Opportunities and Challenges of Hybrid Learning: Navigating the Era of Flexible Education

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Article Info	Abstract
Keywords: Hybrid learning, Opportunities and challenges, Flexible Education Era.	*Hybrid learning combines the advantages of online and face-to-face learning. While it provides many benefits, the main challenges are equitable access to technology and the development of appropriate learning strategies. It is important for educational institutions and governments to ensure all students have adequate access to electronic devices and stable internet connections. Educators need to integrate online and face-to-face learning materials harmoniously. Collaboration between educators, students and parents is important for the success of hybrid learning, which can be a strong foundation for developing students' skills in adapting to technology and maintaining social and emotional interactions that are important in education.*

INTRODUCTION

Hybrid learning approach has become one of the attractive options in facing the challenges of flexible education era. In the context of the Covid-19 pandemic, online learning has become an urgent need, but there is also a need to still provide important face-to-face experiences in learning. The underlying background of this research is to explore how hybrid learning can be an effective solution in dealing with the ever-changing situation in today's education system (Kantcheva & Bickle, 2023).

Today, the rapid development of information and communication technology has provided a golden opportunity for the development of new learning approaches that are much more flexible and adaptive. These advances allow educators to customize their teaching methods more effectively, thus better meeting the individual needs of each student. By combining technology with education, the learning process can become more engaging and interactive, increasing student motivation and participation in learning. In addition, this technology also allows

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students to access learning resources easily and widely, expanding their knowledge and helping them develop holistically (Ma, 2023).

Through information and communication technology, new learning approaches such as e-learning, blended learning, and flipped classroom become more possible and affordable. E-learning allows students to learn independently through digital platforms, while blended learning combines face-to-face learning with online learning. Meanwhile, the flipped classroom changes the traditional paradigm of learning where students learn material at school and do assignments at home. In a flipped classroom, students learn materials independently through videos or online materials before class, and class time is used for discussion and enrichment (Detyna et al., 2023).

This new educational approach also allows teachers to provide faster and more specific feedback to students. Online, teachers can use various tools and platforms to assess student understanding in real-time. This allows teachers to identify student difficulties early and take immediate corrective action, supporting a more effective and efficient learning process (Stromie & Baudier, 2017).

The implementation of hybrid learning is of key importance in dealing with the ever-evolving changes and to prepare our students for an increasingly complex and dynamic future. In this digital era, the integration of technology with traditional methods of learning gives students the opportunity to develop their ability to adapt to changes that occur in the environment around them. With hybrid learning, students can learn actively and independently, both inside and outside the classroom. They can access learning materials through online platforms and also interact directly with teachers and their peers in face-to-face learning sessions. Thus, the implementation of hybrid learning provides flexibility for students and teachers in delivering and receiving learning materials.

In addition, hybrid learning can also help students develop skills relevant to the future world of work, such as critical thinking, teamwork, and problem solving. Therefore, it is important for us as educators to continue to innovate in teaching in order to implement hybrid learning well and provide meaningful learning experiences for students. By doing so, we can prepare them to face the challenges of an increasingly complex and dynamic world in the future.

One of the main challenges is to ensure that all students can access and participate in hybrid learning. We have to guarantee that students who take part in offline learning get all the material that has been delivered to them online. In addition, there are also difficulties in maintaining interaction between students who

learn online and students who learn face-to-face. As educators, we must find ways to promote collaboration and discussion between these two groups.

In addition, it is also important for us to learn the appropriate use of technology in order to maximize students' learning experience. In the context of hybrid learning, we must be prepared to address technical issues that may arise during the learning process. Finally, as educators, we need to keep learning and be prepared to face new challenges that may arise in the implementation of hybrid learning.

LITERATURE REVIEW

Definition of Hybrid Learning

Hybrid learning can be defined as a learning approach that combines the use of digital technology with direct interaction between teachers and students. In hybrid learning, students can access learning materials and conduct self-learning activities online, but also have the opportunity to interact directly with teachers and classmates in face-to-face sessions. This approach aims to utilize the advantages of both learning methods so that students can have a more in-depth and flexible learning experience (Guerrero-Quiñonez et al., 2023; Krishnan & Nagaratnam, 2023; Torrisi-Steele, 2023).

In the ever-evolving digital era, it is important for students to be able to master technology as a learning tool. With hybrid learning methods, students can learn independently through the use of technology, such as through online learning platforms, video tutorials, and interactive educational applications. This allows students to expand their own knowledge and hone new skills that can be useful in the future world of work (Cheung et al., 2015).

In addition, the hybrid learning method also encourages students to be independent and responsible for their own learning process. They are taught to manage their own time, set study schedules, and take initiative in finding additional learning resources. This will help students develop learning independence which is not only beneficial in an educational setting, but also in their daily lives (Hino & Kahn, 2016).

