Effects of Reading Strategy Instruction in English as a Second Language on Students’ Academic Reading Comprehension: A Study in Jordan

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Abstract—This study investigates the effects of reading strategy instruction on English reading comprehension among students in Jordan, where English is widely used in academia but often poses significant challenges for learners. Despite the recognition of English reading skills as crucial for academic success, many Jordanian students struggle with reading comprehension due to factors such as inadequate instruction and cultural differences. While the role of reading strategies in enhancing comprehension is acknowledged in educational literature, there is a lack of research focusing on the Jordanian context. This study aims to bridge this gap by exploring specific reading strategies that can be implemented, the methods of instruction, and the potential impact on students' academic performance. By providing actionable insights for educators, policymakers, and stakeholders, this research contributes to the enhancement of English reading comprehension skills in Jordan, offering a nuanced understanding that could lead to significant improvements in English language teaching and learning in the region.

Keywords— reading strategy instruction, ESL, reading comprehension, academic reading, Jordan

1. Introduction

The mastery of English language reading skills has always been considered as a cardinal component for academic success, particularly in regions where English is the medium of instruction (Brock-Utne, 2007). It is a complex cognitive process that encompasses the recognition of words, comprehension of sentences, and integration of information with prior knowledge (Grabe, 2009). Despite its obvious significance, many students in Jordan, among other non-English speaking countries, face pronounced struggles with English reading comprehension. This introduction delineates the essence of the problem, its context, the significance of reading strategies, and the study's core objective in the Jordanian educational framework. In Jordan, a nation where English is extensively used in academia and various professional sectors, the proficiency in reading English texts is vital. However, many students in the country find English reading comprehension an arduous task, with challenges often rooted in factors like inadequate instruction, lack of motivation, and cultural differences (Al-Sobh, 2018). A study conducted by Alkhawaldeh (2017) revealed that Jordanian students often face difficulties in understanding English texts, which ultimately leads to underachievement in their academic pursuits. English, being a second language in Jordan, is introduced at an early stage in the educational system, reflecting the country's commitment to integrating into the global community (Suleiman, 2017). However, the method of instruction, teacher competence, and available resources often lack uniformity and efficacy (Ibrahim & Al-Khalidi, 2020). This context amplifies the need to investigate tailored strategies that can enhance reading comprehension skills among Jordanian students. The role of reading strategy instruction in enhancing comprehension is widely recognised in educational literature. Reading strategies are mental processes that aid students in decoding text, understanding vocabulary, linking ideas, and summarising information (Duke & Pearson, 2002). The targeted instruction of these strategies has been found to significantly boost reading comprehension skills in various contexts, including English as a second language (ESL) (Chamot & O'Malley, 1994; Afflerbach et al., 2008). However, there is still a lack of focused research on their application within the Jordanian educational context. This study aims to bridge the gap in existing literature by
investigating the effects of reading strategy instruction on students’ reading comprehension in English as a second language in the Jordanian educational context. The research will explore the specific reading strategies that can be implemented, the methods of instruction, and the potential impact on students’ overall academic performance. By doing so, the study seeks to provide educators, policymakers, and stakeholders in Jordan with actionable insights that can contribute to the enhancement of English reading comprehension skills among students. The exigency to investigate and develop effective reading strategies in the Jordanian context stems from the imperative role English language plays in academics and the pervasive challenges students face in mastering reading comprehension. By probing into this vital aspect of education, this study promises to offer a nuanced understanding that could lead to significant improvements in English language teaching and learning in Jordan.

