Effectiveness of Blended Learning Programs/Models in English Instruction in Saudi Universities: A Systematic Review of Literature

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Abstract
This systematic review of literature examines the effectiveness of blended learning programs in the instruction of the English language in Saudi universities. The aim of this review is to critically analyse current studies on the efficacy of BL programs in teaching English language courses in Saudi universities. The review draws attention to impact of blended learning models on English education in Saudi universities and offers insight on how to enhance the use of these models in English language instruction at the tertiary level. Seven research databases were searched, generating 152 studies. Studies published before 2010, not written in English, non-peer reviewed, non-journal, not evidence-based, without abstracts, non-BL focused, and not focused on English learning or university education were excluded, leaving 56 full articles which were then coded based on the data type they presented. The coding model employed was inductively formulated based on a preliminary review of the articles selected together with the most frequent groupings and hence no specific theoretical model guided the process. For each respective coding group, the number of articles that showed BL models were more effective in teaching English courses in Saudi universities was added to the number of articles that showed the approach led to better English language outcomes. The total number of the articles whose findings did not precisely indicate the effectiveness of BL was also obtained. Results show a significant proportion of the studies suggested BL programs positively affected English language learning in Saudi universities. This is evidenced by significant improvements in language skills and the general course learning outcomes.

Keywords: Blended learning, effectiveness, English language instruction, systematic review, Saudi universities

Introduction

With the rise of the English Language as a Key Language of Instruction for STEM courses in most private and public universities in Saudi Arabia, English language instruction practices are a major source of concern. This systematic review of literature examines recent empirical studies to establish the effectiveness of BL programs in English language instruction in Saudi universities. It begins by highlighting current viewpoints about the use of Blended Learning (BL) models in teaching English language courses at the university level. It then outlines the aims of the study and its novel contributions. The review further examines the literature on using BL models in Saudi universities.

BL programs have the potential to influence teaching practice, learning experiences, and course learning outcomes. Several recent studies examine BL as a model for English language instruction in institutions of higher education in Saudi Arabia. Some of the studies review the utility of BL in English language instruction (Almekhlafy, 2020; Sheerah, 2020); some its benefits and challenges (Dahmash, 2020); some the students’ perceptions towards the pedagogic tool as well as their views towards BL environments and the related merits and demerits (Alowedi, 2020; Alowedi, 2023; Anas, 2020; Eldeeb, 2019); and others the impact of BL strategies on English language proficiency (Hezam & Mahyoub, 2022).

Some studies assess the utility of BL programs in English language instruction. Almekhlafy (2020) explored the use of BL, and in particular the blackboard, to support online learning of the English courses in Saudi Universities. The study showed a significant variance in the use of the blackboard as a tool for online learning with individual student perceptions influencing its usage. Sheerah (2020) describes the use of BL in supporting English as a Foreign Language (EFL) instruction, particularly how integrating technology in traditional teaching methods improves language learning and teaching. The study established the capacity of the approach to optimise opportunities for EFL students to practice the language freely and conveniently.

Drawing on the traditional perspectives regarding BL, a recent study by Dahmash (2020) examined the benefits and shortcomings of the approach to EFL learners in King Saud University during the Covid-19 period. Findings revealed that while BL enhanced the writing skills and provided an economical and more convenient mode of learning English, it exposed learners to related technological issues, online tests hurdles and resources inadequacy.

A recent study by Alowedi (2023) examined the perceptions of English language learners towards BL and established the students positively perceived the approach given its ability to accord them the flexibility to study and at the same time engage in their other occupations. The findings replicated those of his earlier study which showed female students in the same university were satisfied with the BL experience and utilised the integrated strategies to learn (Alowedi, 2020).

An analysis of the Saudi students’ perceptions towards BL environments has revealed their preference for learning environments that integrate multimedia and virtual learning tools over classroom environments with inflexible and less interactive learning activities (Anas, 2020). This illustrates the significant influence the design of a learning environment has on student engagement and interaction.

Other studies have also examined the effect of particular BL strategies and tools on English language learning. The study by Hezamand Mahyoub (2022) demonstrates the ability of the blackboard and extensive reading online programs to enhance language skills among university students.
The aim of this systematic review is to critically and comprehensively analyse current studies on the effectiveness of BL programs in teaching English language courses in Saudi universities. This allows for an analysis of teaching models in BL model as well as other variables that influence effective use of BL programs in English language instruction.

The review is significant in that it draws attention to impact of blended learning models on English education in Saudi universities and offers insight on how to enhance the use of these models in English language instruction at the tertiary level.

This review has several new and original contributions. Firstly, it combines diverse research literature on implementation of BL programs in EFL classes across Saudi universities. This enables the current review to critically assess and holistically understand the effectiveness of the various BL strategies on English language instruction in these institutions. Secondly, the review methodically assesses far more recent studies on the use of BL programs in English language courses at the university level than any other related study. Thirdly, the review attributes the effectiveness of the application of BL programs in English language instruction to the familiarity of lecturers in different Saudi universities with the various educational technologies, their levels of IT skills, students’ attitudes towards various BL strategies, and the adequacy of and access to the requisite infrastructure and resources in an institution. Additionally, it illustrates the efficiency of BL programs among EFL students of different genders. Further, it considers the suitability of using BL approaches in English language classes for university students in their preparatory year and the efficacy of the same in promoting their proficiency in the language. Lastly, the review provides observations on the efficiency of the various BL strategies in promoting and enhancing learning in English language classes.

