

**THE EFFECT OF THE FLIPPED CLASSROOM MODEL ON STUDENTS'
READING ABILITY: A TRUE-EXPERIMENTAL STUDY AT GRADE XI OF
SMAN 1 BENGKULU CITY**

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ABSTRACT

This study aims to examine the effect of the Flipped Grouproom learning model on the reading ability of 11th-grade students at SMAN 1 Bengkulu City in the 2024/2025 academic year. The background of the research is based on the students' low motivation, lack of learning independence, and difficulty in understanding reading materials in English. The research method used was a true-experimental design with the Solomon Four Group design, involving two experimental group and two control group. The instrument used was a reading ability test consisting of pre-tests and post-tests. The results revealed a significant difference between students taught using the Flipped Grouproom model and those taught with conventional methods. The implementation of the Flipped Grouproom proved effective in enhancing students' reading skills, increasing active engagement, and encouraging independent learning. These findings reinforce previous studies and contribute valuable insights into the development of innovative instructional strategies in English language teaching. The study recommends the Flipped Grouproom model as an effective alternative to improve students' academic achievement, especially in reading ability.

Keyword: *Flipped Classroom, Reading Ability, Solomon Four Group, SMAN 1 Kota Bengkulu*

ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh model pembelajaran *Flipped Grouproom* terhadap kemampuan membaca siswa kelas XI di SMAN 1 Kota Bengkulu tahun ajaran 2024/2025. Latar belakang penelitian ini didasari oleh rendahnya motivasi belajar, kurangnya kemandirian siswa, serta kesulitan dalam memahami teks bacaan dalam pembelajaran Bahasa Inggris. Metode penelitian yang digunakan adalah *true-experimental* dengan desain Solomon Four Group, yang melibatkan dua kelompok eksperimen dan dua kelompok kontrol. Instrumen yang digunakan adalah tes kemampuan membaca berupa pre-test dan post-test. Hasil penelitian menunjukkan bahwa terdapat perbedaan signifikan antara hasil belajar siswa yang diajar menggunakan model *Flipped Grouproom* dibandingkan dengan metode pembelajaran konvensional. Penerapan model ini terbukti mampu meningkatkan kemampuan membaca siswa, meningkatkan keterlibatan aktif, serta mendorong kemandirian belajar. Temuan ini memperkuat hasil penelitian terdahulu dan memberikan kontribusi penting bagi pengembangan strategi pembelajaran inovatif dalam konteks pembelajaran Bahasa Inggris. Penelitian ini

merekomendasikan penerapan model Flipped Grouproom sebagai alternatif efektif dalam meningkatkan hasil belajar siswa, khususnya dalam kemampuan membaca.

Kata Kunci: *Flipped Classroom, Reading Ability, Solomon Four Group, SMAN 1 Kota Bengkulu*

A. Introduction

The rapid development of digital technology has significantly transformed various aspects of human life, including the education sector. In the era following the COVID-19 pandemic, the application of technology in education has become not only inevitable but essential for improving the effectiveness and accessibility of learning. Technological tools now support a shift from teacher-centered to student-centered approaches, promoting autonomy and interaction in the learning process. In Indonesia, particularly in senior high schools, there remains a growing need to implement more engaging and effective learning models that accommodate the learning styles and needs of 21st-century students.

English language education, especially in the context of English as a Foreign Language (EFL), requires students to master four core skills: listening, speaking, reading, and writing. Among these, reading is a critical skill that forms the foundation

for academic success and knowledge acquisition (Sadha et al., 2023). Reading is not merely the act of decoding written symbols, but involves ability, interpretation, and critical engagement with the text. Despite its importance, many students still struggle with reading tasks due to low motivation, lack of ability strategies, and insufficient grouproom engagement. This issue was evident in the preliminary observations conducted at SMAN 1 Bengkulu City, where 11th-grade students demonstrated limited reading ability and low enthusiasm for English reading tasks.

To address these challenges, educators are increasingly turning to innovative teaching strategies, such as the Flipped Grouproom model. This approach inverts the conventional learning process by introducing students to learning materials—often in the form of videos, digital texts, or online tasks—outside of group, while in-group time is used for active discussions, group work, and guided

practice. Flipped learning encourages students to take more responsibility for their learning and provides opportunities for differentiated instruction during face-to-face sessions. Moreover, it allows teachers to act as facilitators, offering personalized support and promoting collaborative learning environments (Birgili et al., 2021).

