Instagram Based Reading Strategies Improve Students' Comprehension Skills

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Abstract: This study aimed to investigate the effectiveness of using Instagram as a social media platform to enhance students' reading comprehension among tenth-grade students at SMK 02 Empat Lawang. The research employed a quasi-experimental design involving two groups: an experimental class taught using Instagram and a control class taught through conventional methods. The participants consisted of 62 students, divided equally between the two groups. Data were collected through pre-tests and post-tests comprising 40 multiple-choice questions related to narrative texts. Statistical analysis, including paired sample t-tests and independent t-tests, revealed a significant improvement in reading comprehension in the experimental class compared to the control class. The mean post-test score of the experimental group (75.40) was significantly higher than that of the control group (54.67), indicating that integrating Instagram into reading instruction effectively enhanced students' engagement and comprehension. The findings suggest that incorporating social media, particularly Instagram, into educational practices can serve as a powerful tool for improving language skills in the digital age.

Keywords: Instagram, Reading Comprehension, Social Media, Narrative Text, Digital Learning

INTRODUCTION

Reading comprehension is a fundamental skill in education, serving as the foundation for academic achievement, critical thinking, and lifelong learning. However, recent classroom realities reveal a persistent issue: many vocational high school students struggle with low reading comprehension skills. At SMK Negeri 02 Empat Lawang, data from the 2023 National Examination shows that the average English score among tenth-grade students was only 30.54—far below the national standard. This problem is compounded by students' low interest in reading, outdated and monotonous teaching methods, and limited access to engaging reading materials. Ironically, students are highly active on social media, spending hours daily on platforms like Instagram. According to a 2023 survey by the Indonesian Internet Service Providers Association (APJII), 89% of teenagers aged 13–18 in Indonesia are active Instagram users—yet very few use the platform for academic purposes.

In response to these challenges, there is a growing need for innovative teaching strategies that bridge students' affinity for technology with their academic needs. One such solution is the integration of Instagram into the reading instruction process. Instagram, a visual-based platform with over a billion active users globally, offers features such as photos, videos, stories, and interactive comment sections, which can be leveraged to foster student engagement. Research has shown that social media can enhance student motivation and participation in language learning (Alrahimi & Alharthi, 2020; Greenhow & Lewin, 2021).

Previous studies have explored the use of social media in language education, highlighting benefits such as improved motivation and language production. For instance, Yunus et al. (2019) reported increased engagement when Facebook was used in ESL classrooms, while Hidayati & Saputra (2020) found that WhatsApp groups helped students improve vocabulary and writing fluency. However, these studies primarily focused on speaking or writing skills and were conducted among senior high school or university students. There is still limited research focusing on Instagram as a tool to improve reading comprehension, especially among vocational school students and in the context of narrative texts.

This study is different because it integrates Instagram into the English learning process for vocational high school students, focusing specifically on narrative texts like folktales and legends. It also applies the theory of multimodal learning (Kress & van Leeuwen, 2020), which emphasizes the combination of images, text, and interactivity to enhance comprehension. The use of localized cultural content further enriches moral and contextual learning.

Therefore, this study aims to investigate whether students who receive reading instruction through Instagram demonstrate significantly higher reading comprehension than those taught using conventional methods. By merging digital media and culturally meaningful content, this research contributes a practical and innovative strategy for enhancing reading comprehension in vocational education settings.

METHODS

A. Research Setting and Participants

This study was conducted at SMK Negeri 02 Empat Lawang, South Sumatra, during the 2024/2025 academic year. A total of 62 tenth-grade students participated in the research. The sample was selected through purposive sampling based on three specific criteria: students belonged to the same department (Computer and Network Engineering), they had access to mobile devices and internet connectivity, and they were familiar with using Instagram. Two intact classes were selected for this study: class X1 was assigned as the experimental group, and class X2 as the control group, each consisting of 31 students. The use of intact classes is consistent with the characteristics of quasi-experimental design in educational settings, where random assignment of individuals is not feasible but group comparison is still essential.