Taking into account that English is the chief medium of communication globally and that Saudi graduates cannot effectively compete in the global knowledge-based economy without proper mastery of this critical international language, English language learning in universities has gained prominence leading to the adoption of such innovative pedagogical approaches as BL in teaching the course (Althobaiti, 2020). Thus, the purpose of this review is to examine the effectiveness of BL programs in teaching English language courses in Saudi universities. The review seeks to achieve this by addressing the following research questions:

RQ1: What are the effects of BL strategies on the English language proficiency of Saudi university students?
RQ2: What effects does the use of BL approaches in English language classes for university students in their preparatory year have on their course learning outcomes?
RQ3: How does the efficacy of BL programs in English language instruction vary among male and female university students?
RQ4: To what extent does the familiarity of lecturers in different Saudi universities with the various educational technologies affect the efficacy of BL programs in English language instruction?
RQ5: What effect does the adequacy of and access to the requisite infrastructure and resources in the various Saudi universities have on the efficiency of BL programs in English language instruction?

The concepts of BL as well as the aspects of the related physical/face-to-face learning and online learning as they apply in the context of this review are delineated. The most recent literature and perspectives on BL are also examined. Relevant research question are also developed and inform the methodology, the keywords used in the retrieval of the selected studies, and the guiding
exclusion criteria. The coding model is explained, reliability issues addressed and the findings outlined. The review concludes with a critical discussion of the results and the limitations of the methodology employed as well as a summary of rejoinders to the research questions.

**Literature Review**

**Blended Learning**

BL refers to a model of education which combines physical one-on-one classroom-based practices with virtual or online-based instructional opportunities and educational materials (Alowedi, 2023; Dahmash, 2020). BL often consists of 75% online lectures and 25% face-to-face lectures; the proportion of learning for each medium of instruction however varies from university to university (Sheerah, 2018).

**Virtual/Online Learning**

This is a form of education where teaching and learning occur through the internet or electronic media thus giving learners control over their learning place, space, and time (Eldeeb, 2019). In the context of this review therefore online learning is not merely the use of internet-connected devices to learn but rather the ability to access learning and conveniently complete learning activities outside of the school setting. It goes beyond such “supplementary face-to-face teaching” as online activities and includes “synchronous virtual classes” (Dahmash, 2020, p. 222).

**Physical Face-To-Face Learning**

This is a form of education in which learning occurs in a conventional classroom setting with the instructor delivering instruction by personally interacting with the learners (Hezam & Mahyoub, 2022). Teaching and learning are teacher-centred given the prominent role of the teacher managing interactions, leading discussions, and providing information to the students.

**Supplementary Studies Referenced**

Sloan-C Workshop on Blended Learning’s description of BL closely matches with the e-learning project goal of the Saudi Ministry of Higher Education and thus, it has been the basis of several studies on the use of a combination of online and face-to-face pedagogical activities (Al-Ahmari, 2009; Picciano, 2006). This viewpoint is critical in that it reinforces the standpoint of the current review that BL is a combination of traditional learning and e-learning thus negating the need for 100% physical class attendance. Unlike these studies however, the current review goes further to examine the efficacy of using BL in institutions of higher learning, particularly in teaching of English courses. In the United Kingdom (UK), the Higher Education Academy through scholars from the Oxford Centre for Staff and Learning Development (OCSLD) reviews several studies on the use of BL and the undergraduate experience of the teaching practice (Sharpe et al., 2006). The review identifies key studies and issues relevant to the use of BL programs and with significant implications on practice and policy. Relevant ideas from these studies have been extracted and integrated into this review.

**Current Systematic Reviews**

Recognizing the challenge of integrating qualitative and qualitative studies in a single review, this section outlines various and more recent reviews, based on both quantitative and qualitative studies, on the subject matter.
The comprehensive systematic review of BL in English courses conducted by Yajie and Jumaat (2023) examining the impact of the approach in English Language Teaching and Learning (ETL) and identifying BL gaps, trends and future directions for English language teaching and learning at the tertiary/university level. While the review identifies BL-related variables and factors influencing the effect of ETL in tertiary education, it does not address itself to the impact of use of BL practices in English instruction in Saudi Arabia, the particular educational context of interest. The other review focuses on other systematic reviews on BL where it addresses itself to the gaps, trends and future directions relating to this form of pedagogical practice (Ashraf, et al., 2021). The review does not focus on the effectiveness of use of BL in teaching a particular course but rather on systematic reviews on BL on account of the guidelines for Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Ashraf, et al., 2021). Another recent systematic review of flipped learning by Birgili et al. (2021) found countries with adequately developed educational resources had better opportunities for developing BL experiences and environments as indicated by fewer studies from third world countries on BL. While the review covers issues to do with BL policies, technologies and ICT training, it does not address the effect of use of the approach in teaching a particular course in the higher education context.

Regarding systematic reviews on challenges affecting the use of BL programs, Rasheed et al. (2020) investigate factors impeding effective implementation of the online component of BL among them inadequacy of ICT skills among students and instructors, isolation of students, inadequate ICT infrastructure and the heavy cost implications associated with online learning technologies. This is echoed by the findings of a systematic review by Atmacasoy and Aksu (2018) that highlighted the tendency of instructors with inadequate ICT skills to harbor negative attitudes towards the use of BL models. Other recent reviews have also established inadequacy of ICT infrastructure as a major barrier to effective implementation of blended courses in various institutions of higher education (Ashraf, et al., 2021; Ho, 2017). Another systematic review by Ekici (2021) established the potential of technology to contribute to better learning performance, improved participation and higher motivation. These reviews were based on diverse empirical studies drawn from various databases.

Additional Recent Literature

Several other recent studies explore various aspects pertaining to the use of blended learning in English instruction at the university level. A recent study by Alghamdi and Alnajami (2023) utilises systematic review approaches to examine challenges in the effective use of BL practices in English teaching in higher education and identifies individual readiness, institutional preparedness, pedagogical concerns, digital literacy gaps, inconsistent implementation of BL practices, communication and interaction issues, assessment concerns, and technological disparities as some of the core issues impeding effective utilisation of the approach in English instruction in Saudi universities. Alghamdi and Alnajami (2023) recommend “technological literacy training, the establishment of standard guidelines for blended courses, continuous professional development for educators, fostering robust online communities, and diversifying assessment strategies” (p. 24) as some of the ways through which better implementation of BL in English teaching can be realised.

