

The Effectiveness of Liveworksheet Teaching Media in Teaching Grammar (An Experimental Research at The 10 Graders of SMK Gondang Pekalongan)

 <https://doi.org/10.31004/jele.v10i5.1463>

*Mohammad Arief Lukman Hakim, Pradnya Permanasari^{ab} 

¹²Universitas Pekalongan, Indonesia

Corresponding Author: moh.lukman.h88@gmail.com

ABSTRACT

Technological advancements have transformed English language learning, particularly in grammar instruction. This study aims to evaluate the effectiveness of Liveworksheet as a digital teaching medium in improving grammar comprehension and to explore students' perceptions of its use. A quasi-experimental method with a pretest-posttest design was employed, involving 34 tenth-grade students at SMK Gondang Pekalongan. Data were collected through written tests, interviews, and classroom observations, while a t-test was used to analyze students' performance before and after the treatment. The findings show a significant improvement in students' grammar comprehension, with the average score increasing from 32 in the pretest to 52 in the posttest. Students reported that Liveworksheet's interactive features and instant feedback enhanced their motivation and engagement. However, challenges such as limited access to devices and unstable internet connections were also identified. In conclusion, Liveworksheet has proven effective in enhancing students' grammar comprehension and learning motivation. It is recommended as a supplementary teaching tool, supported by teacher and student training and improved access to technological facilities.

Keywords: *Liveworksheet, grammar learning, digital media, effectiveness*

Article History:

Received 24th July 2025

Accepted 16th September 2025

Published 20th September 2025



INTRODUCTION

Technological developments in recent decades have brought about broad and profound changes in various aspects of life, including in the world of education. Innovations in information and communication technology have accelerated the flow of information and increased global accessibility, enabling more effective and efficient learning methods. Technology has changed people's mindsets and lifestyles, especially among teenagers (Wahyudi & Sukmasari, 2018). In the context of learning English, technology can be used to improve students' understanding of various aspects of language, including grammar.

Grammar is an important component in learning English because it supports speaking and writing skills. Grammar includes rules for composing language, including how to combine words, construct sentences, and change word forms based on their relationship to other words in a structure that has clear meaning (Dykes, 2007). In the communication process, a good understanding of grammar allows students to produce accurate and quality language in both spoken and written forms (Sari & Lestari, 2019). Along with the advancement of the digital era, the use of technology in education cannot be avoided. Technology has become a tool that is often used as a learning medium because of its practical nature and relevance to global demands. According to Dewi (2019), technology and learning media are currently almost inseparable. The use of technology in learning can increase student interest and motivation and facilitate the process of transferring information between teachers and

students. One form of technology that can be used in learning is Liveworksheet. Liveworksheet is a digital platform that allows teachers to create interactive electronic worksheets (e-worksheets), known as Student Worksheets (LKPD). This platform is not only visually appealing but also easy to use by students and teachers.

However, many students encounter significant challenges when mastering grammar for the TOEFL ITP or Prediction due to the complexity of grammar rules, (Fitria, 2021; Jasrial et al., 2022). Furthermore, students struggle to understand written grammar material due to differences in learning styles. Research has shown that learning styles can significantly impact students' comprehension and engagement in language learning (El-Sabagh, 2021; Hu et al., 2021). Additionally, students' interest in learning grammar is low because instructors do not use visual, audio-visual, or interactive media during grammar instruction (Arsyad et al., 2024; Habibah, 2019)

However, in practice, the use of technology as a learning medium is not optimal. Many teaching and learning activities still rely on one source of learning, namely textbooks. This results in low student response to assignments given by teachers and has an impact on student learning outcomes that do not meet the learning achievement criteria (Amalyasari et al., 2022). Therefore, it is necessary to develop technology-based teaching materials to improve student learning outcomes and facilitate a more effective learning process.

This study aims to assess the effectiveness of using Liveworksheet in improving students' understanding of grammar in class X of SMK Gondang and to explore students' perceptions of using Liveworksheet as a medium for teaching grammar.

In addition, this study also aims to identify the effect of using Liveworksheet on students' motivation and interest in learning grammar. Several previous studies have examined the use of technology in learning. For example, research by Nada, Zaini, and Ajizah (2022) which discusses the use of LKPD-Electronic Liveworksheets in biology learning shows that the use of this technology significantly improves students' cognitive learning outcomes and their critical thinking skills. The difference with this study is that the previous study focused on biology subjects, while this study examines the effectiveness of Liveworksheet in grammar learning.

