course materials and manage activities (Al-Mekhlafi et al., 2022).

Stakeholder Perceptions (RQ4). Overall, the perceptions of both students and instructors towards BL are generally positive, albeit nuanced. Students, including the EFL learners in the study by Al-Qudimi and Hameed (2024), expressed appreciation for the flexibility, self-paced learning, and access to a wider range of resources that BL offers. They perceived it as a modern and engaging way to learn. However, this positive attitude was consistently tempered by frustration with the aforementioned technical and infrastructural challenges. As Aldholay et al. (2018) noted, while students see the potential, their actual usage and performance are heavily constrained by the poor ICT environment.

Instructor perceptions, explored in studies by Al-Qudimi and Hameed (2024) and Qasem and Viswanathappa (2016), were more mixed. While some teachers embraced BL as an opportunity for pedagogical innovation, many expressed concerns about the increased workload involved in designing and managing blended courses, their own lack of technical and pedagogical training, and resistance to moving away from traditional teaching methods. This highlights that successful BL implementation requires not just technological tools, but also a significant investment in faculty development and a cultural shift within institutions.

Discussion

This systematic review synthesizes the nascent but growing body of research on blended learning in Yemen, interpreting the findings through the specific lens of EFL education. The results paint a complex picture of a pedagogical approach that holds immense transformative potential yet is constrained by the harsh realities of a conflict-affected, resource-scarce environment. This section discusses the key findings in greater depth, connecting them to the theoretical frameworks and broader literature to derive meaningful implications for policy, practice, and future research in Yemeni EFL contexts.

The Duality of BL in Yemeni EFL: A Lifeline with Frayed Strands

The findings unequivocally position BL as a critical lifeline for sustaining EFL education in Yemen. The reported benefits of flexibility, accessibility, and enhanced autonomy are not mere conveniences; in a context where physical attendance at a university can be a daily risk, they are fundamental to ensuring educational continuity (Bock et al., 2021). For EFL, the ability to access authentic materials online, practice pronunciation with digital tools, and engage in self-paced grammar review offers a powerful supplement to resource-strapped classrooms. The positive perceptions of students (Al-Mekhlafi et al., 2022; Al-Qudimi & Hameed, 2024) signal a readiness and desire for more modern, student-centered learning approaches, a crucial factor for successful adoption.

However, this lifeline is frayed by the pervasive challenges of infrastructure, digital literacy, and socio-economic disparity. The "digital divide" in Yemen is not just about access to technology but about the quality and consistency of that access. An EFL lesson plan that relies on a synchronous video discussion is rendered useless by an internet connection that constantly drops or a power grid that fails. This tension between pedagogical aspiration and infrastructural reality is the central dilemma of BL in Yemen. It suggests that while models and theories like CoI (Garrison et al., 2000) provide an ideal to strive for, their practical application must be radically adapted. The "Teaching Presence" in CoI, for instance, must extend beyond facilitating online discussion to include designing low-bandwidth activities and providing technical support to struggling students.

Pedagogical Adaptation: The Untapped Potential of BL for Communicative Language Teaching

A key insight from this review is the potential for BL to catalyze a much-needed pedagogical shift in Yemeni EFL instruction, from traditional grammar-translation methods to more communicative and interactive approaches. The Flipped Classroom model, identified in the results, is a prime example. By moving passive learning activities (like listening to a grammar lecture) online, instructors can dedicate precious face-to-face time to what language learners need most: meaningful, interactive communication (Bergmann & Sams, 2012). This aligns perfectly with SLA theories emphasizing the importance of interaction and negotiation of meaning for language acquisition.

