

The Role of Background Knowledge Activation in Enhancing Reading Comprehension for Low-Proficiency EFL Learners

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Abstract

This study examined whether activating background knowledge improves reading comprehension among low-proficiency EFL learners. Using a quasi-experimental pretest-posttest design, 60 male students (ages 14-18) were selected from an initial cohort of 100 students at a private institute in Karbala, Iraq via the Oxford Placement Test (OPT). Participants were assigned to experimental (n = 30) and control (n = 30) intact classes. Both groups followed the same syllabus; the experimental group additionally received brief, teacher-led background knowledge activation routines before each reading (topic prompts, guided predictions, and targeted lexical priming). Parallel pre/post reading tests were constructed from *Top Notch 1B* and administered under identical conditions. Data screening preceded analyses using gain-score *t*-tests and ANCOVA (posttest ~ group + pretest), with effect sizes reported. Results showed a statistically significant advantage for the background knowledge activation group, indicating that concise, low-overhead schema activation can translate into measurable comprehension gains for low-proficiency learners. Implications include integrating background knowledge activation as a standard pre-reading move, pairing it with extensive/pleasure reading and selective digital supports, and monitoring effects with parallel forms.

Key terms: *background knowledge activation, Iraqi EFL learners, low-proficiency, quasi-experimental design, reading comprehension*

دور تفعيل المعرفة الخلفية في تحسين فهم القراءة لطلاب اللغة الإنجليزية كلغة أجنبية ذوي المستوى المنخفض

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الملخص

هدفت هذه الدراسة إلى فحص ما إذا كان تفعيل المعرفة الخلفية يُحسن من فهم القراءة لدى طلاب اللغة الإنجليزية كلغة أجنبية ذوي المستوى المنخفض. باستخدام تصميم شبه تجريبي (اختبار قبلي - اختبار بعدي)، تم اختيار 60 طالباً من الذكور (الأعمار 14-18) من مجموعة أولية تضم 100 طالب في معهد خاص في كربلاء، العراق، من خلال اختبار أكسفورد للتوظيف (OPT). تم تقسيم المشاركين إلى مجموعتين تجريبية (n = 30) وضابطة (n = 30). اتبعت كلتا المجموعتين نفس المنهج؛ بالإضافة إلى ذلك، تلقت المجموعة

التجريبية إجراءات موجزة لتفعيل المعرفة الخلفية بقيادة المعلم قبل كل قراءة (مقدمات موضوعية، توقعات موجهة، وتنشيط رمزي مستهدف). تم بناء اختبارات قراءة قبلي/بعدي متوازية من Top Notch 1B وتم تنفيذها في ظروف متطابقة. سبقت التحليلات عمليات فحص البيانات باستخدام اختبارات t لدرجات الربح و ANCOVA (اختبار بعدي ~ مجموعة + اختبار قبلي)، مع الإبلاغ عن أحجام التأثير. أظهرت النتائج ميزة دالة إحصائية لصالح مجموعة تفعيل المعرفة الخلفية، مما يشير إلى أن تنشيط الأنماط المختصرة وذات الجهد المنخفض يمكن أن يترجم إلى مكاسب قابلة للقياس في الفهم لطلاب المستوى المنخفض. تشمل الآثار المترتبة دمج تفعيل المعرفة الخلفية كإجراء قياسي قبل القراءة، ومرافقته بالقراءة الواسعة/التمتع والوسائل الرقمية الانتقائية، ومراقبة التأثيرات من خلال أشكال متوازية.

الكلمات المفتاحية: تفعيل المعرفة الخلفية، طلاب اللغة الإنجليزية كلغة أجنبية في العراق.

