



Jurnal Ilmiah Iqra'

2541-2108 [Online] 1693-5705 [Print]

Available online at: <http://journal.iain-manado.ac.id/index.php/JII>

Shifting Paradigms: Flipped Classroom Approaches in Open and Distance Learning

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Abstract	Article Info
<p>This study explores the shifting paradigms in instructional strategies by examining the application of the Flipped Classroom model within the framework of Open and Distance Learning (ODL). This research uses a literature review method to analyze scholarly articles, books, and previous studies on integrating flipped learning in virtual and remote educational settings. The data were processed through systematic reduction, organization, interpretation, and synthesis. Findings indicate that the Flipped Classroom approach significantly enhances student learning outcomes in ODL environments. This model transforms traditional passive learning into active participation by encouraging students to engage with instructional materials before scheduled sessions. Students responded positively to the approach, citing increased preparedness and more profound understanding during synchronous interactions. Integrating video-based content and digital platforms supports a more flexible, accessible, and student-centered learning process. Furthermore, the synergy between the Flipped Classroom model and ODL enables a learning experience that is not constrained by time or space, aligning with the demands of 21st-century education. Educational experts emphasize that this paradigm shift promotes greater engagement, improved comprehension, and higher academic achievement through more interactive and efficient use of instructional time.</p>	<p>Article History</p> <p>Submitted / Received: 01-04-2025 First Revised: 01-06-2025 Accepted: 10-06-2025 First Available online: 24-06-2025 Publication Date: 25-06-2025</p> <p>Keywords: flipped classroom model, open and distance learning, student engagement</p>

How to Cite:

Effendi, M., Arifin, T., Ardianto, N., Nurdin, & Jamil. (2025). Shifting paradigms: Flipped classroom approaches in open and distance learning. *Jurnal Ilmiah Iqra*, 19(1), 53–69.

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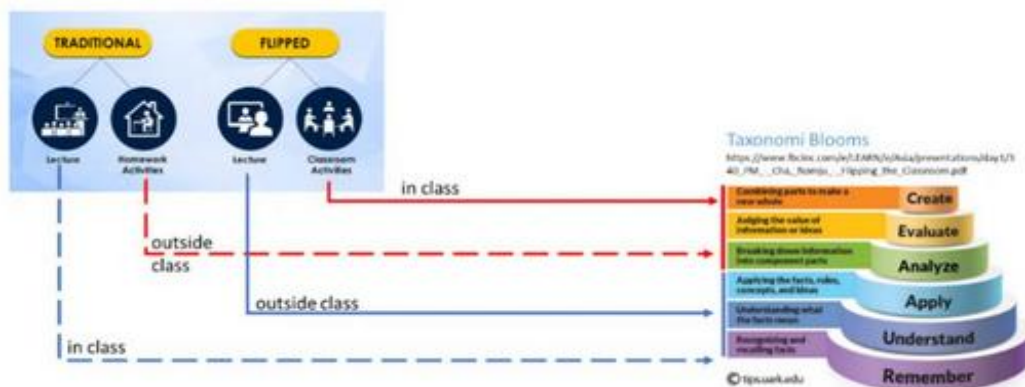


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Introduction

The 21st century is a century of globalization, with the dynamics of human life undergoing fundamental changes that are different from the life systems of the previous century (Sadat, 2019, pp. 2–3). The rapid development of technology marks the 21st century, and in line with the development of information technology, it affects the educational environment (Mardhiyah et al., 2021, p. 33). In the 21st century, it is inseparable from the commitment to reform by shifting attention from teacher-centered to student-centered (Efendi et al., 2023; Darmuki et al., 2020). At this time, educators are showing great interest in innovative learning approaches to answer the needs of this era (Rahma et al., 2023). One approach that can be used to answer the era of globalization is the flipped classroom model. A flipped classroom is a relatively new learning strategy. This learning strategy is increasingly developed by technological advances and communication that can be accessed through the internet or other supporting software. After the researchers had paid attention, they started working on research on the upside-down classroom. Approximately 22,000 lecturers or educators did so after the school was turned upside down. The following is a comparison of conventional learning and the Flipped Classroom:

Figure 1. Comparison of Conventional Learning and Flipped Classroom



Learning with the flipped classroom model emphasizes the use of time inside and outside the classroom so that learning is of higher quality and can increase students' understanding of the material. Abeysekera and Dawson (Rahma et al., 2023) stated that the characteristics that distinguish the flipped classroom model learning model from the ordinary learning model lie in the activities in the classroom that focus more on active learning and problem-solving, and the use of video as a medium that represents the learning process.

