**Jurnal Komunikasi Pendidikan**
*Vol. 8, No. 1 (2024), pp. 51-59 | p-ISSN: 2549-1725, e-ISSN: 2549-4163*
*http://journal.univetbantara.ac.id/index.php/komdik*

# Designing Flexibility, Accessibility, and Independent Learning through the Use of Hyperapp Blended Learning Module

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**Abstract**
The quality of e-learning is determined by two factors, learning resources and the learning processes. However, sometimes the main factor behind the low quality of e-learning is the lack of teachers in creating the learning process. E-learning ranges from "adjunct" to "blended/hybrid" to "full online." Therefore, this research attempts to analyze the use of the hyperapp module for blended learning as a guide for teachers in designing flexibility, accessibility, and independent learning. The method used in this research is literature study. This hyperapp blended learning module provides clear and practical guidelines to teachers on integrating ICT, designing a rich learning experience, enhancing flexibility and accessibility of learning, and fostering students' self-directed learning. The research findings indicate that the conclusion drawn from this research is that the use of the hyperapp module equips teachers with good skills in designing blended learning, making the created learning flexible, accessible, and fostering independent learning. This conclusion is supported by various findings from previous research conducted by other researchers. The contribution of this research can provide insights that the use of the hyperapp module becomes more effective, relevant, and supportive of student development in this digital era.

**Keywords**: *Hyperapp Module, Blended Learning, Independent Learning*



## INTRODUCTION

Blended learning, fundamentally, is not merely about combining face-to-face and online learning methods. On the contrary, it involves integrating various relevant learning resources and activities, where learners can interact and develop ideas (Pachisia, 2022). In the process, blended learning emphasizes the importance of student-centered learning, with active learners as the primary focus (Pertiwi et al., 2022). Therefore, the challenge in implementing blended learning is to create an active and constructive learning environment, where information and communication technology is used as a tool (Kumar et al., 2021a). The selection and use of information and communication technology that is appropriate to specific needs and conditions is the key in designing blended learning.

The careful integration of various learning resources, teaching methods, and information and communication technology to achieve optimal learning outcomes is a prerequisite for learning quality. According to Bhadri & Patil (2022), in designing blended learning, key questions include what combination is most relevant, when to use online or face-

to-face learning, how to integrate both to achieve learning objectives, and when to use synchronous and asynchronous platforms.

Blended learning, which combines online and face-to-face learning methods, has become an increasingly popular approach in education worldwide. Teachers around the world are trying to integrate technology with conventional teaching to create a more interactive and effective learning experience for their students. However, in this process, they often face challenges in designing and managing synchronous and asynchronous learning activities (Wahyuni & Amri, 2022). Therefore, a comprehensive and practical guide on how to develop blended learning becomes crucial for teachers.

The development of information and communication technology has brought significant changes in education. Blended learning, which combines direct interaction between teachers and students with the use of digital platforms and resources, offers tremendous potential to improve the quality of learning (Roemintoyo et al., 2023). However, teachers need to understand effective concepts and strategies for seamlessly integrating online and face-to-face learning (Istiningsih & Hasbullah, 2015). A comprehensive and practical guide on creating synchronous and asynchronous learning activities will serve as a valuable resource for teachers in designing effective learning experiences. With the help of this guide, teachers will be able to enhance the quality of learning and provide students with better opportunities for success in an increasingly digital world.

The existence of a guideline in the form of module will function as a rich resource for teachers in developing blended learning. Teachers need to be guided on the practical steps of designing and managing face-to-face sessions via video conferencing or online learning platforms. They need to learn a lot about effective techniques for facilitating discussions, giving presentations, and providing direct feedback to students (Gultom et al., 2023). When creating learning activities asynchronously, teachers no longer experience difficulties. With a teacher's guideline, it will be easier to understand the use of digital resources, such as online learning platforms and discussion forums, to provide learning material to students outside the physical classroom environment. They will learn about how to develop engaging learning materials, informative learning videos, and assignments that encourage independent student engagement.

The above explanation highlights the importance of a relevant and appropriate combination in designing blended learning. Recent studies provide some recommendations related to this. Designing blended learning is not an easy task, so careful planning and design are essential (Güzer & Caner, 2014). Therefore, blended learning designers need to understand how to effectively integrate online and face-to-face learning (Kenney & Newcombe, 2016). The combination of blended learning should be based on a deep understanding of the strengths and weaknesses of face-to-face and online learning environments (Stacey & Gerbic, 2008). Additionally, blended learning designers must be aware of the limitations of blended learning (Dakhi et al., 2020).