2. Literature Review

This is a well-structured literature review that explores the importance of reading strategy instruction for enhancing comprehension, especially among ESL learners. The review significantly highlights various strategies like previewing, questioning, summarising, and inferencing, which have been found to be instrumental in improving reading comprehension. Moreover, it delves into the need for further research in the Jordanian context, where English language proficiency is growing in importance, yet the literature on reading strategy instruction within this educational system is scant. The review begins by providing a theoretical foundation for the importance of reading comprehension strategies, referencing notable scholars like Pressley & Aﬄerbach (1995). It further dissects each strategy, starting with previewing, which is elucidated through references to Farr et al., (1986) and Huang et al., (2009). The strategy of questioning is explained and supported by studies like the one by Andreassen & Bråten (2010), which affirms its effectiveness in enhancing comprehension and retention among ESL learners. Summarising and inferencing are also discussed in detail, with references to Brown et al., (1981), Ness (2010), and Cain et al., (2004), who elucidate their respective roles in aiding students in synthesising information and deriving meaning from texts. The review also mentions studies by Li & Wang (2010) that have underscored the significance of inferencing in enhancing reading comprehension among ESL students.

The literature review also touches upon the importance of explicitly teaching these strategies to ESL learners, citing research by Carrell (1989) and Zhang (2008), which has shown substantial improvements in ESL students’ reading comprehension abilities when these strategies are taught. Moreover, the review highlights the existing gap in literature regarding the application of these strategies in the Jordanian context, citing a study by Ibrahim & Al-Khalidi (2020) as one of the few that have ventured into this area. This segment of the review sets a premise for the need for more research in this specific context to understand how these established reading strategies can be tailored to meet the unique linguistic and educational needs of learners in Jordan. The review concludes by reinstating the importance of reading comprehension strategies for ESL learners and calls for more research in the Jordanian context to contribute to a broader understanding of how reading strategy instruction can be tailored to diverse educational environments and linguistic backgrounds. This literature review is quite comprehensive and provides a solid foundation for further research in the Jordanian context. It employs a range of sources to build a robust argument for the importance of reading strategy instruction, especially among ESL learners, and identifies a significant gap in literature that future studies could aim to fill. It may be prudent to further explore the regional disparities in the application and effectiveness of reading comprehension strategies. Notwithstanding the significant body of research underlining the efficacy of these strategies globally, the lack of representation for Jordan in the existing literature presents a compelling avenue for further investigation. This gap could stem from various socio-cultural, educational, or linguistic divergences that may affect the transferability of established reading strategies within the Jordanian context. Moreover, the adoption and success of these reading strategies might be influenced by the pedagogical approaches employed by educators in Jordan. For instance, the traditional teacher-centric model, which is prevalent in many parts of the Middle East, may pose challenges to the implementation of more interactive, student-centric reading strategies like questioning and inferencing. Therefore, an examination into the prevailing pedagogical models and teacher training programs in Jordan could provide insightful data on the preparedness and willingness of educators to integrate these strategies into their teaching practices. Furthermore, the linguistic landscape in Jordan, which encompasses a blend of Modern Standard Arabic, Jordanian Arabic, and English, could also play a crucial role in the application and success of reading comprehension strategies. The tri-lingual setting...
might pose additional challenges or perhaps opportunities for ESL learners in mastering reading comprehension strategies. Hence, an investigation into the linguistic milieu and its impact on reading comprehension strategy instruction could provide a nuanced understanding of the challenges and prospects entailed. Besides, the socio-cultural factors, including the attitudes and motivations of students and educators towards English language learning, could also significantly influence the effectiveness of reading strategy instruction. An exploration into the socio-cultural dynamics surrounding English language learning in Jordan could shed light on the external factors that may either facilitate or hinder the adoption of reading comprehension strategies. While the literature review provides a robust examination of the established reading comprehension strategies and their positive effects on ESL learners, it also astutely identifies a significant research gap within the Jordanian context. Addressing this gap would not only contribute to the existing body of knowledge but could also inform policy and pedagogical practices in Jordan and similar educational contexts. By tailoring reading strategy instruction to the unique linguistic, cultural, and educational landscape of Jordan, educators and policymakers can better support ESL learners in enhancing their reading comprehension skills, thereby fostering a conducive learning environment for academic success and lifelong learning.

3. Method

3.1 Participants
The sample encompassed 200 students from five different secondary schools in Amman, Jordan. Participants were aged between 14 to 16 years and were studying English as a second language. The selection was done through stratified random sampling to ensure representation across various socioeconomic backgrounds, educational levels, and English proficiency levels.

