Vol. 13, No. 2, pp. 1295-1308, 2023 DOI: 10.23960/jpp.v13.i2.202330

Jurnal Pendidikan Progresif

e-ISSN: 2550-1313 | p-ISSN: 2087-9849

http://jurnal.fkip.unila.ac.id/index.php/jpp/

Literature Review on the Effectiveness of the Flipped Classroom in Enchancing Students' Academic Achievement in Indonesia

Muhammad Darobi, Harini, & Leny Noviani

Master Program in Economic Education, Sebelas Maret University, Indonesia

*Corresponding email: robi@student.uns.ac.id

Received: 19 November 2023 Accepted: 18 December 2023 Published: 26 December 2023

Abstract: Literature Review on the Effectiveness of the Flipped Classroom in Enchancing Students' Academic Achievement. Objective: The research aims to explore the impact of implementing the Flipped Classroom model on improving learning outcomes in Economics by presenting a comprehensive literature review on the use of the Flipped Classroom model in the context of economic education. **Methods:** The research method employed is a Systematic Literature Review (SLR) from various sources, where the author explores various related studies to determine whether the Flipped Classroom model consistently improves students' academic performance in an educational context. **Findings:** The literature review results indicate that the Flipped Classroom has the potential to enhance students' academic achievements. Some studies show a significant improvement in conceptual understanding, learning motivation, and active student participation when this model is well implemented. However, there are also findings highlighting challenges in implementing the Flipped Classroom, such as adequate material preparation, teacher roles, and technology access.

Keywords: Flipped classroom, academic achievement, economics learning.

Abstrak: Tinjauan Literasi tentang Efektivitas Flipped Classroom dalam Meningkatkan Prestasi Akademik Siswa. Tujuan: *Penelitian ini bertujuan untuk mengeksplorasi dampak dari penerapan model pembelajaran Flipped Classroom dalam meningkatkan hasil pembelajaran mata pelajaran Ekonomi dengan menyajikan tinjauan literatur yang komprehensif seputar penggunaan model Flipped Classroom dalam konteks pendidikan ekonomi.* ***Metode:*** *Metode penelitian yang digunakan ialah SLR (Systematic Literature Review) dari berbagai sumber, penulis menjelajahi berbagai studi terkait untuk mengetahui apakah model pembelajaran Flipped Classroom dapat secara konsisten meningkatkan kinerja akademis siswa pada konteks pendidikan.* ***Temuan:*** *Hasil tinjauan literatur menunjukkan bahwa Flipped Classroom memiliki potensi untuk meningkatkan prestasi akademis siswa. Beberapa studi menunjukkan peningkatan signifikan dalam pemahaman konsep, motivasi belajar, dan partisipasi aktif siswa ketika model ini diimplementasikan dengan baik. Namun, ada juga temuan yang menyoroti tantangan dalam mengimplementasikan Flipped Classroom, seperti persiapan materi yang memadai, peran guru, dan akses teknologi.*

Kata kunci: *Flipped classroom, prestasi akademik, pembelajaran ekonomi.*

To cite this article:

Darobi, M., Harini., & Noviani, L. (2023). Literature Review on the Effectiveness of the Flipped Classroom learning Model in Enchancing Students' Academic Achievement in Indonesia. *Jurnal Pendidikan Progresif*, *13*(3), 1295-1308. doi: 10.23960/jpp.v13.i2.202330.

INTRODUCTION

Education is one of the most crucial aspects in shaping quality human resources. In modern society, invesment in education is regarded as the primary foundation for creating individuals with the capabilities, skills, and paramount objective in the realm of education, as exemplary academic performance serves as a pivotal indikator of success in the educational journey. The outcomes of quality education not only yield benefits for individuals but also exert a positive impact on the development of nation (Pristiwanti, Badariah, Hidayat, & Dewi, 2022).

The quality of education is a crucial factor in determining a nation's development. Countries with high-quality education enjoy competitive advantages in various sectors, such as technology, the economy, and innovation, therefore, effective investment in education is of paramount importance, with the changing times and evolving dynamics of society, learning approaches have undergone significant transformations. Traditional teaching models that heavily rely on the teacher as the primary source of information are being questioned for their effectiveness (Efendi & Maskar, 2020).

In general, effectiveness is a condition that indicates how significant the achievement of a planned goal is. Effectiveness can also be defined as a method, effort, strategy, or technique used to achieve goals accurately and swiftly. Some other experts argue that effectiveness is a debatable term that can stir strong emotions due to its connection with the ideas of professional competence and accountability at a high level in a system, meaning the extent to which professional competence goals are achieved under real conditions in the field (James Ko., 2016).

When the word effectiveness is related to the learning process, it refers to the final results of the planned target achievements. On the other hand, the term "learning" linguistically originates from the word "study," which means a dynamic and evolving process (Ambrose, S. A., Bridges, M. W., & Dipietro, 2010; Barkley, 2010; Borich, 2017; Chapman, C., Muijs, D., Reynolds, D.,, Sammons, P., 2016; Sudjana, 2019; T, 2008).