Previous research has shown promising outcomes from the implementation of the Flipped Grouproom in improving language skills. Yang et al. (2019) found that the model effectively improved vocabulary learning, particularly for low-achieving students. Similarly, Nhac (2021) reported significant gains in students' academic achievement in legal English courses using flipped instruction. Diningrat et al. (2023) further demonstrated that the Extended Flipped Grouproom significantly enhanced students' reading ability, particularly for learners with low working memory capacity. These studies indicate that flipped learning can positively impact both cognitive and affective domains in language learning, making it a relevant model for enhancing reading skills.

Based on these considerations, this study aims to investigate the effect of the Flipped Grouproom model on the reading ability of 11th-grade students at SMAN 1 Bengkulu City. The research seeks to determine whether flipped instruction leads to significant improvements in students' reading ability and whether it can address common issues such as low motivation and lack of independent learning. By using a true-experimental method with a Solomon Four Group design, this study offers empirical insights into the effectiveness of Flipped Grouproom as a pedagogical approach in Indonesian senior high schools.

Reading is a fundamental component of language learning, essential for acquiring information and building ability across various disciplines. According to ARI (2017), reading is a complex cognitive activity that engages multiple forms of literacy—visual, media, cultural, and academic—and involves the interpretation of written symbols to construct meaning. Furthermore, reading is not a passive activity; it requires the integration of prior knowledge, or schemata, and involves

active engagement between language and thought

Musdalifah et al. (2023) define reading ability as the skill to understand written texts through the application of decoding, fluency, vocabulary recognition, and ability strategies. The ability to read effectively plays a critical role in supporting students' academic achievement, particularly in English as a Foreign Language (EFL) contexts.

Reading ability is typically groupified into various levels, such as basic, developing, competent, and proficient. In order to develop reading skills, students must be taught how to identify explicit information, infer meaning, interpret vocabulary in context, and recognize the writer's message (Irnasari, 2023; Liu & Yuizono, 2020). These sub-skills are often strengthened through specific strategies, including skimming, scanning, predicting, and summarizing. Without adequate reading proficiency, learners struggle not only in language learning but also across other subject areas.

Numerous studies have confirmed the positive impact of the Flipped Grouproom on students' reading performance. Diningrat et al. (2023)

found that an extended version of the Flipped Grouproom significantly improved students' reading ability in an online learning setting. Rachmawati et al. (2023) showed that flipped instruction enhanced students' Quranic reading skills, while Khonamri et al. (2020) emphasized its effectiveness in developing EFL students' critical reading skills. Moreover, Lo and Hew (2023) highlighted the integration of AI-based chatbots in flipped learning as a promising advancement for personalized and data-driven instruction.

B. Research Method

This study employed a quantitative approach using a true-experimental method with the Solomon Four Group design, which is known for its ability to control both internal and external validity threats, especially the effects of pre-testing. The research was carried out at SMAN 1 Bengkulu City during the 2024/2025 academic year, with a population of 429 eleventh-grade students across 12 classes. Two classes were randomly selected as the sample: class XI-4 as the experimental group and class XI-2 as

the control group, each consisting of 36 students. The experimental group received instruction through the Flipped Classroom model, while the control group followed conventional, teacher-centered learning.

Data collection was conducted using pre-tests and post-tests that focused on reading comprehension. The test items were based on CEFR indicators, including identifying explicit information, understanding main ideas, making inferences, and interpreting vocabulary in context. The instruments used were previously validated through a try-out with a similar student group, resulting in 30 valid items and a reliability score of 0.904 (Cronbach's Alpha), indicating excellent consistency. Data analysis was performed using SPSS version 28, involving descriptive statistics, assumption testing (normality and homogeneity), and inferential statistical tests such as paired t-test, independent t-test, and two-way ANOVA to examine the significance of the flipped classroom's impact on students' reading ability.

C. Result And Discussion

This study investigated the effectiveness of the flipped grouproom model on the reading ability of eleventh-grade students at SMAN 1 Bengkulu City. A true-experimental design using the Solomon Four Group was implemented. The experimental groups received treatment using the flipped grouproom approach, where students studied video and reading materials before group. In-group time was then used for discussion and active reading activities. Meanwhile, the control groups followed traditional teacher-centered instruction. Reading ability was measured using pre-tests and post-tests designed around indicators such as identifying main ideas, vocabulary in context, and making inferences.