However, the review also suggests this potential is largely untapped. The concerns about teacher resistance and lack of training (Qasem & Viswanathappa, 2016) indicate that many instructors may be using BL simply as a digital repository for lecture notes—a practice often termed "course-and-a-half" syndrome, where an online component is simply added on top of a full traditional course, increasing workload without transforming pedagogy. To unlock the true potential of BL, institutional efforts must move beyond simply providing an LMS. They must invest in sustained, pedagogy-focused professional development that equips EFL teachers with

the skills to design integrated blended courses, create engaging digital content, and facilitate effective online interaction. This training must be grounded in the principles of communicative language teaching and tailored to the low-bandwidth realities of Yemen.

Reconciling TAM with Reality: The Primacy of "Ease of Use" and External Variables

The Technology Acceptance Model (TAM) provides a useful framework for understanding stakeholder perceptions, but the Yemeni context highlights its limitations. While students and teachers may perceive BL as useful (high "Perceived Usefulness"), the overwhelming challenges related to infrastructure and digital literacy severely depress its "Perceived Ease of Use" (Davis, 1989). In this context, ease of use is not just a matter of interface design but of fundamental access and affordability. The findings suggest that for BL to be successful in Yemen, a modified TAM is needed, one that gives greater weight to external variables such as infrastructure, cost, and institutional support.

The pragmatic pivot towards mobile learning (Aldholay et al., 2020) is a direct response to this reality. Since smartphones are more prevalent than laptops and can function in low-bandwidth environments, designing "mobile-first" BL experiences is not just a trend but a strategic necessity. This could involve using WhatsApp for text-based discussions, developing lightweight apps for vocabulary practice, or creating audio-based content that is less data-intensive than video. This approach directly addresses the "ease of use" barrier by meeting learners where they are, using the technology they already have and can afford.

Implications for Policy and Practice in EFL Education

The findings of this review lead to several concrete recommendations for stakeholders in Yemeni EFL education:

For Policymakers and University Administration:

Develop a National BL Strategy: Move from ad-hoc implementation to a coordinated national strategy for BL that prioritizes infrastructure development (including subsidized internet for students) and establishes clear quality assurance standards.

Invest in Pedagogy-Focused Faculty Development: Fund and mandate ongoing professional development for EFL instructors, focusing on designing and facilitating blended courses for communicative language teaching in low-resource settings.

Promote Open Educational Resources (OER): Support the creation and adaptation of high-quality, Arabic-contextualized, and low-bandwidth OER for EFL to reduce reliance on expensive commercial materials and inaccessible foreign websites.

For EFL Departments and Curriculum Designers:

Adopt a "Pragmatic Blend": Design blended EFL courses that are realistic for the context. Prioritize asynchronous activities, leverage mobile-friendly platforms, and ensure that all essential content is available in offline or low-bandwidth formats.

Integrate Digital Literacy: Embed digital literacy training directly into the EFL curriculum. Teach students not just English, but also how to use digital tools to support their language learning effectively and safely.

Foster a Community of Practice: Create platforms for EFL instructors across different universities to share best practices, successful low-bandwidth activities, and strategies for overcoming common challenges in blended teaching.

Limitations of the Review

Although this systematic review adopts a comprehensive and methodologically rigorous approach, several limitations must be acknowledged. The first and most significant constraint is the relatively small number of included studies ($n = 8$), which restricts the generalizability of the findings. While the initial search strategy yielded numerous records, many were excluded due to reasons such as lack of relevance, inadequate study design, insufficient outcome reporting, or failure to meet predefined quality standards. Such strict criteria enhance internal validity but, as emphasized in methodological literature (Moher et al., 2009; Page et al., 2021), they can also limit external validity and reduce the applicability of findings to broader contexts. A limited evidence base additionally increases susceptibility to publication bias and constrains the feasibility of conducting robust meta-analyses (Higgins et al., 2021). Nonetheless, systematic reviews with few eligible studies can still provide valuable insights, particularly in under-researched areas, by synthesizing the best available evidence and highlighting critical gaps that warrant future inquiry (Munn et al., 2018).

