

## Using Lectora Software to Enhance Reading Comprehension For 7th Graders at a Lower Secondary School in Bac Ninh Province

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**ABSTRACT:** Reading comprehension is an essential skill in English language learning; however, many lower secondary students experience difficulties understanding texts effectively. This study investigated the effectiveness of Lectora software in enhancing reading comprehension among Grade 7 students at a lower secondary school in Bac Ninh Province, Vietnam. It also explored students' attitudes toward learning reading through Lectora-based lessons. The study employed an action research design with two cycles and adopted a mixed-methods approach. Quantitative data were collected through reading comprehension tests and questionnaires, while qualitative data were obtained from interviews, classroom observations, and learning logs. The intervention integrated multimedia materials, interactive activities, and immediate feedback through Lectora software to support students' reading development. The findings indicated that students' reading comprehension improved after the intervention, particularly in identifying main ideas and locating supporting information. Students also expressed positive attitudes toward the use of Lectora, reporting increased engagement, motivation, and confidence during reading lessons. Nevertheless, some learners still experienced difficulties with unfamiliar vocabulary and inference-based questions. The study suggests that Lectora software can be an effective tool for supporting reading instruction in lower secondary EFL classrooms when combined with appropriate pedagogical guidance.

**KEYWORDS:** Lectora software, reading comprehension, EFL learners, technology-enhanced learning.

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### I. INTRODUCTION

In Vietnam, English is taught as a core subject in the national curriculum. It serves not only as a subject of study but also as a means of accessing knowledge, communicating with others, and improving future employment opportunities. For students living in rural areas, English can provide broader educational and career opportunities. Therefore, improving the quality of English language teaching has become an important educational goal.

Among the four language skills, reading is one of the most important and frequently used skills. Through reading, students can learn new vocabulary, understand how grammar is used in context, and acquire knowledge about various topics. In addition, strong reading ability supports the development of writing and speaking skills. When students are confident in their reading ability, they are more likely to become independent learners. Therefore, many researchers consider reading an essential component of second and foreign language learning (Nunan, 2003; Grabe, 2009).

However, reading remains challenging for many lower secondary school students. In many classrooms, students are able to recognize and pronounce written words but do not fully comprehend the meaning of the text. As a result, some learners rely heavily on translation, while others lose interest when reading passages contain a large number of unfamiliar words. This situation is common in many EFL contexts. Specifically, students often experience difficulties due to limited vocabulary knowledge, insufficient use of reading strategies, and low confidence in reading (Alderson, 2000; Grabe & Stoller, 2011).

These problems were also observed at a lower secondary school in Bac Ninh Province. During the teaching of Grade 7 students, the researcher found that many learners lacked confidence when working with reading passages. Although some students could answer simple comprehension questions, they still struggled to identify the main ideas and supporting details of a text. In addition, many students had difficulty inferring the meaning of unfamiliar words from context. Furthermore, because classroom activities mainly followed the fixed sequence provided in the textbook, students were often passive during reading lessons. In addition to reading difficulties, students also faced challenges related to learning motivation. Many students showed greater interest in digital media during their free time than in reading activities conducted in the classroom. Traditional reading lessons often struggled to maintain students' attention for extended periods. This does not necessarily mean that students were unwilling to learn; rather, the structure of traditional lessons was often different from the way students interacted with information in their daily lives.

## Using Lectora Software to Enhance Reading Comprehension For 7th Graders at a Lower Secondary School in Bac Ninh Province

In recent years, technology has been increasingly integrated into language teaching. Digital tools can provide visual and audio support, promote interaction, and offer immediate feedback, all of which may facilitate language learning when used appropriately (Chapelle, 2003; Hubbard, 2009). In reading instruction, technology can encourage students to engage more actively with texts and learning tasks. This differs from traditional approaches in which students mainly read texts and complete paper-based exercises.

Among the available digital tools, Lectora software attracted the researcher's attention because it enables teachers to create interactive lessons that integrate texts, images, quizzes, and feedback within a single platform. From a pedagogical perspective, this software offers practical functions that may transform traditional reading lessons into more engaging learning experiences. It also provides guidance and immediate feedback that can support students throughout the learning process.

The decision to conduct this study was based not only on theoretical considerations but also on practical classroom experiences. In this context, the researcher sought to determine whether students could improve their reading skills through the use of Lectora software. The study also examined whether students participated more actively in classroom activities and demonstrated greater confidence during reading lessons. In addition, the researcher aimed to explore students' perceptions of learning to read through this technological tool.

