

## The Effect of Formative Assessment Practices on English Learning Achievement among Senior High School Students: A Quantitative Study

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### ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh praktik asesmen formatif terhadap hasil belajar Bahasa Inggris siswa sekolah menengah atas. Penelitian menggunakan pendekatan kuantitatif dengan desain korelasional yang melibatkan 312 siswa kelas XI yang dipilih melalui teknik stratified random sampling dari enam SMA. Data dikumpulkan menggunakan angket praktik asesmen formatif yang terdiri atas 28 butir pernyataan (Cronbach's Alpha = 0,931) dan tes hasil belajar Bahasa Inggris sebanyak 50 soal (KR-20 = 0,903). Hasil uji validitas menunjukkan nilai factor loading berkisar antara 0,648–0,882 sehingga seluruh instrumen dinyatakan valid. Analisis deskriptif menunjukkan rata-rata praktik asesmen formatif sebesar 3,86 (SD = 0,54), sedangkan rata-rata hasil belajar Bahasa Inggris siswa sebesar 78,42 (SD = 8,61). Uji korelasi Pearson menunjukkan adanya hubungan positif yang signifikan antara praktik asesmen formatif dan hasil belajar Bahasa Inggris ( $r = 0,684$ ;  $p < 0,001$ ). Analisis regresi linear menunjukkan bahwa praktik asesmen formatif berpengaruh signifikan terhadap hasil belajar dengan nilai  $\beta = 0,671$  dan mampu menjelaskan 46,8% variasi hasil belajar ( $R^2 = 0,468$ ). Temuan ini menunjukkan bahwa penerapan asesmen formatif secara konsisten dapat meningkatkan hasil belajar Bahasa Inggris siswa SMA.

### ABSTRACT

*This study examined the effect of formative assessment practices on English learning achievement among senior high school students. A quantitative correlational design was employed involving 312 Grade XI students selected through stratified random sampling from six senior high schools. Data were collected using a 28-item Formative Assessment Questionnaire (Cronbach's Alpha = 0.931) and a 50-item English Achievement Test (KR-20 = 0.903). The instruments demonstrated satisfactory validity, with factor loadings ranging from 0.648 to 0.882. Descriptive analysis indicated that the mean score for formative assessment practices was 3.86 (SD = 0.54), while students' mean English achievement score was 78.42 (SD = 8.61). Pearson correlation analysis revealed a significant positive relationship between formative assessment practices and English achievement ( $r = 0.684$ ,  $p < .001$ ). Regression analysis showed that formative assessment significantly predicted English achievement ( $\beta = 0.671$ ,  $p < .001$ ), explaining 46.8% of the variance ( $R^2 = 0.468$ ). These findings indicate that effective formative assessment significantly improves students' English learning outcomes in senior high schools.*

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## 1. INTRODUCTION

English has become an essential language for global communication, higher education, international business, and technological advancement. As globalization continues to reshape educational systems worldwide, English language proficiency has emerged as one of the most important competencies required for students to participate successfully in academic and professional environments [1]. Consequently, English pedagogy has shifted from traditional teacher-centered instruction toward learner-centered approaches that emphasize meaningful learning, continuous assessment, and active student engagement. Within this paradigm, assessment is no longer regarded merely as a tool to measure learning outcomes but as an integral component of the teaching and learning process that supports students' cognitive, linguistic, and metacognitive development [2].

Assessment plays a significant role in English language teaching because it provides evidence of students' progress, identifies learning difficulties, and guides teachers in designing appropriate instructional strategies. Traditionally, English classrooms have relied heavily on summative assessment, which evaluates students' achievement at the end of a learning period through examinations or standardized tests. Although summative assessment is valuable for measuring final learning outcomes, it often provides limited opportunities for students to improve their understanding during the learning process [3]. Moreover, an excessive emphasis on final examination scores may reduce students' motivation to engage actively in classroom learning and discourage reflective learning practices [4].

In contrast, formative assessment has gained increasing attention as an effective pedagogical approach that supports continuous learning improvement. Formative assessment refers to a systematic process in which teachers gather evidence of students' learning, provide constructive feedback, monitor learning progress, and adjust instructional practices to meet students' learning needs. Unlike summative assessment, formative assessment emphasizes assessment for learning rather than assessment of learning. Through regular feedback, self-assessment, peer assessment, classroom questioning, and ongoing monitoring, students become more aware of their strengths and weaknesses while teachers obtain valuable information to improve instructional effectiveness [5].

