



THE IMPLEMENTATION OF HYBRID LEARNING STRATEGY TO IMPROVE STUDENTS' LEARNING OUTCOMES AT SMA 1 SERAM BAGIAN BARAT

PENERAPAN STRATEGI PEMBELAJARAN *HYBRID LEARNING* UNTUK MENINGKATKAN HASIL BELAJAR SISWA PADA SMA 1 SERAM BAGIAN BARAT

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Abstract

This study aims to improve students' learning outcomes through the implementation of the Hybrid Learning strategy for 30 students at SMA Negeri 1 Seram Bagian Barat. This research is a classroom action research consisting of four stages: action planning, action implementation, evaluation, and reflection. The study was conducted in two cycles — Cycle I consisted of three meetings, while Cycle II consisted of two meetings. Data were collected through observation sheets, tests, Zoom Meeting applications, and documentation. The data analysis technique used was descriptive statistical analysis. The findings of this study indicate that the implementation of the Hybrid Learning strategy can improve students' learning outcomes. This is evidenced by the increase in students' learning scores from Cycle I to Cycle II.

Keywords: combination of learning models, cooperative learning type Group Investigation (GI), cooperative learning type Example Non Example (EnE), learning outcomes.

Abstrak

Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa melalui penerapan strategi Pembelajaran Hybrid Learning untuk meningkatkan hasil belajar siswa SMA Negeri 1 Seram Bagian Barat yang berjumlah 30 orang. Penelitian ini merupakan penelitian tindakan kelas yang terdiri atas empat tahapan yaitu perencanaan tindakan, pelaksanaan tindakan, evaluasi dan refleksi. Penelitian ini dilaksanakan dalam dua siklus yaitu siklus 1 terdiri atas tiga kali pertemuan dan siklus 2 terdiri dari dua kali pertemuan. Data dikumpulkan menggunakan lembar observasi, tes, melakukan penelitian menggunakan aplikasi zoom meeting dan dokumentasi. Teknik analisis data yang digunakan adalah analisis statistik deskriptif. Hasil penelitian yang ditemukan ini menunjukkan penerapan strategi pembelajaran Hybrid



Learning dapat meningkatkan hasil belajar siswa. Hal ini berdasarkan nilai hasil belajar yang di peroleh siswa dari Siklus I ke Siklus II mengalami peningkatan.

Kata kunci: Konbinasi model pembelajaran, Pembelajaran kooperatif tipe Group Investigation (GI), Pembelajaran kooperatif tipe Example non Example (EnE), hasil belajar.

1. INTRODUCTION

Education plays a crucial role in human life. The civilizations of ancient nations, whose achievements were recorded as wonders of the world, were all the result of the quality of education at that time. The rise and fall of a civilization are largely determined by the quality of its education. When we study history, we can see that the advancement of nations in the Digital Age heavily depends on their educational standards. Therefore, the progress and development of a nation are determined by the quality of its education, which in turn fosters the creation and empowerment of competent human resources.

Innovation in the economic, socio-cultural, and environmental sectors has advanced more rapidly than in the educational field. Yet, improving the quality of education cannot occur without educational innovation. Educational innovation represents a fundamental effort to enhance various aspects of educational practice. With the rapid advancement of technology, many aspects of life are transforming — technology evolves, living facilities improve, behavior patterns shift, values change, and consequently, the education system and social institutions also adapt. A developing society thus requires innovations in the form of new discoveries — ideas, actions, or tools that can respond to these changes.

The use of ICT in education, commonly referred to as e-learning, is believed to enhance the quality of learning. However, the potential for students to feel bored or disengaged during online learning is one of the reasons the hybrid learning model was developed. Enhancing learning quality through hybrid learning allows students to become more active and improves their individual performance. Students who often struggle to grasp material or who are slow to understand are expected to benefit from the hybrid learning process. Moreover, students who miss classes due to teacher absences can still access lessons and avoid falling behind.

The educational sector faces several challenges in implementing new learning habits in schools, including: (1) human resource readiness; (2) infrastructure readiness; (3) learning system readiness; (4) parental and school environment readiness; and (5) readiness to build a new learning culture. To address these challenges, the government must: (1) establish appropriate school learning policies; (2) assess school readiness levels; and (3) improve learning service systems.

In this era of technological advancement, it is important to understand its defining characteristics, which include demographic, professional, and literacy dimensions. Since technology integration in education is relatively new, further research and analysis are needed to identify effective strategies for adapting to this era. Referring to the characteristics of the Industrial Revolution 4.0, there are at least three key strategies to enhance the quality of education in Indonesia one of which is the Hybrid Learning strategy.