Furthermore, the meaning of the flipped classroom model provides a complex idea of the position of teachers and learners in applying the flipped classroom model as a backdrop.

Table 2. Flip Acronym

Letter	Acronym	Meaning
F	Flexible Environment	A flexible environment allows learners to learn anytime and anywhere, not limited by a specific time and place. This environment supports learning that can be accessed from various devices and platforms.
L	Learning Culture	The learning culture emphasizes the shift from teacher-centered learning to student-centered learning. Students are expected to be active in learning and take greater responsibility for their education.
I	Intentional Content	Deliberate content selects the right learning material to be delivered through the most effective method. Maximizing face-to-face time for more in-depth and interactive learning activities is the goal.
P	Professional Teacher	Professional educators act as facilitators who support and guide students in the learning process. They also continue to develop themselves through training and collaboration with peers.

Source: Bergmann & Sams (2012)

Learning with the flipped classroom model emphasizes the use of time inside and outside the classroom so that learning is of higher quality and can increase students' understanding of the material. Abeysekera and Dawson (Rahma et al., 2023) stated that the characteristics that distinguish the flipped classroom model learning model from the ordinary learning model lie in the activities in the classroom that focus more on active learning and problem-solving, and the use of video as a medium that represents the learning process.

The realization of applying the reverse classroom for learners from basic and high school education to higher education is not an obstacle because smartphones are already ubiquitous, so they can carry out the classroom learning process. This is in line with the idea of Mirlanda et al. (2019) that smartphones strongly support implementing the flipped classroom learning model. The impact is to create interaction and effectiveness in time management to provide the best solution in obtaining the concept of teaching materials.

This best classroom model has systematic, clear, and comprehensive rules and is responsible because, in terms of time, it can be solved for the smoothness of teachers in carefully reviewing teaching materials compared to conventional

learning. Learning indicators can be done online or offline. Applying the flipped classroom model is closely related to software and hard learning to build a spirit of cooperation and discussion, both collectively and individually, to improve and sharpen knowledge and educational experience on teaching materials (Saputra & Mujib, 2018).

The principle of reverse classroom-based learning applications has a precise mechanism and has changed from the classroom to home-based learning via video, and then back to the classroom at school (Sari et al., 2019). This means learners will come to the room to focus more on understanding the teacher's description. This learning process will be known as the level of participation of learners in conveying ideas and solutions to problems with teachers and other learners (Damayanti & Sutama, 2016) because the flipped classroom model is one of the active learning models. The flipped classroom model also teaches how learners can create and explore their knowledge independently without the participation of teachers (Mudarwan, 2018).

The flipped classroom model is relevant to be applied in online teaching and learning with the readiness of the teacher to provide teaching materials with video media facilities and then distribute them to learners at home to be studied and understood or repeated before the learning process in the classroom is carried out by the teacher (Arnawa & Setiawan, 2021). The representative flipped classroom model provides teaching materials in a lead process in an online or online-based class (Sari et al., 2019). Alfiah et al. (2021) emphasized that online learning shows the interaction of teachers, learners, and parents in providing readiness by making personal contact regarding the preparedness of educators and learners, especially online network facilities and quotas.

The flipped classroom model can optimize two-way communication between learners and teachers, as well as the environment, to maximize the ability to perform activities in the classroom. Online or offline, of course, in its implementation, learning media is an important part that learners can access online. This flipped classroom model is not only the use of online as a medium but is more focused on how to use online learning time and resources so that the learning process in the classroom is of higher quality, especially the progress of cognition and thinking capacity, with learners' common sense.

Other studies show that learners are successful in improving learning outcomes. This happens because the teaching materials and studies are ready to be carried out at home. An important indicator of this plan is to build video-based

teacher instruction by observing it before conducting the learning process in the classroom. Lecture time introduces students to problems that generally occur around the application of materials and collaborative learning (Belawati, 2019, p. 7577).

Advances in information and communication technology (modernization) have ushered in a learning-oriented approach to online learning that can no longer be avoided. Concerning the modernization development in teaching and learning, the conventional learning process has shifted to a learning process with a Flipped Classroom model. The flipped classroom is a learning strategy that shifts from traditional or conventional to online learning resources (Basriyah & Sulisworo, 2018, p. 152). This is also in line with the assumption of Bergmann & Sams (2012) and Karimah (2018, p. 27) that flipped classes are carried out conventionally to the treatment in school classrooms. The flipped classroom model is based on independence, responsive thinking stimulation, and vocal and building communication with the surrounding community (Pane, 2019, p. 25).