The COVID-19 pandemic that has affected the entire world in recent times seems to justify the notion that dynamic learning is a reality. This situation has brought about holistic changes in all aspects of life, including in the field of education. Direct classroom interactions have become limited. As a consequence of these conditions, the field of education has had to adapt to ensure the continuity of the teaching and learning process. The adaptation made in the field of education involves the utilization of internet-based media as an alternative solution in the knowledge transfer process, known as online or distance learning. Online learning is considered an effective method (Alsalhi, N. R., Eltahir, M. E., & Al-Qatawneh, 2019).

Online or distance learning enables teachers and students to interact directly through various video conference platforms accessible from each student's residence. There are numerous advantages to online learning, including ease of delivering and presenting learning content directly, flexibility in scheduling and organizing learning materials, enhanced interactive communication, and improved student learning processes. However, alongside these advantages, it is undeniable that online learning also comes with its own set of challenges. These include decreased student motivation, delayed feedback and assistance due to the fact that teachers may not always be available when students require help, and feelings of isolation stemming from the lack of physical presence of classmates (Coman, C., îru, L. G., Mese'an-Schmitz, L., Stanciu, C., 2020).

This shift in paradigm will undoubtedly impact students' learning outcomes compared to the situation before the pandemic (Coman, C.,

îru, L. G., Mese'an-Schmitz, L., Stanciu, C., 2020; Daniel, 2020). Nevertheless, these challenges can be overcome with the assistance of teachers who need to adjust their teaching strategies and models according to the students' needs (Coman, C., îru, L. G., Mese'an-Schmitz, L., Stanciu, C., 2020).

Considering the holistic changes brought about by the COVID-19 pandemic, it can be concluded that learning effectiveness is a process that necessitates methods, models, strategies, and techniques that can achieve goals accurately and swiftly while adapting to evolving and dynamic situations. Learning effectiveness is not solely related to achieving high grades; it also requires supporting resources, such as an active learning environment where there is active interaction between educators and students, recognition of students' backgrounds, the creation of a diverse learning environment, and the ability to provide empowering experiences where students are encouraged to think actively (Bradshaw, 2014; James Ko., 2016). Thus, the role of the teacher, student involvement, and supporting resources, including the learning model, are essential factors in creating learning effectiveness.

An effective teacher in the learning process is one who can achieve planned objectives and complete school-assigned tasks (James Ko., 2016). In addition to the teaching factor, learning is considered effective when students actively engage in the transfer of knowledge and personally exhibit proactive attitudes in the learning process (Acharya, H., Reddy, R., Hussein, A., Bagga, J., & Pettit, 2019). In this context, the Flipped Classroom has emerged as an innovative approach that is increasingly recognized and applied in various educational institutions. This approach revolutionizes the traditional learning paradigm. Students acquire learning materials before entering the classroom, making the class time an opportunity for discussion, questions, and problem-solving. Consequently, students have more control over their learning processes, while teachers serve as facilitators of learning. The Flipped Classroom combines technology with human interaction, creating a more dynamic, student-centered learning enviroment. With the emergence of this innovative approach, questions arise about the effectiveness of Flipped Classroom in enchancing studnets' academic achievements and how this approach can influence the of education (Rahmadani, Fadilah, Darussyamsu, Fitri, & Alicia Farma, 2022).

Changes in teaching approaches, particularly the Flipped Classroom, have opened doors to intriguing alternatives in efforts to enchance students' academic performance. For years the conventional leraning paradigm focues on a model where the teacher acted as the primary source of information, and students were more passive in receiving knowledge. However, with technological advancements and changes in how individuals learn, the Flipped Classroom has introducted a significant paradigm shift in the approach to learning (Walidah, Wijayanti, & Affaf, 2020).

As we are well aware, the field of education is currently undergoing a transitional phase, where rapid technological advancements demand appropriate and effective adaptation. To meet these challenges, the adoption of technology has become a necessity in the realm of education. The educational process must create an environment in which Information and Communication Technology (ICT) becomes an integral part, thereby facilitating the achievement of quality education.

Blended learning compels us as educators to consider the characteristics of digital technology in general, and information and communication technology (ICT) specifically (Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., 2018). This means that the use of technology should align with the needs and objectives of the learning process.

The term "Information and Communication Technology" (ICT) is comprehensive, covering various tools like radio, TV, the internet, satellites, web, Wi-Fi networks, smartphones, computer hardware and software, virtual reality, audio and video conferencing, social media, 3D printers, and numerous other devices. These technologies collectively empower individuals or teams to explore, evaluate, exchange, and showcase information, expertise, abilities, concepts, and experiences (Latchem, 2017).

Considering the current situation, with ever-evolving digital technology, education in schools must be able to adapt to rapid and sometimes unexpected changes. The transfer of knowledge must continue as it should, acknowledging that students are part of the post-millennial generation who are highly familiar with technology and possess the ability to access information quickly and independently.

One of the emerging learning models in the education technology disruption is the Flipped Classroom model. Technology allows the Flipped Classroom model to be implemented in both online and offline settings. In-person classroom meetings can be replaced by video conference applications, which enable face-to-face interactions even in remote settings.