2. RESEARCH METHOD

This study employed a Classroom Action Research (CAR) design. CAR is a type of applied research conducted to improve the quality of teaching practices within the classroom. The primary objective of this study is to solve real problems that occur in the classroom while enhancing teachers' professional development.



The research was conducted from July to September 2021 at SMA Negeri 1 Seram Bagian Barat, located on Jl. Raya Kairatu, Kecamatan Kairatu, Kabupaten Seram Bagian Barat, Maluku Province. The population and sample of the study consisted of students from this school.

The research instruments included questionnaires, which contained statements related to the research variables and were answered by respondents, as well as pretests and posttests used to measure students' learning improvements.

3. RESULTS AND DISCUSSION

A. Preliminary Activities

On Monday, June 25, 2021, the researcher visited the research site, SMA Negeri 1 Seram Bagian Barat, and met with Mr. Wahid Latu, S.Kom, the teacher responsible for the Information and Computer Technology subject, to request permission to conduct research in July 2021. Based on the directions of the Information and Computer Technology subject teacher, the principal of SMA Negeri 1 Seram Bagian Barat granted permission and allowed the researcher to conduct the study.

After discussion with the subject teacher, it was agreed that the research would be conducted from July 29, 2021, to August 19, 2021. The topic chosen for this research was Graphic Design. Before implementing the action, the researcher carried out preliminary observations of the Graphic Design learning process in Class XI Science, where the Hybrid Learning strategy would later be applied.

The results of these preliminary observations revealed problems experienced by the teacher, such as difficulty in applying appropriate learning strategies to make students more active and to improve learning outcomes during the pandemic period.

Based on these findings, before the implementation stage, a Pre-Action (Preliminary) Test was conducted on Friday, July 29, 2021, to measure the cognitive abilities of Class XI Science students regarding the subject matter. The teacher and researcher administered the pretest **online** to determine students' initial understanding.

B. Implementation of Actions

Cycle I

1. Planning

1. During the planning stage, the researcher collaborated with the Information and Computer Technology subject teacher to prepare the learning materials that would be presented to Class XI Science students.
2. The Hybrid Learning strategy was implemented as a solution to improve learning effectiveness.
3. A learning scenario was developed, including a Lesson Plan (RPP) and Computer Network evaluation tests (pretest and posttest).
4. Learning media were prepared in the form of PowerPoint materials to be presented to students.
5. A Zoom Meeting access link was created and distributed to students to facilitate the online learning process.
6. Equipment and materials for documenting the learning process were prepared.

2. Action

Cycle I was conducted in July 2021 and consisted of three meetings. During this cycle, the researcher observed the Information and Computer Technology teacher implementing the



Hybrid Learning strategy. Throughout the lessons, the teacher followed the learning scenario as outlined in the Lesson Plan, which consisted of:

- Preliminary activities (greetings, motivation, and introduction to learning objectives),
- Core activities (delivery of material, online interaction, and practice tasks), and
- Closing activities (reflection, conclusion, and feedback).

3. Observation

During each meeting, observations were carried out from the beginning until the end of the lesson using **observation sheets**. The observation results during Cycle I were as follows:

1. Some students joined the class late due to internet access issues.
2. There was limited interactive dialogue among students.
3. Several network connection problems occurred during the lesson.

4. Data Analysis and Reflection (Cycle I)

a. Test Result Analysis

Table 1. Analysis of Pretest I and Pretest II Results

Test	Number of Students	Who Students Passed (≥ 75)	Who Students Not Pass (< 75)	Did Classical Mastery (%)	Mean Score
Pretest I	30	9	21	30%	49.3
Pretest II	30	16	14	53%	65

Table 2. Analysis of Posttest I and Posttest II Results

Test	Number of Students	Who Students Passed (≥ 75)	Who Students Not Pass (< 75)	Did Classical Mastery (%)	Mean Score
Posttest I	30	12	18	40%	57
Posttest II	30	20	10	66%	69

Based on the analysis of Pretest I, only 9 out of 30 students achieved mastery (scored ≥ 75), while 21 students did not pass (scored < 75). The classical mastery level was 30% with a mean score of 49.3.

In Pretest II, 16 students achieved mastery, while 14 did not, showing an improvement with 53% classical mastery and a mean score of 65.

In Posttest I, 12 students achieved mastery while 18 did not, with 40% classical mastery and a mean score of 57. Meanwhile, in Posttest II, mastery improved to 66%, with 20 students passing and 10 not yet passing, and a mean score of 69.

