

Teacher Instructional Strategies and Student Learning Interest in Senior High School Classrooms: Evidence from an Ex Post Facto Study

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Abstract

This study examines the relationship between teacher instructional strategies and student learning interest in senior high school classrooms. A quantitative ex post facto design was employed involving 32 tenth-grade students selected through purposive sampling. Data were collected using Likert-scale questionnaires measuring teacher instructional strategies and student learning interest, supported by school documentation. The data were analyzed using descriptive statistics, normality and linearity tests, simple linear regression, and partial significance testing. The descriptive findings indicate that both teacher instructional strategies and student learning interest were categorized at high levels. Regression analysis produced the equation $Y = 26.048 + 0.369X$, with a significance value of 0.005, indicating a statistically significant positive relationship between the two variables. These findings suggest that students tend to demonstrate stronger interest in learning when teachers employ more varied, engaging, and student-centered instructional strategies. The study highlights the importance of instructional strategy selection in creating learning environments that sustain student attention, participation, and interest. The findings also provide practical implications for teachers seeking to improve classroom engagement through more adaptive and responsive instructional practices.

Keywords: Teacher Instructional Strategies, Learning Interest, Student Engagement, Senior High School, Ex Post Facto Study

1. Introduction

Student interest in learning refers to the inclination and drive to actively engage in the learning process; it signifies not merely a liking for a subject but also encompasses the student's internal motivation to pay attention, comprehend, and enthusiastically complete learning tasks without external compulsion (Suwandi et al., 2023). This interest is influenced by internal factors—such as motivation, curiosity, and the perception of the material's benefits—as well as external factors, such as the teacher's instructional methods, parental involvement, and the school environment (Sukardi, 2021). Students with a high interest in learning tend to seek additional information, engage in discussions, and connect their studies to real-life experiences, whereas students with low interest tend to be passive, easily bored, and study only due to external pressure (Rahmawati & Yuslam, 2024).

Low student interest in learning at the high school level is often characterized by a lack of attention to the teacher's explanations, minimal participation in class discussions, and a reluctance to ask questions or express opinions—factors that ultimately render the learning process one-way and lacking in meaningfulness (Korompot et al., 2020). One of the contributing factors is the implementation of teaching strategies that lack variety and are not yet fully oriented towards students' needs; teachers tend to rely predominantly on the lecture method, relegating students to the role of passive information recipients (Nurfadhillah et al., 2021). In fact, a teacher's instructional strategy serves as a guide for managing teaching and learning activities to ensure that learning objectives are achieved effectively and meaningfully; this encompasses the selection of appropriate approaches, methods, and techniques, as well as the use of suitable media and learning resources (Sahalluddin et al., 2023).

A mismatch between the teaching strategies employed by the teacher and the students' characteristics and learning needs can render the learning process monotonous, causing students to easily become bored and lose interest in the subject matter (Sukira & Azis, 2024). As curricula evolve, teachers' instructional strategies are shifting toward student-centered approaches—such as differentiated, project-based, and collaborative learning—aimed at developing students' critical thinking, creativity, communication, and collaboration skills (Rahmawati & Yuslam, 2024). The use of

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technology and digital media has become an important part of teachers' instructional strategies in recent years, as it is considered capable of boosting students' motivation and interest in learning (Zamroni & Amrin, 2025).

The phenomenon of low student interest in learning is also observed in instructional practices at SMAN 20 Bone, evidenced by students who pay little attention to the teacher's explanations, rarely ask questions, lack active participation in class discussions, and even display boredom and a lack of focus during lessons. Several previous studies have examined the relationship between teachers' instructional strategies or methods and students' interest in learning. Research (Putri & Wiza, 2022) Research on the subject of Islamic Cultural History found that expository, inquiry, and problem-based learning strategies were capable of enhancing students' learning interest; however, as the study employed a descriptive qualitative approach, it did not quantitatively measure the magnitude of the impact. (Sensanen et al., 2023) showed that teacher learning methods had a significant influence on student learning interest with a coefficient of determination of 52.9%, but the study was still limited to one independent variable without examining learning strategies comprehensively. Meanwhile, (Nababan, Bakara, et al., 2023) A literature review confirms that a variety of learning strategies play a crucial role in enhancing students' interest in learning; however, this finding is not supported by empirical field data.

