

Using NotebookLM as an AI-Supported Learning Journal to Improve Reading Comprehension in Vietnamese EFL Secondary Classrooms

Nguyen Thi Lan Anh
Tra Noc Lower Secondary School, Can Tho City

INTRODUCTION

Reading Challenges

- Vietnamese EFL students often struggle with:
- Limited Vocabulary:**
Difficulty understanding unfamiliar words
 - Weak Reading Strategies:**
Difficulty identifying key ideas and making inferences
 - Limited Independent Learning:**
Few opportunities for self-directed reading.

AI-Supported Solution

- NotebookLM supports students through:
- AI Summaries:**
Identify and review key ideas
 - Guiding Questions:**
Promote active and critical reading
 - Learning Journal:**
Organize notes, vocabulary, and reflections.

This study investigates whether NotebookLM can address these challenges and support reading comprehension and learner autonomy.

RESEARCH QUESTIONS

This study addresses three key questions:

Reading Comprehension

Does NotebookLM improve students' reading comprehension?
Main ideas Vocabulary Inference Details

Learner Outcomes

How does NotebookLM influence students' learning?
Engagement Confidence Learner autonomy

Student Perceptions

How do students perceive NotebookLM as a learning journal?
Usefulness Motivation Reflection

THEORETICAL FRAMEWORK

This study draws on four complementary perspectives:

Reading Comprehension

Understanding & processing texts
Grabe, 2009

Reflective Learning

Reflection on learning
Moon, 2006

AI-Supported Learning

Technology-enhanced learning
Graham, 2006; Holmes et al., 2022

Learner Autonomy

Self-directed learning
Holec, 1981

NotebookLM

AI-Supported Learning Journal

- AI Summaries
- Guiding Questions
- Vocabulary Notes
- Reflection

Learning Processes

Active Reading → Reflection
Self-regulation → Independent Review

Expected Learning Outcomes

- Reading Comprehension
- Engagement
- Confidence
- Learner Autonomy

METHODOLOGY

1 Participants

84 grade 9 students from Tra Noc Lower Secondary School
Experimental (n=42) Control (n=42)

2 Research Design

Quasi-experimental design 6-week intervention
Pre-test - Intervention - Post-test