These results indicate that the implementation of the Hybrid Learning strategy led to an improvement in students' learning outcomes from Pretest I to Posttest II.

b. Observation Result Analysis

From the observations during Cycle I, it was found that student activeness in learning was still relatively low. This was caused by late logins due to network issues, limited interaction among students, and technical difficulties with the internet connection.

The observation results of students' learning activities during Cycle I are presented in the following table:



Table 3. Observation Results of Student Learning Activities in Cycle I (Class XI Science)

Source: Processed Research Data, 2025

No.	Observed Aspect	Observation Result	Remarks
1	Student punctuality in joining online classes	Some students were late due to network problems	Needs improvement
2	Student participation in discussions	Limited interaction and engagement	Needs more teacher stimulation
3	Use of learning media and online tools	Satisfactory, but some students experienced connection issues	Requires technical assistance
4	Student concentration during learning	Moderate focus level	Needs to be increased through interactive activities
5	Teacher-student communication	Mostly one-way	Should be made more reciprocal and dynamic

These findings show that, although learning outcomes improved during Cycle I, student engagement and interaction remained limited. Therefore, improvements were planned for Cycle II, focusing on increasing student participation, stabilizing the internet connection, and optimizing the Hybrid Learning strategy.

Source: 2025 Data Processing Results

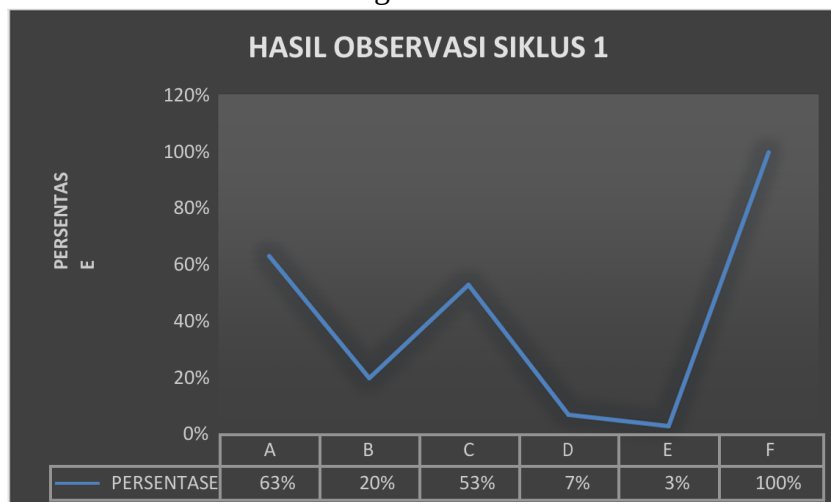


Figure. Graph of Observation Results in Cycle I

Description:

A = Students show a positive attitude toward the Hybrid Learning strategy

B = Students are active during the Hybrid Learning process

C = Students pay attention to the learning media presented through the share screen feature and PowerPoint in class

D = Students ask the teacher questions regarding the Hybrid Learning strategy

E = Students answer the teacher's questions during the learning activity

F = Number of students present



Based on the data presented above, several facts and issues were found. Some students were still engaged in other activities during the lesson, and some did not pay sufficient attention to the teacher's explanation. This indicates that the learning process had not yet met the researcher's expectations. Therefore, the researcher needed to plan the next stage to make necessary improvements.

Cycle II

a. Planning

1. At the planning stage, the researcher collaborated with the Information and Communication Technology (ICT) subject teacher to prepare the material to be delivered to grade XI science students.
2. Implement the Hybrid Learning strategy as a solution to address learning problems.
3. Develop a learning scenario, including lesson plans (RPP) and evaluation questions on Computer Networks (pretest and posttest).
4. Prepare learning media in the form of materials to be displayed on the PC screen and PowerPoint presentation in class for students.
5. Distribute the Zoom Meeting access link to students and conduct the learning session.
6. Prepare tools and equipment to document activities during the learning process.

b. Action

Cycle II was conducted in October 2019 and lasted for two meetings. In this cycle, the researcher acted as an observer, while the ICT subject teacher implemented the Hybrid Learning strategy. During the learning process, the teacher followed the lesson plan (RPP), which included the introduction, main activities, and closing stages.

c. Observation

The observation results during Cycle II are as follows:

