

Enhancing Skimming and Scanning Techniques through Supplementary Materials

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Abstract

The present study aims to investigate the impact of supplying additional resources in improving skimming and scanning techniques of reading comprehension. The study follows an experimental design utilizing a pre-test and post-test. The sample of the study was 105 undergraduate students from the College of Science at Charmo University, Sulaymaniyah, in the Kurdistan Region of Iraq. The data was analyzed using the Statistical Package for Social Sciences. The independent sample t-test was used to explore the differences between male and female participants. Furthermore, the paired samples test was employed to observe the significant differences between the control group and the experimental group. The findings of the study demonstrated that no statistical differences were noticed between male and female participants for the control group. Conversely, a significant difference between males and females existed in the experimental group, with a higher mean score of female than male participants. On the other hand, there were significant differences between the control and experimental groups; the participants from the experimental group had remarkably better performance than the ones from the control group. This study highlights the value of integrating supplementary materials into reading instruction, particularly for students facing challenges in reading comprehension. The findings provide actionable insights for teachers, educators, and policymakers to design targeted interventions that improve specific reading strategies, thereby contributing to improved educational outcomes.

Key words: Kurdish EFL learners; Reading comprehension, Skimming and scanning techniques, Supplementary materials, Undergraduate students

1. Introduction

Reading is a multifaceted skill that goes beyond just decoding words. For it to be truly effective, comprehension is key. When reading is understood, new information can be grasped, applied to various contexts, and engaged with more thoroughly. Whether it is for learning, staying informed, or pleasure, comprehension helps in making sense of what is being encountered, allowing readers to retain and use information more effectively. It involves not just understanding the literal meaning of the text, but also interpreting nuances, recognizing themes, and connecting ideas. Reading is a crucial skill not only for learning but throughout one's life. Azor and Gutierrez (2023) state that “reading comprehension is an intentional, active, interactive process that occurs before, during and after a person reads a particular piece of writing. It is one of the most valuable skills that a person needs to develop” (p.248).

Reading is inherently as interactive as any other language skill, signifying that there is a dynamic exchange between the writer and the readers facilitated by the text. Tizon (2012) refers to reading as ‘the mother’ of all study skills and one of the most significant skills. In the process of second/foreign language learning, reading comprehension requires particular attention, as there are many features to written text that need to be taught which cannot be found in oral language. Some of these include punctuation marks and text structure (Duke et al., 2021). When learners are familiarized with these features, it becomes easier for them to understand the meaning of what is written.

Utilizing supplementary materials has proven beneficial in filling textbook gaps, since textbooks might not satisfy learners' needs (McGrath, 2013). Balquiedra (2019) emphasizes the impacts of supplementary materials on students' academic performance and their role in enhancing their reading comprehension skills. Moreover, to enhance reading comprehension, different reading strategies should be incorporated into the process (Brown, 1994). Two well-known techniques are skimming and scanning, which are going to be shed light on in this paper. These two techniques both fall under quick reading; however, skimming is reading for the gist or overall meaning of a text, while scanning is looking for specific information (Novasyari and Lastari, 2023).

Reading, along with the other skills, is studied throughout school and university in Kurdistan. At the school level, a program titled *Sunrise* is used, which is designed based on communicative language teaching. It incorporates the four language skills: reading, writing, listening, and speaking, with a clear emphasis on grammatical structures (Sofi-Karim, 2015). Despite the fact that this curriculum follows a communicative approach, it fails to achieve some of its objectives due to several reasons. Not using the CDs that accompany the books, the large number of students in the classes, the lack of facilities to assist teachers, the short time allocated for the lessons and not conducting the lessons communicatively are among the factors behind its drawbacks (Muhammad et al., 2016). On the other hand, on the basis of university levels, English language teaching varies among different universities, i.e., they follow several programs and curriculums. With regards to Charmo University, where we collect the data for the present study, *Headway Academic Skills* is used, which is published by Oxford University Press. The focus of this syllabus is on reading, writing, and academic skills. Students study these skills for a period of two semesters and then go on to study academic English for the next two semesters (that is four semesters in total). Despite these facts, students face challenges in understanding reading texts, which would later on affect their academic levels as the language of instruction is mostly English.

Regardless of thorough studies on strategies for reading comprehension, there is a lack of research on the effectiveness of supplying additional materials for skimming and scanning improvements. In the Kurdistan region, where educational obstacles include a lack of resources, big class numbers, and inconsistent curriculum design, this disparity is especially noticeable. Few studies have specifically examined skimming and scanning strategies, which are essential for academic performance in higher education, while previous research has examined general reading comprehension or the usefulness of supplemental materials. By addressing these gaps, this study aims to provide empirical evidence on the role of supplementary materials in improving skimming and scanning skills, offering insights that are directly applicable to educators and policymakers, particularly within under-researched contexts like the Kurdistan region.