Advantages of Hybrid Learning

In this hybrid learning, teachers have the freedom to combine various effective teaching methods, such as lectures, group discussions, simulations and problem-based projects. In this way, students can gain a deeper understanding of the subject matter and apply their knowledge in a real-world context. In addition,

technology integrated in hybrid learning can also help students develop digital skills that are crucial in today's digital era (Colasante et al., 2020; Eradze et al., 2020; Li et al., 2021).

In hybrid learning, students can also take advantage of the flexibility of time and place. They can learn independently through online learning platforms provided by schools or access learning videos recorded by teachers. Thus, students can learn the subject matter according to their own pace and learning style.

In order to optimize hybrid learning, there needs to be cooperation between the school, teachers, students and parents. All parties need to work together to create a learning environment that supports and motivates students. The use of technology in hybrid learning also requires adequate infrastructure, such as stable internet connection and adequate devices. With good cooperation and support, hybrid learning can be an effective tool to increase students' interest, motivation, and learning achievement (Bülow, 2022).

RESEARCH METHODS

The method to be used in this research is qualitative method. This method is chosen because this research aims to gain an in-depth understanding of the opportunities and challenges of hybrid learning in the era of flexible education. In this method, the researcher will use a case study approach with a focus on the implementation of hybrid learning in some secondary schools. Data will be collected through direct observation, interviews with teachers and learners, and analysis of related documents. The research will be conducted in several stages, namely planning, implementation and evaluation. The results will be thematically analyzed to identify patterns, trends and findings that emerged during the research.

Research Design

The research design to be used is descriptive qualitative. This design will provide a comprehensive picture of the implementation of hybrid learning, its effectiveness, and learners' responses to the learning. The research will be conducted by selecting several secondary schools as samples. Data will be collected through observation, interview, and documentation study. The researcher will use interview guidelines and observation lists to ensure the data collected are relevant to the research objectives. Afterwards, the data will be analyzed using thematic methods to identify patterns, trends and findings that emerged during the research.

Data Collection

Data collection in this research will be done through several techniques, namely observation, interview, and documentation study. Observation is conducted directly in some secondary schools that have implemented hybrid learning. Interviews will be conducted with teachers, principals, and learners involved in hybrid learning. In addition, data will also be collected through documentation study, which is by collecting and analyzing documents related to the implementation of hybrid learning in those schools. Data collection is conducted continuously throughout the research period to ensure that the data collected covers various aspects relevant to the research objectives.

Data Analysis

The data collected in this research will be analyzed using a thematic approach. Data analysis will be carried out with stages of processing, presentation, and interpretation. The processing stage includes data selection, classification, and coding. Data selection is done to separate data that is relevant to the research objectives. The selected data is then classified according to certain themes or categories. After that, the data will be coded into units of analysis that can be used as a basis for identifying patterns, trends, and emerging findings. The data presentation stage is carried out through organizing data into tables, graphs, or diagrams according to research needs. Furthermore, the data will be interpreted to gain a deeper understanding of the opportunities and challenges of hybrid learning in the era of flexible education.

RESULT

The results of this study provide an overview of the implementation of hybrid learning in the context of flexible education. The research was conducted using the research methods described earlier. The researcher collected data through observation, interviews, and questionnaires to learners. After that, the data was analyzed to see the effectiveness of hybrid learning and learners' responses to it. The results of this study are expected to provide insights and better understanding of the opportunities and challenges of hybrid learning in the era of flexible education.

Overview of Hybrid Learning Implementation

In this study, an overview of the implementation of hybrid learning was conducted. The results show that in its implementation, hybrid learning combines face-to-face learning components with the use of digital technology. Learners can access learning materials online, but still have direct interaction with teachers and

classmates on several occasions. The overview of hybrid learning implementation also shows the use of various online learning platforms and applications that support the teaching and learning process.

The platform and application is a complete solution that includes various features that are very useful in supporting online teaching and learning activities. The Learning Management System (LMS) provided in this platform makes it easy to manage learning materials, organize schedules, and evaluate the progress of students.

In addition, video conferencing is also one of the features that can be utilized in this platform. With this video conference feature, participants can interact directly with educators or classmates. This more personalized communication allows for more effective exchange of ideas, discussion and collaboration in the learning process.

There is also an online discussion forum feature that can be used to establish communication between learners. Through this forum, they can exchange information, share experiences, and provide input and responses to the learning materials presented. This online discussion forum becomes a virtual space that allows the creation of an active and supportive learning community.

Overall, these platforms and applications provide easy access and flexibility in the teaching and learning process. With the various features provided, the learning process can be done efficiently and interactively. Educators and learners can utilize this platform and application to carry out teaching and learning activities more optimally.