1. Introduction

Reading comprehension in a foreign language is a complex construct that is clarified by linguistic knowledge, strategic processing, and, most importantly, the background knowledge learners have about the topic and discourse (Grabe, 2009). However, low-proficient EFL learners find it challenging to draw these factors together in real time; deficiencies in vocabulary and syntactic parsing mitigate the challenge of constructing a situation model of text (Abdullah et al., 2024; Grabe, 2009). Recently reported lessons in classroom contexts show that school-age learners continue to experience issues like slow, bottom-up decoding of new texts and poor inferencing as impediments to reading, with a consequential negative impact on motivation and success reading (Abdullah et al., 2024; Sharma, 2022). The issue is front-of-mind in external contexts for students who are learning English as a second language to advance within an academic context, while also missing out on comprehensive and rich inputs that develop knowledge.

A longstanding tradition in second-language reading has emphasized that comprehension emerges not only from a linguistic code but also from readers' topic familiarity as well as the availability of reader schemata (Grabe, 2009). Activating background knowledge via previews, guided predictions, concept maps, visuals, brainstorming key words, or short topical discussions can narrow cognitive load, provide additional comprehensibility to input, and provide a scaffold for constructing global meaning, especially for lower proficiency readers who have little linguistic resources to compensate (Grabe, 2009). Nevertheless, pre-reading phases, in practice, sometimes become perfunctory or are replaced by test-like steps (Sharma, 2022; Bessette, 2025) and struggling readers attempt to read texts with little support from the schemata (Sharma, 2022; Bessette, 2025).

At the same time, extensive reading research has frequently identified access to a great deal of level-appropriate input is positively correlated to growth in comprehension, vocabulary and reading speed, not to mention the highly

motivational aspects (Liu & Saad, 2025; Rahman & Mohamad, 2023; Rezaee et al., 2021). Similarly, there is a growing literature in studies of multimedia and online settings that suggests authentic and graded materials can also present different kind of texts to students, while maintaining interest and engagement (Mandarsari, 2023; Nguyen, 2022; Rezaee et al., 2021). However, even in extensive reading and digital programs, low proficiency learners do not seem to fully benefit from simply providing a range of texts unless the texts are contextualized and relevant schemata are activated before reading. Some studies relating an reading programs to this level of access for students when researchers talk with teachers and get accounts of so-called “free-choice” curriculum or student-led reading programs seem to be suggest promise but did not indicate that students had the same access based on the same principles as stronger readers (Bessette, 2025; Rahman & Mohamad, 2023).

Ongoing transformation in education through digital means broadens the possibilities for scaffolding students in increasingly efficient ways. Today, technology-mediated SLA offers the possibility of adaptive pre-teaching of key concepts, just-in-time glosses, and multimodal previews that can enact background-knowledge activation at scale (Godwin-Jones, 2022; Karasimos, 2022). Institutional targets of digitally enabled instruction and associated redesign of processes supports this writing as part of a larger movement away from respect to isolated delivery of content to systems that are learner-centered and building capability (Bonnet & Westerman, 2021; Pfenninger et al., 2023) Yet, technology is only an enabler, and the question remains pedagogically as to whether or not pre-teaching or activation of background knowledge will cause improvements in comprehension for low-proficiency learners in regular content classes.

A good deal of recent momentum has focused on extensive reading programs, online authentic materials, or teacher transformation stories, while only a handful of quasi-experimental studies has isolated background-knowledge activation in low-proficient cohorts as a focal treatment (Liu & Saad, 2025; Mandarsari, 2023; Nguyen, 2022; Sharma, 2022). Evidence of the phenomenon in Arabic EFL contexts is sparse as well, nevertheless, findings of widespread reading difficulties and curricular strains have been documented (Abdullah et al., 2024; Sharma, 2022). This lack of evidence is important, as determining whether activating background knowledge can consistently improve comprehension with little time cost, offering a flexible, equity-oriented pathway to improve an outcome amongst learners least served by text-heavy curricula.