Second, a notable thematic imbalance exists within the included studies. Only one study directly addressed English as a Foreign Language (EFL), while the remainder focused on general educational contexts. Consequently, interpretations of EFL-specific outcomes are necessarily derived through analytical extrapolation rather than synthesis of direct evidence. This underscores the urgent need for more primary research on blended learning (BL) within Yemeni EFL settings.

Third, the overwhelming concentration on higher education represents a significant blind spot with respect to primary and secondary education, where foundational language competencies are cultivated. The challenges and opportunities of BL for younger learners in the Yemeni school system remain almost entirely unexplored.

Fourth, the restriction to English-language publications may have resulted in the omission of relevant research published in Arabic in local or regional journals. This linguistic limitation potentially narrows the scope of perspectives captured in the synthesis.

Finally, the predominance of cross-sectional designs among the included studies restricts the ability to evaluate the long-term effects of BL on student language proficiency, retention, and institutional change. Longitudinal investigations are essential to understanding the sustained impact of BL in the Yemeni context.

Taken together, these limitations necessitate cautious interpretation of the findings and highlight clear gaps in the existing literature. Addressing these gaps through more robust, longitudinal, and contextually grounded research will be critical for advancing understanding of BL's potential within EFL education in Yemen.

Conclusion and Future Research Directions

Conclusion

Blended learning in Yemen, particularly within the crucial domain of EFL education, stands at a crossroads. It represents a beacon of hope for maintaining educational quality and continuity in the face of unimaginable adversity. This systematic review has demonstrated that when implemented, BL offers tangible benefits, fostering learner autonomy, engagement, and access to knowledge. However, the path to its effective and equitable implementation is obstructed by severe infrastructural, socio-economic, and pedagogical barriers. The promise of BL cannot be realized by simply deploying technology; it requires a holistic, context-sensitive, and sustained effort from all stakeholders. It demands a pragmatic approach that favors low-bandwidth and mobile-first solutions, and a deep investment in the human capital of both teachers and students through targeted training and support. For the Yemeni EFL community, BL is not a luxury, but a necessity. It is a tool that, if wielded wisely, can help build a more resilient and globally connected generation.

Future Research Directions

The gaps identified in this review point to a clear and urgent agenda for future research. To build a more robust evidence base for BL in Yemeni EFL, future studies should:

Conduct EFL-Specific Empirical Studies: There is a pressing need for more primary research that directly investigates the impact of different BL models on specific language skills (e.g., speaking, writing, listening) within Yemeni EFL classrooms.

Explore Primary and Secondary Contexts: Research must expand beyond universities to examine the feasibility, challenges, and effectiveness of BL for teaching English at the K-12 levels.

Employ Longitudinal and Experimental Designs: Future work should move beyond cross-sectional surveys to include longitudinal studies that track student progress over time and quasi-experimental designs that compare the effectiveness of different blended models against traditional instruction.

Investigate Teacher Development and Perceptions: In-depth qualitative studies, such as case studies and narrative inquiries, are needed to understand the experiences of EFL teachers as they transition to blended teaching, their training needs, and the factors that facilitate or hinder their pedagogical adaptation.

Evaluate Low-Bandwidth and Mobile-First Solutions: Research should focus on the design and impact of innovative BL strategies tailored for the Yemeni context, such as those utilizing WhatsApp, SMS, offline apps (e.g., Kolibri), and other accessible technologies.

Analyze Policy and Institutional Factors: Studies are needed to examine the role of institutional strategy and national policy in supporting or constraining the growth of BL, providing evidence-based recommendations for creating a more enabling ecosystem.

By addressing these areas, the research community can play a vital role in helping Yemen harness the full transformative potential of blended learning to rebuild and strengthen its educational system for the 21st century.

