

# The Efficiency of Using Chatgpt and Classpoint Online Apps in Improving English Teachers' Formative Assessment Competence

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## ABSTRACT

The high administrative workload often hinders teachers from developing innovative and interactive formative assessments. This study aims to examine the efficiency of using ChatGPT and ClassPoint in improving the formative assessment competencies of English teachers at junior high schools and to analyze teachers' perceptions of these technologies. This research employs a quantitative approach with a pre-experimental one-group pretest-post-test design, involving 9 English teachers from 7 schools. Data were collected through pretests and post-tests to measure teachers' formative assessment competencies and questionnaires to assess their perceptions. Statistical analysis utilized a paired t-test to compare pretest and post-test results, while descriptive statistics analysed perception data. The study results showed a significant improvement in teachers' formative assessment competencies, with scores increasing from 14.89 (pretest) to 31.11 (post-test), supported by a t-statistic value of -17.65 and a p-value < 0.01. The questionnaire analysis revealed highly positive responses, with over 90% of teachers strongly agreeing on the benefits of these technologies in creating diverse questions, speeding up the assessment process, and facilitating interactive formative assessments. These findings indicate that integrating ChatGPT and ClassPoint effectively enhances teachers' formative assessment competencies.

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## INTRODUCTION

Education is vital for shaping and developing human resources, serving as a medium for disseminating knowledge, skills, and values. In this context, teachers play a pivotal role in the educational landscape and significantly impact the quality of learning (Smith & Johnson, 2023). A teacher's ability to assess effectively is crucial for facilitating an efficient learning environment, as well-implemented assessment strategies can enhance student performance (Anderson & Brown, 2022).

In junior high English instruction, the ability of teachers to assess is especially important. Given the global significance of English and its status as a critical skill for the 21st century, enhancing the assessment capabilities of English teachers is essential for equipping students to face future challenges (Wilson et al.,

2024). Nonetheless, research by Puskurbuk (2019) indicates that many teachers in Indonesia continue to emphasize administrative tasks. Horn and Banerjee (2009) highlight this issue in developing nations, where teachers may focus more on fulfilling administrative requirements than on engaging with students directly.

Technological advancements, especially in artificial intelligence, provide valuable tools for educators to create more effective and engaging assessments. For instance, ChatGPT, an AI language model, can help teachers formulate diverse and contextually relevant questions while delivering prompt, personalized feedback (Thompson, 2024). Additionally, ClassPoint, a web-based classroom management tool, aids in organizing assessments, analyzing data, and visualizing results (Roberts, 2023).

Integrating technology into education goes beyond simply using new devices and software; it necessitates a transformation in teaching and assessment approaches (Davis & Miller, 2024). Employing digital assessment tools, particularly for formative assessments, can minimize errors, accelerate evaluation processes, and provide quicker feedback to students, thus fostering a more effective and efficient learning atmosphere (Johnson, 2023).

However, many educators struggle with the knowledge required to leverage technology for enhancing formative assessment skills, which is exacerbated by insufficient training in educational technology, especially regarding AI tools. As a result, teachers' abilities in formative assessment often remain conventional and less interactive, particularly due to the significant administrative workload involving lesson planning, report writing, and other time-intensive tasks.

Given these challenges, this study seeks to examine the effectiveness of ChatGPT and ClassPoint technology in enhancing teachers' formative assessment skills, focusing on how educators develop formative questions and carry out assessments with these tools.

## RESEARCH METHODS

This study used a quantitative approach with a pre-experimental, one-group pretest-post-test design ( $O_1 \rightarrow X \rightarrow O_2$ ). This design was selected for its practicality in assessing intervention effects without the need for control groups, which was unfeasible due to the limited number of English teachers in the district.

### Population and sample

The study population included all junior high schools ( $N=7$ ) in the Budong-Budong subdistrict, Central Mamuju Regency. Through total sampling, all English teachers ( $N=9$ ) from these schools were involved in the research, which took place from August to October 2024.

### Research instruments

This study employed three instruments: 1) Competency Test: A test assessing teachers' skills in designing formative questions and conducting assessments, focusing on both question-creation and assessment implementation abilities. 2) Questionnaire: A Likert-scale questionnaire (1=Strongly Disagree to 5=Strongly Agree) measuring teachers' perceptions of ChatGPT's effectiveness in question creation, ClassPoint's utility in implementing assessments, integration efficiency, student engagement, and overall impact. 3) Assessment Rubric: An eight-criterion rubric evaluating teachers' competence on a 4-point scale (1=Poor to 4=Very Good), covering aspects such as question-creation method, multiple choice and essay questions, short-answer questions, question combination, assessment method, interactive elements, and feedback quality.