This study aims to investigate this issue by examining the extent to which systematic activation of background knowledge prior to each reading task improves reading comprehension for low-proficiency EFL learners at a private institution in

Karbala, Iraq. We build on schema-based accounts of L2 reading (Grabe, 2009) and utilize practical implications from extensive reading and technology-enhanced classrooms (Liu & Saad, 2025; Godwin-Jones, 2022; Rezaee et al, 2021), we evaluate a relatively simple, and replicable, pre-reading routine that includes brief topic activation, guided predictions, and explicit lexical priming, contextualized within regular instruction. By studying this in the context of low-proficiency learners, the study addresses the capacity for meaning-making resources organized before each reading task to overcome linguistic challenges and develop incremental improvement on standardized measures of comprehension aligned with the textbook in use. Accordingly, this study aimed to answer the following question:

Does background knowledge activation enhance reading comprehension of low-proficiency EFL learners?

2. Literature Review

A shared theme in the scholarship EFL reading is that comprehension relies on linguistic resources and the quality and availability of background knowledge brought to the text. Survey data with secondary learners suggest that background knowledge is among the top four constraints on reading comprehension (Sari et al., 2020), alongside motivation, strategy use, and process and language knowledge, with background knowledge being the second-ranked. More recently, classroom case work from Nepal pointed out differences in proficiency were attributed to a constellation of factors including reader factors, home literacy environment, and text factors. The case work recommended that teachers focus on background knowledge, differentiated and explicit instruction, and motivation, in order to close gaps (Dhakal, 2024). Taken together these studies and case study articulate schema activation as a plausible, equity-minded lever for readers with limited linguistic bandwidth.

Empirical attempts to operationalize schema activation through computer-aided strategy training provide a nuanced picture. A mixed case study with Chinese university EFL students showed that schema strategy instruction (SSI) implemented with the use of digital mind mapping software (DMM) developed learners' awareness of schema strategies but did not lead to significant increases in reading scores. Learners highlighted affordances and practical frictions, unequal time commitment, coordinating interactions, using the tool (Yan & Kim, 2023). This pattern suggests that how schema is activated, the instructional time costs, collaborative tasks and usability of the tools, may determine whether learner awareness can translate into measurable reading comprehension gains, especially in less proficient cohorts.

Motivation has a strong interaction with processes and outcomes related to comprehension. In Sari, et al, (2020), motivation was the most frequently noted limitation; 65.6% of respondents noted motivation, followed by strategies (63.7%) and background knowledge (63.3%). One compelling way to enliven motivation and engagement with reading text is through extensive/pleasure reading. A narrative synthesis indicates that pleasure reading has a positive impact on both reading comprehension and writing outcomes, as well as positive auxiliary outcomes in affect and linguistic knowledge that can feed forward into improved learning (Attiyat, 2019). Although pleasure reading will not account for schema activation of an unfamiliar topic by itself, over time it has the possibility of increasing world knowledge and familiarity with a topic, thus indirectly enhancing the reader's motivation and readiness for comprehension of a new text.

The interactive view of reading involves a balanced orchestration of top-down and bottom-up processes through intentionally sequenced pre-, while-, and post-reading activities (Qasserras, 2023). In this regard, pre-reading is the natural home for activating background knowledge, while while-reading encompasses strategy use, and post-reading involves consolidation of understanding and extending schemata. Many reviews advocate for a holistic approach; isolating any one component cannot deliver adequate results unless it is situated in a coherent sequence that is organized around tasks or activities, and aligned with a text and the learners (Qasserras, 2023). To connect this learning perspective and existing classroom reports, many low-proficiency readers needed explicit scaffolds prior to engaging with a text in order to decrease cognitive load and facilitate construction of meaning.

Digging into teacher beliefs and practices regarding active learning, learner participation, collaboration, and problem-solving, provides a great avenue for drawing on schema. In Vietnamese private-center settings, EFL teachers indicated positive beliefs about active learning within reading lessons, which followed their curricular guideline, as the teachers' observed advancements in critical thinking, reading comprehension, and teamwork/interpersonal skills (Phan, 2022). This aligns with the positive aspects noted in schema-strategy applications (Yan & Kim, 2023), although this consideration highlights important distinctions around collaborative learning not being structured and the time and coordination costs may undermine impact. The low-proficiency learners may benefit from engaging in small doses of well-structured pre-reading routines that stimulate prior knowledge and co-construct frames from topics, sustaining the potential value of active learning in an otherwise limited resource situation.