Thus, the research questions that this study seeks to address are:

1. Is there gender-based differences with respect to how additional resources impact Kurdish FFL learners' skimming and scanning techniques?

2. Does the use of supplementary materials enhance students' skimming and scanning techniques among undergraduate Kurdish EFL learners?

In the light of the research questions posed, the following hypotheses have been formulated:

H₀: Supplementary materials do not play a role in improving skimming and scanning techniques in undergraduate Kurdish EFL learners.

H₁: Supplementary materials play a role in improving skimming and scanning techniques in undergraduate Kurdish EFL learners.

2. Review of literature

2.1 Overview of reading comprehension theories

Reading is one of the main skills of any language and it is a receptive skill. Reading involves the practice of remembering, analyzing and understanding a text. Being able to understand and interpret a text accurately depends on one's ability and expertise of reading skill. Reading is widely viewed as the essential means of communication in a globalizing world (Khand, 2004). Concerning reading comprehension stages, Liu (2010), mentions several stages of comprehending a text. The first one is the 'literal' meaning of the text. In this stage, the reader understands the meaning of texts that are directly or explicitly conveyed. The reader comprehends the direct connotations. The next stage is 'referential', meaning the readers go farther and find meaning in references and metaphoric meanings of the texts. In this stage, readers need to interpret the ideas, find related ideas, read very carefully and question the ideas and the perceptions. The readers ought to read attentively and relate the ideas. The next step is 'critical understanding'. Hereafter, the readers comprehend the text and the writer's intention very well; they examine and assess the text. They scrutinize the ideas.

Regarding reading skill theories, there are several theories and there have been changes and developments in reading theories. According to Gough (1972), the bottom-up theory in reading is the process of decoding and understanding the simplest linguistic units of language, such as letters and phonemes. Then, readers move to decoding words, sentences, and larger linguistic components. In other words, learners start from interpreting the sounds and letters until

understanding the whole author's point of view (Amadi, 2019). However, the top-down theory of reading comprehension asserts that learners are active participants in the process of reading comprehension. Learner's background knowledge and textual knowledge have direct implications on the process of reading comprehension. Learners use their knowledge about the text or the topic and life experiences to make hypotheses, interpret a text and gradually understand the text (Gove, 1983). Another theory of reading is the interactive theory, which suggests that the reading process is a combination of both bottom-up and top-down process. Thus, reading is not an isolated process. Learners use cognitive process, such as background knowledge, contextual knowledge, linguistic knowledge, and expectations to make sense of what they read while also depending on comprehending the individual letters, words and sentences and more complex texts (Lee, 2000).

According to the traditional view of reading comprehension, also known as the simple view of reading by Gough and Tunmer (1986), reading consists of two important components, which are decoding and linguistic comprehension. These two are equally significant in reading. The simple view contends that reading requires linguistic comprehension such as word recognition, sentence recognition, understanding discourse, etc. The simple view of reading asserts that decoding is an essential aspect of reading as well. Therefore, neither of them is sufficient on its own in the process of reading proficiency. Nevertheless, according to the cognitive developmental theory, success in reading requires two primary elements: phonology recognition and letter recognition. Phonological recognition means understanding the spoken parts of words and sentences. This type of recognition involves being able to identify words that rhyme. Whereas letter recognition means being able to recognize the letters. These two skills have the potential to develop reading comprehension ability (Royer & Sinatra 1994). A study by Hacker et al. (2009) asserts that having the capacity to understand what you read is significant for students from an early age. Many students are able to decode a text when they read it, but they are unable to comprehend the meaning. Therefore, early comprehension has gained attention from educators, curriculum designers, and researchers. They further continue and mention another theory of reading skill comprehension which is called the metacognitive view. This means having the capacity to understand cognitive processes and being able to control them. The understanding part comprises the awareness of your cognitive processes. The control part comprises examining the cognitive process to be sure of its efficiency, and the ability to control it with the aim of improving performance. For example, using strategies to improve comprehension. Furthermore, the

differences between cognition and metacognition make sense in theory. However, classifying a specific reading comprehension task as thoroughly cognitive or metacognitive is almost impossible. Certain program designers may classify their tasks or exercises as cognitive. Similarly, certain other program designers may label similar types of exercises as metacognitive activities.

2.2 Role of supplementary materials

Teaching reading strategies is critical for reading comprehension development. Unfortunately, several instructors may lack sufficient training regarding teaching techniques and strategies. Consequently, it is of utmost importance for teachers to be trained on how to teach reading skills in an effective way (Küçükoğlu, 2013). One of the applicable ways for teaching reading skills according to Ismail et al. (2017), is the employment of the translation method, which has been regarded as an effective approach for improving EFL learners' reading skills. They define the translation method as the practice of changing a text from the source language to the 'target language' or vice versa.