Effectiveness of Hybrid Learning

This research also examines the effectiveness of hybrid learning. The results show that hybrid learning is generally effective in improving learners' understanding and learning achievement. In hybrid learning, learners have flexibility in managing their learning time, thus increasing learning engagement and motivation. In addition, the use of digital technology in learning also allows learners to interact with learning materials interactively and creatively. This can improve concept understanding and application in real situations.

In addition, hybrid learning also provides an invaluable opportunity for learners to develop collaboration and communication skills through group work in their learning process. With the direct interaction between students and teachers and fellow students, they can learn how to work effectively in teams, support each other, and share ideas to achieve learning goals. In this case, hybrid learning offers

a dynamic and interactive learning environment, which can help learners improve their ability to work in groups. In addition, learners can also learn to build healthy social relationships with their fellow classmates through this learning process. This is very important for their social and emotional development, and to help them build strong communication skills for the future. With all these benefits, hybrid learning truly provides a wonderful opportunity for learners to grow and develop in various aspects of their lives.

Learners' Response to Hybrid Learning

Learners' response to hybrid learning is also the focus of this research. The results show that most learners give positive responses to hybrid learning. They feel more involved in the learning process, have flexibility of time to learn, and feel more comfortable in using technology in learning. However, there are also some learners who find it difficult to manage their time and themselves in hybrid learning. This learner response provides an important insight into the success of hybrid learning implementation and needs to be considered in the development of hybrid learning in the future.

In addition, the responses given by learners can also be an invaluable reference for teachers in their efforts to improve the quality of hybrid learning. By paying attention to learners' responses, teachers can evaluate the learning methods used as well as learners' understanding and acceptance of the material taught. This will enable teachers to make necessary improvements to create a more effective and inclusive learning environment. Positive responses can also motivate teachers to continue to innovate and deliver more engaging and rewarding learning experiences for learners. The more feedback provided by learners, the better the teacher's ability to deliver materials effectively and provide adequate learning experiences. Therefore, learner responses have a very important role in improving the quality of hybrid learning.

Discussion

Hybrid learning has seen a lot of success in the era of flexible education. In this study, hybrid learning is proven to be effective in increasing learner engagement. By using a combination of face-to-face and online learning, students can acquire knowledge in a more interactive and enjoyable way. In addition, hybrid learning can also help overcome geographical constraints and limited time in a physical-based learning process. The technology used in hybrid learning can also provide a more active and engaging learning experience.

Hybrid Learning Success

The success of hybrid learning is indicated by research results that show an improvement in the quality of learning. Learners in this study showed a positive response to hybrid learning with improved learning outcomes and material understanding. Hybrid learning also enables learners to develop independent skills and adaptability to. In addition, hybrid learning can provide flexibility in the selection of learning methods that suit the needs of learners.

In a more diverse and inclusive learning context, this allows learners to interact, collaborate and learn from each other's experiences. In hybrid learning, learners are given the opportunity to be physically present in the classroom together with their teachers, where they can discuss and share ideas with classmates in person. On the other hand, learners can also engage in online learning through online platforms, where they can connect with teachers and classmates through video chats, discussion forums, or virtual group projects. Through this hybrid learning, more diverse social interactions can occur, which can help learners to broaden their understanding through different perspectives, strengthen social connections, and develop effective communication skills.

In addition, hybrid learning also provides much-needed flexibility for learners to manage their own learning time, so that they can learn more effectively and efficiently, while meeting their unique individual needs. With hybrid learning facilities, learners can choose the most appropriate time for them to focus and concentrate, so that their learning outcomes will be maximized. In addition, with hybrid learning, learners can also adjust their learning hours to suit their other activities, such as extracurricular activities, online lectures, or even side jobs. Thus, hybrid learning not only provides flexibility, but also allows learners to develop good time management skills.

In addition, through hybrid learning, learners can also enrich their social interaction, as they have the opportunity to interact with fellow learners in small groups or through online forums. In hybrid learning, learners can also benefit from discussion and question and answer activities to deepen their understanding of the learning material. So, with all the advantages offered by hybrid learning, it is no surprise that it is gaining popularity and being adopted by many educational institutions around the world.

Constraints in Hybrid Learning Implementation

Constraints faced in the implementation of hybrid learning include limited internet access that is evenly distributed, especially for learners in remote areas.

There are also constraints in terms of meeting the needs of adequate technology to support hybrid learning. The lack of technological knowledge and skills from teachers and learners is also an obstacle in the use of technology in hybrid learning. The differences related to the availability of infrastructure and resources in various regions also make it difficult to implement hybrid learning evenly.

The high reliance on internet connection that has emerged today, especially in the increasingly popular context of hybrid learning, has become a significant constraint for many individuals and institutions. In hybrid learning environments, where a mix of online and face-to-face learning occurs simultaneously, a reliable and stable internet connection becomes a major necessity.