Based on the issues raised and the need for research, the researchers conducted a study entitled "Designing Flexibility, Accessibility, and Independent Learning Through the Use of Hyperapp Blended Learning Module." The aim of this study is to unravel the role of the hyperapp module in blended learning for teachers to design and implement blended learning, creating flexible, accessible, and independent learning.

## METHOD

The methodology employed in this study is literature study. Literature study in this research involved a series of activities related to the method of collecting literature data, reading and note-taking, as well as objectively, systematically, analytically, and critically managing research data on the use of the hypercontent module for blended learning to design

flexibility, accessibility, and independent learning. Although the preparation for literature study was similar to other research, the data collection sources and methods involved gathering data from literature, reading, noting, and processing research materials from research article results on variables relevant to this study. This literature study analyzed thoroughly to obtain objective results on the use of the hyperapp module for blended learning to design flexibility, accessibility, and independent learning. The collected and analyzed data were secondary data in the form of research results such as books, journals, articles, websites, and others relevant to the hyperapp module and the ability to design flexible, accessible, and independent learning. Furthermore, the data analysis technique in this research used content analysis. The data analysis began by analyzing the most relevant, relevant, and sufficiently relevant research results. Then, by looking at the research years, starting from the most recent and gradually moving backward to older years. The researchers then read the relevant articles of each earlier research to assess whether the issues discussed are in line with what needs to be addressed in the research. Next, important and relevant parts related to the research problem were noted.

## RESULTS AND DISCUSSION

From the research conducted by the researchers, results related to the use of the hyperapp blended learning module to design flexibility, accessibility, and independence were obtained. The data collection process began with searching for theories and literature studies online and offline. The analysis of this research was non-interactive and continuous in searching and finding literature study results from various sources. The data analysis technique adjusted to the research stages, so the data was analyzed according to the findings in the literature sources related to the use of the hyperapp blended learning module. The data was systematically arranged according to the type of information needed and then read and studied. Education is continually evolving with technological advancements. One significant development in education is the presence of blended learning or the combination of face-to-face and online learning. In this context, teachers play a crucial role in designing, developing, and assessing blended learning activities. Therefore, it is essential for teachers to have the right guidance to optimize the learning experience for students. This article will explain why teachers need such guidance.

### Designing Blended Learning

Designing blended learning requires careful planning to achieve learning objectives effectively (Suhaeb et al., 2022). Teachers need clear guidance on how to design the curriculum, select appropriate teaching materials, and integrate relevant technology (Supriyono, 2018). This guidance will help teachers in creating a balanced lesson plan that combines face-to-face and online activities. Teachers also need to consider students' learning styles, group diversity, and the learning environment to create an inclusive and meaningful learning experience (Rahima et al., 2022).

### Developing Learning Materials

Teachers need guidance on developing engaging blended learning materials tailored to students' needs (Samadi, 2021). This guidance will assist teachers in selecting the right learning resources, both traditional and digital. Additionally, teachers need to understand how to organize and structure learning materials to facilitate effective student understanding (Nurmaya et al., 2021). A good guide will also provide instructions on using online learning tools, such as virtual learning platforms, discussion forums, or interactive simulations (Triluqman & Sukirman, 2009).

### Assessing Learning Activities

The assessment process is a crucial part of blended learning. Teachers need clear guidance on how to assess learning activities in a blended context (Susanti & Aflaha, 2022). This guide may include instructions on appropriate assessment types for various blended learning activities, such as formative and summative assessments (Mualifah et al., 2020). Moreover, teachers need to understand how to provide constructive feedback to students and use assessment data to improve future teaching (Jamila et al., 2021). With the right guide, teachers can maintain the quality of assessment in blended learning and ensure that learning objectives are met.