Another study by Afandi (2019) which examined grammar teaching methods by novice teachers at MTs Al Muhajirin Sukamulya showed that there are four main activities in grammar teaching, namely structure input in opening activities, explicit instructions and production exercises in core activities, and production exercises and corrective feedback in closing activities. The main difference with this study is that Afandi's study focuses on teaching strategies by novice teachers, while this study focuses on the effectiveness of Liveworksheet learning media in improving students' grammar understanding.

In addition, research by Rachmat&Krisnadi (2020) which analyzed the effectiveness of online learning during the Covid-19 pandemic found that online learning was less effective and was directly proportional to students' low understanding in learning. The main difference is that this study not only analyzes the effectiveness of online learning in general, but specifically examines the use of Liveworksheet as a grammar learning medium.

This study has several aspects of novelty that distinguish it from previous studies. First, this study integrates Liveworksheet into grammar learning in vocational schools, a context that has rarely been explored in previous studies. Second, this study highlights vocational school students as research subjects, who have more practical learning needs compared to students at other levels of education. Third, this research approach not only measures the effectiveness of Liveworksheet in improving grammar understanding, but also evaluates students' perceptions of this learning medium and its impact on their motivation and interest in learning. Fourth, this study uses a pretest-posttest design as a quantitative method that provides a structured evaluation of the effectiveness of learning media, in contrast to similar studies which are generally descriptive. Finally, this study contributes to the era of

digital education by emphasizing the importance of technology integration in 21st century learning, as well as enriching the literature on the use of technology in language teaching.

With these novel aspects, this study is expected to make a significant contribution to technology-based teaching practices and the development of innovative teaching methods in vocational education environment.

METHOD

The study used the quasi-experimental study method to test the effectiveness of the Picture Word Inductive Model (PWIM) in teaching recount text writing. According to Sugiyono (2017), the experimental method is used to determine the influence of a particular treatment on a subject under a particular condition, whereas Creswell (2012) states that the experiment involves a random grouping of research participants. The use of this method is also in line with the constructive learning theory, which emphasizes the importance of active participation and interaction in the learning process.

This research will be conducted in February 17, 2025 at SMK Gondang Wonopringgo Pekalongan and grade 10 will be the subject of the research.

Data collection techniques used include written tests (pretest and posttest), interviews, and data collection trials. Pretests are conducted to obtain information about student achievements before being treated, while posttests are carried out to obtain information about students' achievements after receiving treatment. The written test used is a recount text writing achievement test. Interviews are conducted to find out the effectiveness of using PWIM from the student's perspective, and a data collection test is performed to collect initial data before the main test is carried out.

Data analysis is done using the t-test to compare the results of the pretest and posttest between the experimental class and the control class.

Respondents

Population and sample

The population in this study is The researcher will take the population at SMK Gondang which consists of 400 which are all 10th grade students at SMK Gondang in the 2025/2026 academic year. The sample in this research will be 34 students because this number is the average number of students in one class who becomes the researcher population.

Instruments

Data were collected using three instruments: (1) written tests (pretest and posttest) to measure students' grammar comprehension, (2) structured interviews to capture students' perceptions of Liveworksheet, and (3) classroom observations to support the qualitative findings.

Data analysis

The quantitative data from the written tests were analyzed using a t-test to compare pretest and posttest results, while the qualitative data from interviews and observations were thematically analyzed to provide deeper insights into students' experiences.

FINDINGS AND DISCUSSION

Finding

This study aimed to assess the effectiveness of Liveworksheet as a teaching medium in improving students' understanding of grammar at SMK Gondang. The findings are based on the analysis of pretest and posttest results, student interviews, and classroom observations.