3 Instruction

Experimental Group

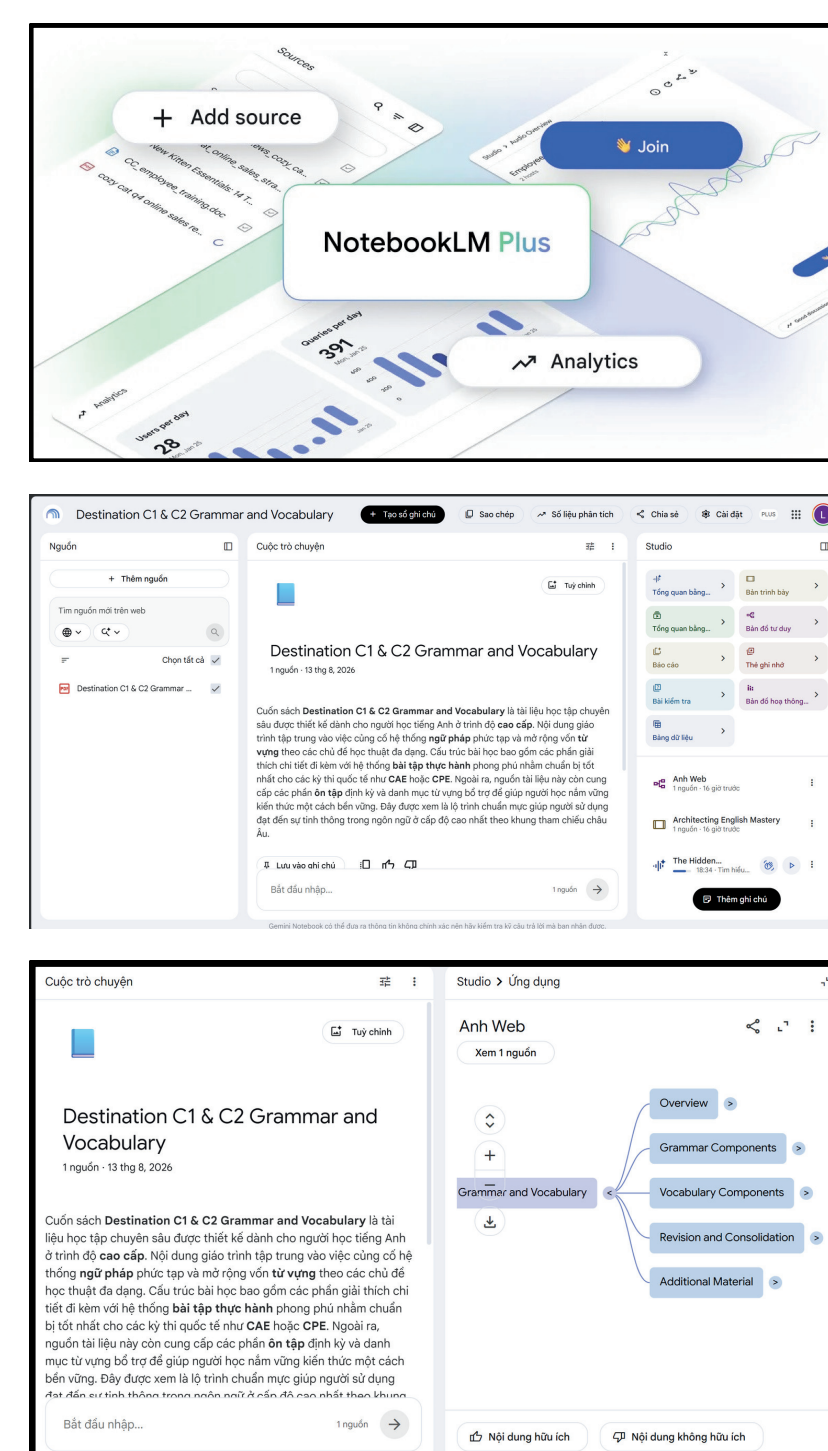
NotebookLM-based learning journal
Summaries - Questions - Vocabulary - Reflection

Control Group

Traditional reading instruction

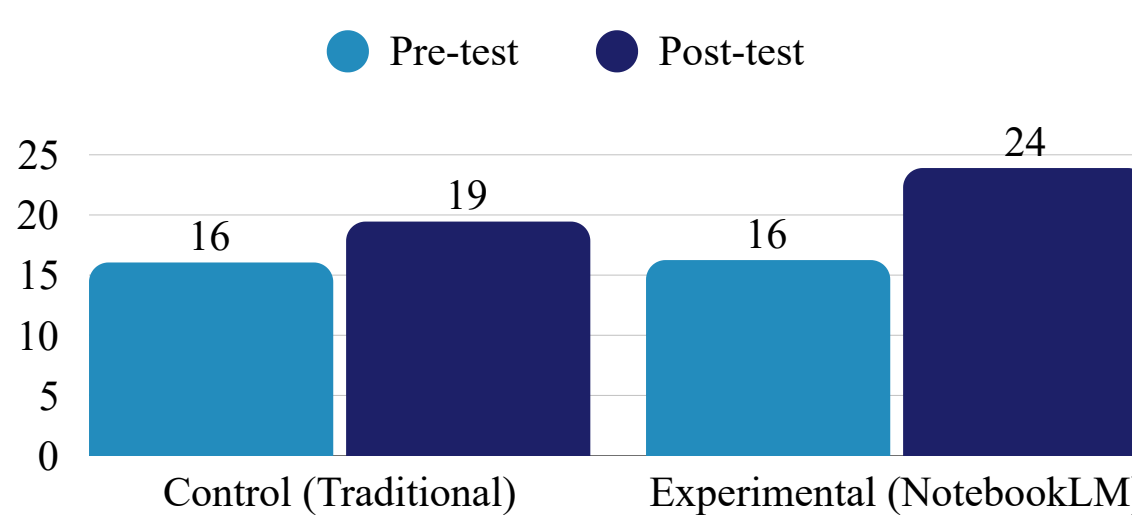
4 Data Collection & Analysis

Reading tests - Questionnaire - Observations - Learning journals
Descriptive statistics - t-tests - Thematic analysis