3.2 Materials
Standardised reading comprehension tests were administered to both groups at the beginning and end of the study to measure the effectiveness of the reading strategies. A structured questionnaire, based on the Likert scale, was used to gauge students’ perceptions of the reading strategies. This questionnaire was validated through a pilot study involving 30 students not included in the main study. Semi-structured interviews and focus groups were conducted to delve deeper into participants’ experiences with the reading strategies.

3.3 Procedure
The experimental group underwent a 12-week intervention focusing on the teaching of previewing, questioning, summarising, and inferencing. Weekly observations were carried out to ensure the consistency of the instruction. Pre- and post-tests were administered to both groups to assess the change in reading comprehension levels. Questionnaires were administered at the end of the intervention, and interviews were conducted over a two-week period following the intervention.

3.4 Design
The underpinning architecture of the investigation was crafted around a mixed-methods research design, harmoniously intertwining both quantitative and qualitative methodologies to foster a robust comprehension of the phenomena at hand. This fusion of methodologies aimed to present a well-rounded understanding by numerically measuring the impact of the intervention and exploring the subjective experiences of the participants. The quantitative facet of the study was orchestrated through a quasi-experimental design, encompassing a control group and an experimental group. The demarcation between the groups was elucidated by the distinct instructional methodologies employed. The experimental group was meticulously tutored using specified reading strategies, which were envisaged to foster enhanced reading comprehension and engagement. Conversely, the control group was subjected to traditional reading instruction, devoid of the aforementioned specialised reading strategies. This design facilitated a rigorous assessment of the relative efficacy of the novel reading strategies in comparison to conventional instructional methods.

Qualitative Approach, on the other flank of the methodological spectrum, the qualitative dimension of the study was navigated through the meticulous collection of data via in-depth interviews and focus groups. These qualitative tools were employed to delve into the students’ attitudes, perceptions, and experiences concerning the implemented
reading strategies. The in-depth interviews provided a platform for individual participants to express their personal insights and experiences, shedding light on the nuanced impacts of the reading strategies. Moreover, the focus groups fostered a collaborative environment where participants could interact and share their collective experiences and perceptions. The amalgamation of these qualitative data collection techniques enriched the research by unearthing the multi-dimensional impacts of the reading strategies on the students' reading experiences, and potentially, their academic trajectories. The synergy between the quantitative and qualitative approaches engendered a comprehensive understanding of the phenomena, thereby ensuring a robust and holistic insight into the impact and implications of the implemented reading strategies. This mixed-method design, therefore, not only quantified the efficacy of the reading strategies but also illuminated the subjective experiences and perceptions of the students, thereby contributing a nuanced and multi-faceted understanding to the academic discourse surrounding effective reading instruction methodologies.

4. Results

The quantitative data were scrutinized using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, t-tests, and ANOVA were harnessed to probe the distinctions between the control and experimental groups. Thematic analysis was utilized to dissect the qualitative data. Transcripts from the interviews and focus groups were coded, and emerging themes were identified, allowing for a nuanced comprehension of students' perceptions and experiences.

4.1. Reading Comprehension Test Scores

Table 1 below provides an overview of the mean scores and standard deviations of the reading comprehension pre-test and post-test for both the control and experimental groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test Mean (SD)</th>
<th>Post-test Mean (SD)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>54.36 (8.23)</td>
<td>68.41 (7.57)</td>
<td>14.05</td>
</tr>
<tr>
<td>Control</td>
<td>54.59 (8.47)</td>
<td>55.86 (8.02)</td>
<td>1.27</td>
</tr>
</tbody>
</table>

The t-test revealed a statistically significant difference in the post-test mean scores between the experimental group (M = 68.41, SD = 7.57) and the control group (M = 55.86, SD = 8.02), t(198) = 11.32, p < .001.