B. Treatment Procedure

The treatment was implemented over eight instructional sessions across four weeks. This duration was chosen based on Brown's (2001) recommendation that six to eight focused sessions are typically sufficient to produce measurable outcomes in language learning, especially when the instruction is skill-based and repetitive. In the experimental group, reading materials were delivered through a dedicated class Instagram account using visual media such as images, carousels, and captions. Students were also engaged through interactive activities, including commenting, tagging, and responding to questions via hashtags. In contrast, the control group received the same reading materials in printed form and underwent instruction through conventional in-class methods such as question-and-answer sessions, note-taking, and group discussions.

C. Instrument and Data Collection

The primary instrument used in this study was a 40-item multiple-choice reading comprehension test. The test was designed to assess five key aspects of reading comprehension: literal understanding (10 items), inferential comprehension (8 items), critical reasoning (8 items), contextual analysis (7 items), and reflective interpretation (7 items). The items were developed based on the national curriculum and adapted to narrative texts such as folktales and legends. A test blueprint was created to ensure proportional representation of each domain. Content validity was confirmed through expert review by two English education lecturers. Additionally, a pilot test was conducted with 25 students from a different class in the same school. The reliability test produced a Cronbach's Alpha coefficient

of 0.759, indicating an acceptable level of internal consistency.

D. Data Analysis Techniques

Data analysis was conducted using SPSS version 25, applying both descriptive and inferential statistical methods. Descriptive statistics were used to calculate means, standard deviations, and frequency distributions of pre-test and post-test scores. To determine significant differences in students' reading comprehension before and after the treatment within each group, a Paired Sample t-test was used. Furthermore, an Independent Sample t-test was employed to compare the post-test scores between the experimental and control groups to evaluate the effectiveness of Instagram-based instruction. Prior to conducting the t-tests, the assumptions of normality and homogeneity of variance were tested using the Shapiro-Wilk test and Levene's test, respectively. The data met both assumptions, justifying the use of parametric statistical tests.

FINDINGS AND DISCUSSION-

The analysis of reading comprehension scores from both the experimental group (taught using Instagram) and the control group (taught using traditional techniques) forms the basis of the study's findings. A 40-item multiple-choice reading comprehension exam was used to gather data through pre-tests and post-tests given before and after the intervention.

In the experimental class, the mean pre-test score was 38.67, and the post-test mean increased significantly to 75.40. In contrast, the control class showed a smaller improvement, with a pre-test mean of 36.77 and a post-test mean of 54.67. The Paired Sample t-test showed that the increase in the experimental group was statistically significant ($p < 0.05$), with a *t-obtained* value of 19.664, while the control group also showed significant but less substantial progress with a *t-obtained* value of 10.018.

Following instruction using Instagram-based reading materials, students in the experimental group outperformed those in the control group, according to the Independent Sample t-test on post-test results, which showed a significant difference between the two groups with a t-obtained value of 10.459 and p = 0.000. This section shows the reading comprehension scores of the experimental group (using Instagram-based training) and the control group (using traditional methods) based on pre-test and post-test evaluations. Finding out if Instagram use has a substantial impact on students' reading comprehension was the aim.

1. Descriptive Statistics

The descriptive statistics of both groups are shown in Table 1 below:

[Table 1. About here]

The experimental group showed a remarkable improvement in their reading comprehension, with an increase of over 36 points on average from pre-test to post-test. In contrast, the control group showed only a 17.9-point improvement on average.

2. Paired Sample T-Test Results

To determine the statistical significance of the improvement within each group, a paired sample t-test was performed. The results are presented in Table 2.

[Table 2. About here]

The experimental group's results show a highly significant difference ($p < 0.05$) between the pre- and post-test scores, indicating that the treatment using Instagram had a positive and statistically significant effect. The control group also showed a significant difference, but the magnitude of improvement was notably lower.

3. Independent Sample T-Test Results

To compare the post-test performance between the two groups, an independent sample t-test was conducted. The results are shown in Table 3.

[Table 3. About here]

The analysis shows a highly significant difference between the two groups' post-test scores (p = 0.000, *t-obtained* = 10.459 > *t-table* = 1.670), confirming that Instagram-based instruction was more effective than conventional methods in improving students' reading comprehension.

[Figure 1. About here]

DISCUSSION

The findings of this study confirm the research hypothesis (Ha) that there is a significant difference in reading comprehension between students who are taught using Instagram and those who are not. These results strongly align with the conceptual framework that emphasizes the role of technology-mediated instruction in enhancing learner engagement and academic performance.