References

- Ahmed, B. Y. M., & Zaini, S. M. (2022). The challenges of e-learning implementation among university students in Yemen. *International Journal of Academic Research in Business and Social Sciences*, 12(10), 624–640. <https://doi.org/10.6007/IJARBS/v12-i10/15444>
- Alaidaros, H., Bakahakam, O. S., & Abdulrhman, A. (2024). The evaluation of the blended learning implemented at Al-Ahgaff University, Yemen: A students' perspective. *Journal of Engineering and Technology for Industrial Applications (ITEGAM-JETIA)*, 10(49), 54–58. <https://doi.org/10.5935/jetia.v10i49.1165>
- Aldholay, A. H., Abdullah, Z., Isaac, O., & Mutahar, A. M. (2020). Perspective of Yemeni students on use of online learning: Extending the information systems success model with transformational leadership and compatibility. *Information Technology & People*, 33(1), 106–128. <https://doi.org/10.1108/ITP-07-2018-0346>
- Aldholay, A. H., Abdullah, Z., Ramayah, T., Isaac, O., & Mutahar, A. M. (2018). Online learning usage and performance among students within public universities in Yemen. *International Journal of Services and Standards*, 12(2), 163–179. <https://doi.org/10.1504/IJSS.2018.092160>
- Al-Mekhlafi, M. A. A., Al-Sharjabi, E. A., & Al-Shothabi, A. A. (2022). The impact of a blended course on Yemeni University students' perceptions and collaborative knowledge construction performances. *Innovation*, 3(2), 64–71. <https://doi.org/10.11648/j.innov.20220302.15>
- Al-Qudimi, Y. H. A., & Hameed, S. (2024). Blended learning in EFL programs in Yemen: Learners' perceptions. *Journal of English Studies in Arabia Felix*, 3(1), 28–40. <https://doi.org/10.56540/jesaf.v3i1.90>
- Amrani, M. A., Al-Tayar, B., Saeed, M. A., Ghaleb, A. M., & Hebah, H. A. (2023). Barriers to the effective use of technology in higher education institutions in Yemen: A case study of engineering colleges. *Albaydha University Journal*, 5(4), 889–901. <https://doi.org/10.56807/buj.v5i4.494>
- Ashraf, M. A., Ismail, S. A., & Yassin, A. A. (2021). Blended learning in developing countries: A systematic review. *International Journal of Educational Technology in Higher Education*, 18(1), Article 57. <https://doi.org/10.1186/s41239-021-00277-x>
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education.
- Bock, M., Friesen, N., & Friesen, J. (2021). *Blended learning: An overview*. Commonwealth of Learning. https://oasis.col.org/bitstream/handle/11599/3890/2021_Bock_Friesen_Friesen_Blended_Learning_Overview.pdf
- Bozkurt, A. (2022). Blended learning: A review of recent trends and future directions. *Journal of Learning for Development*, 9(1), 1–15. <https://jl4d.org/index.php/jl4d/article/view/587>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2–3), 87–105. [https://doi.org/10.1016/S1096-7516\(00\)00016-6](https://doi.org/10.1016/S1096-7516(00)00016-6)

- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105. <https://doi.org/10.1016/j.iheduc.2004.02.001>
- Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of distance education* (3rd ed., pp. 333–350). Routledge.
- Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (2021). *Cochrane Handbook for Systematic Reviews of Interventions* (Version 6.2). Cochrane. Retrieved from <https://training.cochrane.org/handbook>
- International Committee of the Red Cross. (2023). *Yemen: A decade of devastation*. <https://www.icrc.org/en/document/yemen-decade-devastation>
- Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–468). Academic Press.
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, 151(4), 264–269. <https://doi.org/10.7326/0003-4819-151-4-200908180-00135>
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1), 1–7. <https://doi.org/10.1186/s12874-018-0611-x>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Qasem, A. A. A., & Viswanathappa, G. (2016). Teacher perceptions towards ICT integration: Professional development through blended learning. *Journal of Information Technology Education: Research*, 15, 561–575. <https://doi.org/10.28945/3562>
- Taher, M., Khan, A., Alduais, A., & Muthanna, A. (2022). The impact of conflict on education in Yemen: A call for saving education. *Review of Education*, 10(3), e3376. <https://doi.org/10.1002/rev3.3376>
- UNICEF. (2024). *Education in Yemen*. <https://www.unicef.org/yemen/education>
- United Nations Office for the Coordination of Humanitarian Affairs. (2024). *Yemen: Humanitarian needs overview 2024*. <https://www.unocha.org/yemen/about-yemen>
- USAID. (2023, July 6). *USAID Yemen education fact sheet*. <https://www.usaid.gov/yemen/education>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