The Flipped Classroom model was first introduced to the public by J. Wesley Baker in 2000 (Baker, 2000), through his article titled "The classroom flip: using web course management tools to become the guide by the side." The Flipped Classroom model is defined as a learning approach that reverses the sequence of the learning process. What was traditionally done in the classroom is now completed at home, while what was traditionally considered homework is now done in the classroom (Baker, 2000; Bergmann, J., & Sams, 2012; Buil-Fabregá, M., Casanovas, M. M., Ruiz-Munzón, N., 2019; Eppard, J., 2017; Young, T. P., Bailey, C. J., Guptill, M., Thorp, A. W., 2014).

(Abeysekera, L., & Dawson, 2015) offer an alternative viewpoint regarding the Flipped Classroom instructional model, underscoring that the classroom time in this approach involves engaging in active learning tasks and necessitates that students finish assignments either before or after the class. This means that course materials are provided to students in the form of audio and video recordings that can be accessed by students before attending the class.

The Flipped Classroom, as one of the innovations in the field of education, reverses the typical learning process. Students no longer attend class solely to receive material from the teacher; instead, they acquire learning materials before the class session begins. These materials can be in the form of videos, readings, or other self-accessible learning resources. Subsequently, class time is utilized as an opportunity for discussion, Q&A, and problem-solving. Students are given greater responsibility in managing their own learning processes. Within the framework of the Flipped Classroom, teachers serve as facilitators of learning, supporting and guiding students. They encourage students to think critically, collaborate, and develop a deeper understanding of the subject matter. This approach empowers students to have more control over their learning, enabling them to learn at their own pace and in a style that suits them. Therefore, the Flipped Classroom is not merely a change in teaching method but also represents a transformation in classroom dynamics that is more inclusive and responsive (Rahmadani et al., 2022). Researchers are interested in investigating the effectiveness of the Flipped Classroom learning model in enhancing the activity and academic performance of students. Although this model has been proven to address these issues, it needs to be reexamined, particularly in the context of economics education. This is because some studies conducted by (Adams, 2016; Cabi, 2018; J, 2019; Lai, 2016; McLean, S., Attardi,

S. M., Faden, L., 2016; Smallhorn, 2017; Strayer, 2012) have shown that the Flipped Classroom may not significantly enhance student engagement and academic performance.

With the emergence of this innovative approach, pressing questions arise about the effectiveness of the Flipped Classroom in improving students' academic performance. How does this approach compare to conventional teaching models? How does the Flipped Classroom influence student motivation and learning outcomes? Are there specific factors that impact the successful implementation of the Flipped Classroom in various educational contexts? These questions form the primary basis for formulating research objectives that will reveal the potential and challenges in using the Flipped Classroom as an effective tool to achieve optimal learning achievements. This study focuses on critical questions regarding the effectiveness of the Flipped Classroom learning model. What is the impact of implementing the Flipped Classroom on student academic performance? Can the Flipped Classroom be a more effective alternative compared to conventional teaching methods? Are there specific factors that influence student learning outcomes in the context of the Flipped Classroom? These questions serve as the primary foundation for formulating more specific research objectives.

The purpose of this research is to investigate and analyze the effectiveness of the Flipped Classroom learning model in improving students' academic performance. This research aims to address key questions about the positive impact and potential challenges in implementing the Flipped Classroom. With a deeper understanding of the effectiveness of the Flipped Classroom, it is hoped that this research can make a valuable contribution to ongoing efforts to enhance the quality of education. The results of this research are expected to provide significant benefits to various stakeholders, including education practitioners, researchers, and policymakers in the field of education. Firstly, educators and teachers will gain a better insight into the potential of the Flipped Classroom as an effective tool in improving students' academic performance. Additionally, this research can help identify key factors that contribute to the success of implementing the Flipped Classroom, allowing for more targeted curriculum development and teaching strategies. For researchers, this literature study can serve as a useful reference for further research in this field. Finally, for education policymakers, this research can provide the basis for formulating policies that support the development and implementation of the Flipped Classroom in various educational institutions. Thus, it is expected that students' academic achievements can continue to be enhanced to achieve better educational quality.

METHODS

Research Design

In order to investigate the effectiveness of the Flipped Classroom learning model in enhancing student learning achievement, this study adopts a literature review method as the primary approach. A literature review is a research method that collects, evaluates, and synthesizes relevant literature on the research topic without gathering new empirical data (Fianingrum, Novaliyosi, Nindiasari, & Syamsuri, 2022).

Search Strategy

Through the use of Publish or Perish (PoP) software, Google Scholar, Semantic Scholar and some academic publications connected. All research published between 2020-2023, the descriptors or keywords entered in the software were as follows: flipped classroom in economics education.

Inclusion and Exclusion Criteria

Inclusion and exclusion criteria provide the foundation for reviewers to reach valid and reliable conclusions (Meline, 2006). The selection of

included studies was based on the inclusion criteria protocol: must encompass research related to the Flipped Classroom method in high school Economics education; can utilize quantitative, qualitative, RnD, or SLR designs; can be written in either Indonesian or English. The chosen documents underwent screening based on the established inclusion criteria. The illustration below depicts the search strategy employed for the included studies.