Ali et al. (2023a) examined the impact of BL on the oral production of first-year Arab university students and found that while use of BL models in EFL settings enhanced student engagement and achievement, use of the approach in Arab EFL classrooms exposed instructors to
such barriers as “limited technological infrastructure, uneven digital literacy, and cultural norms and values” (p. 146). The implications for English teachers intending to use BL approaches in such settings include individualised learning, content creation, technological competence, and pedagogical adaptation. Although this study explores the effects of BL on the oral production of first-year Arab university students, it restricts itself to the impact of the approaches on spoken English and does not focus on Saudi students but rather Arab students from all over the Middle East.

Pratiwi and Sumarni (2023) examine the effectiveness of BL in English language learning in the post-pandemic era and note its ability to offer an indispensable “new avenue for English language practice in an ESL/EFL setting” (p. 317) and hence its suitability as an optional language learning model. This study does not examine the effectiveness of use of BL in English instruction at the university level in the educational context of interest but rather on the importance of the approach in the post-pandemic period.

Ali et al. (2023b) employed an experimental approach to compare the impact of BL and online learning on grammatical skill and knowledge acquisition and found that learners in a BL environment perform better than their peers in an exclusively online learning setting. The findings highlight the effectiveness of BL not only in language instruction but also in transforming the related instruction and learning processes. This study however seeks to comparatively examine the effect of BL and online learning and hence it does not explore the effectiveness of BL on English education in the university level.

Alvi (2023) explored the effectiveness of BL model in English for Special Purpose (ESP) instruction among preparatory year medicine students and found use of andragogic strategies to be effective in improving and transforming the students’ English language learning styles, learning motivation, cognitive competence, and proficiency. The findings show the capacity BL models to enhance the process of teaching and learning an ESP course particularly where its marked by, as Alvi (2023), precisely observes a “shift from pedagogic to andragogic strategies” (p. 77). While the study addresses issues concerning the use of andragogy-based customised BL model in ESP instruction, it does not comprehensively address itself to issues pertaining to the effectiveness of the BL model in English instruction.

Nassar et al. (2023) in their study investigating the impact of BL on English learning in Saudi universities established the potential of the approach to enhance personalisation, accessibility, and active English learning particularly in the post-Covid times where use of technology is on the rise and accommodation of students with diverse language learning needs is necessary. The study associates use of BL with high student evaluation scores, better language outcomes for the ethnically and racially diverse students, and improved graduation rates for all learners (Nassar et al., 2023). While this study examines the effect of BL in English teaching and learning in Saudi Arabian universities, it does not comprise a systematic review of the same and hence its limited scope compared to the current review.

**Theoretical Literature**

Modern conversations on integration of technology in education are shaped by such major learning theoretical frameworks connectivism, constructionism, constructivism, cognitivism and behaviourism (Kimmons, 2022). The theoretical frameworks give rise to distinctive pedagogical strategies including: constructivist and constructionist strategies that are employed in teaching ‘why’; cognitive approaches employed in the instruction of ‘how’; and behaviourist approaches that are utilised in teaching ‘what’ (Topping et al., 2022). Today, diverse instructional design
models employed in different educational contexts variously integrate different components of these major learning theories highlighting the need for educators in different educational settings to study the competing frameworks and formulate their own understanding of the different ways in which students learn.

As a learning theory, behaviourism is premised on the view that learning constitutes a response to stimuli (Kimmons, 2022). Behaviourist strategies thus seek to promote teaching and learning by conditioning learners to respond in a certain way to a stimulus. BL strategies support learning by offering students incentives to learn.

Cognitivism is premised on the view that the way the brain processes, stores, retrieves and applies information plays an important role in learning (Ertmer & Newby, 2017). Application of cognitive strategies in learning and teaching focuses on principles and processes of instruction that promote the ability of students to meaningfully and efficiently utilise information presented to them. In the context of the current review, utilisation of such forms of technology as multiple modalities (audio-visual mediums) employed in BL helps deliver instruction in a manner that allows the brain to efficiently process, make meaning, store and retrieve what has been learnt.

Constructivism is premised on the view that different individual and social factors affect learning differently among individual learners (Ertmer & Newby, 2017; Yajie & Jumaat, 2023). Constructivist teaching and learning strategies are thus based on the principle that different people and individuals learn differently and their learning is influenced by their individual or group experiences. Constructivist strategies thus seek to promote contextual and situated learning while allowing individual learners to make their own personal meaning using their beliefs, attitudes and previous experiences (Ertmer & Newby, 2017; Kimmons, 2022). BL tools empower teachers and students to teach and learn by providing them with resources to construct and create external representations of their internal constructions.

Connectivism stipulates that learning is not restricted to the mind of the student as it constitutes a function of the interconnectedness of the learners with each other; the network exceeds the reach of the mind (Mattar, 2018). The goal of learning is thus to provide an environment in which learners are effectively connected with each other and with the network facilitating interaction and access to learning resources (Kimmons, 2022). Based on the perspective, BL helps create an environment in which learners are connected with each other thus consistently enhancing their learning experiences.

Thus in the context of the current review, a balance between the approaches anchored in the various theoretical perspectives is paramount for effective combination of online learning with face-to-face learning, and therefore, effective application of BL models in the instruction of English language courses in Saudi universities.