This outcome supports the theory of multimodal learning proposed by Kress and van Leeuwen (2020), which underscores that learning becomes more effective when information is presented through a combination of text, image, and interaction. Instagram, as a visually driven and socially interactive platform, facilitates such learning experiences. By presenting narrative texts using photos, carousels, and comment features, students engage with reading materials in a manner that resonates with their media

consumption habits, making comprehension more intuitive and meaningful.

From a psychological perspective, the improved motivation in the experimental group can be explained using Self-Determination Theory (Deci & Ryan, 2000), which posits that learners thrive when their needs for autonomy, competence, and relatedness are met. Instagram empowers students with more control (autonomy), allows them to engage with accessible and familiar media (competence), and connects them with peers through shared content and interaction (relatedness). These motivational factors likely contributed to the increased engagement and comprehension seen in the experimental group.

The findings are further supported by studies such as Alrahimi & Alharthi (2020), who found that Instagram significantly enhances learner engagement and motivation in English classes. Similarly, Martarini (2021) highlighted the platform's potential for delivering English content, though her research emphasized writing rather than reading. The consistency among these findings suggests that Instagram is a valid and promising medium for language instruction.

In contrast, the control group—taught using traditional print-based methods—showed only moderate gains. This reflects the limitation of conventional pedagogy in addressing the preferences of digital-native students who are more visually and interactively oriented. The lower post-test scores in the control group underscore the need for pedagogical innovations that cater to modern learners' habits and motivations.

Interestingly, the results challenge earlier concerns that social media use hinders academic performance (Karpinski, 2016). When used purposefully within a structured framework, platforms like Instagram can serve as productive learning environments, not just as sources of distraction. This study shows that social media can be integrated meaningfully into instruction to promote both engagement and achievement.

Moreover, this research highlights the relevance of digital tools for schools in rural or under-resourced areas like Empat Lawang, where access to printed reading materials is often limited, but digital familiarity is widespread. The novelty of this study lies not only in its use of Instagram but also in its context—vocational education—and its culturally relevant focus on local folktales and legends.

CONCLUSIONS

Based on the research objectives and results, it can be concluded that integrating Instagram into English instruction significantly improves students' reading comprehension compared to conventional methods. The study confirms that students taught with Instagram-based content performed better on post-tests, validating the hypothesis (Ha) and supporting Instagram's use as an effective and innovative instructional tool.

This study also reinforces the importance of aligning educational strategies with students' digital lifestyles and psychological needs. Instagram offers a multimodal, interactive, and socially engaging approach that helps bridge the gap between traditional literacy instruction and modern learning preferences.

Limitations of the Study

This study has several limitations. First, the intervention was conducted over a relatively short period—just eight sessions—which may not fully reflect long-term retention or behavior changes. Second, the study was limited to a single vocational school in South Sumatra, which may constrain the generalizability of the findings to other educational contexts or student populations. Third, only narrative texts were used, so the findings may not apply to other reading genres like expository or argumentative texts.

Suggestions for Future Research

Future research could expand the duration of the intervention to observe longer-term effects and retention. Studies should also include multiple schools from various regions to enhance generalizability. Researchers might explore Instagram's effectiveness in teaching other language skills (e.g., writing, speaking) or examine how other digital platforms (e.g., TikTok, YouTube Shorts) can support language learning. Moreover, future research should include qualitative methods such as interviews or focus groups to better understand students' motivational responses and engagement processes.

Practical Implications for Teachers

This study offers practical insights for English teachers, particularly in vocational schools:

a) Set up a class Instagram account to share curated reading materials using images, carousels, and captions.
b) Use hashtags to organize topics (e.g., #MyFolktaleSummary or #LegendOfTheWeek) and encourage discussion.
c) Encourage interaction by asking students to comment, like, and tag peers in response to reading prompts.
d) Assign creative reading reflections where students respond to narrative texts using Instagram stories or reels.
e) Monitor participation and provide feedback directly through the platform to foster continuous engagement.

By leveraging a tool students already enjoy using, teachers can make reading more accessible, enjoyable, and meaningful—thereby transforming passive readers into active, motivated learners.