A review of the aforementioned studies reveals a research gap: there is a lack of research empirically and measurably examining the influence of teachers' instructional strategies on students' learning interest using a comprehensive quantitative approach within the context of public high schools—specifically Grade X—characterized by diverse student populations. Therefore, this study aims to determine the influence of teachers' instructional strategies on the learning interest of Grade X students at SMAN 20 Bone, specifically addressing the question of whether such an influence exists. The findings are expected to provide teachers with insights for developing more effective instructional strategies and to serve as a reference for the school and future researchers.

2. Literature reviews

2.1 Interest in Learning

Learning interest refers to a student's attention, fondness, and engagement regarding learning activities—demonstrated through enthusiasm, participation, and active involvement, as well as an understanding of the activity's importance; thus, interest is not merely a matter of liking something, but a manifestation of active student behavior grounded in an awareness of the benefits of learning (Anwar et al., 2020). An interest in learning needs to be fostered in students to ensure successful learning outcomes, as there is a strong correlation between the level of student interest and the quality of academic achievement (Zulfah, 2023), and can be triggered through the use of learning media capable of stimulating students' desire and attention (Anggraeni et al., 2021).

Indicators of learning interest include a sense of enjoyment regarding the learning process, the level of student attention or focus on the teacher's explanations, active participation in discussions and learning activities, a liking for or interest in the subject matter, and an awareness of the benefits of learning activities for personal development (Sukira & Azis, 2024). Interest in learning is influenced by internal factors, such as physical health, a sense of enjoyment, personal interest, motivation, and curiosity (Korompot et al., 2020), as well as external factors, such as the teacher's personality and teaching methods (Putri & Wiza, 2022), family support (MURSIDA, 2024) as well as the availability of facilities, infrastructure, and the community environment (Korompot et al., 2020).

2.2 Teacher Instructional Strategies

A learning strategy is defined as a plan comprising a series of activities designed to achieve specific educational goals; it encompasses the organization of instructional materials or program packages delivered to learners to facilitate the attainment of those goals (Lamatenggo, 2020). The implementation of appropriate strategies has a direct impact on educational effectiveness, enabling teachers to help students connect lesson concepts with real-world situations (Damayanti et al., 2025). One relevant approach is the differentiated learning strategy, which encompasses the differentiation of content, process, and product according to each learner's potential (Maulidia & Prafitasari, 2023).

Types of learning strategies include the expository strategy, which emphasizes the verbal delivery of material by the teacher (Nababan, Manurung, et al., 2023), an inquiry strategy that emphasizes the process of critical thinking to

independently discover answers to a problem (Nababan, Bakara, et al., 2023), a cooperative strategy that prioritizes small-group collaboration, and a contextual strategy that links the material to students' real lives (Rahmadani, 2024), as well as metacognitive and socio-affective strategies that help students manage their thought processes, emotions, and social interactions while learning (Kusumawati, 2022). A comprehensive learning strategy consists of five interacting components: introductory activities, information delivery, learner participation, testing, and follow-up activities (Lamatenggo, 2020). Meanwhile, criteria for selecting an effective strategy include alignment with learning objectives, the characteristics and needs of learners, the learning environment, the type of material, and the strategy's ability to foster active student participation (Rahmadani, 2024).

2.3 Relevant Research

Study (Nurfadhillah et al., 2021) At MAN 3 Pasaman Barat, it was found that expository, inquiry, and problem-based learning strategies were able to increase students' interest in learning. (Sensanen et al., 2023) at SMA Negeri 1 Beo indicates that the teacher's teaching method has a significant effect on students' learning interest, with a coefficient of determination of 52.9%. (Nababan, Manurung, et al., 2023) A review of the literature confirms that varied instructional strategies—such as discussions, question-and-answer sessions, and educational games—play a crucial role in enhancing students' interest in learning. These studies reinforce the premise that teachers' instructional strategies are closely linked to student learning interest, although most remain limited to qualitative approaches, single-variable analyses, or literature reviews lacking comprehensive empirical field data.

2.4 Conceptual Framework and Hypotheses

Students' interest in learning reflects their affective and cognitive engagement in the learning process; consequently, when this interest is high, students demonstrate focus and active participation in learning activities (Rahmawati & Yuslam, 2024). Meanwhile, the teacher's learning strategy becomes a guideline in managing teaching and learning activities so that learning objectives are achieved effectively and meaningfully (Sahalluddin et al., 2023). Based on this conceptual framework, the teacher's instructional strategy (Variable X) is positioned as the independent variable hypothesized to influence students' learning interest (Variable Y), the dependent variable. The hypotheses proposed in this study are: H0, the teacher's instructional strategy does not have a significant effect on the learning interest of Grade X students at SMAN 20 Bone; and H1, the teacher's instructional strategy has a significant effect on the learning interest of Grade X students at SMAN 20 Bone.