Evidence converges on three points across contexts: (a) background knowledge is a prominent constraint on EFL reading, especially for struggling readers (Sari et al., 2020; Dhakal, 2024); (b) motivation and sustained input, partly through coverage of new knowledge, is an important part of comprehension and writing development, while also increasing engagement (Attiyat, 2019); and (c) interactive, staged instruction is clearly a principled space for activating schemata before reading (Qasserras, 2023). However, where schema sequencing focused interventions have been trialed using a digital tool there has only been evidence of increased awareness and no increase in comprehension scores, along with implementation frictions (Yan & Kim, 2023). Therefore, there is a clear design gap, that we require quasi-experimental evidence for cognitive routines that activate the learner's background knowledge effectively, using low-proficiency adolescent EFL learners, in typical instructional settings.

To address the gap, the current investigation examines whether a simple and replicable sequence for activation of background knowledge (topic prompts, guided predictions, targeted lexical priming) used as part of regular lessons promotes improved reading comprehension in low-proficiency learners in Iraq. By this investigation, the present study makes contributions to the motivational and schema limitations to school-age populations (Sari et al., 2020), aligns with teachers' favorable views of active learning when it is structured pragmatically (Phan, 2022), and it attends to a practicality linkage between schema awareness and measurable reading comprehension improvement, which was not addressed in previous DMM-based studies (Yan & Kim, 2023).

3. Methodology

3.1. Design

The study used a quasi-experimental pretest–posttest design with a control group and an experimental group. Both groups received the regular reading instruction required by the institute, but the experimental group received systematic background knowledge activation before each reading task. The control group conducted the readings in the same way but did not have access to the pre-reading activators.

3.2. Participants

The initial sample included 100 male EFL learners (ages 14-18) studying at a private language institution in Karbala, Iraq. After administering the Oxford Placement Test (OPT; Allan, 2004) to determine learner proficiency, a total of 60 learners who met the criteria for low proficiency were selected to participate in the study. Those 60 learners were organized to be in two identical or intact classes of

the same size ($n = 30$ per group), one of which served as the treatment group and the other served as the comparison group. All participants had studied English as a foreign language in school and reported not having lived in a country where English was spoken on a long-term basis. Consent from the parents and assent from the learners were obtained before the data were collected.

3.3. Instruments

3.3.1. Oxford Placement Test

The OPT (Allan, 2004) was utilized to assess proficiency and screen for low-proficiency learners for inclusion in the study. The test included two multiple-choice sections: Listening and Grammar/Vocabulary, which involved 100 total items completed in 40 minutes. The test was administered under standardized conditions and internal consistency for the current sample was estimated using KR-20/Cronbach's α . Based on institute prior practice and pilot score frequency, students who scored at or below the cut off (operationalizing "low proficiency") were invited to participate in the study.

3.3.2. Reading Test

The reading assessments administered to participants both pre- and post-course were parallel forms developed from the official course textbook, *Top Notch 1B*. Each form represented a comparable unit and contained multiple-choice items assessing literal, inferential, and vocabulary-in-context comprehension. Specifications for each of the forms (item types, balancing difficulty, timing) were matched. An additional two TEFL experts reviewed item-text alignment for content validity, and the pilot data was checked for item facility and discrimination. Each test took approximately 25 turned into 30 minutes to administer, and reliability (KR-20/ α) was calculated.

3.4. Data Collection Procedure

All assessment and instruction were conducted within the English course day over four consecutive weeks. In week one, the participants completed the OPT for screening and the reading pretest. Week two to week three consisted of four reading lessons (two lessons per week). In the experimental group, prior to beginning each reading, the teacher executed a 6-8 minute activator sequence: (a) topic prompt with rapid elicitation of prior experiences, (b) preview of key visuals/titles, (c) two to three guided prediction questions, (d) a brief scaffolding of 6-8 critical lexis in contextual units. No additional time was added to the overall length of the lesson; these activators simply replaced learner's generic warm-up sequence. The control group consistently used the same reading syllabus readings (same reading texts,

time on task, independent and collaborative comprehension activities), but began their reading text without structured activators. Standardized pre-reading signal, oral instructions, and post-reading tasks were used with both groups. During the week four, all participants completed a posttest reading measure. For test administration and scoring, all procedures were identical to the pretest.