The descriptive statistics revealed a substantial increase in reading scores among the experimental groups. The average pre-test score in Group A was 46.22, which increased to 80.83 in the post-test. Group C, which also received the treatment without a pre-test, achieved an even higher post-test average of 83.56. In contrast, the control groups (B and D) showed less improvement, with post-test averages of 63.06 and 63.94

respectively. This clearly indicates that the flipped grouproom model contributed to a higher level of reading ability compared to conventional methods.

Table 1. Descriptive Analysis of Experimental and Control Group.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest A	18	20	70	45,33	13,873
Posttest A	18	70	96	80,83	7,848
Pretest B	18	30	73	50,56	12,752
Posttest B	18	33	80	63,06	12,197
Posttest C	18	70	96	83,56	7,756
Posttest D	18	40	86	63,94	13,126
Valid N (listwise)	18				

Paired sample t-tests were conducted to determine the difference in scores before and after treatment within the same groups. The results showed significant improvement in both the experimental and control groups ($p < 0.05$), although the gain in the experimental group was significantly greater. This confirms that while both instructional methods may improve reading performance to some extent, the flipped grouproom model leads to more pronounced gains.

Independent samples t-test analysis between the post-test scores of the experimental group (Group C) and control group (Group D) revealed a statistically significant difference ($p = 0.000$). This suggests that the flipped grouproom approach significantly outperforms traditional instruction in enhancing reading skills. The model appears especially beneficial in supporting ability, vocabulary mastery, and the ability to interpret textual meaning, all of which were reflected in the test results.

A two-way ANOVA test further confirmed that the treatment had a statistically significant effect. The obtained F-value (18.11) was much higher than the critical F-table value (2.74), and the significance level was $p = 0.000$. This indicates a strong interaction effect between the treatment and the students' performance on reading ability, reinforcing that the flipped grouproom approach had a measurable and beneficial impact.

Tabel 2. Interpretation of Data from Two-Way ANOVA Calculation

Variables	JK	DB	MK	F Count	F Table
JK Between	6364,49	3	2121,5	18,11	0,05

Group s				
JK in Group	7968, 51	68	117,1 83	2,74
Sum of Squar es (JK)	1433 3,3	71		

These findings are consistent with previous studies. Yang et al. (2019) found that flipped instruction was particularly effective in improving vocabulary acquisition, especially among low-achieving students. Similarly, Diningrat et al. (2023) highlighted that an extended Flipped Grouproom model significantly enhanced students' reading ability, particularly for those with lower working memory capacity. The results of this study support these claims by demonstrating how flipped instruction enables students to preview content at their own pace, thus enhancing their readiness and participation in group-based reading tasks.

In summary, the Flipped Grouproom model proved effective in improving students' reading ability, supporting independent learning, and increasing grouproom interaction. The combination of multimedia resources and student-centered grouproom activities helped foster a more engaging and impactful learning

environment. These results not only reinforce the value of flipped instruction in language learning but also suggest its wider applicability across other disciplines where ability skills are essential.

D. Conclusion

This study investigated the effectiveness of the Flipped Grouproom model in enhancing the reading ability of 11th-grade students at SMAN 1 Bengkulu City. The findings indicate that students who were taught using flipped instruction achieved significantly higher reading ability scores than those who received conventional instruction. The Flipped Grouproom approach enabled students to engage more deeply with reading materials, both independently at home and collaboratively in the grouproom. It also supported student motivation and participation through multimedia resources and learner-centered tasks.

The results reinforce existing research that highlights the benefits of flipped learning in language education, particularly in improving ability, critical thinking, and learner autonomy. While challenges such as limited internet access and unfamiliarity with the model were

encountered, these did not significantly hinder the overall success of the implementation. Therefore, the Flipped Grouproom model is recommended as an effective alternative to traditional teaching methods in EFL grouprooms.

Future research may explore the long-term impact of flipped instruction, its effect on other language skills (e.g., writing or speaking), or its integration with emerging technologies such as AI-based feedback systems. Teachers are encouraged to undergo professional development to design effective flipped learning environments that accommodate student diversity and foster deeper learning.

Kesimpulan akhir yang diperoleh dalam penelitian dan saran perbaikan yang dianggap perlu ataupun penelitian lanjutan yang relevan.

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