When teaching English in a classroom, a language instructor may find that there are not enough resources, strategies, or methodologies available to them. In such cases, additional materials could be accommodating. Every additional resource ought to be distinct from one another. The age, level, interest, and subject matter of the lessons to be taught should all be taken into consideration by the language teachers as they carefully choose and employ the relevant supplemental materials. When teaching English, a teacher should constantly be imaginative and inventive in the materials they choose and employ. They should not rely solely on textbooks to provide the answers (Ahmed, 2024; Karki, 2018; Saeid, 2024). As regards the types of supplementary materials, Karki further clarifies that there are 'audio-visual materials' which serve as additional instructional tools that join various senses, allowing students to both hear and see the message being expressed. The second type is 'audio material', which includes cassettes, computers, and mobile phones, etc. While the third type is 'visual materials' which engage students' sense of sight and involve a wide selection of resources like photographs, paintings, drawings, books, sculptures, and architecture. Language teachers can rely on these materials for their ability to convey information meritoriously.

Thakur (2015) maintained that there are various additional materials that language teachers could use in the classroom for the purpose of improving EFL learners' language skills. For instance, jests, short stories, tales, comics, journals, TV shows and so on. These resources show everyday and common language that is used among native speakers. Thus, they are not really educational in nature. Nonetheless, these materials boost learners' confidence to use the language for communication and make the lectures enjoyable (Ali et al., 2024). A study by Losada et. al. (2017) confirms the positive impact of authentic additional material in improving communicative competence. Consequently, using authentic additional materials are beneficial owing to the fact that in the process of second or foreign language teaching and learning, the focus is on the learner's ability to communicate and develop communicative skills.

2.3 Related studies

There are many studies that investigate gender differences and comparisons between male and female learners in reading comprehension in general. A study by Oda and Abdul-Kadhim (2017) examined the relationship between both genders and reading comprehension on several levels. The study found no differences between male and female learners on several levels of reading comprehension. Only on a critical level, females performed better than males. The findings of another study by Putri and Melani (2022) on gender variation and reading comprehension performance indicated that there were no differences between male and female on the five-level taxonomy of reading skill. However, several studies demonstrated that females obtain better grades in reading comprehension tests, which might be due to cognitive ability variations or cultural factors (Logan & Johnston, 2010), (Alomair & Almethen (2021), (Reilly& Andrews, 2018). On the contrary, Karizak & Khojasteh (2016) examined the impact of utilizing three reading strategies, which are skimming, scanning, and pinpointing the main idea of a text, on the learner's reading comprehension performance. The study revealed that male learners apply reading strategies more, and they had higher reading comprehension performance. Furthermore, utilizing the reading strategies enhances learners' reading comprehension ability. Based on these findings, it is clear that gender variation plays a role in reading comprehension performance. Consequently, more studies must be conducted on reading comprehension strategies and gender variations to discover the impact of additional materials on specific reading strategies with relation to gender variation.

Several studies showed that skimming and scanning have a positive effect on enhancing reading comprehension among EFL students. Yusuf et al. (2017) conducted a study to explore the efficiency of 32 high school students from a high school in Indonesia using a pre-test and post-test design. The findings suggested a positive impact of skimming and scanning techniques in developing students' reading comprehension skills. Similarly, Fauzi (2018) carried out research to investigate the impact of supplementary materials on improving skimming and scanning techniques on reading speed. His study focused on 54 undergraduate students using a quasi-experimental design through a pre-test and post-test study for English major students.

On the topic of EFL instructors' and learners' points of view about effective reading comprehension strategies, a study by Murad (2014) investigated the strategies utilized by the students of the English Department/Zakho University. The teachers' and learners' perceptions were also explored through semi-structured interviews. The findings indicated that skimming and scanning are among those techniques Kurdish EFL learners use in reading skill comprehension. Nevertheless, another study by Rassul (2018) confirmed that university-level students of the English Department/Salahaddin University do not employ a sufficient amount of reading strategies and thus they did not perform very well in the reading comprehension test. This finding indicates that more research is needed on reading skills, its strategies and techniques.

Additional reading materials are considered to be beneficial in enhancing EFL learners' reading comprehension skills and language proficiency in general. Although there aren't enough studies about the role of supplementary material on reading comprehension performance. Fauzi and Raya (2018) confirmed the positive impact of additional resources on improving skimming and scanning techniques of undergraduate EFL students' reading comprehension and reading speed ability. Their study followed a pretest-posttest design in which the experimental group outperformed the control group in the post-test. However, in the context of the Kurdistan Region of Iraq, the studies that have been conducted on reading skills, skimming and scanning in particular, seem to be mainly about the strategies, techniques or perceptions of teachers and learners on the aforementioned techniques. A study was conducted by Sabet and Rostamian (2016) utilizing a questionnaire and two tests to determine the effect of extensive material (one of the supplementary reading materials) on improving Iranian EFL learners' reading skills. The result of their study reveals the positive impact of those additional reading material on EFL upper-

intermediate learners' reading skills. Another study by Salameh (2017) explored the attitudes of 70 EFL Saudi university students regarding extensive reading materials. The results show positive attitudes of the learners regarding enhancing English language skills through extensive reading materials. Moreover, Salameh (2017) also recommends that teachers need to monitor the extensive reading materials to augment the efficacy of the materials. These findings indicate the significance of carrying out further studies on the role of supplementary material on reading comprehension performance, especially in the context of the Kurdistan region of Iraq.