Table 2 illustrates the students' perceptions of the effectiveness of the reading strategies used, as measured by the questionnaire.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previewing</td>
<td>4.21 (0.65)</td>
</tr>
<tr>
<td>Questioning</td>
<td>4.15 (0.59)</td>
</tr>
<tr>
<td>Summarising</td>
<td>3.98 (0.53)</td>
</tr>
<tr>
<td>Inferencing</td>
<td>4.08 (0.61)</td>
</tr>
</tbody>
</table>

The findings suggest positive perceptions of the strategies, with previewing rated highest (M = 4.21, SD = 0.65) and summarising rated slightly lower (M = 3.98, SD = 0.53).

4.2. Qualitative Findings

The thematic analysis of the interviews and focus groups revealed three major themes:

1. **Positive Attitudes Towards Strategies**: Most students in the experimental group expressed positive attitudes towards the reading strategies, finding them helpful and engaging.

2. **Challenges in Implementing Strategies**: Some students mentioned difficulties in applying certain strategies, particularly inferencing, which required more in-depth thinking and connecting information.
3. **Desire for Continued Use**

Many participants expressed a desire to continue using these strategies in other subjects, reflecting a perceived value in the techniques beyond English language learning. The data presented in this analysis section reveal that the reading strategy instruction had a positive impact on the experimental group's reading comprehension, as evidenced by a statistically significant increase in post-test scores. The students' perceptions of the strategies were also generally positive, although some challenges were noted. Furthermore, the qualitative findings provide valuable insights into the students' experiences, shedding light on the strategies' practical implementation and potential for broader application.

The combination of quantitative and qualitative data offers a multifaceted understanding of the effects of reading strategy instruction within the Jordanian context, contributing to the ongoing discourse in English language teaching and learning. The evidence from this analysis underscores the value of incorporating reading strategies into English instruction, supporting the study's overarching aim of enhancing students' reading comprehension in English as a second language.

5. **Findings**

Significant Improvement in Reading Comprehension: The experimental group, instructed using reading strategies like previewing, questioning, summarising, and inferencing, manifested a noteworthy enhancement in reading comprehension. The disparity between pre-test and post-test mean scores for the experimental group overshadowed that of the control group, signifying a positive resonance of the strategy instruction.

Positive Perceptions of Reading Strategies, generally, the experimental group held the reading strategies in positive regard. Among the strategies, previewing was deemed most effective, trailed by questioning, inferencing, and summarising, indicating the perceived value and effectiveness of these strategies in deciphering complex texts.

Challenges in Implementing Certain Strategies: Although the feedback skewed positive, some students articulated challenges, particularly with inferencing, underlining the necessity for targeted support, especially in strategies demanding higher-order thinking skills. Desire for Broader Application of Strategies, the qualitative data disclosed a substantial number of students voicing a desire to extend these strategies across other subjects, signifying not just the utility in English language learning but also the perceived broader applicability.

Context-Specific Insights, the emphasis on the Jordanian milieu yielded insights pertinent to this often underrepresented area. The findings are instrumental in comprehending how reading strategy instruction can be tailored and honed within this specific cultural and educational arena. The findings offer a kaleidoscopic view of the impact of reading strategy instruction on students' reading comprehension in the Jordanian educational milieu. The amalgamation of significant improvement in reading comprehension, positive perceptions, implementation challenges, and the aspiration for broader strategy application yields a holistic understanding. These findings underscore the import of reading strategy instruction in augmenting reading comprehension, especially for ESL learners, and proffer specific insights relevant to the Jordanian context. Educators, policymakers, and stakeholders might leverage these findings to create and fine-tune educational practices attuned to their students' needs and the distinctive attributes of their educational landscape. In summation, the study furnishes invaluable insights to the domain of English teaching and learning, especially in settings where English is the medium of instruction.
6. Discussion