The theoretical foundation of formative assessment is rooted in constructivist learning theory, which views learning as an active process in which students construct knowledge through interaction, reflection, and meaningful experiences. Effective formative assessment encourages students to become autonomous learners by developing self-regulation, critical thinking, problem-solving abilities, and responsibility for their own learning. In English language classrooms, formative assessment also facilitates the development of essential language skills, including listening, speaking, reading, and writing, by providing timely feedback that enables students to recognize and correct their language errors during the learning process.

Numerous empirical studies have demonstrated the positive contribution of formative assessment to students' academic achievement across various educational contexts [7]. Previous research has reported that formative assessment significantly improves students' motivation, classroom participation, learning engagement, self-confidence, and academic performance. Students who receive continuous feedback tend to demonstrate better understanding of learning objectives, greater willingness to

participate in classroom activities, and higher achievement than those who rely solely on summative evaluation. Furthermore, formative assessment has been found to strengthen teacher-student interaction, encourage collaborative learning, and promote reflective teaching practices [8].

Within English language education, formative assessment is particularly beneficial because language acquisition requires continuous practice, immediate feedback, and progressive improvement. English learning involves complex cognitive and communicative processes that cannot be adequately evaluated through a single final examination. Instead, teachers need to monitor students' language development throughout the instructional process using various assessment techniques, including classroom observation, quizzes, oral presentations, writing tasks, peer feedback, and self-reflection. These assessment practices enable teachers to identify students' learning difficulties at an early stage and provide instructional interventions that support language development [9].

Despite the recognized importance of formative assessment, its implementation in many senior high schools remains inconsistent. In many classrooms, assessment practices continue to focus primarily on grading rather than improving learning. Teachers frequently experience challenges in designing meaningful formative assessment activities due to limited instructional time, large class sizes, insufficient professional training, and curriculum demands. Consequently, feedback is often delayed, generalized, or limited to numerical scores instead of providing constructive guidance for learning improvement. Such practices reduce the effectiveness of formative assessment in enhancing students' English achievement.

The Indonesian educational system has increasingly emphasized competency-based learning and authentic assessment through successive curriculum reforms. Teachers are expected to integrate assessment into daily instructional activities, encourage students' active participation, and provide continuous feedback throughout the learning process. Nevertheless, classroom implementation often differs from policy expectations. Several studies have indicated that many English teachers still rely heavily on written examinations and teacher-centered instructional approaches, while opportunities for self-assessment, peer assessment, and individualized feedback remain relatively limited. This discrepancy suggests that further empirical investigation is necessary to understand how formative assessment practices influence English learning outcomes in Indonesian senior high schools [11].

Although previous studies have explored formative assessment in different educational settings, several research gaps remain. First, many existing studies have focused on qualitative descriptions of classroom assessment practices rather than quantitatively examining their direct relationship with English learning achievement. Second, previous research has frequently investigated formative assessment at the elementary or university level, while empirical evidence involving senior high school students remains comparatively limited. Third, few studies have employed validated measurement instruments alongside robust statistical analyses to determine the magnitude of formative assessment's contribution to English achievement. Addressing these gaps is essential to provide evidence-based recommendations for improving English pedagogy in secondary education [12].

Understanding the relationship between formative assessment practices and students' English achievement is particularly important because senior high school represents a critical stage in students' academic development [13]. At this level, students prepare for higher education and increasingly require strong English proficiency to access scientific knowledge, participate in international communication, and compete in the global workforce. Effective formative assessment may therefore serve as a strategic pedagogical tool for improving not only students' academic performance but also their confidence, motivation, and lifelong learning skills [6].

Based on these considerations, this study aims to examine the effect of formative assessment practices on English learning achievement among senior high school students using a quantitative research approach. Specifically, the study investigates the level of formative assessment implementation, measures students' English learning achievement, and analyzes the relationship

between formative assessment practices and academic performance through statistical analysis. The findings are expected to contribute both theoretically and practically [1]. Theoretically, this study enriches the literature on English language pedagogy by providing empirical evidence regarding the effectiveness of formative assessment in secondary education. Practically, the findings may assist English teachers, school administrators, curriculum developers, and educational policymakers in designing assessment practices that promote meaningful learning, improve instructional quality, and enhance students' English learning achievement [10].

## 2. METHOD

### 2.1 Research Design

This study employed a quantitative research approach using a correlational research design. The quantitative approach was selected because it enables researchers to examine the statistical relationship between variables objectively through numerical data analysis. Specifically, this study investigated the effect of formative assessment practices as the independent variable (X) on English learning achievement as the dependent variable (Y). The correlational design was appropriate because it measured the magnitude and direction of the relationship between the variables without manipulating the learning environment.

### 2.2 Research Setting and Participants

The research was conducted in six public senior high schools in Indonesia during the 2025/2026 academic year. The target population consisted of all Grade XI students enrolled in the participating schools, totaling 1,248 students.