Data Analysis

Once the selected literature sources are identified, in-depth analysis is conducted to evaluate and synthesize the existing findings. In this stage, the research identifies trends, patterns, and conclusions that emerge from the analyzed literature. This involves comparing previous studies that examine the effectiveness of the Flipped Classroom in improving student learning achievement. Additionally, the research also considers research results that encompass the strengths and weaknesses of the Flipped Classroom learning model, factors influencing student learning outcomes, and its impact on student motivation and engagement in the learning process. This in-depth analysis will aid in understanding the diversity of previous research findings and exploring the potential for improvement in this learning model. The findings and conclusions from the literature review will be summarized and presented in this research article.

This approach is applied to gain a deeper understanding of the development, application, and research findings related to the Flipped Classroom in an educational context. The research begins with the identification of literature relevant to the research topic. The analyzed literature includes scholarly articles, books, educational journals, theses, and various related information sources found through academic databases, digital libraries, and leading search engines. Each literature source is selected based on inclusion criteria involving topic relevance, source reliability, and the most publication year.

Therefore, this article will provide a deep understanding of the effectiveness of the Flipped Classroom learning model, highlighting the key findings, and offering valuable insights for educational practitioners, researchers, and policymakers in the field of education. This literature review will provide a solid foundation for discussing implications and future research directions in the ongoing effort to advance learning models that can enhance student learning achievement.

■ RESULTS AND DISCUSSION

Based on several previous studies outlined, the dominant theme is the effectiveness of the Flipped Classroom learning model in the context of economics education during the COVID-19 pandemic. These studies provide valuable insights into various aspects of the model's usage. Most of the findings indicate that the Flipped Classroom can enhance students' understanding of concepts and economics abilities.

Table 1. Descriptive data of the 10 included studies on teachers' experiences on flipped classroom

No.	Author	Setting	Subject	Teacher's Experiences
1.	(Antonio, 2022)	Philippines	Social Studies	✓ Unstable internet connection ✓ Absence of technological gadgets ✓ Invest additional time responding to inquiries ✓ Supervise the advancement of students and furnish more feedback ✓ Enhanced interaction between students and educators

2.	(Suanse & Yuenyong, 2021)	Thailand	Math	✓ Increased work efficiency ✓ Have more time to communicate with students
3.	(Rafon & Mistades, 2020)	Philippines	Physics	✓ Improvement on the students' interaction
4.	(Hung, 2022)	Vietnam	English	✓ Educators guide students to become learners who can direct themselves ✓ Arranged interactive and fruitful activities
5.	(Basuki Budi, 2022)	Indonesia	Economics	✓ This approach aims to address learning loss that occurred during online learning. ✓ significantly improve the learning outcomes in economics ✓
6.	(Chen et al., 2018)	Taiwan	Medical education	✓ The FC (Flipped Classroom) method is associated with greater academic achievement than the LB (Traditional Learning) approach for higher-level learning outcomes, which has become more obvious in recent years
7.	(Awidi & Paynter, 2019)	Australia	Biology	✓ Refinements of components of the flipped design, such as the pre-recorded lectures and the structure of the in-class sessions, may further enhance the student learning experience in this course
8.	(Akçayır & Akçayır, 2018)	Turkey	General object	✓ Disscuss advantages and disadvantages of the fliiped classroom. ✓ Advantages of the flipped classroom: o Learner Outcomes o Pedagogical Contributions o Time Efficiency o Dispositions o Interaction o The majority of reviewed studies reported that the flipped model promotes improvements in student learning performance. Additionally, researchers have reported numerous advantages of this model (e.g., enhanced learning motivation, students' positive attitudes), which is encouraging.
9.	(Purba, Kristiani, Sangka, & Hussain, 2021)	Indonesia	Economics	✓ Flipped classroom learning model is effective for use in the learning process because students have studied thematerial before going to class, meaningthe teacher no longer dominates the classroom situationand teacher-student interactions becomebetter and more enjoyable

10.	(Caviglia-Harris, 2016)	USA	General	✓ The flipped classroom has been proposed as a teaching method with the potential to enhance student learning by removing much of the transmission of knowledge from the classroom and replacing this with active learning approaches that enable the assimilation of information.

Ten (10) included studies were from around the world. The teachers' experiences from the 10 studies were described as indicated in table 1, including the discipline or subject taught. These experiences were clustered and were analyzed using the six-step thematic analysis, which resulted in five (5) themes, namely: Technical Challenges and Infrastructure, Time and Availability, Supervision and Feedback, Teacher-Student Interaction, and Learning Enhancement. Clustering all themes have emerged one meta-theme, teachers' experiences of flipped classrooms. The said themes and meta-theme are described below.