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Finally, while every effort has been made to ensure the quality of this thesis, the researcher recognizes that it is not without flaws. Constructive feedback and suggestions for improvement are genuinely welcomed.

Closing Remarks and Recommendations

This study empirically confirms that Instagram-based instruction leads to significantly greater improvement in reading comprehension compared to conventional methods, with an average gain difference of more than 20 points between the experimental and control groups. These findings support both the practical implementation of social media in the classroom and contribute to multimodal learning theory, affirming the value of visual and interactive content in enhancing students' cognitive processing.

Practically, English teachers—particularly in vocational schools—are encouraged to integrate Instagram as a supplementary platform for narrative reading activities. Simple steps such as creating a class account, organizing posts around reading themes, using hashtags for discussions, and encouraging reflective comments can meaningfully increase student motivation and engagement.

For educational institutions, especially those in rural or resource-limited areas, this approach offers a cost-effective, relatable, and scalable strategy for literacy development. Institutions may consider providing technical training and digital literacy support to teachers to optimize such innovations.

Future researchers are encouraged to explore broader contexts—such as other language skills, different text genres, and long-term learning effects—and to include qualitative methods to capture deeper insights into students' engagement and perceptions.

It is hoped that this study provides useful insight into the evolving intersection between technology and language learning, and serves as a small contribution to the advancement of English education in Indonesia.

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Table 1 / Pre-test and Post-test Results of Experimental and Control Groups

Group	Test Type	Lowest Score	Highest Score	Mean	Std. Deviation
Experimental Group	Pre-test	25	65	38.67	8.8709
	Post-test	67.5	85	75.40	4.9622
Control Group	Pre-test	25	52.5	36.77	7.1820
	Post-test	29	70	54.67	9.8544

Table 2 / Paired Sample T-Test Results of Experimental and Control Groups

Group	Mean (Pre)	Mean (Post)	Mean Difference	t-obtained	Sig. (2-tailed)
Experimental Group	38.67	75.40	36.725	19.664	0.000
Control Group	36.77	54.67	17.903	10.018	0.000

Table 3 / Independent Sample T-Test of Post-Test Scores Between Groups

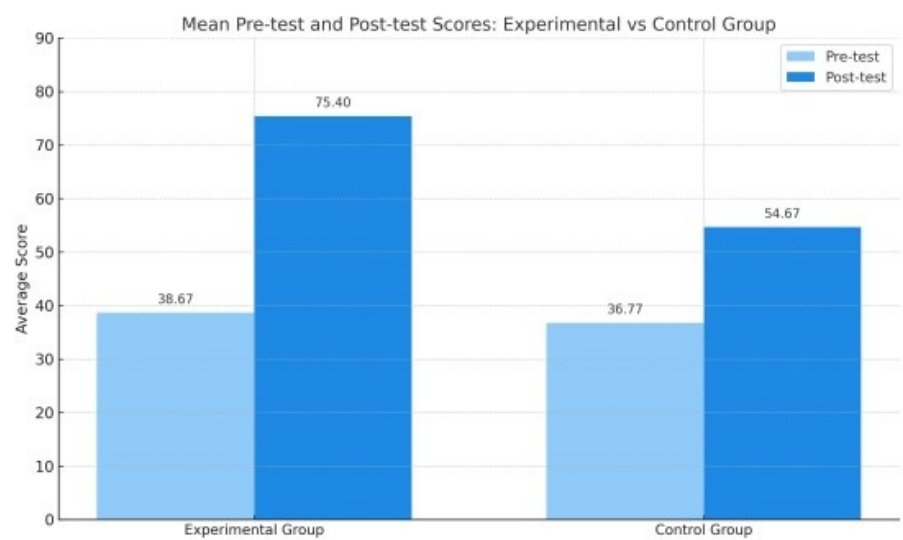| Variable	Mean (Exp)	Mean (Ctrl)	t-obtained	df	t-table	Sig. (2-tailed)	Mean Difference
Reading Comprehension	75.40	54.67	10.459	60	1.670	0.000	20.725

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Figure 1 / Mean Pre- and Post-Test Scores Showing Greater Improvement in the Experimental Group using Instagram.