Pretest and Posttest Results

The research table presents the pretest and posttest scores of 34 tenth-grade students at SMK Gondang. Based on the data, there was a significant increase in scores after using Liveworksheet as a grammar learning medium

Table 1: Result of pretest and posttest

Summary of Research Result

No	Name	Pretest	Protest
1	GFR	30	40
2	ARS'	25	35
3	AD	50	65
4	ADS	15	30
5	AHM	20	40
6	ANH	35	50
7	AZM	40	60
8	AT	25	50
9	ARD	65	80
10	ARK	35	50
11	BAG	25	45
12	BSH	20	40
13	DS	35	50
14	DAP	50	75
15	DHI	20	40
16	DDP	35	50
17	DIM	20	40
18	EP	30	50
19	ESR	35	50
20	FLR	35	55
21	GBP	40	70
22	INF	40	75
23	IF	20	40
24	KHA	30	65
25	MAM	30	40
26	MEH	15	30
27	MFS	40	65
28	MFR	45	70
29	MIH	45	75
30	MRM	30	55
31	MAQ	20	45
32	MRA	30	40
33	MZI	25	40
34	SLM	20	55
Total		1075	1760
Average Pretest Score		32	52
Average Increase			20

Summary of pretest and posttest statistics:

1. Total Pretest Scores: 1,075
2. Total Posttest Scores: 1,760
3. Average Pretest Score: 32
4. Average Posttest Score: 52
5. Average Increase: 20 points

This data indicates that the students' average scores improved significantly after learning with Liveworksheet. This suggests that using this digital platform is effective in enhancing students' grammar comprehension.

The research table presents the pretest and posttest scores of 34 tenth-grade students at SMK Gondang. Based on the data, there was a significant increase in scores after using Liveworksheet as a grammar learning medium. The total pretest score was 1,075, while the total posttest score reached 1,760. The average pretest score was 32, and the average posttest score was 52, indicating an average increase of 20 points. This data suggests that students' overall performance improved significantly after learning with Liveworksheet, proving its effectiveness in enhancing grammar comprehension.

The results show a significant improvement in student scores. Almost all students experienced an increase, with some who initially had low scores (e.g., 15) showing notable progress. This indicates that Liveworksheet benefits students across different proficiency levels. The score improvement was distributed between 10 to 35 points, with the highest increase recorded among students who started with lower pretest scores. Compared to conventional teaching methods that primarily rely on textbooks or lectures, Liveworksheet provided a more interactive and engaging learning experience, which contributed to the overall improvement in students' grammar proficiency.

Several factors contributed to this improvement. One of the most significant factors was the interactivity of the learning medium. Liveworksheet allows students to receive immediate feedback after completing exercises, enabling them to identify mistakes and correct them in real time. This instant feedback mechanism helps students improve their understanding more efficiently than traditional methods. Additionally, the use of digital learning tools increased students' motivation to learn. Compared to conventional approaches, digital platforms like Liveworksheet offer a more dynamic and enjoyable experience, keeping students engaged throughout the learning process. Furthermore, Liveworksheet provided flexibility, as students could access the materials at any time and repeat exercises as needed, allowing for a more personalized learning pace.

Despite these positive findings, several challenges were identified during the study. One of the main challenges was access to technology. Some students struggled with limited internet connectivity or lacked the necessary devices to use Liveworksheet effectively. Additionally, the stability of internet connections posed another challenge. Unstable internet access sometimes hindered students from completing exercises smoothly, which could affect their overall learning experience.

Based on these findings, several implications can be drawn. The integration of Liveworksheet into regular grammar lessons should be considered to enhance students' learning outcomes. Teachers can use this tool as a supplementary resource to traditional teaching methods, ensuring a more interactive learning environment. To maximize its effectiveness, both teachers and students should receive proper training on how to use the platform effectively. This will ensure that they can take full advantage of its features for grammar learning. Moreover, schools should provide alternative learning access for students with technological limitations. For instance, setting up computer labs or offering printed materials can.

Student Perceptions

Understanding students' perceptions of the use of Liveworksheet as a teaching medium is crucial to evaluating its effectiveness in grammar learning. The data was collected through structured interviews with students from the experimental group, which aimed to gather their experiences, advantages, and challenges while using Liveworksheet.

Findings from Interviews

Increased Engagement

Most students expressed that learning grammar with Liveworksheet was more engaging compared to conventional methods. They appreciated the interactive exercises, which kept them motivated throughout the lessons.