1. The learning tools used during the teaching process were well-prepared.
2. The teacher encouraged students' prior knowledge by asking questions related to the material.
3. The teacher facilitated both group and class discussions.
4. Students expressed their opinions related to the topic being discussed.
5. Students' cooperation and activeness began to emerge, as indicated by their curiosity and willingness to ask questions to the teacher and peers.

d. Data Analysis and Reflection of Cycle II

1) Test Result Analysis

Table 1. Analysis of Pretest and Posttest Results in Cycle II

Test Type	Number of Students	Students Achieving Mastery (≥ 75)	Students Not Achieving Mastery (< 75)	Percentage of Mean Score
Pretest	30	24	6	80%
Posttest	30	27	3	90%

Source: *Processed Research Data, 2025*

Based on the Pretest analysis, 24 of the 30 students achieved mastery (scores ≥ 75), while 6 did not. Thus, the classical completeness was 80%, with an average score of 76. After the Posttest, 27 students achieved mastery, while only 3 did not. Classical completeness increased to 90%, with an average score of 80.6. This indicates that the learning outcomes in



Cycle II met the Minimum Mastery Criteria (KKM) of 75 and achieved 90% classical completeness.

2) Observation Result Analysis

Table 2. Observation Results of Student Learning Activities in Cycle II (Class XI)

No	Observed Aspect	Description	Average Score	Category
1	Students show a positive attitude toward Hybrid Learning	Most students participated enthusiastically	85	Very Good
2	Students are active during Hybrid Learning	Students responded actively in discussions	83	Good
3	Students pay attention to learning media (screen and PowerPoint)	Students focused on teacher explanations	88	Very Good
4	Students ask questions related to the topic	More students asked questions than in Cycle I	82	Good
5	Students answer teacher questions correctly	Students' responses showed understanding	84	Good
6	Number of students present	All students attended the session	100	Excellent

Source: Processed Observation Data, 2025

The results of Cycle II show that students' activeness and engagement in learning increased significantly. Although the class was conducted online, discussions became more dynamic, and students were more confident in expressing their ideas.

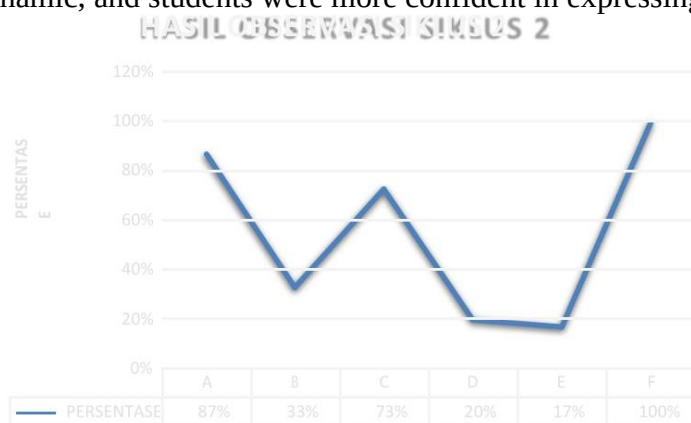


Figure: Graph of Observation Results in Cycle II

Description:

- A = Students show a positive attitude toward the Hybrid Learning strategy
- B = Students are active during the Hybrid Learning strategy
- C = Students pay attention to the learning media displayed through the share screen feature
- D = Students ask the teacher questions regarding Hybrid Learning
- E = Students answer the teacher's questions during the learning activities
- F = Number of students present

Based on the explanation above, the efforts to improve students' learning outcomes in Cycle II showed positive results. The learning outcomes of Grade XI Science students



increased significantly. This indicates that the implementation of the Hybrid Learning strategy can effectively improve students' learning outcomes. The achievement of the research success indicators shows that this classroom action research can be concluded in two cycles. The improvement in students' learning outcomes from the Pre-Action stage to Cycle II can be seen in the following table and diagram.

Cycle	Number of Students	Number of Students Who Passed	Percentage
Pre-Action	26	8	30%
Cycle I	30	20	66%
Cycle II	30	27	90%

Table. Improvement in Student Learning Outcomes

Cycle	Number of Students	Number of Students Who Passed	Percentage	Amount of Improvement
Cycle I	34	20	66%	
Cycle II	27	90%		24%