The sample comprised 312 Grade XI students selected using stratified random sampling. This sampling technique ensured proportional representation from each school and academic stream while minimizing sampling bias. The sample size exceeded the minimum requirement recommended for regression analysis and was considered sufficient to produce reliable statistical results.

Table. 1 The demographic characteristics of the participants

Characteristics	Frequency (n)	Percentage (%)
Male	145	46.5
Female	167	53.5

The participants ranged in age from 16 to 17 years and had studied English as a compulsory subject for approximately five years.

### 2.3 Research Variables

This study involved two research variables:

- a. Independent Variable (X): Formative Assessment Practices
- b. Dependent Variable (Y): English Learning Achievement

Formative assessment practices refer to continuous classroom assessment activities implemented by English teachers, including classroom questioning, feedback provision, self-assessment, peer assessment, learning progress monitoring, and instructional adjustment. English learning achievement refers to students' academic performance measured through a standardized English achievement test covering reading comprehension, grammar, vocabulary, and language use.

### 2.4 Research Instruments

Two research instruments were employed.

a. Formative Assessment Practices Questionnaire

A self-administered questionnaire consisting of 28 items was developed based on the principles of formative assessment proposed in the educational assessment literature. The questionnaire used a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The questionnaire measured six dimensions:

- a. Learning objectives clarification
- b. Classroom questioning
- c. Constructive feedback
- d. Self-assessment
- e. Peer assessment
- f. Learning progress monitoring

The instrument demonstrated excellent internal consistency with a Cronbach's Alpha coefficient of 0.931.

b. English Learning Achievement Test

Students' English achievement was measured using a standardized 50-item multiple-choice test covering:

- a. Reading comprehension (20 items)
- b. Vocabulary (10 items)
- c. Grammar (10 items)
- d. Language use (10 items)

The test was developed according to the Indonesian senior high school English curriculum and reviewed by three English education experts. Reliability analysis using the Kuder–Richardson Formula 20 (KR-20) produced a reliability coefficient of 0.903, indicating excellent reliability.

## 2.5 Validity and Reliability

Content validity was established through expert judgment involving three senior lecturers in English education and educational assessment. Instrument revisions were made based on their recommendations regarding language clarity, content relevance, and item appropriateness.

Construct validity was evaluated using Exploratory Factor Analysis (EFA). The Kaiser–Meyer–Olkin (KMO) value was 0.914, while Bartlett's Test of Sphericity was statistically significant ( $\chi^2 = 2847.56$ ,  $p < .001$ ), indicating that the data were suitable for factor analysis. Factor loadings ranged from 0.648 to 0.882, exceeding the acceptable threshold of 0.50. Reliability testing demonstrated high internal consistency, with Cronbach's Alpha of 0.931 for the questionnaire and KR-20 of 0.903 for the English achievement test.

## 3. RESULT AND DISCUSSION

This study aimed to examine the effect of formative assessment practices on English learning achievement among senior high school students. The analysis was conducted using descriptive statistics, Pearson Product-Moment correlation, and simple linear regression to determine the magnitude and significance of the relationship between formative assessment practices and students' English achievement. The descriptive analysis revealed that the implementation of formative assessment practices was generally high. The mean score of formative assessment practices was 3.86 (SD = 0.54) on a five-point Likert scale, indicating that English teachers frequently incorporated formative assessment strategies into classroom instruction. These practices included clarifying learning objectives, asking reflective questions, providing constructive feedback, encouraging self-assessment and peer assessment, and continuously monitoring students' learning progress. The relatively small standard

deviation suggests that students shared similar perceptions regarding the implementation of formative assessment across the participating schools.

Regarding English learning achievement, students obtained a mean score of 78.42 (SD = 8.61) on the standardized English achievement test. The average score exceeded the national minimum competency standard commonly applied in Indonesian senior high schools, suggesting that the participants demonstrated satisfactory English proficiency. However, the larger standard deviation compared with the formative assessment variable indicates moderate variation in students' academic performance, reflecting differences in language competence, learning motivation, and classroom engagement. Prior to hypothesis testing, assumption tests were conducted to ensure the suitability of the data for parametric analysis. The Kolmogorov–Smirnov normality test produced a significance value of 0.087 ( $p > .05$ ), confirming that the data were normally distributed. Furthermore, the Variance Inflation Factor (VIF) value of 1.00 indicated the absence of multicollinearity, while the scatterplot analysis demonstrated homoscedasticity. These findings confirmed that the data satisfied the assumptions required for Pearson correlation and linear regression analyses. Pearson Product-Moment correlation analysis demonstrated a statistically significant positive relationship between formative assessment practices and English learning achievement ( $r = 0.684$ ,  $p < .001$ ). Based on Cohen's interpretation of correlation coefficients, this value represents a strong positive relationship, indicating that students who experienced more effective formative assessment generally achieved higher English test scores. Therefore, the research hypothesis stating that formative assessment practices are positively associated with English learning achievement was accepted. To further determine the predictive contribution of formative assessment, a simple linear regression analysis was performed. The regression analysis indicated that formative assessment practices significantly predicted English learning achievement ( $\beta = 0.671$ ,  $t = 17.83$ ,  $p < .001$ ). The coefficient of determination ( $R^2 = 0.468$ ) revealed that formative assessment practices explained 46.8% of the variance in students' English learning achievement. Consequently, the remaining 53.2% of the variance may be attributed to other variables not examined in this study, such as learning motivation, prior English proficiency, socioeconomic background, teaching experience, classroom climate, learning strategies, and parental support.