3.5. Data Analysis

Analyses were performed at $\alpha = .05$. Data were screened for outliers and assumption checks including normality of residuals, homogeneity of variances, and independence of covariate-treatment. Primary efficacy was estimated in two complementary ways. An independent-samples t-test on post and pre reading scores with Cohen's d and 95% CIs was estimated. We also estimated posttest as the dependent variable, experimental vs. control group as the fixed factor, and pretest as a covariate. Then, effect sizes reported as partial η^2 . Reliability indices (KR-20/ α) were reported for all measures.

4. Results

4.1. Descriptive Statistics for Reading Comprehension

Descriptive statistics were used to examine patterns of reading comprehension performance across groups before conducting any further statistical analyses. The means and standard deviations for the pretest and posttest reading comprehension scores of both groups are displayed in Table 1.

Similarly, as demonstrated in Table 1, on average, both groups had relatively the same levels of Reading Comprehension, prior to the intervention. That is, the average score for the experimental group at the pretest was 8.47 (SD =1.62) and for the control group the mean was 8.39 (SD =1.58). These scores indicate that both groups were very similar with respect to their pre-instruction reading ability.

At the posttest, both groups made improvements; however, the magnitude of the improvements made by the experimental group was significantly greater than those made by the control group. The increase in the mean score for the experimental group posttest was 12.63 (SD = 1.71), which is a significant increase from the pretest score. The mean score for the control group posttest was 9.94 (SD = 1.66) and also reflects an increase, but a much smaller increase. Also, the stability of the standard deviations for both groups indicated that there was a consistent amount of variability within each group from pretest to posttest.

An analysis of gain patterns indicates that learners who participated in the experimental conditions exhibited a significantly greater average gain in reading comprehension than learners in the control group. The results from this analysis

indicate that the two groups developed differently over time and need additional inferential testing to assess the impact of background knowledge activation on reading comprehension and developmental differences between groups.

Table 1

Descriptive Statistics for Pretest and Posttest Reading Comprehension Scores

Group	Test	N	Mean	SD
Experimental	Pretest	30	8.47	1.62
	Posttest	30	12.63	1.71
Control	Pretest	30	8.39	1.58
	Posttest	30	9.94	1.66

4.2. Effect of Background Knowledge Activation on Reading Comprehension

Two analyses were conducted in a complementary manner to answer the research question on the effect of activating background knowledge on reading comprehension. The first type of analysis conducted was called a "gain score analysis" which was calculated using an independent-samples t-test; then followed with another analysis using ANCOVA (controlling for pretest performance).

Gain Score Analysis

The posttest score was calculated by subtracting each participant's pretest score from their posttest score to obtain a gain score. To compare the means of the two groups (experimental and control), an independent samples t-test was performed. When inspecting the descriptive data, it was evident that the experimental group had a significantly higher improvement in their reading comprehension than the control group.

Data in Table 2 show that the mean gain score for the experimental group was 4.16 (SD = 1.52), while the mean gain score for the control group was 1.55 (SD = 1.34). The results of the independent samples t-test indicated that there was a statistically significant difference between the means of the two groups, $t(58) = 6.94$, $p < .001$. The size of the effect of this difference was considered large based on Cohen's $d = 1.79$, indicating that activation of background knowledge played an important role in the development of reading comprehension among learners.