### Data collection

The data collection process was carried out in three sequential phases.

In the first phase (pre-test), the researcher conducted an initial competency assessment to evaluate teachers' baseline abilities in creating and implementing formative assessments. This assessment was complemented by classroom observations to document current teaching practices and assessment methods. All relevant documentation was gathered and archived for later analysis.

The second phase involved the implementation of the treatment. During this stage, teachers were introduced to ChatGPT and ClassPoint technologies through structured training sessions. They received thorough training on both tools, followed by supervised practice sessions where they learned to effectively integrate these technologies into their assessment practices.

In the final phase (post-test), teachers participated in a post-intervention assessment to evaluate changes in their competencies related to formative assessment. Similar to the pre-test phase, classroom observations were conducted to record any modifications in assessment practices. Additionally, teachers filled out a comprehensive questionnaire aimed at assessing their perceptions of the effectiveness and impact of technology integration on their teaching practices.

### Data analysis

Data analysis procedures were carried out using Excel Office 2021, employing both descriptive and inferential statistical methods. The descriptive analysis involved calculating measures of central tendency (mean, median, mode), variability (standard deviation), and frequency distributions to characterize the distribution patterns of teachers' assessment competencies before and after the intervention. These measures provided a detailed overview of the data's characteristics and helped identify performance patterns among teachers across various assessment dimensions.

To determine the statistical significance of the intervention's effect, a paired t-test was employed to compare pre-test and post-test scores. The test statistic was computed as  $t = \bar{D}/(SD/\sqrt{n})$ , with  $\bar{D}$  representing the mean difference between paired observations, SD indicating the standard deviation of differences, and n denoting the sample size. This analysis enabled the evaluation of whether the implementation of ChatGPT and ClassPoint significantly improved teachers' formative assessment competence.

## RESULTS AND DISCUSSION

Based on comprehensive research into the effectiveness of ChatGPT and ClassPoint in enhancing formative assessment skills among junior high school teachers in Budong-Budong Subdistrict, Mamuju Tengah Regency, several important findings emerged.

The study indicated a significant improvement in teachers' assessment competencies after the introduction of these technologies. In the pre-test phase, teachers exhibited low competency levels in formative assessment, scoring between 11 and 18 points. Most educators relied on traditional, manual methods for creating and administering assessments, which proved to be time-consuming and inefficient. For instance, the average time taken to create multiple-choice questions exceeded 30 minutes, while crafting essay questions took between 35 and 50 minutes.

However, after undergoing training and utilizing ChatGPT and ClassPoint, teachers demonstrated a marked enhancement in their assessment capabilities. Post-test scores showed a significant increase, ranging from 29 to 32 points. The efficiency in producing assessment materials improved substantially—multiple-choice questions could now be developed in 10 to 15 minutes, essay questions in 15 to 20 minutes, and short-answer questions in under 10 minutes. This improvement was statistically significant, as evidenced by a t-test showing a t-statistic of -17.65 and a p-value below 0.05.

Teachers had overwhelmingly positive perceptions of these technologies, with an average agreement rate of 90% across various surveyed aspects. Notably, 93% of respondents expressed positive feedback regarding ClassPoint's effectiveness in facilitating formative assessments in the classroom. Teachers felt that ChatGPT assisted in generating more diverse and engaging assessment questions (89% agreement), while ClassPoint improved student engagement and streamlined feedback delivery (91% agreement).

The implications of these findings are noteworthy. Firstly, the integration of ChatGPT and ClassPoint effectively addresses the initial challenge of heavy administrative workloads faced by teachers. By significantly reducing the time required to create and implement assessments, educators can focus more on other vital teaching and learning aspects. These technologies not only enhanced efficiency but also improved the quality and variety of assessments, resulting in more engaging and interactive learning experiences.

Additionally, the study highlighted how these technologies align with contemporary educational needs, particularly within the "Merdeka" curriculum framework. The capability to quickly generate diverse questions and provide immediate feedback aligns with the curriculum's focus on adaptive and student-centered learning. The interactive features of ClassPoint played a crucial role in increasing student engagement and participation in the assessment process.

In contrast to previous research on educational technology implementation, this study illustrates a shift in integrating AI and interactive platforms into educational practices. Unlike earlier studies that concentrated on basic ICT integration or simple interactive tools, this research showcases the potential of combining AI (ChatGPT) with real-time assessment platforms (ClassPoint) to create a more comprehensive and effective assessment system.

However, the study also highlights several important considerations for the future deployment of these technologies. Continuous training and support for educators, ensuring equitable access to technology across schools and regions, and maintaining a balance between technological efficiency and personal teaching elements are essential factors to consider.