3. Research methods

This study employs a quantitative approach using an ex post facto research design—specifically, research that observes existing conditions in the field without administering any special treatment to the research subjects (Sukardi, 2021), to determine the influence of teachers' learning strategies (independent variable) on students' learning interest (dependent variable). The study was conducted at SMAN 20 Bone—located in Waempubbu Village, Amali District, Bone Regency, South Sulawesi—during the even semester of the 2025/2026 academic year.

The study population consisted of all Grade X Social Sciences (IPS) students at SMAN 20 Bone for the 2025/2026 academic year, comprising three classes with a total of 97 students. The research sample was selected using a purposive sampling technique based on the recommendation of the economics teacher, resulting in the selection of class X.3—consisting of 32 students (13 male and 19 female)—as the study sample. A teacher's instructional strategy is operationally defined as any activity selected by the teacher to facilitate students in achieving specific learning objectives, whereas learning interest is defined as a sense of enjoyment manifested through students' enthusiasm, attention, and active participation in learning activities.

The data collection techniques employed were questionnaires and documentation. The questionnaires consisted of closed-ended questions using a five-point Likert scale—Strongly Agree (score 5), Agree (score 4), Somewhat Disagree (score 3), Disagree (score 2), and Strongly Disagree (score 1)—comprising 10 statements for the teacher learning strategy variable and 10 statements for the student learning interest variable. Documentation was used to gather supporting data, such as student enrollment figures and the school profile. Instrument validity testing was conducted using SPSS version 26; an item was deemed valid if the Pearson correlation coefficient exceeded the *r*-table value (0.306) and the significance value (2-tailed) was less than 0.05 (Sugiyono, 2022). The test results indicate that all 10

statement items for Variable X have correlation coefficients ranging from 0.495 to 0.771, and all 10 statement items for Variable Y have correlation coefficients ranging from 0.370 to 0.674; therefore, all instrument items are deemed valid.

Reliability testing was conducted using the Cronbach's Alpha formula, with the criterion that an instrument is considered reliable if the alpha coefficient value is greater than 0.60 (Sugiyono, 2022). The data were analyzed in several stages: descriptive statistical analysis to provide an overview of the research data; prerequisite tests—specifically a normality test using the Kolmogorov-Smirnov method and a linearity test using the "Deviation from Linearity" test at a significance level of 0.05; and hypothesis testing using simple linear regression analysis with the equation $Y = a + bX$, where Y represents students' learning interest, X represents the teacher's learning strategy, a is the constant, and b is the regression coefficient. All data analysis was performed using SPSS version 26. **Number of Items**

Table 1. Instrument Reliability Test Results

Variable	Number of Items	Cronbach's Alpha
X (Teacher Learning Strategies)	10	0,756
Y (Students' Learning Interest)	10	0,716

Sumber: Output SPSS versi 26.

4. Results and Discussion

4.1 Research Data Description

Based on the distribution of responses from 32 participants regarding the teacher's instructional strategy variable, the majority selected the "Strongly Agree" and "Agree" categories for nearly all statements. The highest proportion was observed for the statement "the teacher explains the lesson material in a way that is easy to understand," with 69% of respondents indicating "Strongly Agree." The mean total score for the teacher's instructional strategy variable was 44.28—placing it in the "high" category—indicating that students perceive the strategies implemented by the teacher as effective, particularly regarding material delivery, the use of instructional media, student engagement, and classroom atmosphere management.

Regarding the variable of student learning interest, the majority of respondents selected the "Strongly Agree" and "Agree" categories; the highest proportion—50%—was recorded for the statement "I enjoy attending class lessons." The mean total score for this variable was 42.56, placing it in the high category. This indicates that students in class X.3 at SMAN 20 Bone possess a commendable level of learning interest, as reflected in their enjoyment, attentiveness, and active engagement throughout the learning process.

4.2 Analysis Prerequisite Tests

Table 2. Results of Normality and Linearity Tests

Testing	Sig. value	Significance Level	Information
Normality (Kolmogorov-Smirnov)	0,200	0,05	Normality
Linearity (Deviation from Linearity)	0,162	0,05	Linearity

Sumber: Output SPSS versi 26.