3. Methodology

3.1 Design of the study

The present study follows a quantitative approach using a pre-test and post-test experimental design to explore the effectiveness of supplying additional materials in enhancing skimming and scanning techniques among Kurdish EFL learners. The research attempts to tackle two primary research questions: whether there is gender-based variation in how supplementary materials improve students' reading comprehension and whether additional resources improve Kurdish EFL undergraduate students' skimming and scanning techniques.

3.2 Population

The participants of the present study were 105 learners from the first semester at Charmo University, Sulaymaniyah, Iraq. The control group consists of 54 participants from the Department of Medical Laboratory Science, College of Science. On the other hand, fifty students from the College of Science's Chemistry Department made up the experimental group. The study's participants were chosen using the convenience sampling technique. Throughout the semester, the experimental group got additional materials and instruction to examine the effects of those materials on their overall reading skill performance, while the control group received regular reading skill education.

3.3 Instruments and procedure

Data was collected using a controlled pre-test/post-test experimental design over a 12-week period. To determine the participants' started reading comprehension skills, a pre-test was

given at the start of the study. Two texts from the British Council's official website that were classified as A2-level reading materials by the Common European Framework of Reference for Languages (CEFR) were included in the pre-test. These texts were picked because they were known to be reliable indicators of reading proficiency and because they matched the participants' level of proficiency. Each text was between 200 and 250 words in length, meeting the requirements for the A2 level. The pre-test exercises also included short-answer, multiple-choice, and matching questions that evaluated scanning and skimming skills. The students completed these assignments in 45 minutes.

Following the pre-test, the experimental group were given extra reading materials on top of their usual curriculum every week. These extra documents were also acquired from the British Council and included a variety of text kinds, including emails, pamphlets, advertisements, and short paragraphs. Each text featured tasks aimed at scanning (finding specific information) and skimming (identifying key concepts). The texts were carefully selected to match the participants' level of competency, with word counts ranging from 150 to 300 to guarantee consistency and appropriate complexity. The instructor gave an overview of each text, clarified the assignments, and helped the students do them in the allotted time. Without any extra resources, the control group carried on with their usual lesson.

To assess how the extra materials affected the experimental group's reading abilities, a post-test was administered at the conclusion of the 12-week period. Different A2-level texts, again from the British Council, were utilized for the post-test to prevent familiarity with the pre-test materials while preserving validity and uniformity in difficulty level. The post-test had two texts with two tasks each, and it took forty-five minutes to complete, much as the pre-test. The post-test texts had a word count of between 200 and 250. Short-answer, matching, and multiple-choice questions were all included in the same format as the pre-test.

In order to guarantee transparency and reproducibility, the appendices contain comprehensive examples of the pre-test and post-test tasks as well as the precise sentences that were utilized. A pilot test with a small group of students at a similar proficiency level before the main study was conducted, and the CEFR criteria were consulted to confirm the consistency of the pre-test and post-test in terms of difficulty level.

3.4 Ethical issues

Official approval from the university's pertinent departments was sought before the study was carried out, and each participant's informed consent was gathered. Participants received guarantees that the study would maintain the confidentiality of their identities and personal data. Multiple-choice, matching, and short-answer questions were among the objective, fixed-response items that made up the majority of the pre-test and post-test assessments. These question types were selected due to their simple evaluation procedure, which eliminates the need for subjective assessment and guarantees grade uniformity. Since evaluating reading comprehension is mostly an objective process, two instructors independently evaluated the tests to ensure correctness and prevent any score errors. The veracity of the results was further guaranteed by the use of predefined answer keys. The study complied with ethical standards and preserved the accuracy of the data gathered by offering precise and organized evaluations.

4. Result and Discussion

4.1 Gender-based variation in control and experimental group

This part of the study shows the result of the gender-based variations for the importance of supplying additional resources in improving skimming and scanning techniques for Kurdish EFL learners.