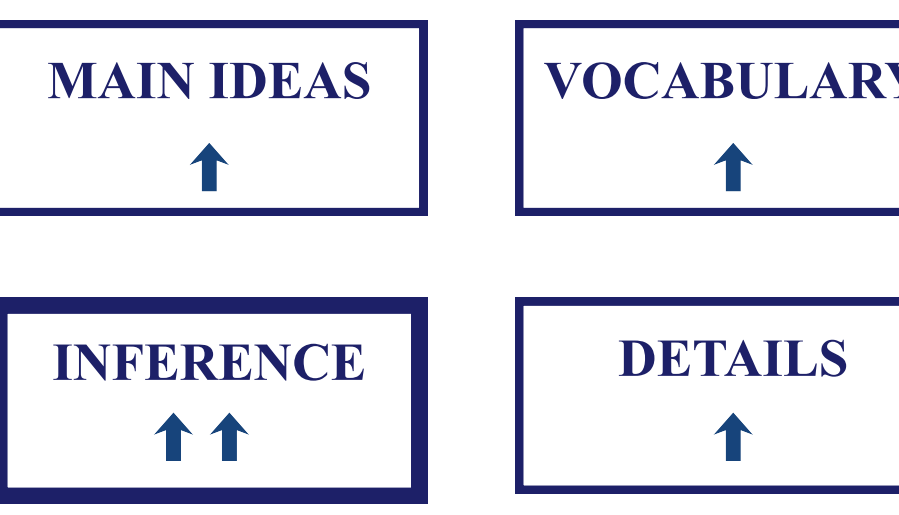
KEY FINDINGS

Figure 1: Reading Comprehension Improvement



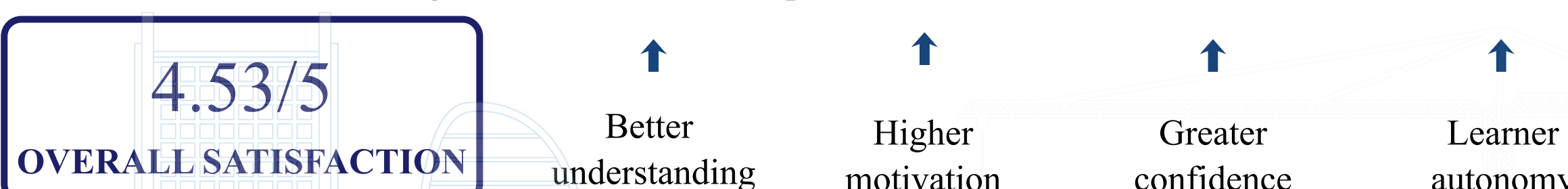
The experimental group showed greater improvement in reading comprehension than the control group.

Figure 2: Reading Skill Improvement



Inference showed the largest improvement.

Figure 3: Students' Perceptions of NotebookLM



Students reported positive experiences with NotebookLM, particularly in understanding texts, motivation, confidence, and independent learning.

PEDAGOGICAL IMPLICATIONS

The findings highlight four practical implications for EFL teaching:

1 Integrate AI into Reading

Support reading with NotebookLM

2 Promote Reflective Learning

Encourage students to reflect on reading

3 Foster Learner Autonomy

Extend learning beyond the classroom

4 Develop AI Literacy

Promote critical and responsible AI use

AI should complement - not replace - teacher guidance.

REFERENCES

- Grabe, W. (2009). *Reading in a Second Language*. Cambridge University Press.
Holec, H. (1981). *Autonomy and Foreign Language Learning*. Pergamon.
Moon, J. A. (2006). *Learning Journals*. Routledge.
Graham, C. R. (2006). *The Handbook of Blended Learning*. Pfeiffer.
Holmes, W., Bialik, M., & Fadel, C. (2022). *Artificial Intelligence in Education*. Center for Curriculum Redesign.

CONCLUSION

- NotebookLM enhanced Grade 9 students' reading comprehension, engagement, confidence, and learner autonomy.
- AI-supported learning journals can enrich blended EFL instruction when combined with teacher guidance.