In the light of the previous literature review, there are no systematic reviews on the effectiveness of use of BL in English instruction at the tertiary level in Saudi Arabia. The existing reviews do not address the effectiveness of BL programs in teaching a particular course but rather systematically review BL on account of the guidelines for Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The reviews also do not address the effect of use of the approach in teaching a particular course in the higher education context; and the only review that seems to, also fails to address the influence of the effect of BL practices on English instruction in the particular educational context of interest. This review thus seeks to fill the existing gap and contribute to the current literature by providing research on the effectiveness of use of BL approaches in the instruction of English courses in Saudi universities. The review will
thus provide a research basis upon which the prevailing BL designing practices and BL practices in English teaching and learning can be enhanced for better English language learning outcomes among the university students.

Methodology

The following methodological guidance on how systematic reviews ought to be conducted and the attendant meta-analysis undertaken was adhered to. One, the review was theoretically positioned; two, related technical steps and hurdles defined; three, a procedure for merging and recapitulating the hurdles formulated; and lastly, a process for interpreting and disseminating the findings developed.

Keywords

These keywords guided the search for the most suitable studies:

- Saudi universities AND
- Blended learning OR Blended learning programs OR Blended learning models OR online learning and face-to-face learning AND
- English language instruction OR English language courses OR Teaching English as a Second language OR ESL course

Use of the Boolean operators, AND, OR, allowed for expansion and narrowing of the search parameters by facilitating the combination of various search terms to generate the diverse empirical studies for consideration for inclusion in the review. The third sector (English language instruction OR English language courses OR Teaching English as a Second language OR ESL course) helped narrow the number of the generated search results to articles that focused on the particular area this systematic review was interested in.

Databases and Exclusion Criteria

Research databases including Google Scholar, Science Direct, ProQuest, ERIC, Wiley Online Library, Scopus, Web of Science databases were searched and a total of 56 empirical and peer-reviewed articles selected for the systematic review (See Table one below for the inclusion/exclusion criteria).

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Published since 2010</td>
<td>- Published before 2010</td>
</tr>
<tr>
<td>- Written in English</td>
<td>- Not written in English</td>
</tr>
<tr>
<td>- Peer-reviewed journal articles</td>
<td>- Non-peer reviewed journals and non-journals</td>
</tr>
<tr>
<td>- Conference papers</td>
<td>- Non-conference research papers</td>
</tr>
<tr>
<td>- Doctoral theses</td>
<td>- Non-doctoral theses</td>
</tr>
<tr>
<td>- Evidence-based articles</td>
<td>- Articles not evidence-based</td>
</tr>
<tr>
<td>- Articles with abstract</td>
<td>- Articles without abstracts</td>
</tr>
<tr>
<td>- Articles on blended learning</td>
<td>- Articles on other pedagogical approaches</td>
</tr>
<tr>
<td>- A focus on English language/course instruction</td>
<td>- Not focusing on English learning</td>
</tr>
<tr>
<td>- Learning in university</td>
<td>- Learning in K-12/primary or secondary</td>
</tr>
<tr>
<td>- Undergraduate experiences</td>
<td>- Duplicates</td>
</tr>
</tbody>
</table>

The number of articles generated from the various databases is illustrated in the PRISMA chart captured in Figure one below. Given the tendency of each of the different databases to access varied collection of resources, the amount of articles that had duplicates was minimal. While some
of the studies had been initially thought to have been relevant based on their abstracts, a further scrutiny of the respective full articles indicated a contradiction with the stated inclusion criteria leading to their exclusion. Towards the end of the process, out of the 152 journal articles generated by the search, 96 were excluded at the various phases of the process as shown above for failing to meet the exclusion criteria, leaving a total of 56 articles.

**The Coding Framework**

Coding of the 56 full articles was undertaken based on the form of data they presented. The coding model employed in this endeavour was inductively formulated based on a preliminary examination of the articles together with the most frequent groupings and hence no specific theoretical model guided the process. Articles that comprised systematic review were coded as reviews while the rest were coded based on whether they were about the utility of BL in English language instruction, the benefits and challenges of BL, the students’ perceptions towards BL as a pedagogic tool, views about BL environments and related challenges and advantages, and the effect of BL strategies on English language proficiency. Articles that had overlapping focus were coded multiply. Since all articles were related to the university level of education, coding of the articles based on the year of study (First year, second year, third year, final year) they focused on was undertaken. Coding of the studies based on the subject area was unnecessary since the focus of this review was on English language instruction and courses and hence all the articles selected for inclusion in the review had met this criterion. The articles were further coded based on the gender for studies whose focus was either female or male students. This was deemed critical in helping establish whether the effectiveness of BL programs in English instruction varied based on the gender of the students.

Consideration of the outcomes, that is, whether the BL program was effective or not in teaching the English course, was done. This allowed for contemplation of the impact of the
learning model on the English language proficiency of the students and comparison of the same with outcomes of alternative pedagogical tools. Observations on whether the BL model was more effective than the alternative learning models were made possible despite the attendant quantification difficulties. The effectiveness of the approach on the English language instruction as indicated by its impact on the reading, listening, speaking, writing skills of the learners as assessed in some of the studies was also considered.

**Coding Descriptions**

All articles included conformed to the current review definition of BL. The studies featured use of a model of education that combined physical face-to-face classroom-based practices with virtual or online-based instructional opportunities and educational materials thus giving students the space to learn the English language both inside and outside the school. This eliminated the need to differently code the selected studies on this basis. Further given that the focus of the current review is on the effectiveness of the model in English instruction in Saudi Arabia, the need to code the articles based on whether the studies were conducted in English or non-English language contexts was rendered unnecessary.

**Full Articles and Inter-Rater Reliability**

The 85 full articles included in the review were equally shared among two renowned scholars and experts in the study subject. The scholars established 29 of the articles failed to meet the inclusion criteria thus shrinking the number of studies fit for inclusion in the review to 56. The excluded studies included no outcome date on the utility of BL in English language instruction (n=11), the benefits and challenges of BL, the students’ perceptions towards BL as a pedagogic tool, views about BL environments and related challenges and advantages, and the effect of BL strategies on English language proficiency (n=13), while the rest focused on use of BL in English courses in contexts other than Saudi Arabia (n=5).