The implementation of the flipped classroom model can be understood through the results of research by (Ariyanti et al. (2021), (A. Efendi & Maskar, 2020), and (Suharno, 2020), which concludes that the application of the flipped classroom model has a significant influence on learners' critical thinking. The teaching model with the flipped classroom model has a positive effect on mathematical reasoning. With the application of the reverse classroom model, it can grow and form a spirit of independence and comprehensive thinking rather than conventional learning. Prawiyogi et al. (2020) concluded that the flipped classroom model has open and distance learning implications.

Setiawan & Ilmiyah (2020, p. 30) stated that distance learning is learning when students and teachers are not always physically present at the same time at school. The success of distance learning must also involve many parties because distance learning is not very different from conventional learning. A student psychologically needs a sense of attention from parents, teachers, and their environment, so it is natural for parents to be more intense in giving time to their children (Effendi et al., 2018).

Open and Distance Learning is an increasingly crucial educational approach in the modern context. The following are the views and understandings of experts regarding Open and Distance Learning. Moore & Kearsley (2012) define distance learning as an educational setting in which learners and teachers are separated by physical spaces, and technology (such as the internet, video, and telephone) is used

to deliver instruction and facilitate interaction. They emphasized the importance of a strong learning management system and administrative support. Holmberg described open and distance learning as a flexible and personalized method of education, allowing for broader and inclusive access. (Holmberg, 2005) describes open and distance learning as a flexible and customized method of education, allowing for broader and inclusive access. Holmberg emphasizes the importance of effective communication and personal relationships between learners and instructors, even if it happens remotely. Garrison et al. (2003) emphasize the community of inquiry model in distance learning, which consists of three main elements: cognitive, social, and teaching presence. They say combining these three elements is crucial to remotely creating meaningful and immersive learning experiences.

These views suggest that open and distance learning involves using technology to overcome geographical and time barriers, provides wider and more flexible access to education, and requires effective planning and management to ensure the success and quality of education. Open and remote learning (ODL) also emphasizes the importance of interaction and communication, both synchronously and asynchronously, to create a practical and inclusive learning experience.

Method

Study methods or literature studies based on relevant literature such as accredited journals, up-to-date books, and research results applicable to flipped classrooms and open and distance learning. The source of the indexed journal library is obtained through the Google Scholar facility (Warsita, 2011; Zed, 2014, p. 4). Next, the researcher re-analyzes the information received, observes, reduces, synthesizes, and draws conclusions or organizes the results of the data obtained.

Results and Discussion

The results obtained through research analysis from accredited journal sources, cutting-edge books, and research results are based on literature searches. The theory and findings of the research led to the birth of a new view related to this research topic.

Essentials of Flip Classroom

The flipped classroom is a form of innovation in learning methods that is increasingly popular in distance learning. The fundamental essence of a Flipped

Classroom was put forward by several experts, such as (Bergmann & Sams, 2012), that the best classroom is a method in which direct instruction is given outside of the school (usually through video or online materials) while time in the classroom is used for activities that support deeper understanding such as discussions, group work, and problem-solving. This reverses the tradition where direct teaching is done in the classroom, done in the school, and learning assignments are completed outside the classroom.

Strayer (2012) identified that flipped classrooms advance reciprocal relationships with learners, teachers, and fellow students. With class time used for more interactive and collaborative activities, students are more involved in the learning process, which can improve comprehension and retention of the material. Flipped Classroom relies heavily on technology, such as learning videos, e-learning platforms, and online collaboration tools. Experts such as Bishop and Verleger emphasized that technology is the key to delivering content outside the classroom and supporting active learning activities in the school. Fulton (2012) observed that flipped classrooms seem to personalize learning. Learners can follow the learning process based on each individual's style and acceleration, and teachers can give more individualized attention to students during class time.

Educational experts such as Lage et al. argue that the inverted classroom introduces or conveys the learning process in the school by prioritizing the importance of learning to learners. Learners get opportunities to learn faster and more purposefully at home, repeat teaching materials as needed, and use time in the classroom to get ongoing support from teachers by collaborating with classmates.