Based on the above considerations, this study was conducted to investigate the use of Lectora software in teaching reading comprehension. The study focused on how the software could support Grade 7 students at a lower secondary school in Bac Ninh Province in understanding written texts more effectively.

This study was conducted with two main aims. First, it aimed to examine whether the use of Lectora software could improve Grade 7 students' English reading comprehension. Second, it aimed to explore students' attitudes toward learning to read through Lectora-based lessons.

To achieve the above aim, the study was designed with the following objectives: 1) To determine the extent to which the use of Lectora software affects Grade 7 students' reading comprehension. 2) To explore students' attitudes toward using Lectora software in learning reading comprehension.

Based on the objectives, the study sought to answer the following research questions: 1) To what extent does the use of Lectora software affect students' reading comprehension? 2) What are students' attitudes toward using Lectora in learning reading comprehension?

## II. LITERATURE REVIEW

Although a substantial body of literature has examined the role of technology in English language teaching, several important gaps can still be identified, especially when the focus shifts to lower-secondary learners in Vietnam. Earlier studies have generally suggested that digital tools may support language learning by increasing learner engagement, providing faster feedback, and expanding access to learning materials (Chapelle, 2003; Hubbard, 2009). However, much of this work has discussed technology in broad terms rather than investigating how particular instructional tools operate in real classrooms. Consequently, evidence remains limited regarding how a platform such as Lectora may be used to support reading comprehension in English as a Foreign Language (EFL) contexts.

The first gap concerns the research population. A considerable number of previous studies have been carried out with university students, adult learners, or participants in private language centers. Far fewer studies have focused on lower secondary school students. This distinction is important because younger learners differ from older students in several ways. They are still developing study habits, often need clearer guidance, and may respond more strongly to motivation, peer influence, or task design. For Grade 7 learners in particular, attention span and confidence can affect classroom participation significantly. Therefore, findings from tertiary contexts cannot simply be transferred to lower secondary classrooms without further investigation.

The second gap relates to learning outcomes. Many studies on technology-assisted language learning have concentrated on vocabulary acquisition, speaking fluency, grammar practice, or general achievement scores. While these areas are valuable, fewer studies have examined reading comprehension as a specific target skill. Reading comprehension is not a simple outcome that can be reduced to correct answers alone. It involves understanding main ideas, locating supporting details, inferring meaning, connecting ideas across a text, and monitoring one's own understanding (Grabe, 2009). More focused research is needed to determine whether digital tools can support these sub-skills in meaningful ways.

A third gap concerns research design and data sources. Earlier studies have often relied heavily on one type of evidence, commonly test scores or questionnaire data. Such measures are useful, but they may not fully explain how learning changes occur or how students experience the intervention. Improvement in classroom learning is often shaped by factors such as confidence, task engagement, learner difficulties, and teacher adjustments during implementation. Creswell and Creswell (2018) argue that combining quantitative and qualitative evidence can provide a richer understanding of educational phenomena. For this reason, there remains a need for classroom-based studies using mixed-methods or action research approaches.

## Using Lectora Software to Enhance Reading Comprehension For 7th Graders at a Lower Secondary School in Bac Ninh Province

The fourth gap is contextual. Relatively limited research has explored technology-supported English learning in provincial public schools such as those in Bac Ninh or similar areas outside major urban centers. Educational conditions may differ considerably across settings. Some schools face uneven technological infrastructure, varying teacher readiness, large mixed-ability classes, or differences in students' access to digital devices at home. As a result, recommendations drawn from metropolitan or international contexts may not always reflect the realities of provincial schools. Local evidence is therefore necessary.

The fifth gap concerns the specific role of **Lectora software**. Lectora is widely known as an e-learning authoring tool that allows teachers to integrate texts, quizzes, multimedia elements, branching tasks, and automatic feedback. However, much of the available discussion emphasizes technical functions rather than pedagogical outcomes. In other words, the software is often described in terms of what it can do, but less attention has been given to what it can help students achieve in language classrooms. More research is needed to examine whether these interactive features can improve motivation, reading strategies, and comprehension performance.

Taken together, these gaps suggest a clear need for further investigation. The present study responds to this need by examining the use of Lectora software to enhance reading comprehension among Grade 7 students at a lower secondary school in Bac Ninh province. Using an action research design across two cycles and drawing on both quantitative and qualitative data, the study aims to contribute context-based evidence on learning outcomes, student perceptions, and practical ways of integrating technology into lower secondary EFL reading instruction.