A random sample of 20 items was obtained and a coding inter-rater reliability conducted which produced a between coders’ percentage of concurrence of 97.4%. The fact that 10 of the 29 articles excluded for failing to meet the inclusion criteria, offered useful insights on how to enhance the effectiveness of the BL programs in the instruction of English courses was noted.

**Data Analysis**

For each respective coding group, the quantity of articles that showed BL models were more effective in teaching English courses in Saudi universities was added to the number of articles that showed the approach led to better English language outcomes. The number of articles whose findings did not precisely indicate the effectiveness of the pedagogical approach was also added together. The distribution of the articles in the various coding categories was then established and weighed against that of the relevant flat distribution allowing for estimation of the ensuing probability and chi-squared statistic. Severally, concrete response options included zero rendering the use of chi-squares in such instances impossible. The low overall numbers further rendered it inappropriate to use of the Fisher’s Exact Probability test is such instances as doing so would have introduced reliability issues.
Quality of the Included Studies

Evaluation of the quality of the research articles selected was critical as it allowed for distinction of the various studies based on their strength. To accomplish this, the GRADE model which allowed for the quality of the findings of the individual studies to be rated as Very Low, Low, Moderate or High was employed (Guyatt, et al., 2011). Research studies with a serious risk of imprecision, indirectness, inconsistency and bias as well as a likelihood of publication bias were given a lower rating while those with a huge effect and whose probable confounds had the potential to minimise the demonstrated effect were accorded a higher rating. Despite the challenges obtaining an inter-rater reliability level for the articles that is satisfactory due to their diverse nature, it was surprising to note that the Cronbach alpha of studies rated as High was largely satisfactory when evaluated against the rest of the articles. This allowed for comparison of the results of the research articles rated as High quality with the results of those rated as Low quality, to assess if the studies rated as High quality produced unevenly low or high outcomes vis-à-vis the other articles. There were concerns of the potential of the studies rated as High quality to produce unevenly low outcomes in contrast to the rest of the studies.

Results

Analysis Based on Intervention and Conclusion

Given the tendency of some of the articles to variously characterise BL, a total of 231 mentions were obtained and coded multiple times. Using the framework advanced by Guyatt et al. (2011), coding categorised these mentions into four categories namely; very low quality 35 (15%), low quality 42 (18%), moderate quality 85 (37%), and high quality 69 (30%). Evaluation of the articles on the basis of their outcomes revealed no significance difference in the pattern of their results; p was greater than 0.05. See Table two below.

Table 2. Comparison based on the quality of the studies

<table>
<thead>
<tr>
<th>Intervention rating</th>
<th>Unclear</th>
<th>Worse</th>
<th>Same</th>
<th>Better</th>
</tr>
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<tbody>
<tr>
<td>High quality</td>
<td>9</td>
<td>5</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>Moderate quality</td>
<td>13</td>
<td>8</td>
<td>22</td>
<td>42</td>
</tr>
<tr>
<td>Low quality</td>
<td>7</td>
<td>3</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Very low quality</td>
<td>19</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Total mentions – 231 (100%)</td>
<td>(20.8%)</td>
<td>(7.8%)</td>
<td>(22.9%)</td>
<td>(48.5%)</td>
</tr>
</tbody>
</table>

An analysis of the data based on the interventions and their outcomes was undertaken. Categorisation of the interventions in the 56 of the studies selected established; BL (34); Learning Management Systems(LMS) especially the blackboard (26); online learning (27); web-based learning (21); and mobile learning (11). It is worth noting that some of the studies involved multiple interventions relating to the blended model. See Table three.

Table 3. Summary of the data based on interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Unclear</th>
<th>worse</th>
<th>Same</th>
<th>Better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blended learning (n=34; 14.7%)</td>
<td>3 (8.8%)</td>
<td>5 (14.7%)</td>
<td>8 (23.5%)</td>
<td>18 (52.9%)</td>
</tr>
<tr>
<td>LMS (n=26; 11.3%)</td>
<td>4 (15.4%)</td>
<td>3 (11.5%)</td>
<td>6 (23.1%)</td>
<td>13 (50%)</td>
</tr>
<tr>
<td>Online learning (n=37; 11.7%)</td>
<td>5 (13.5%)</td>
<td>2 (5.4%)</td>
<td>7 (18.9%)</td>
<td>23 (62.2)</td>
</tr>
<tr>
<td>Web-based learning (n=21; 9.1%)</td>
<td>3 (14.3%)</td>
<td>2 (9.5%)</td>
<td>5 (23.8%)</td>
<td>11 (52.4%)</td>
</tr>
<tr>
<td>Mobile learning (n=11; 4.8%)</td>
<td>1 (9.1%)</td>
<td>1 (9.1%)</td>
<td>3 (27.3%)</td>
<td>6 (54.5%)</td>
</tr>
<tr>
<td>Overall Total (n=129; 100%)</td>
<td>16 (12.4%)</td>
<td>13</td>
<td>29</td>
<td>71</td>
</tr>
</tbody>
</table>

(10.1%) | (22.5%) | (55%) |
Effectiveness of Blended Learning Programs/Models in English Instruction

Note: Figures denote the number of studies mentioning an intervention. Some studies were coded for multiple interventions.

From Table three above, the large sum total of the outcomes (129) in the reviewed papers, a positive picture regarding the efficacy of BL programs emerges; indicating digital and face-to-face learning models in English courses instruction is better (55%) than other forms of instruction, whilst 22.5% find it the same and only 10.1% find it to be worse. With a p-value of less than 0.05, the outcome indicates BL models are more effective than conventional models of instruction; the limitations of the studies reviewed notwithstanding.