Table 1:

Gender-based differences for the pre-test and post-test for the control group

Group Statistics						
	Gender	N	Mean	SD	T-Value	P-Value
Pretest	Female	46	70.89	22.96	1.798	.334
	Male	8	54.38	29.71	1.497	
Posttest	Female	46	76.70	17.94	1.454	.016
	Male	8	65.63	29.44	1.031	

Table 1 showed the results of the control group's test scores for males and females, which intends to investigate the influence of extra materials in improving reading comprehension skills

related to scanning and skimming. The pre-test results show a considerable disparity in the distribution of participation, with 46 female students and only 8 male students, indicating an imbalance in group sizes.

Before the statistical analysis, the assumptions of the t-test were assessed. Both the male and female participants' data were found to be normally distributed ($p > .05$) when the Shapiro-Wilk test was performed to examine the data's normality. In order to confirm the homogeneity of variance, Levene's Test for Equality of Variances was also conducted. The results indicated no significant difference in variance between the groups ($p > .05$), validating the use of a t-test over a non-parametric alternative.

In the pre-test, no significant difference was observed between female participants ($M = 70.89$, $SD = 22.96$) and male participants ($M = 54.38$, $SD = 29.71$); $t(1.798) = [t\text{-value}]$, $p = .334$. The mean scores suggest that female participants performed better than male participants in the pre-test, with a smaller standard deviation (SD) among females indicating that their scores were more closely grouped around the mean. Conversely, the higher SD among male participants reflects greater variability in their performance, indicating individual differences within this group.

In the post-test, a significant variation was observed between female participants ($M = 76.70$, $SD = 17.94$) and male participants ($M = 65.63$, $SD = 29.44$); $t(52) = [t\text{-value}]$, $p = .016$. The mean score for female participants was significantly higher than that for male participants. Furthermore, the reduced SD for female participants in the post-test suggests an improvement in consistency, while the unchanged SD for male participants indicates persistent variability in their performance.

The results demonstrate that the assumptions for the t-test were met, allowing for a valid comparison between groups. The findings highlight significant gender-based differences in post-test performance, emphasizing the impact of supplementary materials on the development of skimming and scanning techniques, particularly for female learners.

Regarding how additional resources affect skimming and scanning techniques in reading comprehension, the p-value indicates whether there is a significant difference in gender-based performance among Kurdish EFL learners. The findings from the pre-test and post-test do not

show a significant change; however, the post-test result is closer to the significance threshold, as the p-value for the pre-test is higher than that of the post-test. This suggests that the skimming and scanning techniques of male and female participants may have been influenced by the additional materials. Nevertheless, the changes are not substantial enough to confidently confirm a significant gender-based difference.

Table 2:

Gender-based differences for the pre-test and post-test for the experimental group

Group Statistics						
	Gender	N	Mean	SD	T-Value	P-Value
Pre-test	Female	33	67.33	19.24	.419	.574
	Male	18	64.81	22.65	.400	
Post-test	Female	33	80.94	15.68	.407	.222
	Male	18	78.78	22.05	.368	

Table 2 presents the gender-based differences in pre-test and post-test scores for the experimental group, which investigated the impact of supplementary materials on improving skimming and scanning techniques among Kurdish EFL undergraduate students.

The results indicate no statistically significant gender-based differences in either the pre-test or post-test scores. In the pre-test, female participants scored slightly higher ($M = 67.33$, $SD = 19.24$) than male participants ($M = 64.81$, $SD = 22.65$), with a t-value of .419 and a p-value of .574, indicating no significant difference. Similarly, in the post-test, female participants again showed slightly higher scores ($M = 80.94$, $SD = 15.68$) compared to male participants ($M = 78.78$, $SD = 22.05$), with a t-value of .407 and a p-value of .222, which also failed to reach statistical significance.

The standard deviation (SD) of female participants decreased in the post-test compared to the pre-test, suggesting a more consistent performance within this group. In contrast, the SD for male participants remained similar across both tests, reflecting continued variability in their individual results.

These findings indicate that while both male and female participants demonstrated improvements in skimming and scanning skills following the use of supplementary materials, the improvements were comparable between genders. There were no statistically significant changes, indicating that both males and females benefited equally from the extra resources.

Comparable instructional strategies, educational resources, and cultural backgrounds between the two groups suggest that there aren't any notable gender inequalities. Furthermore, it is likely that the consistency of male and female students' performance was explained by the similar levels of interest and involvement. According to Oda and Abdul-Kadhim (2017) and Putri and Melani (2022), there was no indication of a gender difference in the enhancement of reading comprehension abilities like scanning and skimming. These outcomes are consistent with earlier study findings.

4.2 Pre-test and Post-test for both control and experimental groups

This section shows the differences between the pre-test and post-test findings for the control and experimental groups in order to examine the effect of extra resources on enhancing the reading comprehension abilities of Kurdish EFL learners.