Theme 1. Technical Challenges and Infrastructure

Despite various studies exploring the effectiveness of the flipped classroom model, there is a limited body of research on its implementation during the pandemic (Antonio, 2022). This research evaluated the applicability of this teaching approach in the pandemic context, where the primary obstacle for students engaged in flexible learning is the availability of internet connectivity and access to suitable technological devices. Consistent with prior studies (Kim, 2018; Stover, 2019), this study employed the CoI framework to assess the flipped classroom pedagogy within the framework of flexible learning.

Theme 2. Time and Availability

An additional reported advantage of the flipped classroom is its ability to utilize class time more efficiently (13%) by (Akçayýr & Akçayýr, 2018). By assigning all lectures as homework for students to study outside of class, valuable in-class time is freed up, allowing for student-centered learning activities like discussions, feedback sessions, and hands-on activities. Consequently, class time can be employed more effectively compared to traditional classrooms. One of the reviewed studies (Mason, 2013) noted that engineering students adapted quickly to the flipped model. Nevertheless, further research is necessary to verify the ease of implementing the flipped model among other student populations.

Theme 3. Supervision and Feedback

Several studies have indicated positive feedback (18%) and perceptions (14%) (Akçayýr & Akçayýr, 2018) from students regarding flipped courses. For instance, Zainuddin and Attaran (2016) discovered that a majority of university students held favorable perceptions of flipped classrooms and expressed a preference for this model over traditional teaching methods. Some studies (8%) revealed that the flipped classroom contributed to the development of more positive attitudes toward learning experiences among students (e.g., Fautch, 2015; Hung, 2015).

Another positive aspect highlighted is the increased opportunities for student-student and student-instructor interactions (20%), as flipped classrooms provide additional in-class time for such engagements. These studies reported greater interactions between students and instructors (10%) and among students (4%) by (Akçayýr

& Akçayýr, 2018). One plausible explanation for the rise in student-instructor interaction is the shift in the instructor's role from a content presenter to a learning coach in this model (Bergmann, 2012). Consequently, (Gilboy, Heinerichs, 2015) asserted that student-centered activities in a flipped model could enhance students-instructor interaction.

Theme 4. Teacher-Student Interaction

Educators utilizing the flipped classroom approach demonstrated an increased capacity to individually engage with a larger number of students within the class, providing enhanced support and fostering direct contact with outstanding students (Ahmad, 2021; Fasli, 2021; Tan, Yangco, 2020). This method enabled teachers to deliver prompt feedback and assistance to students, closely monitor their progress, and offer additional guidance. Furthermore, teachers could deliver more comprehensive input and a diverse range of feedback to students. The reciprocal engagement displayed by both students and teachers resulted in the acquisition of new knowledge by both parties (Karmila, Friska, 2022). Consequently, there was a notable rise in engagement levels on the part of both students and teachers (Antonio, 2022).

The implementation of a flipped classroom contributed to an expansion of students' comprehension of concepts by affording them ample time for discussions and issue exploration (Asda, 2022). Teacher educators utilized the flipped classroom strategy to cultivate meaningful classroom interactions, fostering an environment where students could openly discuss their concerns (Aidoo, 2022). The flipped classroom model facilitated the identification of students' challenges through teacher-student interactions, paving the way for constructive feedback (Mo, Hsieh, Lin, Jin, & Su, 2021). Flipped classes actively engaged students and promoted more profound learning experiences by optimizing teacher-student interactions and facilitating learning through continuous instructor feedback and encouragement (Shen, 2023).

Theme 5. Learning Enhancement

Based on (Fauzan, 2018), the flipped classroom learning model offers students the flexibility to adapt their learning outside of the classroom. This allows them to delve deeper into the learning materials covered at home. Additionally, (Almodaires, Alayyar, Almsaud, 2019) assert that students have the option to pause, stop, and replay learning videos, facilitating a better grasp of the learning content. Some of the benefits derived from implementing the flipped classroom include the ability for students to adequately prepare before in-class learning (Almodaires, Alayyar, Almsaud, 2019). The learning process becomes enjoyable and productive (Kozikoglu, 2019), teachers can offer guidance and foster teamwork among students, students can be motivated by the creation of a competitive classroom atmosphere (Su, 2018). Moreover, the flipped classroom learning model, utilizing technology, supports students in independent learning (Kozikoglu, 2019; Su, 2018), leading to improved student success in learning (Antonio, 2022).

Flipped classrooms also foster increased student activity in class (Kozikoglu, 2019), higher student attendance (Goedhart, Blignaut-van Westrhenen, N., Moser, C., 2019), greater student involvement in learning activities (Su, 2018), and create potential for effective time utilization (Lag, 2019).

The Impact of the Flipped Classroom Model on Economics Learning

The flipped classroom model has a positive impact on Economics learning, a discipline that explores individual and community decision-making regarding the use of scarce resources.

This educational approach provides students with opportunities for independent learning outside the classroom, allowing them to adapt their learning to individual needs. Students can delve deeper into materials, such as individual assignments and presentations, enhancing the overall learning experience. Despite the advantages, teachers face challenges like heavy workloads and the need for engaging online content. Nevertheless, the model allows teachers to dedicate more time to active learning, distributing instructional videos before class.