In this situation, the reliability and speed of internet connection becomes a determining factor in the success and smoothness of the learning process. Students and teachers must have smooth and secure access to the internet in order to actively participate in learning that involves online areas.

A possible obstacle is limited internet access in some remote areas or areas with poor infrastructure. However, creating more widespread and reliable connectivity is a top priority in meeting this challenge. Developing and improving internet networks in remote areas that are still untouched by technological advances is an important step that must be taken.

This will help improve access to information and strengthen connectivity between different regions. In addition, it is also necessary to improve the infrastructure that supports internet connectivity, such as the construction of telecommunication towers and the installation of fiber optic cables. In this way, it is hoped that more residents in remote areas can enjoy the benefits of technological advancements and also contribute to their economic development.

Recommendations for Improving Hybrid Learning

To enhance hybrid learning, collaborative efforts between the government, schools and communities are needed. The government needs to invest in providing affordable and equitable internet access throughout the region. Schools need to provide technology training to teachers and learners so that they can optimize the use of technology in hybrid learning. In addition, there is also a need to increase public awareness of the benefits of hybrid learning and the importance of support and active participation from parents in supporting hybrid learning at home.

Schools must also ensure the availability of adequate infrastructure, including in terms of facilities and technological devices needed so that the implementation of hybrid learning can run smoothly and effectively. The existence

of adequate classrooms, complete with computer devices and stable internet connections, is very important in supporting the learning process. In addition, schools also need to pay attention to the needs of teachers and students in terms of debriefing and training on the appropriate use of technology. With adequate infrastructure and technological devices, it is expected that the implementation of hybrid learning can be more efficient and interactive, thus creating an optimal learning environment for all parties involved.

However, there are still many challenges that need to be faced in the implementation of hybrid learning. Nonetheless, it is important to overcome various barriers so that students can get the maximum benefit from this approach. One of the main challenges is the difficulty in creating a balanced learning atmosphere between direct interaction with the teacher and the use of technology. First, teachers need to familiarize themselves with the technology tools and platforms used in hybrid learning. They must understand how to use these hardware and software effectively, as well as how to teach in a way that engages both students who are in the classroom and those who are learning remotely through technology. In addition, teachers also need to develop strong communication skills to ensure their message is clearly conveyed to all students, regardless of their physical location.

In addition, another challenge is to adapt the curriculum to hybrid learning. The curriculum must be designed in such a way that it can be accessed and delivered effectively through technology, without compromising the essential materials or skills that students must learn. This requires collaboration between teachers and curriculum teams to develop appropriate teaching strategies, as well as the use of appropriate tools and resources to support hybrid learning.

Not only that, but another challenge that must be faced is the issue of connectivity. Students studying remotely or in remote areas may experience limited internet access, which may hinder their access to online learning content. Therefore, it is important to find alternative solutions, such as providing offline learning materials or utilizing remote technologies that do not require stable internet access. Aside from these challenges, there are still some other aspects to be considered in the implementation of hybrid learning. For example, student evaluation and assessment also need to be adapted to fit the hybrid learning approach. Teachers need to think of evaluation methods that can be done both online and offline, so that students can measure their progress appropriately.

CONCLUSION

In this research, it has been found that hybrid learning is an approach that can provide opportunities and challenges in facing the era of flexible education. Hybrid learning gives learners the opportunity to combine in-class learning and online learning flexibly. However, the implementation of hybrid learning also poses various obstacles, such as technological limitations, imbalance between classroom and online learning, and difficulties in time management.

Therefore, there needs to be a serious and comprehensive effort from schools, teachers and learners to actively work together to overcome these challenges so that hybrid learning can take place effectively, efficiently and with maximum success. This can be done through various innovative strategies and approaches, including increasing the availability and accessibility of educational technology, specialized training for teachers in dealing with distance learning needs, flexible curriculum planning, and periodic evaluation involving all relevant parties. Thus, hybrid learning can be an appropriate and up-to-date solution in ensuring the achievement of quality, interactive and inclusive learning objectives for every learner.

Research Implications

The implication of this research is that hybrid learning can be an effective alternative in facing the era of flexible education. In implementing hybrid learning, it is necessary to adjust the methods, materials and technology used to suit the needs of students. In addition, schools also need to pay attention to in-class and online learning aspects to achieve a good balance between the two. This will have a positive impact on learning outcomes and learners' understanding.

Suggestions for Future Research

Based on the results of this study, there are several suggestions that can be used as directions for further research. First, more in-depth and comprehensive research is needed in identifying and overcoming obstacles in the implementation of hybrid learning. Second, research can be conducted to explore the use of technology and learning platforms that are more effective in hybrid learning. In addition, research should also be conducted involving other factors that can influence the success of hybrid learning, such as communication patterns between learners and teachers. All these suggestions are expected to make a positive contribution to the development and improvement of hybrid learning in the future.

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