**Facilitating Collaboration and Interaction**

One advantage of blended learning is the opportunity for collaboration and interaction among students (Afiani & Faradita, 2021). Teachers need a guide that enables them to facilitate effective collaboration and meaningful interaction both in and out of the classroom. This guide may include appropriate grouping strategies, the use of online collaboration tools, and the assignment of tasks that encourage students to interact and share thoughts (Yazdi, 2012). Thus, teachers can create a rich learning environment that supports social development and students' collaboration skills. In the era of advanced blended learning, teachers play a crucial role in ensuring a quality learning experience for students (Suhartono, 2017). Through proper guidance on designing, developing, and assessing blended learning activities, teachers can enhance the effectiveness of learning, increase student engagement, and achieve desired outcomes. Therefore, it is essential for teachers to continuously develop their knowledge and skills in designing innovative and relevant blended learning. Blended learning, which combines face-to-face and online components, has become an increasingly popular learning approach in this digital age (Rasheed et al., 2020). In this context, it is crucial for teachers to have the right guidance on designing synchronous (real-time) and asynchronous (non-real-time) activities in blended learning. The intended guide should provide practical directions to teachers in planning and managing effective learning experiences.

**Understanding the Differences Between Synchronous and Asynchronous Activities**

Synchronous activities involve direct interaction between teachers and students at the same time, such as through video conferencing sessions or live class discussions (Wahyuni & Amri, 2022). Meanwhile, asynchronous activities mean that students can access learning materials flexibly, not bound to specific times (Perveen, 2016). The guide will explain the differences between the two and provide strategies and methods suitable for designing and managing each type of activity. Teachers need to understand the advantages and challenges of each activity type to optimize blended learning (Nugraha, 2017).

**Designing Effective Synchronous Activities**

Synchronous activities can be a crucial moment in blended learning as they facilitate direct interaction between teachers and students (Widiantari et al., 2021). The hyperapp blended learning module will provide guidelines on how to design effective synchronous activities, such as structuring a well-organized agenda, utilizing suitable digital tools, and promoting active student participation. Teachers need to consider various factors, such as class size, activity duration, and student needs, to create an engaging and meaningful synchronous experience (Sulistio, 2021).

**Developing Meaningful Asynchronous Activities**

Asynchronous activities in blended learning provide students with flexibility in accessing learning materials (Amadea & Ayuningtyas, 2020). However, asynchronous activities

must also be well-designed to keep students engaged and achieve learning objectives (Gunawan et al., 2020). The hyperapp blended learning module will provide strategies on developing engaging asynchronous learning materials, such as instructional videos, reading materials, or independent assignments. This guidance will help teachers understand how to organize materials, integrate digital resources, and provide clear instructions to students about tasks and deadlines.

**Managing Interaction and Collaboration**

In blended learning, interaction and collaboration among students remain important, both in synchronous and asynchronous activities (C. Graham et al., 2005). The hyperapp blended learning module will provide guidelines on managing online interaction and collaboration, such as using discussion platforms, assigning collaborative projects, or organizing online forums. Teachers will also receive tips on providing feedback and facilitating meaningful discussions in the virtual environment. This will help teachers maintain the quality of student interaction and collaboration despite the different learning environment (Mehall, 2020). By having a hyperapp blended learning module on designing synchronous and asynchronous activities in blended learning, teachers can optimize the learning experience for students. This hyperapp blended learning module will provide practical guidance and effective strategies for planning, implementing, and evaluating each type of learning activity. Thus, teachers can create varied, engaging, and student-oriented learning experiences in the context of blended learning (Ally, 2008).

**Developing Teacher Competence in Integrating ICT**

Integrating Information and Communication Technology (ICT) in blended learning can significantly benefit students by enhancing engagement, motivation, and learning outcomes (Dabbagh, & Ritland, 2005). However, to leverage ICT effectively, teachers need to develop adequate competence in using technology (Harasim, 2012). The blended learning guideline will provide structured and comprehensive guidance to teachers on how to integrate ICT into learning. This will help teachers enhance their understanding and mastery of various relevant ICT tools and applications, enabling them to use ICT appropriately and effectively in the learning process (Diningrat, 2019., Cheng, OuYang, Liu, 2019).

**Designing and Optimizing Rich ICT Learning Experiences**

The blended learning module will provide guidelines on how to design rich learning experiences with ICT (Al-Azawei et al., 2017). Teachers will receive guidance on selecting ICT tools and applications suitable for learning objectives, types of learning materials, and students' learning styles. This guidance will also help teachers develop creative and innovative teaching strategies by harnessing the potential of ICT, such as interactive simulations, instructional videos, online discussion forums, or virtual learning platforms. Thus, the hyperapp blended learning module will assist teachers in designing engaging, relevant, and meaningful learning experiences for students. The hyperapp blended learning module will also offer practical guidance on the effective use of ICT in learning activities. Teachers will receive instructions on how to integrate ICT into various aspects of learning, such as content delivery, interaction between teachers and students, student collaboration, and learning assessment. This guidance will help teachers choose the right ICT tools for each learning objective and optimize the use of ICT to enhance the quality of blended learning.