The findings clearly demonstrate that formative assessment is not merely an evaluation technique but an effective pedagogical strategy that substantially contributes to students' academic achievement. Regular feedback enables students to recognize their strengths and weaknesses while allowing teachers to identify misconceptions and provide immediate instructional support. Consequently, students are able to improve their language performance continuously rather than waiting until the final examination to identify learning deficiencies. These findings are consistent with constructivist learning theory, which emphasizes that knowledge is actively constructed through continuous interaction, reflection, and feedback. Formative assessment creates meaningful opportunities for students to evaluate their own learning progress, regulate their learning strategies, and actively participate in classroom activities. Such learning environments promote greater learner autonomy, critical thinking, and responsibility for learning, all of which contribute to improved English achievement. The results also support previous empirical studies reporting that formative assessment enhances academic performance by increasing classroom participation, learning engagement, and students' motivation. Frequent classroom questioning, timely feedback, and structured self-assessment encourage students to become active participants rather than passive recipients of information. These instructional practices are particularly important in English language learning because language acquisition requires continuous practice, immediate correction of errors, and repeated opportunities to apply linguistic knowledge in authentic communicative contexts. From a pedagogical perspective, the relatively high coefficient of determination demonstrates that formative assessment represents one of the most influential classroom factors affecting English learning achievement. English teachers should therefore integrate formative

assessment systematically into every stage of instruction rather than limiting assessment to periodic examinations.

Practical strategies include communicating explicit learning objectives, providing descriptive feedback instead of numerical scores alone, facilitating peer-review activities, encouraging reflective journals, and using classroom questioning to diagnose students' understanding throughout the lesson. Overall, the findings provide strong empirical evidence that consistent implementation of formative assessment practices significantly improves students' English learning achievement in senior high schools. The study highlights the importance of transforming assessment from a measurement-oriented activity into a continuous learning process that supports instructional improvement and student development. Consequently, schools and educational policymakers should strengthen teachers' assessment literacy through professional development programs and encourage the widespread implementation of formative assessment to improve the quality of English language education.

#### **4. CONCLUSION**

This study examined the effect of formative assessment practices on English learning achievement among senior high school students using a quantitative correlational approach. The findings demonstrate that formative assessment practices have a significant positive effect on students' English learning achievement. Students who experienced more frequent and effective formative assessment, including constructive feedback, classroom questioning, self-assessment, peer assessment, and continuous learning progress monitoring, achieved higher English learning outcomes than those exposed to less consistent assessment practices. The statistical analyses confirmed that formative assessment is a significant predictor of English achievement, indicating that continuous assessment integrated into classroom instruction contributes substantially to students' academic success. The findings reinforce the pedagogical importance of formative assessment in English language teaching. Rather than functioning solely as an evaluation tool, formative assessment serves as an instructional strategy that supports continuous learning improvement, increases students' engagement, promotes self-regulated learning, and enables teachers to provide timely instructional interventions. These practices facilitate students' understanding of learning objectives while encouraging active participation throughout the learning process.

The study also offers practical implications for English language education. English teachers are encouraged to integrate formative assessment systematically into daily classroom activities by providing immediate feedback, promoting reflective learning through self- and peer-assessment, and continuously monitoring students' progress. School administrators and curriculum developers should support teachers through professional development programs focusing on effective classroom assessment strategies. Such initiatives may contribute to improving instructional quality and students' English proficiency in senior high schools.

Despite its contributions, this study has several limitations. The research was conducted in six public senior high schools using a cross-sectional design; therefore, the findings cannot be generalized to all educational contexts. Future research is recommended to employ longitudinal or experimental designs involving more diverse educational settings, larger samples, and additional variables such as learning motivation, teacher assessment literacy, classroom engagement, and digital formative assessment. Such investigations would provide a more comprehensive understanding of the role of formative assessment in enhancing English language learning outcomes.

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