التعلم المدمج في سياقات تعليم اللغة الإنجليزية كلغة أجنبية في اليمن: مراجعة منهجية للفوائد والتحديات والنماذج والاستراتيجيات والمخرجات والتصورات

د. سمير أحمد عوض بوست

أستاذ اللغة الإنجليزية والترجمة المساعد، كلية اللغات والترجمة، جامعة عدن

en.sameer1@gmail.com

الملخص

يجمع التعلم المدمج بين التعليم الحضوري التقليدي والتعلم الإلكتروني، وأصبح أحد الأساليب التعليمية المهمة على مستوى العالم. وفي اليمن، التي تعاني من صراع ممتد وضعف في البنية التحتية، يمثل التعلم المدمج خياراً واعداً لدعم استمرارية العملية التعليمية، ولا سيما في مجال تعليم اللغة الإنجليزية كلغة أجنبية. وتهدف هذه المراجعة المنهجية إلى تقييم واقع التعلم المدمج في سياقات تعليم اللغة الإنجليزية والسياقات التعليمية الأوسع في اليمن، من خلال استعراض فوائده وتحدياته ونماذجه واستراتيجياته ومخرجاته وتصورات أصحاب المصلحة نحوه. واعتمدت الدراسة إرشادات العناصر المفضلة لإعداد ونشر المراجعات المنهجية والتحليلات التلوية (PRISMA)، وأجري بحثٌ شاملٌ في ست قواعد بيانات أكاديمية للدراسات المنشورة خلال الفترة (2010-2024). ومن بين (582) سجلاً جرى فحصها، استوفت ثمانين دراسةً محكمةً معايير الإدراج، وأدرجت في المراجعة المنهجية. وأظهرت النتائج أن تطبيق التعلم المدمج في اليمن لا يزال في مراحله الأولى، ويتركز بصورة رئيسة في مؤسسات التعليم العالي، إلا أنه يقدم مزايا متعددة لتعليم اللغة الإنجليزية، من أبرزها تعزيز استقلالية المتعلم، وإتاحة الوصول إلى مصادر تعلم أصيلة، وتوفير فرص تعلم أكثر مرونة. وفي المقابل، تواجه عملية التطبيق تحديات جوهرية تتمثل في ضعف البنية التحتية التقنية، وانخفاض مستوى الثقافة الرقمية لدى الطلبة وأعضاء هيئة التدريس، وغياب السياسات المؤسسية الداعمة. كما بينت المراجعة أن نموذجي الفصل المقلوب والتعلم الهجين هما الأكثر استخداماً، وأن تصورات أصحاب المصلحة تجاه التعلم المدمج تتسم بالإيجابية عموماً، رغم ما يكتنف التطبيق من صعوبات عملية. وتختتم الدراسة بتقديم توصيات موجهة لمعلمي اللغة الإنجليزية، ومطوري المناهج، وصناع السياسات، إلى جانب تحديد عدد من الفجوات البحثية التي تستدعي مزيداً من الدراسات المستقبلية.

معلومات البحث

تاريخ الاستلام: 2025/05/25

تاريخ القبول: 2025/09/09

تاريخ النشر: 2026/07/18

الكلمات المفتاحية

التعلم المدمج، تكنولوجيا التعليم،

البيئات المتأثرة بالنزاعات،

النماذج التربوية، الثقافة الرقمية