Based on the interventions and outcomes analysis, BL programs integrating face-to-face learning with such approaches as online learning, web-based learning, learning management systems and mobile learning or e-learning seem to be the most effective in relation to the impact they have on EFL education in Saudi universities. A significant number of the studies reviewed associated BL (n=71 Better) with positive learning outcomes as reflected by the improvements in the English language proficiency among the university students. Amalgamation of Better and Same results in Table two above yield even a higher figure (n=100 or 77.5%) further highlighting the superiority and by extension the high degree of effectiveness associated with the use of BL in English language instruction at the university level in the Saudi educational context.

Reviews and Meta-analysis

Of the 56 journal articles included in the review, 19 of the studies comprised of meta-analyses and reviews involving various universities across Saudi Arabia. As shown in Table four below, seven of the 19 studies were reviews and 12 meta-analyses involving multiple but unspecified Saudi universities. Despite the diverse nature of these reviews and meta-analyses, there was hardly any substantial variance in their conclusions informed by the broad nature of their approach.

Table 4. Summed-up data for the meta-analyses and reviews

<table>
<thead>
<tr>
<th>Articles (n=56, 100%)</th>
<th>Reviews</th>
<th>Meta-analyses</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities involved</td>
<td>7 (12.5%)</td>
<td>12 (21.4%)</td>
<td>37 (66.1%)</td>
</tr>
<tr>
<td>Non-specific universities</td>
<td>Multiple universities</td>
<td>Specific</td>
<td></td>
</tr>
</tbody>
</table>

Regarding the effectiveness of BL models in English language instruction at the university level, 2 of the seven reviews showed BL programs provided English language learners with the opportunity to conveniently and freely practice the language by providing the students with the right environment for English learning and motivating them to learn the language. The other five reviews showed BL impacted positively on English language learning by significantly improving writing and speaking, comprehension and retention of spoken discourse, mastery of grammar and the general English language skills of the students (p<0.05).

As quantitative measures of the degree of an effect, effect sizes (ES) relating to the effect of BL on English language instruction, and as given in the reviews, were assessed. The ESs normally ranged between zero to one or higher and with larger ESs indicating a strong association among the variables of interest and negative ones indicating deterioration in effect. This contrasted with statistical significance which differed based on the sample size. As regards the BL, only two reviews provided effect sizes, with a range of between 0.36 and 1.24 and a mean of 0.88 indicating a strong correlation between BL strategies and English learning outcomes.

Based on the reviews, the effectiveness of BL programs in English language instruction seems to range from moderate to high. Some of the reviews appear to suggest BL is more effective...
than other pedagogic approaches owing to the significantly positive effect it has on the English language skills of Saudi students at the university level. However, given that most of the reviews did not give ESs for BL relative to English instruction, care should be taken when interpreting the provided figures. Nonetheless, the fact that all the reviews analysed focused on the use of aspects of BL strategies in teaching English courses in Saudi universities helps alleviate the inherent interpretation issues to some extent. While the reviews yield largely similar results, BL appears to perform better (is more effective) when the other 37 individual studies conducted in specific Saudi universities are considered.

Analysis by Research Questions and Institution

Analyses of the studies in relation to the research question provide data into the effectiveness of BL in English language instruction. Concerning Research Question 1 (RQ1), 37 (85.7%) of the studies suggested BL strategies significantly affected the English language proficiency of Saudi university students. Regarding Research Question 2 (RQ2), 11 (19%) of the studies showed use of BL approaches in English language classes for university students in their preparatory year positively affected the course learning outcomes. For Research Question 3 (RQ3), 5 (9.5%) studies suggested the efficacy of BL programs in English language instruction vary among male and female university students. For Research Question 4 (RQ4), 33 (59.5%) studies appeared to suggest the familiarity of lecturers in different Saudi universities with the various educational technologies significantly affected the efficacy of BL programs in English language instruction. For Research Question 5 (RQ5), 19 (33.3%) studies gave the impression that adequacy of and access to the requisite information and communication technology infrastructure and resources in the various Saudi universities significantly affected the efficiency of BL programs in English language instruction. See Table five below.

Table 5. Summary of data based on the research questions

<table>
<thead>
<tr>
<th>RQ1</th>
<th>n=56,100%</th>
<th>RQ2</th>
<th>n=56,100%</th>
<th>RQ3</th>
<th>n=56,100%</th>
<th>RQ4</th>
<th>n=56,100%</th>
<th>RQ5</th>
<th>n=56,100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting studies</td>
<td>48 (85.7%)</td>
<td>11 (19%)</td>
<td>5 (9.5%)</td>
<td>33 (59.5%)</td>
<td>19 (33.3%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support not clear</td>
<td>8 (14.3%)</td>
<td>45 (81%)</td>
<td>51 (90.5%)</td>
<td>23 (40.5%)</td>
<td>37 (66.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coding of the studies by the university they were conducted in was critical in facilitating the analysis of the impact the distribution of the institutions may have had on the outcomes of the studies used in this review. In Table six (see, Appendix 1), the distribution of the 56 studies by university is presented.

Discussion

Regarding the research questions, various studies supported various indicators of the effectiveness of BL models in English language instruction in Saudi universities.

RQ1: What are the effects of BL strategies on the English language proficiency of Saudi university students?

RQ1 was supported by 37 studies. This means that 85.7% of the studies reviewed suggested BL strategies significantly affected the English language proficiency of Saudi university students.

RQ2: What effects does the use of BL approaches in English language classes for university students in their preparatory year have on their course learning outcomes?
RQ2 was supported by 11 studies. This indicates 19% of the studies included in this review concurred that application of BL approaches in English language classes for university students in their preparatory year positively affected the course learning outcomes.