Table. Summary of Improvement in Learning Outcomes in Cycle I and Cycle II

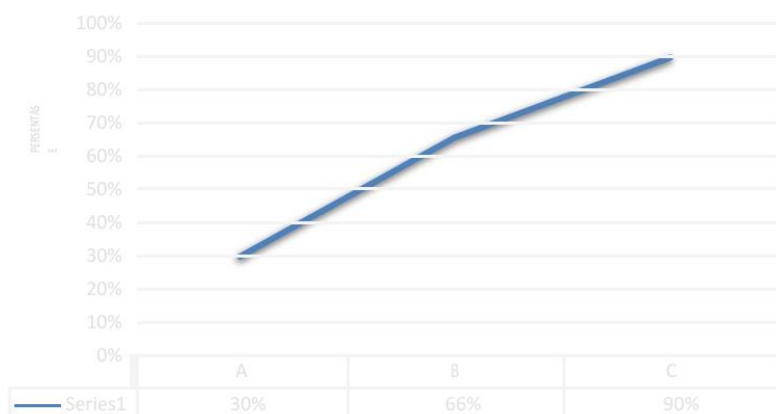


Figure: Graph of Learning Outcome Improvement

4. DISCUSSION

Based on observations during the implementation of the Hybrid Learning strategy, both teacher and student activities were highly positive. Students appeared more enthusiastic and active during the learning process, attempting to understand the material by asking questions to peers, consulting the teacher, and attentively listening to group presentations. This was evident from their academic progress—students became more confident in expressing opinions during discussions.

The initial process of implementing this strategy began in Cycle I, meeting 1, where a test was given to measure students' understanding of the related material. Based on the results, groups were formed, with members selected according to their test scores so that each group had evenly distributed abilities. Each group leader was responsible for coordinating, monitoring, and guiding members in completing tasks and explaining any difficulties they encountered. The group leader bore full responsibility for both the group's output and members' understanding of the material. During group work, leaders also distributed tasks with varying levels of difficulty so that all members could develop equal understanding of the discussed content.



Each meeting began with a series of questions related to the upcoming material, aimed at exploring students' prior knowledge. The main learning activities followed, beginning with discussions. After group discussions, each team presented their results. Before the session ended, a posttest was administered to determine the effectiveness of the intervention. The analysis showed consistent improvement in learning outcomes, as evidenced by the posttest results.

In Cycle I, during meeting 1, the pretest showed a classical learning mastery rate of 30%, where 9 out of 30 students achieved mastery, while 21 students did not. In meeting 2, after the posttest, mastery increased to 40%, though it had not yet met the expected standard—only 12 students achieved mastery while 18 did not. Before the next meeting, each group leader was informed of the material to be studied at home. In meeting 3, another pretest was administered, showing 53% mastery (16 out of 30 students). After the posttest in the same meeting, mastery increased to 66%, though still below the minimum target of 80%. Therefore, the research continued to Cycle II to reach the desired success indicator.

In Cycle II, meeting 1, the pretest showed a mastery rate of 80%, with 24 out of 30 students achieving mastery. In meeting 2, after the posttest, the mastery rate rose to 90%, with 27 students meeting the standard and only 3 not yet achieving mastery. The overall improvement from Cycle I to Cycle II was 24%, indicating that the implementation of the Hybrid Learning strategy successfully improved students' learning outcomes.

Students' learning activity also improved significantly. In Cycle I, many students were still passive, faced network problems, and often turned off their cameras during Zoom sessions—likely because they were not yet familiar with Hybrid Learning. In Cycle II, the number of students paying attention and actively participating increased, resulting in a smoother teaching and learning process.

Based on these findings, it can be concluded that implementing the Hybrid Learning strategy in the Information and Communication Technology (ICT) subject effectively improved students' learning outcomes. For teachers applying this strategy at SMA Negeri 1 Seram Bagian Barat, it is important to focus on attracting students' attention. Capturing students' interest fosters engagement and creates a positive classroom atmosphere. When students enjoy the learning process, both teachers and students can perform optimally. Teachers can attract attention by using engaging learning media, applying game-based learning, and other creative approaches within the Hybrid Learning framework. Students' performance reflects the effectiveness of the instruction itself—if students can correctly answer what the teacher has taught, it indicates successful learning. Conversely, if students respond negatively, it may suggest a need for improvement in the teacher's instructional or classroom management methods.

4. CONCLUSION

Overall, the analysis results show that the Hybrid Learning strategy effectively enhanced learning outcomes for Grade XI students at SMA Negeri 1 Seram Bagian Barat. Students' learning outcomes improved from the pre-action phase to Cycle II, reaching 90% mastery. In Cycle I, although there was improvement, the class average had not yet reached the Minimum Mastery Criteria (KKM) of 75, necessitating the continuation to Cycle II. In Cycle II, students' learning outcomes successfully reached the KKM target, indicating that the research objectives were achieved and the cycles could be concluded.



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