### III.METHODOLOGY

In this study, an action research design was employed to investigate the effectiveness of Lectora software in enhancing Grade 7 students' reading comprehension. The study followed the action research framework proposed by Kemmis and McTaggart (1988) and Burns (2010). Quantitative and qualitative data were collected to provide a comprehensive understanding of the intervention.

For the intervention, the researcher selected one existing Grade 7 class - using convenience sampling. The choice was made because the class was easy to reach, the timetable was suitable and the researcher taught that specific group directly. With 43 students in the chosen class, the group is representative of the diverse skill levels among Grade 7 learners in the school. Many of the individuals in this study learned English for multiple years when they were in primary school - but the ability of those students to use the language is not consistent. In a small group the students are able to read basic texts and they answer questions about the information with a high level of certainty. As for many other students, they find it hard when they try to remember words or when they process sentences. Because of this the students do not find the primary points and they do not reach conclusions based on the surrounding information. In this study the students displayed different levels of motivation. Some individuals felt interested in the English language and they chose to act in a helpful way during lessons - but other students did not take part, felt unsure or experienced fear when they thought about committing errors while their peers watched them - those ways of thinking and acting frequently changed how students took part in the lessons that focused on reading. To reach an understanding of the intervention that is complete and based on facts, the study used four main tools to collect data - reading comprehension tests, questionnaires, semi structured interviews and learning logs.

Table 3.1 below summarizes the relationship between research questions, data collection instruments, types of data, and expected outcomes, ensuring alignment between the research design and data analysis.

**Table 3.1. Mapping of Research Questions, Instruments, and Data**

| Research Question                                                                            | Instrument    | Data Collected                          | Purpose             | Expected Outcomes                                        |
|----------------------------------------------------------------------------------------------|---------------|-----------------------------------------|---------------------|----------------------------------------------------------|
| RQ1: To what extent does the use of Lectora software affect students' reading comprehension? | Reading Tests | Pre-test & post-test scores             | Measure improvement | Significant increase in scores; medium-large effect size |
| RQ1                                                                                          | Learning Logs | Time on task, completed tasks, accuracy | Measure engagement  | Positive correlation with performance                    |
| RQ2: What are students' attitudes toward using Lectora?                                      | Questionnaire | Likert-scale responses                  | Measure perception  | Positive attitudes (high mean scores)                    |
| RQ1 & RQ2                                                                                    | Interviews    | Themes & quotes                         | Explain results     | Themes: motivation, strategies, engagement               |

#### **IV. FINDINGS**

The findings of the study indicate that the integration of Lectora software positively influenced Grade 7 students' reading comprehension throughout the two action research cycles.

During Cycle 1, the baseline data revealed that students experienced considerable difficulties in reading comprehension. Pre-test results showed relatively low achievement, particularly in identifying main ideas and making inferences. Questionnaire responses and interview data further suggested that many students lacked confidence, relied heavily on word-by-word translation, and demonstrated limited engagement in reading activities. Learning logs also indicated that students spent relatively little time on reading tasks and did not consistently complete assigned activities. These findings highlighted the need for more structured instructional support and guided reading strategies.

Based on these initial findings, several pedagogical adjustments were implemented in Cycle 2, including explicit reading strategy instruction, more interactive activities, and enhanced feedback through the Lectora platform. Quantitative results demonstrated a clear improvement in students' reading performance. The mean reading score increased from **5.80** in the pre-test to **7.40** in the post-test. The paired-samples *t*-test confirmed that this improvement was statistically significant ( $t = 6.85, p < .001$ ), while the effect size (Cohen's  $d = 0.82$ ) indicated a large practical effect. Improvement was particularly evident in identifying main ideas and locating supporting details, although gains in inferential reading were comparatively smaller.

Students also reported positive perceptions of the intervention. Questionnaire findings showed high levels of engagement, perceived usefulness, motivation, and ease of use, with all mean scores approaching or exceeding four points on the five-point Likert scale. The questionnaire demonstrated good internal consistency (Cronbach's  $\alpha = 0.87$ ), suggesting that the instrument was reliable for measuring students' perceptions.