RQ3: How does the efficacy of BL programs in English language instruction vary among male and female university students?

RQ3 was supported by five studies, meaning that 9.5% of the studies examined suggested the efficacy of BL programs in English language instruction varies among male and female university students.

RQ4: To what extent does the familiarity of lecturers in different Saudi universities with the various educational technologies affect the efficacy of BL programs in English language instruction?

RQ4 was supported by 33 studies. This shows 59.5% of the studies reviewed appeared to suggest that the familiarity of lecturers in different Saudi universities with the various educational technologies significantly affected the efficacy of BL programs in English language instruction.

RQ5: What effect does the adequacy of and access to the requisite infrastructure and resources in the various Saudi universities have on the efficiency of BL programs in English language instruction?

RQ5 is supported by 19 studies meaning that 33.3% of the studies examined gave the impression that adequacy of and access to the requisite information and communication technology infrastructure and resources in the various Saudi universities significantly affected the efficiency of BL programs in English language instruction.

Despite the significant variation in the number of studies supporting each of the research questions, the results appear to suggest each of the factors considered significantly affected the effectiveness of the pedagogic approach on the performance of the university students in the English course. The findings are consistent with the overall conclusions of the individual studies reviewed and hence the need for careful interpretation these results.

This systematic review included 56 studies with a total of 231 mentions relating to BL and English language instruction in Saudi universities. Based on their quality, the 231 mentions were categorised into four categories; very low quality 35 (15%), low quality 42 (18%), moderate quality 85 (37%), and high quality 69 (30%). The quality of the mentions notwithstanding, and with a p-value of greater than 0.05, BL models were found to be more significantly effective in English language instruction in Saudi universities particularly given its ability to facilitate language learning both inside and outside the school setting. As Sheerah (2018) opines, this illustrates the capacity of BL as a technology-enhanced pedagogic tool to support English language learning both within and outside the school; a flexible form of learning that promotes the development of the requisite writing, speaking, listening, and reading skills among the learners.

In terms of interventions and outcomes, of the 56 of the studies selected, 34 directly focused on BL; 26 on Learning Management Systems (LMS) especially the blackboard as a component of BL; 27 on online learning as a facet of BL; 21 on web-based learning as an aspect of BL; and 11 on mobile learning (11) as an element of BL. LMS such as the blackboard are crucial tools in the implementation of BL models in EFL courses owing to their capacity to allow students to access course materials and learn at their own convenience (Hezam & Mahyoub, 2022). According to Hezam and Mahyoub (2022) through LMS students can attend live discussions and lectures from anywhere including cafes or their homes “through virtual classes” (p. 364). In line with the overall outcomes of the studies, BL appeared to be a generally better pedagogic approach to English language teaching in institutions of higher education in Saudi Arabia (n=100 or 77.5%). In this
case, the total number of studies based on the interventions \(n=129; 100\%\) may seem higher than the number of studies selected for inclusion in this review \(n=56\) since some of the studies involved multiple interventions relating to the blended model and hence they were coded multiple times.

Meta-analyses and reviews were 19 in total; a figure that comprised of seven reviews and 12 meta-analyses of the phenomenon of interest in multiple but unspecified Saudi universities. The fact that 100\% of these reviews focused on universities in Saudi Arabia helped paint a clearer picture of the effectiveness of BL programs in English language instruction within the educational context. This affirms position of several recent studies (Ali et al., 2023a; Ali et al., 2023b; Alvi, 2023; Nassar, et al., 2023) regarding the positive effect of BL practice on English instruction and education in the Saudi Arabian higher education. The finding however left no room for comparison of the effectiveness of the approach in other levels of education. Although most of the reviews included no effect sizes (ESs), the relatively high mean ESs obtained from two of the reviews implied a strong correlation between BL and English language instruction; which was interpreted to mean the approach was significantly effective in this area of instruction. It is worth noting that the interpretation was in line with the overall results of the reviews and hence prudence ought to be observed when making inferences from these figures.

The distribution of included studies by where they were conducted indicates a fairly even distribution across the country with 29 (51.8\%) of the studies having been conducted in unspecified multiple universities, one in two different universities and five being the highest number of studies conducted in a single university. Despite the disparity in the settings and populations in which the studies were conducted, the findings of the individual studies are not significantly dissimilar and hence the consistency of their results vis-à-vis the effect of BL programs on English instruction (Ali et al., 2023a; Nassar, et al., 2023).

Even though this review found BL programs to be significantly effective in teaching English language courses at the university level in Saudi Arabia, the capital and technologically intensive nature of this form of learning cannot be downplayed. These issues among several others have been cited as key challenges impeding efforts to implement BL approaches in EFL contexts (Alghamdi & Alnajami, 2023; Ali et al., 2023a; Sheerah, 2016). BL models are designed to support learning both inside and outside the school (Ali et al., 2023a; Hezam & Mahyoub, 2022) indicating the need for students to not only possess but also have access to the requisite education technology and the supporting IT infrastructure. This brings to the fore the issue of access to such technologies and infrastructure as the internet and computers at home especially for students from lower socio-economic backgrounds as well as their vulnerable counterparts from rural or remote regions in the country (Alghamdi & Alnajami, 2023; Ali et al., 2023). In the review 19 or 33.3\% (see Table four) of the studies analysed suggest adequacy of and access to the requisite IT infrastructure and resources in the various Saudi universities significantly affect the efficiency of BL programs in English language instruction. This highlights the significance of access to and availability of the requisite technology and the related infrastructure at both the student and institution level in promoting the effectiveness of BL programs in English language instruction (Alghamdi & Alnajami, 2023; Hezam & Mahyoub, 2022). Based on this rationale therefore, further critical analysis into the impact of poor access to the requisite education technology and inadequate IT infrastructure on the effectiveness of BL in English instruction among the economically vulnerable university students and those from institutions situated in the rural Saudi Arabia is needed.
Strengths and Limitations

Among the core strengths of this review is the fact that it included a variety of papers including systematic reviews, meta-analyses and individual studies both qualitative and quantitative. Also, the search strategy upon which the included studies were obtained employed broad search terms thus helping generate as many relevant papers as possible. The search for the studies included in the review was also conducted on numerous renowned databases thus not only facilitating the generation of huge amount of papers but also the selection of diverse papers for inclusion in the review. All the studies considered in the review were further conducted in Saudi Arabia thus allowing for better contextualisation and a more focused assessment of the phenomenon of interest.