**Enhancing the Quality of Blended Learning**

By having a blended learning module that enhances teacher competence in integrating ICT, the quality of blended learning can significantly improve. Teachers with a good

understanding of ICT and skills in integrating it into learning can create more interactive, creative, and relevant learning experiences for students. The proper use of ICT can also facilitate adaptive learning, where teachers can adjust learning to individual student needs (Adi et al., 2021). Thus, the guideline plays a crucial role in improving the overall quality of blended learning. In the advancing era of blended learning, having a guideline that enhances teacher competence in integrating ICT into learning becomes a crucial need. This guideline will help teachers develop the understanding, skills, and strategies needed to create quality and effective blended learning experiences. Thus, teachers can maximize the potential of ICT to improve learning and achieve optimal outcomes for students. Education continues to evolve with the progress of information and communication technology (ICT). One increasingly popular learning approach is blended learning, which combines face-to-face and online learning components. In this context, quality blended learning has the potential to bring flexibility, easy accessibility, and encourage students' self-directed learning abilities (Abdullah & Ward, 2016;Kumar et al., 2021b).

**Flexibility and Accessibility of Learning**

One of the main advantages of blended learning is its flexibility. Students have the flexibility to arrange the time and place of their learning (Garrison & Kanuka, 2004, R. Graham, 2006). With the online learning component, students can access learning materials anytime and anywhere according to their needs and preferences (Müller & Wulf, 2022). This enables students to schedule their own learning, overcome geographical limitations, and access learning content with greater flexibility. Thus, quality blended learning allows students to learn at their own pace and according to their learning styles (Ocak, 2011). Quality blended learning also promotes easy and good accessibility for all students. With the online component, students can access learning materials without being restricted by geographical or distance limitations (Yin & Yuan, 2021). This provides opportunities for students living in remote areas, with physical limitations, or facing other constraints to still receive quality education. Moreover, online learning allows students to review materials, access additional resources, and engage in learning beyond the school environment (Teo & Dai, 2022). Thus, quality blended learning ensures that education is more inclusive and accessible to all students.

**Promoting Self-Directed Learning Abilities**

Quality blended learning also encourages students' self-directed learning abilities (Broadbent, 2017). In online learning, students have greater responsibility in managing time, planning learning, and completing tasks independently. They can choose the right time to learn, adjust their learning pace, and access various learning resources according to their needs. This helps students develop self-directed learning abilities, such as problem-solving, independence, and self-discipline. In the long run, these self-directed learning abilities will help students become active and lifelong learners who continue to develop.

**CONCLUSION**

In conclusion, with the existence of a blended learning guideline- in this case hyperapp blended learning module, it is possible to create quality blended learning with various significant advantages. Firstly, the hyperapp blended learning module as guideline helps teachers develop their competencies in integrating ICT into learning. This enables teachers to utilize technology's potential more effectively, creating a more engaging and relevant learning experience for students. Furthermore, the guideline assists teachers in designing a rich learning experience with ICT. Teachers are given clear guidelines on the use of suitable ICT tools and applications according to learning objectives. Thus, learning becomes more flexible, where students can independently access learning materials flexibly according to their chosen

time and place. Then, the guideline also provides practical guidance on the use of ICT in various aspects of learning. Teachers can leverage technology to enhance interaction and collaboration between teachers and students, as well as among students. Thus, blended learning encourages more active and participatory learning, which, in turn, enhances students' critical thinking, communication, and collaboration skills.

Additionally, the hyperapp blended learning module helps create a more accessible learning environment for all students. With the use of ICT, students with special needs can have better accessibility in learning. Moreover, ICT opens up opportunities for distance learning, allowing students in remote areas or with physical limitations to access quality education. Finally, the guideline helps cultivate students' self-directed learning abilities. In blended learning, students are given the opportunity to manage their own learning time in asynchronous activities. This builds students' independence in managing time, accessing learning materials, and completing tasks independently. Overall, the blended learning guideline plays a crucial role in creating quality blended learning. This hyperapp blended learning module provides clear and practical guidelines to teachers on integrating ICT, designing a rich learning experience, enhancing flexibility and accessibility of learning, and fostering students' self-directed learning. With the implementation of this hyperapp blended learning module, blended learning can become more effective, relevant, and supportive of student development in this digital era.

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