Qualitative findings complemented the quantitative results. Thematic analysis of interview data identified five major themes: increased motivation and interest in reading, improved use of reading strategies, greater classroom engagement, perceived benefits of Lectora as a learning tool, and several remaining challenges. Students reported that multimedia elements, interactive exercises, and immediate feedback made reading lessons more engaging and easier to follow. Many participants also described becoming less dependent on word-by-word translation and more confident in applying reading strategies such as skimming, scanning, and inferring meaning from context. Nevertheless, some students continued to experience difficulties with unfamiliar vocabulary and occasional technical problems, suggesting that digital tools should be accompanied by ongoing teacher guidance.

Overall, the findings consistently demonstrate that the integration of Lectora software contributed not only to measurable improvement in reading comprehension but also to more positive learner attitudes and greater engagement in reading activities. The convergence of quantitative and qualitative evidence strengthens the conclusion that Lectora can serve as an effective instructional tool for supporting English reading comprehension among Grade 7 students in lower secondary school contexts.

#### **V. DISCUSSION**

The discussion confirmed that the integration of Lectora software positively influenced both students' reading comprehension and their attitudes toward learning English reading. The improvement in reading achievement suggests that the use of multimedia resources, interactive activities, and immediate feedback created a more supportive learning environment, enabling students to process reading texts more effectively. These findings are consistent with the principles of the Cognitive Theory of Multimedia Learning (Mayer, 2009), Second Language Acquisition (Krashen, 1985), and Computer-Assisted Language Learning (Chapelle, 2003; Hubbard, 2009), all of which emphasize meaningful input, learner interaction, and appropriate instructional support.

The results also showed that students made greater progress in identifying main ideas and locating supporting details than in making inferences. This finding suggests that while Lectora effectively supported lower-order reading skills, the development of higher-order comprehension skills may require longer instructional periods and more explicit strategy instruction.

In addition to improved academic performance, students expressed positive attitudes toward using Lectora in reading lessons. Questionnaire and interview findings indicated that learners perceived the software as useful, engaging, and easy to use. Multimedia presentation, interactive exercises, and immediate feedback appeared to increase students' motivation, participation, and confidence during reading activities. These findings support previous studies on learner motivation (Dörnyei, 2001), technology acceptance (Davis, 1989), and effective feedback (Hattie & Timperley, 2007).

The discussion further revealed a positive relationship between students' attitudes and their reading achievement. Students who participated more actively, spent more time completing learning tasks, and engaged consistently with the software generally demonstrated greater improvement in reading comprehension. This suggests that the effectiveness of Lectora was not determined solely by its technological features but also by its ability to promote active engagement and meaningful learning. Nevertheless, challenges such as unfamiliar vocabulary, occasional technical problems, and the continuing need for teacher guidance indicate that technology should complement, rather than replace, effective classroom instruction.

## VI. CONCLUSION

The present study investigated the use of Lectora software to enhance the reading comprehension of Grade 7 students at a lower secondary school in Bac Ninh Province. Using an action research design consisting of two cycles, the study combined reading comprehension tests, questionnaires, semi-structured interviews, and learning logs to examine both students' learning outcomes and their perceptions of the intervention.

Overall, the findings indicate that the integration of Lectora had a positive influence on students' reading comprehension. Quantitative results showed a statistically significant improvement in students' post-test scores compared with their pre-test performance. The greatest improvement was found in identifying main ideas and locating supporting details, whereas progress in inferential reading was more modest. This finding suggests that while Lectora effectively supported lower-order reading skills within the intervention period, the development of higher-order comprehension skills may require longer instructional practice together with more explicit strategy instruction.

The findings also revealed positive changes in students' learning attitudes. Questionnaire responses, interview data, and learning logs consistently showed that students perceived Lectora as engaging, useful, and easy to use. Interactive exercises, multimedia resources, and immediate feedback appeared to increase students' motivation, classroom participation, and confidence during reading lessons. These qualitative findings complement the quantitative results by explaining not only that improvement occurred but also how students experienced the learning process.

Another important finding is that the effectiveness of Lectora depended not only on the software itself but also on the way it was integrated into classroom instruction. Throughout the intervention, teacher guidance, carefully sequenced learning activities, and explicit reading strategy instruction played an essential role in supporting students' progress. Therefore, the findings suggest that technology should be regarded as a pedagogical support rather than a replacement for effective teaching.

Taken together, the evidence from both quantitative and qualitative data indicates that Lectora can be an effective instructional tool for improving reading comprehension in lower secondary EFL classrooms. When combined with appropriate teaching strategies and continuous teacher support, the software has the potential to enhance students' reading achievement, increase learner engagement, and create a more interactive learning environment.

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