Table 2*Independent-Samples t-Test Results for Gain Scores*

Group	N	Mean Gain	SD	t	df	p	Cohen's d
Experimental	30	4.16	1.52				
Control	30	1.55	1.34	6.94	58	<.001	1.79

ANCOVA Results

An ANCOVA was used to analyze the effect of background knowledge activation while controlling statistically for initial reading comprehension ability. The ANCOVA used posttest reading comprehension as the dependent variable and entered group (experimental versus control) as the fixed factor with pretest reading comprehension as the covariate

As can be seen in table 3, the ANCOVA findings demonstrated that group has a statistically significant effect on posttest reading comprehension after controlling for pretests ($F(1, 57) = 41.62, p < .001$), with a large effect size (partial $\eta^2 = .42$). The partial η^2 (42%) shows that approximately 42% of the variance in posttest reading comprehension scores was due to group assignment. The pretested group covariate was also statistically significant, supporting the validity of the pretested group's scores as a predictor of posttest performance.

The adjusted group means show that the experimental group (adjusted mean = 12.58) outperformed the control group (adjusted mean = 9.99) on the posttest. This finding further illustrates that activating prior knowledge improves reading comprehension outcomes.

Table 3*ANCOVA Summary for Posttest Reading Comprehension*

Source	SS	df	MS	F	p	Partial η^2
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Pretest	48.27	1	48.27	19.84	<.001	.26
Group	101.45	1	101.45	41.62	<.001	.42
Error	139.02	57	2.44			
Total	288.74	59				

5. Discussion

The current research demonstrated that activating background knowledge markedly improved the reading comprehension ability of low-proficiency EFL students. This finding is consistent with interactive frameworks of L2 reading that argue comprehension develops from a coordination of top-down (schema-driven) and bottom-up (code-driven) processes (Grabe, 2009; Qasserras, 2023). Specifically, the intervention likely helped to lower the processing load during the initial stages of reading, and then helped students to build a more cohesive situation model of the reading passage by front-loading topic schemata in the form of short text prompts, guided predictions, and specific lexical priming, exactly the type of pre-reading support that is outlined in interactive models (Qasserras, 2023; Grabe, 2009).

The current investigation has shown that the activation of background knowledge led to a measurable increase in reading comprehension for low-proficiency EFL learners. This finding is in line with interactive views of L2 reading, which detail comprehension as a result of a synthesis between top-down (schema-driven) and bottom-up (code-driven) sources (Grabe, 2009; Qasserras, 2023). The intervention used brief prompts, encouraged predictions, and primed lexical targets, encouraging learners to activate or front-load topic schemata that likely mitigated initial load on processing, thereby allowing learners to more effectively construct a coherent situation model of the text, the type of pre-reading scaffolding interactive models advocate (Qasserras, 2023; Grabe, 2009).

These findings directly target some key needs identified in school contexts, where background knowledge is often identified as a primary barrier to comprehension. For instance, as described in Sari et al. (2020), background knowledge is among the three greatest constraints, motivation and strategy use being the other two, for tenth-grade readers; and building background knowledge was explicitly mentioned, along with reader factors, home literacy, and text factors, as a contributor to proficiency gaps (Dhakai, 2024). This evidence of a positive effect suggests that even relatively brief, low-overhead activators may target the background knowledge constraint in meaningful ways for low-proficiency adolescents, in

addition to more broadly differentiating instruction and providing explicit instruction (Dhakal, 2024).

The finding also differs from Yan and Kim's (2023) study, where students reported their strategy awareness (the awareness of using reading strategies (schema awareness, to ease comprehension for example)) increased as a result of computer-aided mind-mapping whereas there was not an increase in student scores on tests. This choice of design might lead to different interpretations. Yan and Kim studied learners at a university using a DMM. In the interviews with the students, they stated that they struggled with time-stress (too much to do in the mind-map), struggled with coordination on the grid, and struggled with the tool itself which was all perceived negatively. All of these interactions likely used cognitive and instructional time budgets that low proficiency readers especially need for reading text. In the case of this study's routine, the use of simple and quick routines, teacher-led and minor choice, gave the learners low-friction activation that for lower proficiency readers, adapting schema awareness to comprehension may be necessary. In other words, the simplicity of implementation might be pedagogically advantageous to students having challenges with reading.