Bloom (1956), known for developing Bloom's Taxonomy, demonstrated that classroom activities in the flipped classroom model tend to focus more on higher-order cognitive skills such as analysis, evaluation, and creation. By moving the delivery of basic information outside the classroom, in-class time can be used to foster critical thinking skills. As an innovation in distance learning, the flipped classroom offers a flexible and dynamic approach that can enhance student engagement, deepen subject matter understanding, and leverage technology for more effective and efficient learning.

Flipped Classroom is a learning model in which traditional classroom activities and homework are swapped. Learners explore new teaching materials in their residence through video media, interactive activities such as discussions, questions and answers, group work, and the application of concepts learned. The

power of the Flipped Classroom is using online learning resources that learners can learn and take to facilitate teaching activities (Roudlo, 2020). The flipped classroom is not only representative when the distance learning platform is used, but also exists when needed because it involves learner cooperation, teaching design, and the necessary adjustment of teaching materials. Another strength of the inverted classroom model is that it directs the use of time in the space to make teaching more efficient and effective (Suci et al., 2022).

The Reverse Classroom implies an increase in the learner's critical thinking capacity. Learners can understand teaching materials autonomously and pursue the roots of cognition that underpin their knowledge (Roudlo, 2020).

Purpose and Benefits of Flipped Classroom

The flipped classroom aims to shift the time spent giving materials in the school to the time of independent learning at home. The classroom can deepen understanding through discussions and practical activities, create a more interactive classroom environment, and motivate learners to participate in teaching and learning (Bergmann & Sams, 2012; Tucker, 2012; Gilboy et al., 2015). The flipped classroom model allows for more personalized learning, where students can learn at their own pace, get additional help from teachers during the classroom, and optimize time with in-depth interaction between teachers and learners. Facilitates collaborative activities in the school, where students can work together on projects and solve problems, and flipped classrooms are designed to enhance students' critical thinking skills through in-depth discussion and analysis during classroom time.

The flipped classroom model and Open and Distance Learning (PTJJ) are two innovative learning models designed to improve the accessibility, flexibility, and effectiveness of education. The flipped classroom model utilizes classroom time for practical interaction and application, while PTJJ allows open education to be accessed from anywhere, anytime. These two models utilize technology to support a learning process that is more adaptive and responsive to learners' needs.

The flipped classroom model increases learner engagement and motivation by allowing them to play a fundamental role in participating in the teaching and learning process and improve social skills through group work and interactive discussions in the classroom (Strayer, 2012; Bishop & Verleger, 2013; Herreid & Schiller, 2013). Studies show that learners in the flipped classroom model often show adequate academic achievement compared to the traditional model because

they have the opportunity to understand the material through active learning better, and learners can repeat the material. The material is taught at home per their needs, which helps them understand the concepts better. By shifting passive learning to time outside the classroom, time in the school can be used more efficiently for activities requiring direct interaction and active learning. Flipped classrooms improve the quality of interaction between teachers and students because teachers have more opportunities to demonstrate personal correction and personalized assistance.

Open and distance learning experts agree that the flipped classroom model aims to improve learner engagement, understanding, and achievement through more interactive and practical use of classroom time. The benefits include learning flexibility, enhanced critical thinking skills, better use of technology, and social skills development. This model also helps foster a more energetic, conducive learning situation and supports the needs of individual learners.

Research Findings

The findings of Efendi and Maskar (2020), using literature studies, found that the inverted classroom model with mathematics learning outcomes had a positive influence. The study's results indicate that the flipped classroom model can be applied in Limited Face-to-Face Learning because its implementation combines learning at home and in school classrooms.

The findings of Suharno (2020), Wahyudin (2021), and Parinata & Puspaningtyas (2021) concluded that the flipped classroom learning model is very effective because learners have access to teaching materials from home. Learners who use the flipped classroom model show more adequate learning outcomes than traditional learning models.

The Upside Down Classroom can provide a very suitable solution in the teaching and learning process of distance learning. This is the conclusion of the research of Thohir and Achmad (2021). The percentage of learners' recognition of the flipped classroom model and learning achievement was quite good. Likewise, the student response is in a good category—the conclusion of the research results (Murafer et al., 2021).

The results of the research findings of Fitrawansah et al. (using qualitative and quantitative approaches combined) show a positive influence of the Moodle-based flipped classroom model on student learning outcomes. The average increase in student learning outcomes from pretest to posttest was 45.7 to 71.2. The N-Gain

value of 0.4266 indicates that the model's effectiveness is moderate and quite effective. The learning outcomes are going well, followed by the procedures and steps in implementing the flipped classroom-based learning model. Moodle. Implementing the Moodle-based flipped classroom learning model effectively improves students' learning outcomes in digital business study programs. The increased student learning outcomes in the introductory financial management course prove this.