The flipped classroom model promotes an engaging and active learning environment in Economics education. By providing videos and materials beforehand, students can prepare at their own pace, fostering independent learning. This approach encourages student and teacher participation in various activities like discussions, debates, analysis, problem-solving, and evaluation. Studies, such as (Caviglia-Harris, 2016), highlight the positive impact of the flipped classroom on student learning outcomes in Economics. In conclusion, adopting the flipped classroom model in Economics education supports student learning independence, increases activity and involvement, and enhances overall learning outcomes.

■ CONCLUSIONS

Based on the results and discussions of a series of studies, it can be concluded that the Flipped Classroom teaching model plays advantages and disadvantages, the evaluation of the flipped classroom model in Economics education during the pandemic highlights challenges such as technical limitations for flexible learning and a highly significant role in improving the learning achievement of students, particularly in the context of economics education during the COVID-19 pandemic. The dominant theme in these studies is the effectiveness of the Flipped Classroom in creating a more interactive and in-depth learning environment. These findings also emphasize that the Flipped Classroom is not just a temporary educational trend but a highly effective tool for supporting e\conomics education. By giving students the opportunity to access materials outside the classroom, this model fosters a deeper understanding of concepts and enhances students' self-efficacy. It has the potential to change how students learn, promote their engagement in learning, and enable teachers to provide more focused guidance.

In conclusion, the Flipped Classroom teaching model is an effective approach to improving students' learning achievements, especially in the context of the COVID-19 pandemic. However, its success depends heavily on the involvement of teachers, students, and parents, as well as the support of adequate technological resources. With strong collaboration among all stakeholders, the Flipped Classroom has the potential to create more effective and interactive economics education. It is a relevant and valuable tool for tackling challenging times, such as those experienced during the COVID-19 pandemic, and can serve as a foundation for better economics education in the future.

■ REFERENCES

Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research and Development*, *34*(1), 1–14. Retrieved from https://doi.org/10.1080/07294360.2014.934336

Acharya, H., Reddy, R., Hussein, A., Bagga, J., & Pettit, T. (2019). The effectiveness of applied learning: an empirical evaluation using role playing in the classroom. *Journal of Research in Innovative Teaching & Learning*, *12*(3), 295–310. Retrieved from https://doi.org/10.1108/

jrit-06-2018-0013

Adams, G. (2016). A quasi experiment to determine the effectiveness of a "Partially flipped" versus "Fully flipped" undergraduate class in genetics and evolution. *CBE Life Sciences Education*, *15*(2), 1–9. Retrieved from https://doi.org/10.1187/cbe.15-07-0157

Ahmad. (2021). The impact of blended learning type flipped classroom on autonomous mathematics learning. *INOMATIKA*, *3*(2), 164–171.

Akçayýr, G., & Akçayýr, M. (2018). The flipped classroom: A review of its advantages and challenges. *Computers and Education*, *126*(January), 334–345. https://doi.org/10.1016/j.compedu.2018.07.021

Almodaires, Alayyar, Almsaud, A. (2019). The effectiveness of flipped learning: a quasi-experimental study of the perceptions of kuwaiti pre-service teachers. *International Education Studies*, *12*(1), 10–23.

Alsalhi, N. R., Eltahir, M. E., & Al-Qatawneh, S. S. (2019). The effect of blended learning on the achievement of ninth grade students in science and their attitudes towards its use. *Heliyon*, *5*(9). Retrieved from https://doi.org/10.1016/j.heliyon.2019.e02424

Ambrose, S. A., Bridges, M. W., & Dipietro, M. (2010). How learning works/ : 7 research-based principlesm for smart teaching. Jossey Bass.

Antonio, R. L. B. (2022). Assessing flipped classroom in flexible learning via community of inquiry framework. *ETERNAL (English, Teaching, Learning, and Research Journal)*, *8*(1), 94–107. https://doi.org/10.24252/eternal.v81.2022.a6

Asda. (2022). The validity of e-learning chemistry learning in sma/ma project based learning on hydrocarbons using the flipped classroom approach in class xi senior high school. *International Journal Of High Information, Computerization, Engineering And Applied Science (JHICE)*, *2*(1), 1–9.

Awidi, I. T., & Paynter, M. (2019). The impact of a flipped classroom approach on student learning experience. *Computers and Education*, *128*(September 2017), 269–283. https://doi.org/10.1016/j.compedu.2018.09.013

Baker. (2000). The Classroom Flip. *Selected Papers from the 11th International Conference on College Teaching and Learning*, 9–17. Retrieved from https://doi.org/10.2307/j.ctv1k03t83.19

Barkley. (2010). Student enggagement techniques/ : a handbook for collage faculty. Retrieved from Jossey Bass website: www.josseybass.com

Basuki Budi, A. (2022). *Upaya meningkatkan hasil belajar mata pelajaran ekonomi menggunakan metode flipped learning dalam rangka menanggulangi learning loss pasca pandemi covid-19 pada siswa kelas xii ips 2 man 2 kota madiun* [efforts to improve learning outcomes in the subject of economics using the flipped learning method to address learning loss post the covid-19 pandemic in grade xii ips 2 students at MAN 2 Madiun City]. *Jurnal Edukasi New Normal*, *2*(3), 32–33.