Table 3: The result of the paired samples test for the control group

	Mean (Pre-test)	Mean (Post-test)	Mean Difference	SD	SEM	T-value	df	Sig. (2-tailed)
Control Group	68.44	75.06	-6.61	16.84	2.29	-2.89	53	.006

The results of the paired sample t-test, which separates the control group's pre-test and post-test scores, are shown in Table 3. This investigation was done to see if the participants' scanning and skimming methods got better over the course of the trial.

The results of the paired samples t-test revealed a significant difference between the pre-test scores ($M = 68.44$, $SD = 16.84$) and the post-test scores ($M = 75.06$, $SD = 16.84$); $t(53) = -$

2.89, $p = .006$. This implies that the participants' reading comprehension skills—specifically, their application of skimming and scanning techniques—improved significantly over the training period.

The paired samples t-test assumptions were thoroughly examined to guarantee the accuracy of the statistical analysis. The Shapiro-Wilk test was performed to look for normality in the variations between the pre-test and post-test results. Findings indicated that the differences were regularly distributed ($p > .05$), which validated the normality assumption. The second factor that ensured the independence of observations was that each participant's pre-test and post-test scores were unique and independent and reflected their individual performances; there was no overlap or effect between the outcomes. Third, as the scores were recorded on a continuous interval scale, the scale criteria needed for parametric testing was met. Lastly, the analysis was shown to be appropriate since, although equal variance is less significant in paired samples t-tests, the standard deviations of the pre-test and post-test scores did not show any significant differences. These evaluations confirmed the paired samples t-test's usefulness for data analysis.

There is a noticeable improvement, as evidenced by the -6.61 mean difference between the pre-test and post-test; greater post-test scores suggest better scanning and skimming techniques. Individual ratings appear to vary little, indicating that group performance is stable, as seen by the small standard deviation ($SD = 16.84$). The statistical significance of the observed improvement was supported by the t-value of -2.89 and the corresponding p-value of .006. This indicates that people in the control group improved their scanning and skimming abilities over the training period, even in the absence of extra resources. The study's regular exposure to the course materials and structured teaching methods may have contributed to this development.

Even without additional resources, the results indicate that consistent education alone can result in notable gains in reading comprehension abilities, including scanning and skimming strategies. Because of the lesson's methodical and consistent teaching techniques, the control group's post-test scores significantly improved as compared to their pre-test results.

As demonstrated by this improvement, conventional teaching strategies and course materials can promote a certain degree of skill growth without the need for extra interventions. A strong curriculum and dependable teaching methods are essential for fostering students' consistent progress, as evidenced by the control group's slight improvement in reading comprehension. The

fact that these improvements were so moderate suggests that traditional training would not be adequate to satisfy the more sophisticated needs of pupils who wish to improve their scanning and skimming abilities.

Even though the control group's pre-test and post-test scores differed from the experimental group's, comparing these results provides a better understanding of the significant additional benefits of using supplemental materials. This study highlights the importance of targeted interventions in attaining greater improvements in advanced reading skills.

Table 4: The result of the paired samples test for experimental group

	Mean (Pre-test)	Mean (Post-test)	Mean Difference	SD	SEM	T-value	df	Sig. (2-tailed)
Experimental Group	66.44	80.18	-13.73	19.05	2.67	-5.15	50	.000

Table 4 presents the results of the paired samples test for the experimental group in order to determine whether there were any notable differences between the participants' pre- and post-test scores of the experimental group.

A paired samples t-test was used in the analysis to evaluate scanning and skimming methods. There was a significant difference between the pre-test ($M = 66.44$, $SD = 19.05$) and post-test ($M = 80.18$, $SD = 19.05$) scores ($t(-5.15)$, $p = .000$). These results demonstrate a significant improvement in the scanning and skimming methods of the experimental group. Each exercise increased the final score by the same amount, and the test had a maximum possible score of 100. Both the pre-test and the post-test contained two texts and two tasks. The tasks were designed to assess certain scanning and skimming skills:

- Task 1 (Skimming): Participants were required to identify the main idea and overall structure of the text.
- Task 2 (Scanning): Participants were told to look for specific information in the text, such as names, dates, or numbers.

Each assignment was graded out of 25 points, and each text received a total score of 50. The cumulative possible score for the two texts was 100. The grading procedure was dependable

and consistent, as the scoring criteria were objective and the right responses were known in advance.

The mean difference of -13.73 between the pre-test and post-test scores indicates significant gains in scanning and skimming abilities. According to a large t-value (-5.15) and a p-value of .000, this improvement is statistically significant. The fact that the standard deviation remained constant at 19.05 suggests that the two exams had no effect on the variations in individual performance.

The mean difference between pre-test and post-test scores of -13.73 indicates significant gains in scanning and skimming skills. This improvement is statistically significant with a high t-value (-5.15) and a p-value of .000. Individual performance variations were unaffected by the two tests, as seen by the standard deviation being constant at 19.05.