With a qualitative descriptive method, Yulianti and Wulandari (2021) concluded that implementing the flipped classroom aligns with the 2013 curriculum by focusing more on learners. Indicators of activities based on reverse classes based on observation, questioning, association, analysis, and communication activities can be applied by utilizing technology so that learners will have skills according to the modernization century.

The hope of implementing this flipped class boils down to creating independence based on the digitized content of learners obtained from teachers, so that they have time management to practice questions and answers or exchange ideas with peers (Rindaningsih, 2018). Video-based learning independence will easily socialize the time according to their needs. It is stated that learners must have the responsibility to structure their learning process (Lai & Hwang, 2016; Akçayır & Akçayır, 2018).

Rindaningsih (2018) and Munir et al. (2018) emphasized that flipped classes have the maximum opportunity to participate in efficient and practical common-sense thoughts and conduct mutual communication with peers. The implication is learner-centered learning, for example, doing assignments independently as a forerunner of changing habits and progressing learner interaction (Munir et al., 2018).

The results of the research findings of Prawiyogi et al. (2020) using qualitative analysis show that distance learning with several methods is quite effective to be carried out. This can be seen from the questionnaire given to respondents. Six questions asked by almost all respondents, on average, supported and assessed that distance learning was effective for students. In connection with implementing the flipped classroom model in distance learning, it is inseparable from its strengths and weaknesses. The strengths and weaknesses Several experts, such as Bergmann & Sams (2012), mentioned the strength of the flipped classroom that students have more time to understand the material because they can access the learning content many times at home and the time in class is used for

discussion, question, and answer, and the application of concepts, which increases the interaction between teachers and students as well as between students. The disadvantage is that not all students have the same access to technology and the internet at home, which can be an obstacle in implementing this model. It also requires high discipline and self-motivation from students to watch videos or read material before class.

Bishop & Verleger (2013) mentioned that flipped classrooms increase student engagement in the learning process through active classroom activities such as group work and discussions, and students can learn at their own pace, allowing teachers to focus more on individual needs during classroom time. The disadvantage lies in the fact that teachers or lecturers need to spend more time preparing video materials and online content, which can be an additional burden, and learners with different backgrounds may have other difficulties in adjusting to this model, especially teachers or lecturers who are not used to independent learning.

Gilboy et al. (2015) showed that flipped classrooms encourage better collaboration and communication between students through group assignments and collaborative projects, and flipped classrooms help improve students' critical thinking and problem-solving skills through in-depth discussions and interactive classroom activities. The disadvantage is that the success of the flipped classroom is highly dependent on the readiness of learners to learn the material at home. If learners are not well prepared, they may have difficulty following class activities and understanding the material independently and may require additional support, which is not always available at home.

Furthermore, Herreid and Schiller (2013) provide the view that flipped classrooms integrate technology into learning so that students become more familiar with relevant digital tools, and flipped classrooms help develop soft skills such as teamwork, communication, and time management. Then, the disadvantage of the flipped classroom model is that adopting the flipped classroom model requires a paradigm shift in learning, which can be a challenge for teachers, lecturers, and learners who are used to traditional methods. Some teachers and learners may resist changes in learning methods, which can hinder effective implementation.

Conclusion

Several research findings indicate that implementing the reverse classroom learning format can advance learners' learning achievements. The Flipped Classroom is very effective because students have prepared the subject at home. Virtual flipped Classrooms can be an ideal learning solution. Students responded very positively to the flipped classroom model's application in learning, and module-based flipped classroom model learning was very positive for student learning outcomes. Overall, flipped classrooms provide more opportunities for students to engage in critical thinking, independently facilitate their learning, and interact more effectively with peers.

This flipped classroom model will guide learners to learn alone through videos before visiting the classroom; then, they will learn more about question-and-answer activities in the classroom. Flipped classrooms and Open and Distance Learning are two innovative learning models designed to improve accessibility, flexibility, and effectiveness of education. Flipped classrooms utilize classroom time for practical interaction and application, while Open and Distance Learning allows higher education or society to access from anywhere, anytime, or flexibly. Its implementation utilizes video-based technology and information to support the adaptive learning process and attention to learners' needs. Experts in open and distance learning agree that the flipped classroom model aims to improve student engagement, understanding, and achievement through more interactive and practical use of classroom time.

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