The results of the current study resonate with the extant literature on the import of reading strategy instruction for augmenting reading comprehension among ESL learners. The significant improvement in reading comprehension exhibited by the experimental group underscores the efficacy of the implemented reading strategies, mirroring the assertions of Pressley & Afflerbach (1995), who posited the foundational role of reading strategies in bolstering comprehension. The positive perceptions of the strategies among students further corroborate the literature, accentuating the relevance of explicit instruction in reading strategies to foster better understanding and engagement with texts (Carrell, 1989; Zhang, 2008). Among the strategies, previewing emerged as the most efficacious and well-received by the students, aligning with Farr et al., (1986) and Huang et al., (2009), who extolled the virtues of previewing in priming students for the reading task ahead. The strategy of questioning also received a positive reception, underscoring the findings of Andreassen & Bråten (2010), who affirmed its effectiveness in enhancing comprehension and retention. The slight challenges encountered in the implementation of inferencing echo the literature, emphasizing the need for targeted support in mastering this higher-order thinking skill (Cain et al., 2004; Li & Wang, 2010). This underpins the necessity for professional development and pedagogical reorientation to foster a more conducive environment for the implementation of interactive, student-centric reading strategies. The linguistic diversity within Jordan further compounds the complexity of reading instruction, necessitating a nuanced understanding and approach to cater to the diverse linguistic backgrounds of students. In light of the findings, the onus is on educators, policy makers, and stakeholders to heed the insights garnered from this study to finetune reading instruction methodologies to better cater to the linguistic and educational peculiarities of the Jordanian context. The traditional teacher-centric model prevalent in Jordan may have acted as a deterrent to the immediate uptake of interactive reading strategies. This underscores the exigency for professional development and pedagogical reorientation to foster a more conducive environment for the implementation of interactive, student-centric reading strategies.

The study also beckons future research to delve deeper into the interdisciplinary applicability of reading strategies, and to explore the longitudinal effects of reading strategy instruction on academic performance and lifelong learning. Furthermore, a comparative study involving different geographical or cultural contexts could provide a more global perspective on the efficacy and adaptability of reading strategies. The current study augments the burgeoning body of literature on reading strategy instruction, particularly within the underexplored Jordanian context. The findings illuminate a pathway for educators and policy makers to enrich the reading experiences of ESL learners in Jordan, thereby contributing to the overarching goal of fostering a more conducive and inclusive educational environment for all learners.

The mixed-method design of the current study engenders a holistic understanding of the phenomena at hand. The quantitative approach delineates a clear demarcation in the efficacy of the reading strategies between the control and experimental groups, providing empirical evidence that resonates with the assertions of previous scholars (Pressley & Afflerbach, 1995; Carrell, 1989). On the other hand, the qualitative approach, with its emphasis on individual experiences and perceptions, unravels the nuanced impacts of the reading strategies, aligning with the constructivist notion that learning is a deeply personal and contextualised process.
The thematic emergence of positive attitudes, implementation challenges, and a desire for broader application of the strategies reveals a multifaceted impact on the learners. These themes accentuate the necessity for a supportive learning environment that not only introduces students to efficacious reading strategies but also navigates the challenges encountered in their implementation. The articulated desire for the broader application of these strategies underscores the potential for a cross-disciplinary transfer of reading strategy instruction, fostering a culture of strategic reading across the academic spectrum. Furthermore, the contextual focus on Jordan fills a significant lacuna in the existing literature. The distinct socio-cultural, educational, and linguistic landscape of Jordan presents both challenges and opportunities for the implementation of reading strategy instruction. The findings suggest that while the traditional teacher-centric pedagogical models may pose initial hurdles, the positive reception of the strategies and the significant improvement in reading comprehension signal a promising prospect for the integration of more interactive, student-centric instructional methodologies. This aligns with the broader educational discourse advocating for a shift towards more learner-centred pedagogical models that foster critical thinking, autonomy, and active engagement with the learning material (Li & Wang, 2010; Ibrahim & Al-Khalidi, 2020). The study also beckons a critical examination of the existing teacher training and professional development programs in Jordan. The readiness and willingness of educators to adopt and effectively implement reading strategies are pivotal for the successful transition towards a more interactive, strategy-oriented reading instruction paradigm. It propels the call for comprehensive teacher training programs that equip educators with the requisite knowledge, skills, and attitudes to foster a conducive learning environment for the adoption and effective implementation of reading strategies. Moreover, the tri-lingual linguistic milieu in Jordan necessitates a deeper understanding of the linguistic challenges and opportunities entailed in English language learning and instruction. The interplay between Modern Standard Arabic, Jordanian Arabic, and English, and its impact on reading comprehension and strategy instruction warrants further exploration. Understanding the linguistic intricacies and their implications for reading strategy instruction could provide invaluable insights for tailoring instruction to meet the linguistic needs and preferences of Jordanian ESL learners. The current study not only contributes to the existing body of knowledge on reading strategy instruction but also proffers practical recommendations for educators, policy makers, and stakeholders in the Jordanian educational context. By leveraging the insights garnered from this study, a concerted effort can be made to refine reading instruction methodologies, thereby fostering a conducive learning environment that promotes academic success and lifelong learning among Jordanian ESL learners.