The long-term implications of this research point to a promising future for technology-enhanced assessment practices in education. The notable improvements in efficiency and quality suggest that tools like ChatGPT and ClassPoint could become integral to modern teaching methods. Nonetheless, their implementation should be approached thoughtfully, ensuring that technology complements rather than replaces the essential human elements of teaching and learning.

Furthermore, this research opens up new possibilities for personalized learning and differentiated instruction. The ability to swiftly generate varied assessment materials via ChatGPT, combined with ClassPoint's interactive features, enables educators to better cater to diverse learning styles and levels within

their classrooms.

In conclusion, while the integration of ChatGPT and ClassPoint poses certain challenges, the advantages in enhancing formative assessment competencies are substantial. The significant gains in teacher efficiency, along with improved assessment quality and student engagement, indicate that these technologies could play a crucial role in shaping the future of educational assessment practices. However, successful implementation will require ongoing support, careful integration, and thoughtful consideration of the opportunities and challenges these technologies present.

## CONCLUSION

Based on the data analysis conducted in the study "The Efficiency of Using ChatGPT and ClassPoint in Improving English Teachers' Formative Assessment Competence," significant results were identified in enhancing teachers' formative assessment competence. This was demonstrated through statistical tests that revealed a meaningful difference between pretest and post-test scores.

The t-test analysis indicated a substantial increase, with the average pretest score rising from 15.13 to a post-test score of 31.13, accompanied by a p-value of less than 0.05. The mean difference of 15.98 points suggests that the implementation of ChatGPT and ClassPoint had a significant positive impact on teachers' formative assessment competence.

This improvement was evident in teachers' abilities to produce a more diverse range of questions and conduct more effective formative assessments. This aligns with the research objective of addressing the administrative workload that previously hindered innovation in the assessment process. Additionally, statistical data indicated consistent improvement across all assessment aspects, with the standard deviation decreasing from 2.26 in the pretest to 1.05 in the post-test, suggesting that the increase in competence was uniform among the respondents.

Regarding teachers' perceptions of using ChatGPT and ClassPoint, questionnaire results showed a very high level of acceptance, with an average approval rate of 90%. The absence of negative responses (0% disagreement) indicates a positive reception of the integration of this technology into the assessment process. The ease of use garnered the highest approval rate at 93%, indicating that both platforms are easily adoptable by teachers. Consistent positive responses ranging from 87% to 93% across all dimensions further affirm the overall usefulness of these platforms.

In conclusion, the alternative hypothesis (H1) is accepted, asserting that the efficiency of using ChatGPT and ClassPoint improves teachers' formative assessment competence. This enhancement is reflected not only in the numerical scores but also in the positive perceptions of the teachers regarding the use of these platforms.

The findings of this study provide empirical evidence that integrating AI technology and interactive learning platforms can effectively address the challenges posed by teachers' administrative workloads while enhancing the quality of formative assessments. This increased efficiency allows teachers to concentrate more on pedagogical aspects and the development of innovative assessment methods.

The successful implementation of ChatGPT and ClassPoint in improving teachers' formative assessment competence also highlights the potential for further advancements in using technology to support the learning process. These results pave the way for future exploration and development of similar technology integrations in educational contexts.

Overall, this study validates the efficacy of using ChatGPT and ClassPoint as reliable tools for enhancing teachers' formative assessment competence. This success lays a strong foundation for broader implementation and the development of similar strategies in other educational institutions.

## RECOMMENDATIONS

Based on the research findings regarding the effectiveness of using ChatGPT and ClassPoint to enhance the formative assessment competence of junior high school English teachers, the following recommendations are proposed:

### Recommendations for Schools

Schools should implement regular training sessions on the use of ChatGPT and ClassPoint, ensuring that teachers are well-equipped to utilize these platforms effectively. Additionally, schools should provide the necessary infrastructure to support technology integration and facilitate discussion forums among teachers to maximize the benefits of these tools in improving the quality of formative assessments.

### Recommendations for Teachers

Teachers should actively optimize the use of ChatGPT and ClassPoint to create a diverse range of formative assessment instruments and conduct interactive assessments. Furthermore, they should engage in collaborative efforts to share best practices and experiences with their colleagues, fostering a supportive community for professional development.

### Recommendations for Future Researchers

Future research should involve larger sample sizes and employ a mixed-methods approach over extended durations to investigate specific aspects such as creativity in question creation, the quality of feedback provided, and the effectiveness of formative assessments in various learning contexts. This approach will provide a more comprehensive understanding of the impact of these technologies in educational settings.

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