Motivation is a second possible explanation. Sari et al. (2020) identified motivation as the most frequently cited barrier; research in pleasure/extensive reading suggests that sustained engaged input, lead, interest, and motive engagement increases comprehension and even writing, in part from affective learning gain through lexical knowledge (Attiyat, 2019; Rahman & Mohamad, 2023; Liu & Saad, 2025). While the intervention was not an extensive reading course, the pre-reading activators likely primed for interest and expectancy of meaning that increasement of task engagement and the learner's perception of their competence. The affective experience learners are having in reading actions is tightly coupled to comprehension (Attiyat, 2019; Rahman & Mohamad, 2023). It suggests again more of a complementarity than competition: pre-reading activators lead to activation of background knowledge for the lesson, while extensive reading as an all the time and at all levels approach builds topical familiarity and knowledge of the world (Liu & Saad, 2025; Rezaee et al., 2021; Nguyen, 2022).

Technology-mediated reading ecosystems also provide additional context for these findings. Reviews indicate that digital affordances (i.e., glosses, multimodal previews, adaptivity) could help learners scaffold comprehension and strategy use (Godwin-Jones, 2022; Karasimos, 2022; Mandarsari, 2023; Rezaee et al., 2021; Nguyen, 2022). However, as the work of Yan and Kim (2023) warns, tool friction could lessen these effects, especially with short interventions or when learners need to be guided more tightly. In this regard, our findings dovetail with a tiered

implementation of digital transformation in reading instruction: first, start with low-friction, teacher-led, background-knowledge activation included in the before reading phase; and then layer in digital supports that can be shown to reduce (rather than contribute) total time and coordination costs (Bonnet & Westerman, 2021; Godwin-Jones, 2022). In particular, in classrooms where teachers already favor active-learning for reading, higher engagement and comprehension, encouraging teamwork, cooperation, and discussion, development of higher-order thinking skills (Phan, 2022), background knowledge activation is a concrete and bounded active-learning move that targets meaning-making during the moment of need.

In conclusion, the research presents context-specific evidence from Iraq, where evidence suggests ongoing challenges for EFL language learners and the importance of pragmatic scaffolds in text-heavy curricula (Abdullah et al., 2024; Sharma, 2022). By illustrating that simple background-knowledge activation routines can generate meaningful gains with low-proficient adolescents in regular lessons, the findings address equity and scalability, key priorities echoed across lifelong and systems-level thinking around second language acquisition and schooling (Pfenninger et al., 2023; Bonnet & Westerman, 2021).

6. Conclusion

For EFL classrooms serving students at low-proficiency levels, brief, low-friction background-knowledge activation sequences, topic prompts, guided predictions, and targeted lexical priming, should be a standard pre-reading move, because they have been shown to appreciably enhance comprehension, while sacrificing only a little time. Teacher training can model these routines using fidelity checklists, and writers of curriculum can hard-wire background-knowledge activation into unit openers (e.g., anticipation guides, concept maps, visual previews) in order for background-knowledge activation to be systematic, rather than ad hoc. Programs can pair background-knowledge activation with extensive/pleasure reading to build world knowledge and motivation over time, and only add those digital supports (e.g., static visual previews, curated glosses) that minimize cognitive and coordination costs for struggling readers. At the assessment level, departments need to track gains using parallel forms and report effect sizes to support iterative refinement and scale-up across grades and texts.

Causal claims and generalizability are restricted by the quasi-experimental design's combination of intact classes, having a single site, and a small, all-male sample size. The research did not fully account for teacher effects. The intervention ran for a short time (the schedule was an established constraint) and the outcomes were based on textbook-driven aligned multiple-choice tests, and there was no delayed posttest to measure retention or transfer to new genres and tasks. Process measures

(e.g., motivation, cognitive load, on-task strategy use) and fidelity data were somewhat limited, although we recorded fidelity data. Future studies should employ multi-site, mixed-gender cluster randomization; include delayed and far-transferring measures; collect process-tracing data (think-aloud, log files, engagement scales); test dose–response and cost-effectiveness; and compare to background-knowledge activation versus alternative/augmented formats (e.g., digital mind-mapping, background-knowledge activation + extensive reading), ultimately identifying the simplest, most scalable package for diverse contexts.

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