"Saya merasa lebih semangat belajar grammar karena bisa langsung melihat hasil pekerjaan saya dan mendapatkan umpanbalik." By AD

"Dibandingkan membaca buku teks, saya lebih suka belajar dengan Liveworksheet karena ada elemen interaktif yang membuat saya tidak cepat bosan." By DAP

Ease of Use

Students found Liveworksheet easy to use and accessible. Many of them reported that they had no difficulties navigating the platform and completing the exercises.

"Saya bias mengakses nyadari ponsel saya kapan saja, jadi lebih fleksibel dibandingkan dengan tugas cetak." By ARD

"Tampilannya sederhana dan jelas, jadi saya tidak mengalami kebingungan saat menggunakannya." By DAP

Instant Feedback

One of the most appreciated features of Liveworksheet was the immediate feedback provided after each exercise. Students found this feature highly beneficial in understanding their mistakes and improving their grammar skills.

"Saya suka karena langsung tahu jawaban yang benar, jadi bias belajar dari kesalahan." By ARD

"Dengan umpan balik langsung, saya tidak perlu menunggu lama untuk tahu apakah jawaban saya benar atau salah." By DAP

Impact on Learning Motivation

Many students reported that Liveworksheet positively affected their motivation to learn grammar. They felt more confident in their abilities as they progressed through the exercises and received scores in real time.

"Saya lebih percaya diri dalam memahami grammar karena ada banyak latihan yang bias saya ulang kapan saja." By ARD

"Dulu saya kurang suka belajar grammar, tapi dengan Liveworksheet saya jadi lebih tertarik dan ingin mencoba lebih banyak latihan." By DAP

Challenges in Usage

While most students found Liveworksheet beneficial, some encountered challenges such as unstable internet connections and limited access to devices.

"Kadang internet saya lemot, jadi butuh waktu lebih lama untuk mengakses tugas." By ARD

"Tidak semua teman saya punya ponsel atau laptop, jadi kadang mereka kesulitan untuk mengerjakan tugas." By DAP

Based on the interviews, students' perceptions of Liveworksheet were overwhelmingly positive. The interactive nature, instant feedback, and ease of use significantly contributed to their engagement and motivation in learning grammar. However, some technical difficulties, such as internet connectivity and device limitations, were noted as challenges that need to be addressed for a more inclusive implementation. Overall, these findings support the effectiveness of Liveworksheet as a valuable tool in enhancing grammar learning for vocational high school students.

Liveworksheet on Motivation

One of the objectives of this study was to assess the impact of Liveworksheet on students' motivation to learn grammar. Observations and student interviews revealed that the integration of digital worksheets significantly boosted motivation. The interactive nature of the platform, combined with its gamification elements, made grammar exercises feel less

monotonous. Additionally, students who typically struggled with traditional grammar lessons showed increased participation and willingness to engage with the learning material.

Discussion

The findings of this study indicate a significant improvement in students' grammar comprehension after using Liveworksheet as a teaching medium. The average pretest score was 32, while the posttest score increased to 52, reflecting a 20-point improvement. This demonstrates that Liveworksheet effectively enhances students' understanding of grammar, making it a valuable tool for digital learning.

One of the key factors contributing to this improvement is the interactive nature of Liveworksheet. Unlike traditional methods that rely on textbooks and teacher explanations, Liveworksheet provides immediate feedback, allowing students to recognize their mistakes and correct them instantly. This feature helps reinforce learning and enables students to develop a better grasp of grammar rules through active participation. Additionally, students reported that learning with Liveworksheet was more engaging and enjoyable, which increased their motivation. The digital exercises, combined with visual and interactive elements, made grammar lessons more appealing compared to conventional teaching methods.

Although most students showed improvement, the degree of progress varied. Students who initially had lower pretest scores experienced the highest gains, suggesting that Liveworksheet is particularly effective for learners who struggle with grammar. This indicates that digital learning platforms can bridge the gap for students with different proficiency levels by providing personalized and interactive learning experiences. However, some challenges were identified during the implementation of Liveworksheet. Limited access to devices and unstable internet connections were the primary obstacles faced by some students. These technical barriers highlight the need for better infrastructure and alternative solutions, such as providing access to school computer labs or offline learning materials for students with digital limitations.