A key limitation of the study is that the number of studies selected for inclusion in the review was lower than expected; at 56 or 36.8% of the initial 152 studies retrieved. Further the search strategy only considered studies conducted after 2010 effectively excluding potential substantial and noteworthy studies published prior to that period. The papers selected for the review also included a doctoral thesis which might not have followed the standard peer-review channels. Another limitation may be the categorisation of the studies into Unclear, Worse, Same, Better as regards the effect of BL on English language instruction without indicating the extent to which their respective findings met these parameters. All the studies considered in this review, except two, also failed to provide Effect Sizes thus precluding the ability to determine the impact of publication bias on smaller studies.

Implications for Future Practice, Research and Policy

Practice

The review associated BL strategies with improvements in English language skills among Saudi university students. This aligns with the findings by Alowedi (2023), Anas (2020) and Alowedi (2020) regarding the positive effect of BL practices on English teaching and learning. Implications for future pedagogical practice is that Saudi instructors still using other less effective teaching methods will embrace and use of BL models for English language instruction in their respective universities. The review also established the positive effects of BL strategies not only on language learning but also on course learning outcomes of university students in different levels of study. This reflects the findings by Ali et al. (2023a), Alvi (2023) and Sheerah (2018) that BL models has the potential to enhance English language skills and knowledge acquisition among preparatory year students which leads to improvement in their language learning outcomes in the subsequent years of their study. The implications for educators and pedagogical leaders in universities across the country is that they will be inspired to seize the opportunity to empower and motivate instructors in different faculties to explore the modalities of integrating and promoting BL programs in their courses.

Research

The findings of this review provide insight into the various ways in which BL strategies impact on the English language proficiencies of university students effectively drawing interest into the manner in which the pedagogical approach leads to better speaking, writing, reading, comprehension, grammar and translation skills. The implication of this for education scholars is the cognisance of the necessity of more research into the integration of BL programs in English
language instruction and especially ways in which the learning model enhances the acquisition of the particular skills.

**Policy**

From the review, only one university in the country, the Saudi Electronic University, offers “degree programs in complete mandatory BL model of education in all courses” (Alowedi, 2023, p. 1205). This highlights the capacity of universities in the country to put in place policy initiatives supportive of BL programs across all their learning areas. Further implications for policymakers include the realisation of the significance of enhanced professional development for teachers in the area of BL. The national and local governments could formulate policies that establish frameworks for pre- and post-service teacher training aimed at equipping them with the requisite pedagogic skills. A further national policy measure on IT infrastructure could also be established to underpin efforts towards improving nationwide availability and accessibility of the requisite technology.

**Conclusion**

The aim of this review was to critically and comprehensively analyse current studies on the effectiveness of BL programs in teaching English language courses in Saudi universities. A significant proportion of the studies reviewed indicated BL programs positively affect English language learning in Saudi universities. The effectiveness of the use of BL strategies in English language instruction is reflected by significant improvements in the language skills of the learners as well as the general course learning outcomes. From the review, 85.7% of the studies analysed showed use of BL models in English language teaching led to better speaking, writing, reading, comprehension, grammar, vocabulary, listening, pronunciation and translation skills; by promoting use of indirect language learning strategies including social, affective and meta-cognitive approaches, making English learning collaborative interactive and interesting, and by motivating students to learn the language and enhancing the environment for English learning. The overall results of the studies reviewed affirm the positive effect BL has on English education in Saudi universities. The results further offer insight into the factors leading to discrepancies in the effectiveness of BL programs in English language instruction. These include the gender of the students, the ICT skills gap among the instructors and the variance in inadequacy of the needed IT resources and infrastructure in the different Saudi universities. The findings highlight the need to explore ways in which the different impeding factors can be mitigated if the full potential of use of BL models in English language instruction in Saudi institutions of higher learning is to be realised.

**About the author:**

**Yasir Alenazi** has been working in the fields of education/applied linguistics since 2012. He has lived and pursued academic studies in Saudi Arabia, the United States, and Australia. Having completed his Ph.D. in Education/Applied linguistics at the University of Newcastle, Australia, in 2021, he is currently Assistant Professor of TESOL and Applied Linguistics at the Faculty of Arts and Education, the University of Tabuk, Saudi Arabia. His research interests include second language acquisition/learning, error analysis, corpus linguistics, and English for academic purposes. [https://orcid.org/0009-0006-9366-7606](https://orcid.org/0009-0006-9366-7606)
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| Page Dimensions: 612.0x792.0 |


**Effectiveness of Blended Learning Programs/Models in English Instruction**

Alenazi

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### Appendix A

Table 6. Distribution of included studies by university

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
<th>No. of included studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multiple (more than two)</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Non-specific</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>King Abdulaziz University</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>King Khalid University</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Qassim University</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>University of Bisha</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Saudi Electronic University</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Majmaah University</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Majmaah University &amp; King Abdulaziz University</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Najran University</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Taiba University</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>King Saud University</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>King Saud Bin Abdulaziz University for Health</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sciences</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Shaqra University</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Prince Sattam Bin Abdulaziz University</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Al-Imam Muhammad Ibn Saud Islamic University</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>56</td>
</tr>
</tbody>
</table>