These outcomes demonstrate that more resources can enhance scanning and skimming methods. Notably, the experimental group improved, demonstrating the benefits of targeted therapy. Because of the additional materials provided during the course, the experimental group was able to advance more quickly than the control group.

The results of this study are in line with those of Sabet and Rostamian (2016), who found that giving Iranian undergraduate students access to additional resources significantly improved their scanning and skimming abilities. Similarly, this study demonstrates the importance of supplementing reading comprehension with additional content.

5. Conclusion

The study concludes that while gender has no appreciable effect on the effectiveness of skimming and scanning tactics, incorporating extra resources significantly enhances reading comprehension skills. The experimental group, which had additional resources, performed far better than the control group. These findings demonstrate the value of providing more resources as a practical strategy to help students who have trouble with reading comprehension, particularly with regard to skimming and scanning.

Notwithstanding the positive findings, this study had several shortcomings. First, the sample size, namely the unequal gender distribution, limits the generalizability of the findings. Second, because the study only examined undergraduates at one Iraqi university, it was unable to

accurately reflect the wider educational environment in the area. Third, the study did not examine the qualitative aspects of how students' learning practices changed or how they interpreted the extra resources because it was founded on quantitative approaches. Last but not least, the 12-week duration of the intervention may not fully take into consideration the long-term effects of extra reading materials.

Future studies should look at larger and more diverse samples from different educational levels and institutions in order to get around these limitations. Focus groups and interviews are examples of qualitative research methods that may provide a deeper knowledge of how students interact with extra materials. Through longitudinal research, the long-term effects of more resources on reading abilities could also be examined. Additional technology-based resources, such as digital tools or interactive platforms, could be investigated to further enhance scanning and skimming techniques.

The findings of this study have several implications for legislators, educators, and curriculum designers. Supplementary materials that target specific skills like scanning and skimming can significantly improve reading comprehension in Iraq, where children often struggle with English language competency. Instructors ought to consider including these materials in their lesson plans, especially in contexts where traditional teaching methods are still often employed. Policymakers could utilize these findings to propose curriculum adjustments that include skill-focused extra materials to close the gaps in the current English language programs.

By demonstrating the value of extra materials in enhancing scanning and skimming tactics, this study contributes to the growing body of literature on reading comprehension. In particular, it provides empirical data from Iraq, where this type of research is scarce. The practical solutions that are emphasized in this research offer valuable insights that can be applied in similar educational settings worldwide.

Reference

- Ahmed, A. A. (2024). Improving grammar mechanics among Kurdish EFL learners: A case study. *International Journal of Social Sciences & Educational Studies*, 11(2), 40-48. <https://doi.org/10.23918/ijsses.v11i2p41>
- Ahmed, H. H., Puteh-Behak, F., & Sidek, H. M. (2015). Examining EFL secondary reading curriculum in Iraqi Kurdistan: A Review. *Journal of Applied Sciences*, 15(3), 377-391.
- Ali, M. R., Ahmed, A. A., & Ariannejad, A. (2024). Investigating the impact of providing supplementary resources in optimizing teaching grammar tenses. *Journal of Philology and Educational Sciences*, 3(2), 1–13. <https://doi.org/10.53898/jpes2024321>
- Amadi, E. A. (2019). Bottom-up theory and phonics instruction: Implications for beginning reading. *European Journal of Applied Linguistics Studies*, 1(2).
- Alomair, M., & Almethen, A. (2021). The Impact of Gender on Reading Comprehension: Teachers' perspective. *Journal of Research in Education and Psychology*, 36(4), 485-524.
- Azor, A. C. H. & Gutierrez, J. M. (2023). Effect of supplementary reading materials to the reading comprehension of grade 11 gas students. *IJRP*, 121(1), 247-265. DOI: 10.47119/IJRP1001211320234531
- Brown, H. D. (1994). *Teaching by principles: An interactive approach to language pedagogy*. Pearson Longman.
- Castillo Losada, C. A., Insuasty, E. A., & Jaime Osorio, M. F. (2017). The impact of authentic materials and tasks on students' communicative competence at a Colombian language school. *Profile Issues in Teachers Professional Development*, 19(1), 89-104.
- Duke, N. K., Ward, A. E. & Pearson, P. D. (2021). The science of reading comprehension instruction. *The Reading Teacher*, 74(6), 663-672. doi:10.1002/trtr.1993.
- Fauzi, I., & Raya, F. (2018). The effectiveness of skimming and scanning strategies in improving comprehension and reading speed rates for the students of English study program. *Register Journal*, 11(1), 101-120.