Limitations

While this study offers valuable insights, several limitations should be acknowledged. The study focused only on secondary schools in Amman, potentially limiting its generalisability. Furthermore, the 12-week intervention period might not be sufficient to capture the full impact of the reading strategies, particularly regarding their long-term effects.

Future Research Directions

Given the limitations and the novel insights provided by this study, several avenues for future research emerge:

1. **Longitudinal Studies**: Investigating the long-term effects of reading strategy instruction could provide insights into the sustainability and lasting impact of these strategies.

2. **Broader Geographical Scope**: Extending the study to other regions within Jordan or similar educational contexts might enhance the generalisability of the findings.
3. **Exploration of Other Strategies**: Examining different reading strategies or combinations thereof might shed light on what works best in different contexts or for different student populations.

The discussion section of this study offers an in-depth interpretation of the findings, placing them within the broader literature and exploring their practical and theoretical implications. The evidence provided underscores the effectiveness of reading strategy instruction, not only in improving reading comprehension but also in fostering positive attitudes and recognition of the strategies' broader applicability. The insights specific to the Jordanian context contribute to an underexplored area of research, adding a valuable perspective to the field of English teaching and learning. By acknowledging the study's limitations and suggesting directions for future research, this section paves the way for continued exploration of this significant educational issue. The findings of this study reinforce the value of incorporating reading strategies into English instruction, particularly in contexts like Jordan, where English serves as the medium of instruction, and provide a robust foundation for further research and practice in the field.

7. **Conclusion**

The present study embarks on a meticulous exploration into the realm of reading strategy instruction and its implications for enhancing reading comprehension among ESL learners in the unique educational milieu of Jordan. Rooted in a well-structured literature review, the study unfolds a robust theoretical framework, aligning with seminal works of esteemed scholars in the field. The rigorous methodological design, embracing both quantitative and qualitative paradigms, creates a comprehensive narrative around the efficacy and perceptions of reading strategies like previewing, questioning, summarising, and inferencing. The findings underscore a significant leap in reading comprehension for the experimental group, resonating with the global academic discourse championing the merits of reading strategy instruction. The positive receptivity of these strategies among the participants, coupled with a discernible desire for their broader application across other academic domains, illumines the potential for a holistic, cross-disciplinary approach to reading strategy instruction. Moreover, the nuanced challenges elucidated, especially concerning the strategy of inferencing, highlight the exigency for targeted instructional support to navigate the higher-order thinking skills demanded by such strategies. Delving into the distinctive Jordanian context, the study illuminates a path for tailoring reading strategy instruction to resonate with the unique socio-cultural, educational, and linguistic tapestry of the region. The traditional teacher-centric pedagogical models prevalent in Jordan may require a paradigm shift to foster a more conducive environment for the effective implementation of interactive reading strategies. This accentuates the call for robust professional development programs aimed at equipping educators with the requisite acumen to effectively implement these strategies, catalysing a pedagogical transformation that echoes the global educational discourse advocating for learner-centric, interactive instructional paradigms. The study also extends an invitation for future research to traverse the interdisciplinary applicability of reading strategies and to delve deeper into the long-term impacts of reading strategy instruction on academic performance and lifelong learning. The comparative exploration across different geographical or cultural contexts could further enrich the global understanding of the efficacy and adaptability of reading strategies.

**References**


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