The Kolmogorov-Smirnov normality test results for the residual data yielded an Asymp. Sig. (2-tailed) value of 0.200—exceeding the 0.05 significance level—indicating that the research data are normally distributed. The linearity test results showed a significance value of 0.162 for "Deviation from Linearity," which is also greater than 0.05, signifying a linear relationship between the teacher's learning strategy variable and the students' learning interest variable. With these two assumptions met, the research data satisfy the requirements to proceed to simple linear regression analysis.

4.3 Hypothesis Testing

Table 3. Results of Simple Linear Regression Analysis

Variable	B	Std. Error	Sig.	Information
Constant	26,048	5,389	0,000	–
Teacher's Instructional Strategies (X)	0,369	0,121	0,005	Has a positive and significant effect

Sumber: Output SPSS versi 26. Variabel terikat: Minat Belajar Siswa (Y).

The simple linear regression analysis yielded the equation $Y = 26.048 + 0.369X$. The constant value of 26.048 indicates that if the teacher's instructional strategy is rated at 0, student learning interest stands at 26.048; meanwhile, the regression coefficient of 0.369 indicates that for every one-unit increase in the teacher's instructional strategy, student learning interest increases by 0.369 units. The significance value of 0.005 is below 0.05; therefore, the alternative hypothesis (H1) is accepted, and the null hypothesis (H0) is rejected. Thus, it can be concluded that the teacher's instructional strategy has a positive and significant effect on the learning interest of Grade X students at SMAN 20 Bone.

4.4 Discussion

The findings of this study indicate that teachers' learning strategies have a positive and significant influence on students' learning interest, in line with the view that learning strategies are a guideline for teachers in managing teaching and learning activities so that learning objectives are achieved effectively and meaningfully. (Saha luddin et al., 2023). The fact that the average scores for both teacher learning strategies and student learning interest fall into the high category indicates that the implementation of varied strategies—such as the use of instructional media, the provision of real-life examples, and the maintenance of a conducive classroom environment—can create an enjoyable learning atmosphere and foster active student participation (Sukira & Azis, 2024).

Hasil ini juga memperkuat konsep pembelajaran yang berpusat pada siswa (student centered learning), yang menekankan bahwa strategi pembelajaran efektif tidak hanya berfokus pada penyampaian materi, tetapi juga memberi kesempatan siswa untuk berinteraksi, berdiskusi, dan berpartisipasi aktif dalam pembelajaran (Rahmadani et al., 2024). Ketika siswa merasa dihargai dan dilibatkan dalam proses pembelajaran, mereka cenderung memiliki ketertarikan yang lebih besar terhadap kegiatan belajar, sebaliknya pembelajaran yang monoton dan berpusat pada guru cenderung menurunkan perhatian dan minat belajar siswa (Sukira & Azis, 2024).

These findings are consistent with research (Sensanen et al., 2023) which shows that the teacher's learning method has a significant influence on students' learning interest, as well as research (Putri & Wiza, 2022) ...which underscores the vital role of varied learning strategies in enhancing students' interest in learning. The distinction lies in the fact that this study provides more quantifiable evidence within the context of public senior high schools, examining the variable of teacher learning strategies more comprehensively—encompassing planning, implementation, and evaluation—thereby strengthening the generalizability of the findings to Grade X classrooms, a stage marked by crucial academic and psychological development.

Nevertheless, students' interest in learning is not solely influenced by the teacher's instructional strategies. Other factors—such as students' intrinsic motivation, parental support, the learning environment, school facilities, and peer influence—also contribute to the level of interest in learning (Korompot et al., 2020). Therefore, increasing students' interest in learning requires synergy among teachers, schools, families, and the students themselves, with teachers' instructional strategies serving as one of the external factors that can best be controlled and continuously improved through teacher training and professional development.

5. Kesimpulan

Based on the research findings and discussion, it can be concluded that the teachers' instructional strategies have a positive and significant effect on the learning interest of Grade X students at SMAN 20 Bone. This is evidenced by the

simple linear regression analysis, which yielded the equation $Y = 26.048 + 0.369X$ and a significance value of 0.005—below the 0.05 threshold—thereby leading to the acceptance of the alternative hypothesis (H1) and the rejection of the null hypothesis (H0). Consequently, the more effective and varied the instructional strategies employed by teachers, the higher the students' learning interest. It is recommended that teachers continue to develop innovative and interactive instructional strategies, that the school provide support through teacher training and professional development, and that future researchers incorporate additional variables influencing student learning interest to obtain more comprehensive results.

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