Bergmann, J., & Sams, A. (2012). Flip your classroom -reach every student in every class every day (First Edit). Retrieved from ASCD website: www.ascd.org

Bergmann, S. (2012). Flip your classroom: Reach every student in every class every day. International society for technology in education.

Borich. (2017). Effective teaching methods: research-based practice. In Pearson

Education, Inc. (Ninth Edit). Pearson Education. Retrieved from www.pearsoned.com

Bradshaw. (2014). Effective learning: What teachers need to know. *Fuszard's Innovative Teaching Strategies in Nursing*, 3–18.

Buil-Fabregá, M., Casanovas, M. M., Ruiz-Munzón, N., & F. (2019). Flipped classroom as an active learning methodology in sustainable development curricula. *Sustainability (Switzerland)*, *11*(17). Retrieved from https://doi.org/10.3390/su11174577

Cabi. (2018). The impact of the flipped classroom model on students' academic achievement. *International Review of Research in Open and Distance Learning*, *19*(3), 202–221.

Caviglia-Harris, J. (2016). Flipping the undergraduate economics classroom: Using online videos to enhance teaching and learning. *Southern Economic Journal*, *83*(1), 321–331. https://doi.org/10.1002/soej.12128

Chapman, C., Muijs, D., Reynolds, D.,, Sammons, P., T. (2016). The routledge international handbook of educational effectiveness and improvement.

Chen, K. S., Monrouxe, L., Lu, Y. H., Jenq, C. C., Chang, Y. J., Chang, Y. C., & Chai, P. Y. C. (2018). Academic outcomes of flipped classroom learning: a meta-analysis. *Medical Education*, *52*(9), 910–924. https://doi.org/10.1111/medu.13616

Coman, C., îru, L. G., Mese'an-Schmitz, L., Stanciu, C., & B. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability (Switzerland)*, *12*(24), 1–22.

Daniel. (2020). Education and the COVID-19 pandemic. *Prospects*, *49*(1–2), 91–96. Retrieved from https://doi.org/10.1007/s11125-020-09464-3

Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & S. (2018). Blended learning: the new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, *15*(1), 1–16. Retrieved from https://doi.org/10.1186/s41239-017-0087-5

Efendi, A., & Maskar, S. (2020). *Studi pendahuluan: pengaruh model pembelajaran flipped classroom terhadap hasil belajar matematika siswa smk islam adiluwih* [preliminary study: the influence of the flipped classroom learning model on mathematics learning outcomes of adiluwih islamic vocational high school students.]. *Jurnal Ilmiah Matematika Realistik (JI-MR*, *3*(1), 50–53.

Eppard, J., & R. (2017). A framework for flipped learning. *Proceedings of the 13th International Conference on Mobile Learning 2017*, 33–40.

Fasli. (2021). Flipped classroom approach during multimedia project development. *Postmodern Openings*, *12*(1), 01–18.

Fauzan, N. (2018). EFL student perception on flipped learning in writing class. *Journal on English as a Foreign Language*, *8*(2), 115–129.

Fianingrum, F., Novaliyosi, N., Nindiasari, H., & Syamsuri, S. (2022). *Efektivitas model pembelajaran flipped classroom terhadap pembelajaran matematika* [the impact of the flipped classroom model on mathematics learning]. *Edukatif/ : Jurnal Ilmu Pendidikan*, *4*(5), 6865–6874. https://doi.org/10.31004/edukatif.v4i5.3387

Gilboy, Heinerichs, P. (2015). Enhancing student engagement using the flipped classroom.

Journal of Nutrition Education and Behavior, *47*(1), 109–114.

Goedhart, Blignaut-van Westrhenen, N., Moser, C., & Z. (2019). The flipped classroom: supporting a diverse group of students in their learning. Learning Environments Research. *Learning Environments Research*, *22*, 297–310.

Hung. (2022). EFL students' perceptions of online flipped classrooms during the covid-19 pandemic and beyond. *International Journal of Learning, Teaching and Educational Research*, *21*(9), 460–476.

Sahni, J. (2019). Does blended learning enhance student engagement? Evidence from higher education. Journal of E-learning and Higher Education, 2019(2019), 1-14.

James Ko., P. S. (2016). Effective Teaching. *In Peabody Journal of Education*, *61*(4). Retrieved from https://doi.org/10.1080/01619568409538452

Karmila, Friska, A. (2022). A development of e-learning chemistry based on project based learning on buffer solution using then flipped classroom approach in class XI SMA/ MA. *International Journal Of High Information, Computerization, Engineering And Applied Science (JHICE)*, *2*(01), 19–27.

Kim, L. (2018). Enhancement of student perceptions of learner-centeredness and community of inquiry in flipped classrooms. *BMC Medical Education*, *18*, 242. Retrieved from https://doi.org/10.1186/s12909-018-1347-3

Kozikoglu. (2019). Analysis of the studies concerning flipped learning model: a comparative meta-synthesis study. *International Journal of Instruction*, *12*(1), 851–868.

