

# Implementation of the Flipped Classroom Learning Model on the Quality of Senior High School Education

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**Abstract**— Flipped classroom learning is an innovative learning method that utilizes digital technology to increase student involvement in the learning process. This research aims to examine the implementation of the flipped classroom learning model and its impact on the quality of education at the high school level. The research method used is a descriptive method with a qualitative and quantitative approach. Data was obtained through interviews with teachers and students, observation of the learning process, and student evaluation questionnaires. The research results show that the implementation of the flipped classroom can improve student understanding, active involvement in learning, and better learning outcomes.

**Keywords**— Flipped Classroom, High School Education, Quality Of Education, Educational Technology

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## I. INTRODUCTION

The development of information and communication technology (ICT) has significantly impacted the field of education. Traditional learning methods, often referred to as the classical learning approach, emphasize the educator's authority in the learning process (Syafnidawaty, 2020). Classroom learning is an activity that transforms students' knowledge, attitudes, and skills (Siti Husnul Bariah, Dian Rahadian, Iwan Putra Tresna M., 2019). The shift from face-to-face learning to online learning requires teachers to develop innovative teaching skills. Online learning has been widely studied and implemented, emphasizing the essential skills that students must possess, such as collaboration, communication, critical thinking, and creativity (N. Suprianti, Suci Ramadhanti Febriani, 2021). However, this learning method has become commonplace in nearly every school and is often criticized for being monotonous and unengaging. As times evolve, educators are expected to deliver creative and innovative learning approaches. One of the emerging learning models is the flipped classroom.

Flipped learning is a teaching method where the learning process is conducted independently by students, while teachers provide feedback. A good relationship between teachers and students is one of the key indicators of successful implementation of this learning model (Azimi Ramadhan, Hamsi Mansur, Agus Hadi Utama, 2021). The flipped classroom approach allows teachers to prioritize active classroom learning activities by assigning learning materials that students can review at home or outside the classroom. Simply put, in a flipped learning model, teachers only need to provide topics or discussion prompts as stimuli. This feedback can be delivered through online learning in the form of videos, after which students are

encouraged to find supporting resources and study them in detail (Zenius Untuk Guru, 2021).

The flipped classroom is one of the many innovative learning models that have emerged in recent years to support the teaching and learning process. In this model, teachers alternate between conducting activities in the classroom and allowing students to learn at home (Syafnidawaty, 2020). This learning model fosters a culture of learning that extends beyond the classroom, making education a continuous process even after formal lessons have ended (Thanthawi Ishak, Rudi Kurniawan, Zamzami Zainuddin, 2019).

Given these issues, this study aims to conduct a literature review on the implementation of the flipped classroom model in senior high schools and its impact on students' education quality. The purpose of this section is to investigate whether the flipped classroom model effectively enhances the quality of student education.

## II. METHOD

This study employs a strategy known as a literature review. The researchers analyze various scholarly papers discussing the flipped classroom approach for public speaking training. Additionally, the researchers conduct a descriptive analysis of the data and make observations based on information published in academic journals (Yunda Lestari, Rudi Hartono, Issy Yuliasri, Hendi Pratama, 2023). The flipped classroom is a type of blended learning that combines both synchronous and asynchronous independent learning (Ari Septian, Sarah Inayah, Risna Berliana, 2022).

Therefore, the aim of this study is to examine whether the flipped classroom model is effective in improving students' speaking skills. This literature review utilizes Google Scholar as a reference search tool, ensuring accurate results. The term "flipped classroom implementation" is

used as a keyword when searching for relevant information for the article. Once the researchers obtain relevant articles, they analyze the research problems presented. This literature review primarily evaluates published studies.

### III. RESULT AND DISCUSSION

After obtaining journal articles relevant to the purpose of this study, the authors analyzed these articles as references for the implementation of the flipped classroom model and its impact on students' education quality. One of the journal articles reviewed is from the *Indonesia Journal of Education Development*, titled *Implementation of the Flipped Classroom Learning Model Based on Differentiation Strategies to Improve Students' Critical Thinking Skills* by I Made Yadnya Putra (2021).

The study was conducted to address an issue identified in Grade 12 Science 3 at SMAN 6 Denpasar, where students exhibited a lack of critical thinking skills in online learning. The research aimed to enhance students' critical thinking abilities and examine their responses to the implementation of the flipped classroom model based on differentiation strategies. The study involved 31 students from Grade 12 Science 3 at SMAN 6 Denpasar during the first semester of the 2021/2022 academic year. Conducted in two cycles, the study focused on the topic of electrodynamics. A critical thinking test was used to assess students' critical thinking skills, with the study considered successful if the class-wide average critical thinking ability reached at least 80% and if at least 85% of students achieved mastery learning. The study also gathered responses from 4,444 students, with success criteria requiring at least a "positive" rating.

The results of the descriptive analysis showed that students' critical thinking skills improved, with an average score of 80.10, categorized as "good," in Cycle I, and 82.12, also categorized as "good," in Cycle II. Additionally, students' responses to the implementation of the flipped classroom model based on differentiation strategies were positive, with an average response score of 58.48. Based on these findings, the study concluded that the implementation of the flipped classroom model based on differentiation strategies in physics classes successfully improved the critical thinking skills of Grade 12 Science 3 students at SMAN 6 Denpasar during the 2021/2022 academic year. The improvement was reflected in students' average scores, which increased from Cycle I to Cycle II, with standard deviations of 3.98 and 3.91, respectively. Furthermore, students' responses to the flipped classroom model were categorized as positive, with an average score of 58.48 and a standard deviation of 6.57.

Based on the findings from this classroom action research, the authors suggest that educational practitioners intending to conduct similar studies using the flipped classroom model based on differentiation strategies should consider six aspects of critical thinking. Special attention should be given to refining research indicators to facilitate clearer conclusions. The theoretical and operational analysis of this study strongly supports the effectiveness of the flipped classroom model based on differentiation strategies. The research successfully demonstrated

improvements in students' critical thinking skills, reinforcing the effectiveness of the flipped classroom approach in enhancing learning outcomes.

### IV. CONCLUSION

The implementation of the flipped classroom model in high schools has proven effective in enhancing the quality of education. This model increases student engagement in the learning process, improves conceptual understanding, and results in better academic achievements. Students are more enthusiastic about learning when the material is presented through videos created by the teacher, featuring attractive concepts and visuals. In the flipped classroom model, students are given equal opportunities to explore and study all the materials provided optimally, enabling them to be better prepared and more participatory during online learning discussions. This approach helps students feel more confident. In this model, students are more proactive in discussing and expressing their opinions about the material presented (A.A.G. Ekayana, I.D.M.K. Muku, I.N.B., 2021). Despite some technical challenges, the benefits gained far outweigh the drawbacks. Furthermore, the teacher's role as a facilitator is effectively implemented through the flipped classroom model.

The goal of the flipped classroom is for each student to develop a conceptual understanding of the subject matter and acquire relevant knowledge before attending class. Once students have gained these foundational skills, the teacher assumes the role of a facilitator in class, guiding students to become more active and interactive participants in the learning process. Students can also use these skills to solve problems, making the learning process more effective, efficient, and flexible.

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