The findings of this study align with previous research, such as the study conducted by Nada, Zaini, and Ajizah (2022), which demonstrated that electronic worksheets significantly enhance students' cognitive learning outcomes. This reinforces the argument that integrating technology into education can improve student engagement and learning effectiveness. Given these results, it is recommended that Liveworksheet be incorporated into the regular curriculum as a supplementary learning tool. Schools should also consider conducting training sessions for both teachers and students to maximize the benefits of this platform. Furthermore, ensuring that all students have equal access to digital resources is crucial for the successful implementation of technology-based learning. Future research could explore the long-term impact of Liveworksheet on grammar retention and its application in other aspects of language learning, such as reading and writing comprehension.

CONCLUSIONS

This study assessed the effectiveness of Liveworksheet as a teaching medium for grammar learning among vocational high school students. The findings demonstrated that integrating Liveworksheet significantly improved students' grammar comprehension, as evidenced by the notable increase in posttest scores. In addition, student interviews highlighted increased engagement, ease of use, and motivation to learn grammar through this digital platform. The interactive features and instant feedback were particularly beneficial in facilitating student learning. However, this study has some limitations, including the relatively small sample size (34 students) and the use of a single-group design, which may limit the generalizability of the findings. Future research is recommended to involve larger and more diverse samples, as well as different research designs, to provide broader validation of the effectiveness of Liveworksheet in grammar instruction.

REFERENCES

- Afandi, I. (2019) The Activities Of Teaching Grammar By Novice Teacher At Mts Al- Muhajirin Sukamulya. Uin Suska Riau
- Amalyasari, M. R., Rahmawati, R., & Jerina, A. V. (2022). An Analysis of the Students' Perception on Using Live Worksheet for Learning Narrative Text. *Verba: Journal of Applied Linguistics*, 1(2), 1–10.
- Arsyad, S., Waluyo, B., & Maisarah, I. (2024). Enhancing TOEFL performance and student motivation through integrated flipped and gamified learning in online settings. *Human Behavior and Emerging Technologies*, 2024. <https://doi.org/10.1155/2024/1054242>
- Creswell, John W. 2012. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative research*. New York: Pearson Education
- Dykes, Barbara. 2007. *Grammar For Everyone; practical tools for learning and teaching grammar*. Victoria: Acer Press
- El-Sabagh, H. A. (2021). Adaptive e-learning environment based on learning styles and its impact on development students' engagement. *International Journal of Educational Technology in Higher Education*, 18(1). <https://doi.org/10.1186/s41239-021-00289-4>
- Fitria, T. N. (2021). Students' ability in the structure and written expression section in TOEFL prediction test. *Celtic: A Journal of Culture, English Language Teaching, Literature and Linguistics*, 8(2), 152–163. <https://doi.org/10.22219/celtic.v8i2.16373>
- Habibah, F. A. F. (2019). The effects of teaching media and grammar mastery towards students' speaking skill at state junior high schools in Tangerang Banten. *Pujangga*, 4(2), 95. <https://doi.org/10.47313/pujangga.v4i2.704>
- Nada, Zaini, Ajizah. (2022). Implementasie-LKPD liveworksheetsarchaebacteriadaneubacteria: Pengaruhnyaterhadaphasilbelajarkognitifdanketerampilanberpikirkritispesertadidikkelas X MIPA. *Practice of the Science of Teaching Journal :JurnalPraktisiPendidikan*.
- Rachmat, Krisnadi. (2020) Analisis Efektivitas Pembelajaran Daring (*Online*) Untuk Siswa Smk Negeri 8 Kota Tangerang Pada Saat Covid 19. UniversitasMercuBuana
- Sari, L., & Lestari, Z. (2019). Meningkatkan kemampuan berbicarabahasaInggrissiswadalam menghadapi era revolusi 4.0. In *Prosiding Seminar Nasional Program Pascasarjana Universitas PGRI Palembang*. <https://jurnal.univpgripalembang.ac.id/index.php/Prosidingpps/article/view/2566>
- Sugiyono, (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: CV. Alfabeta.
- Suminar, Dewi. (2019). *Penerapan Teknologi Sebagai Media Pembelajaran Pada Mata Pelajaran Sosiologi*. Universitas Sultan Ageng Tirtayasa
- Wahyudi, H. S., & Sukmasari, M. P. (2018). *Teknologi dan kehidupan masyarakat*. *Jurnal Analisa Sosiologi*, 3(1).