- Gough, P. B. (1972). One second of reading. Language by ear and by eye/MIT Press.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7(1), 6-10.
- Gove, M. K. (1983). Clarifying teachers' beliefs about reading. *The Reading Teacher*, 37(3), 261-268.
- Grellet, F. (1981). *Developing reading skills: A practical guide to reading comprehension exercises*. Cambridge University Press.
- Hacker, D. J., Dunlosky, J., & Graesser, A. C. (Eds.). (2009). *Handbook of metacognition in education*. Routledge.
- Ismail, H., Syahrurah, J. K., & Basuki, B. (2017). Improving the students' reading skill through translation method. *Journal of English Education*, 2, 124-131.
- Karki, T. M. (2018). Supplementary resource materials in English language classrooms: Development and implementation. *Tribhuvan University Journal*, 32(1), 251-260.
- Karizak, A. F., & Khojasteh, L. (2016). The effect of three kinds of reading strategies on EFL learners' reading comprehension and gender difference using think-aloud protocol. *International Journal of Applied Linguistics and English Literature*, 5(5), 6-14.
- Khand, Z. (2004). Teaching reading skills: problems and suggestions. *Journal of Research (Faculty of Languages & Islamic Studies)*, 5, 43-56.
- Küçükoğlu, H. (2013). Improving reading skills through effective reading strategies. *Procedia-Social and Behavioral Sciences*, 70, 709-714.
- Lee, J. W. (2000). Reading models revisited: Are we going back to bottom-up models. *English Teaching*, 55(4), 191-211.
- Liu, F. (2010). Reading abilities and strategies: A short introduction. *International Education Studies*, 3(3), 153-157.
- Logan, S., & Johnston, R. (2010). Investigating gender differences in reading. *Educational review*, 62(2), 175-187.

- McGrath, I. (2013). *Teaching materials and the roles of EFL/ESL teachers: practice and theory*. Bloomsbury Publishing.
- Muhammad, H. A., Pae, H. & Kawthar, P. Sh. (2016). Evaluating the “Sunrise” curriculum for teaching English as a foreign language in the Kurdistan region in Iraq”. *Iraqi Academic Scientific Journals*, 12(68), 1-20.
- Murad, I. H. (2014). Investigating Kurdish students' reading strategies. *Education*, 4(6), 135-141.
- Novasyari, R. & Lastari, P. M. (2023). The use of skimming and scanning in reading comprehension at SMA Gajah Mada 3 Palembang. *Jurnal Pendidikan, Bahasa, Sastra dan Linguistik*, 4(1), 33-39.
- Oda, A. H., & Abdul-Kadhim, M. R. (2017). The relationship between gender and reading comprehension at college level. *Journal of Basrah Research: The Humanities Sciences*, 42(6), 426-442.
- Putri, D. S., & Melani, M. (2022). The comparison between male and female students' reading comprehension at IAIN Bukittinggi. *Indonesian Journal of Learning Studies (IJLS)*, 2(1), 1-9.
- Rassul, T. H. (2018). An assessment of EFL college students' performance in reading comprehension and their metacognitive reading strategies. *Journal of Raparin University*, 5(14), 5-28.
- Reilly, D., Neumann, D. L., & Andrews, G. (2019). Gender differences in reading and writing achievement: Evidence from the National Assessment of Educational Progress (NAEP). *American Psychologist*, 74(4), 445.
- Rogers, J. & Révész, A. (2020) Experimental and quasi-experimental designs. In McKinley, J. and Rose, H. (Eds.), *The Routledge handbook of research methods in Applied Linguistics* (pp. 133-143). Routledge.
- Royer, J. M., & Sinatra, G. M. (1994). A cognitive theoretical approach to reading diagnostics. *Educational Psychology Review*, 6, 81-113.

- Sabet, M. K., & Rostamian, N. (2016). The impact of extensive reading as a supplementary material on upper-intermediate EFL learners' L2 reading comprehension. *Journal of Applied Linguistics and Language Research*, 3(5), 230-246.
- Saeid, S. F. (2024). Using Peer Interaction to Improve Listening and Speaking Skills in Secondary EFL Context. *Journal of Philology and Educational Sciences*, 3(2), 23-37.
- Salameh, L. A. M. (2017). Investigating the effect of extensive reading on EFL learners' reading attitudes at Hail University in KSA. *Journal of Education and Practice*, 8(8), 7-15.
- Sofi-Karim, M. (2015). *English Language Teaching in the Kurdistan Region of Iraq* [Master's thesis, Webster University]. ResearchGate.
- Thakur, V. S. (2015). Using supplementary materials in the teaching of English: Pedagogic scope and applications. *English Language Teaching*, 8(12), 1-6.
- Tizon, M. N. (2012). Reading comprehension ability of grade VI pupils of Kinangay Sur Elementary School. *Proceeding of the Global Summit on Education*, GSE (2013), 252-262.
- Yusuf, Q., Yusuf, Y. Q., Yusuf, B., & Nadya, A. (2017). Skimming and scanning techniques to assist EFL students in understanding English reading texts. *Indonesian Research Journal in Education (IRJE)*, 1(1), 43-57.