Lag, S. (2019). Does the flipped classroom improve student learning and satisfaction? A systematic review and meta-analysis. *AERA Open*, *5*(3).

Lai, H. (2016). A self-regulated flipped classroom approach to improving students' learning performance in a mathematics course. *Computers and Education*, *100*. Retrieved from https://doi.org/10.1016/j.compedu.2016.05.006

Latchem. (2017). Using ICTs and blended learning transforming TVET (C. Latchem (ed.)). In *UNESCO*.

Mason. (2013). Comparing the effectiveness of an inverted classroom to a traditional classroom in an upper-division engineering course. *IEEE Transactions on Education*, 430–435. US. Retrieved from https://www.scopus.com/record/display.uri?eid=2-s2.0-84887821280&origin=inward

McLean, S., Attardi, S. M., Faden, L., & G. (2016). Flipped classrooms and student learning: Not just surface gains. *Advances in Physiology Education*, *40*(1), 47–55. Retrieved from https://doi.org/10.1152/advan.00098.2015

Mo, C. Y., Hsieh, T. H., Lin, C. L., Jin, Y. Q., & Su, Y. S. (2021). Exploring the critical factors, the online learning continuance usage during covid-19 pandemic. *Sustainability (Switzerland)*, *13*(10), 1–14. https://doi.org/10.3390/su13105471

Pristiwanti, D., Badariah, B., Hidayat, S., & Dewi, R. S. (2022). Pengertian Pendidikan. *Jurnal Pendidikan Dan Konseling (JPDK)*, *4*(6), 1707–1715.

Purba, S. E. E., Kristiani, K., Sangka, K. B., & Hussain, O. K. (2021). The flipped classroom: an overview of its impact on economics learning. *International Journal of Pedagogy and Teacher Education*, *5*(1), 26. https://doi.org/10.20961/ijpte.v5i1.49750

Rafon, J. E., & Mistades, V. M. (2020). Interactive engagement in rotational motion

via flipped classroom and 5e instructional model. *International Journal of Information and Education Technology*, *10*(12), 905–910. https://doi.org/10.18178/ijiet.2020.10.12.1477

Rahmadani, L., Fadilah, M., Darussyamsu, R., Fitri, R., & Alicia Farma, S. (2022). Analisis Penerapan Flipped Learning dalam Pembelajaran. *Journal On Teacher Education*, *3*(3), 381–387.

Shen, Y. (2023). Evaluating the effectiveness of learning activities in a flipped classroom: A case study of an English-as-a-foreign-language (EFL) class in a Chinese university. Retrieved from https://eprints.lancs.ac.uk/id/eprint/188708/%0Ahttps://eprints.lancs.ac.uk/id/eprint/188708/1/2023yanshenphd.pdf

Smallhorn. (2017). The flipped classroom: A learning model to increase student engagement not academic achievement. *Student Success*, *8*(2), 43–53. Retrieved from https://doi.org/10.5204/ssj.v8i2.381

Stover, H. (2019). Designing flipped-classes to be taught with limited resources: impact on students' attitudes and learning. *Journal of the Scholarship of Teaching and Learning*, *19*(3), 34–48.

Strayer. (2012). How learning in an inverted classroom influences cooperation, innovation and task orientation. *Learning Environments Research*, *15*(2), 171–193. Retrieved from https://doi.org/10.1007/s10984-012-9108-4

Su, C. (2018). nvestigating the effects of flipped learning, student question generation, and instant response technologies on students' learning motivation, attitudes, and engagement: A structural equation modeling. *EURASIA Journal of Mathematics, Science and Technology Education*, *14*(6), 2453–2466.

Suanse, K., & Yuenyong, C. (2021). Development of the analytic geometry flipped classroom teaching model through Google Classroom. *Journal of Physics: Conference Series*, *1835*(1). https://doi.org/10.1088/1742-6596/1835/1/012077

Sudjana. (2019). *Dasar-dasar proses belajar mengajar*. Sinar Baru Algensindo.

Doyle, T. (2023). Helping students learn in a learner-centered environment: A guide to facilitating learning in higher education. Taylor & Francis.

Tan, Yangco, Q. (2020). Students' conceptual understanding and science process skills in an inquiry-based flipped classroom environment. *Malaysian Journal of Learning and Instruction*, *17*(1), 159–184.

Walidah, Z., Wijayanti, R., & Affaf, M. (2020). *Pengaruh model pembelajaran flipped classroom (fc) terhadap hasil belajar. Edumatica | Jurnal Pendidikan Matematika*, *10*(2), 71–77.

Young, T. P., Bailey, C. J., Guptill, M., Thorp, A. W., & T. (2014). The flipped classroom: A modality for mixed asynchronous and synchronous learning in a residency program. *Western Journal of Emergency Medicine*, *15*(7), 938–944. Retrieved from https://doi.org/10.5811/westjem.2014.10.23515