

## DEVELOPMENT OF KINDERGARTEN LEARNING MODULES BASED ON BLENDED LEARNING IN THE DIGITAL ERA

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### Abstract

Kindergarten is a *golden age* for maximizing intellectual potential. However, the development of students' basic skills has not yet reached the expected target. This research was conducted to address this issue by developing a *blended learning-based module*. *Blended learning* was chosen because it is tailored to learning during the pandemic. The module development steps followed the ADDIE development model. The module was piloted with content experts, instructional design experts, small groups, and field trials. The validation results of the content expert test obtained a feasibility score of 95% and the instructional design expert test a 90%. The average feasibility score in the small group test was 91% and the field test a 95%. This *blended learning* -based module makes a significant contribution to learning during the pandemic because it provides a solution to learning challenges. The use of the module can increase student activity and motivation, even for physical activities. *Blended learning* is also an effective means of introducing students to the use of technology.

**Keywords:** Kindergarten Module; Blended learning; Online learning; Basic skills

### INTRODUCTION

The rapid development of information and communication technology in the era of the industrial revolution 4.0 has brought fundamental changes in various aspects of human life, including in the world of education (Rozi et al., 2019) . This era emphasizes digital patterns, big data, and automation, which require the world of education to adapt to produce graduates who are able to answer the challenges of the times (Jaya et al., 2023; Nana & Surahman, 2019) . This transformation requires the integration of digital technology in the learning process as a response to globalization and unlimited openness of information (Kusmawati & Surachman, 2019; Pratiwi, 2022) . These changes require innovative learning strategies that are student-centered, interactive communication, and independent learning, where educators act as facilitators (Nana & Surahman, 2019; Saputra et al., 2021) .

This is in line with the shift in the educational paradigm from teacher-oriented to student-oriented, so that a learning strategy is needed that can combine face-to-face activities and online learning effectively (Diana & Wirawati, 2020; Setiani & Novariyanto, 2021) . This learning model is known as Blended Learning, which is a hybrid learning approach that combines the advantages of conventional learning and e-learning to create a flexible, continuous learning process that is not limited by space and time (Diana & Wirawati, 2020; Nirahua et al., 2020) . The implementation of blended learning is considered effective because it combines the benefits of traditional teaching with online learning, and has been

proven to be better than face-to-face or online learning alone (Lase, 2019) . This is supported by the statement that the 21st-century education system demands a shift towards student-centered learning so that they have critical, creative, and innovative thinking skills, as well as good communication and collaboration skills in the 4.0 education environment (Maya, 2020) . However, the reality on the ground shows that the implementation of this strategy still faces various challenges, especially related to the availability of integrated learning resources and the readiness of technological infrastructure in the school environment (Maya, 2020; Widiya et al., 2021) .

Furthermore, teachers, as professionals, are required to possess strong pedagogical competencies in utilizing information and communication technology to optimally facilitate the development of students' potential (Nurhasanah et al., 2022) . This paradigm shift requires teachers to shift from being the sole source of information to being facilitators who guide students in independently discovering knowledge through various alternative learning resources (Ismail et al., 2020) . In this context, the development of learning modules integrated with digital technology is a necessity to support the effectiveness of blended learning implementation, considering that modules act as the main guide that facilitates students in accessing materials flexibly and independently (Diana & Wirawati, 2020; Zuhri et al., 2020) . Modules designed with a blended learning approach are expected to facilitate students in controlling their learning process independently, where they can determine when to start and finish the material and prepare questions to discuss with the teacher during face-to-face activities (Izzati et al., 2021) .

This approach provides flexibility for students in managing their learning pace and utilizing abundant digital resources, while maintaining the teacher's crucial role in facilitating social interaction and direct guidance (Oktaria et al., 2021; Sukma et al., 2022) . However, the implementation of this approach is often hampered by the limited availability of teaching materials specifically designed to meet the needs of flexible and technology-integrated learning (Hanria & Fauzan, 2023) . Inequality in access to digital devices, financial readiness, and adaptive parental support are often major obstacles to realizing an inclusive learning ecosystem during the pandemic (Nopiani et al., 2023) . Therefore, systematic efforts are needed from educational institutions to address the gap in technology access and build a robust framework to support educators in creating an adaptive and sustainable learning environment (Alfiyanto & Hidayati, 2022; Dewi et al., 2025) .

## LITERATURE REVIEWE

### Blended Learning Concept

Blended learning is a learning approach that combines face-to-face activities with the use of online-based information technology to create a more flexible and student-centered learning experience (Sartika et al., 2023) . This approach allows students to access learning materials anytime and anywhere through digital media, while maintaining the social interaction and direct guidance from educators in face-to-face meetings (Arwin et al., 2022) . The integration of these two elements aims to optimize the advantages of each method, where conventional learning provides space for direct discussion and collaboration, while online learning

provides flexible access to diverse learning resources (Afifah et al., 2022; Turmudi et al., 2022) .

In the context of the digital era, this shift in learning paradigms demands adaptation of curriculum and teaching methods that are responsive to advances in information and communication technology (Yusny & Yasa, 2019) . According to Graham, blended learning is defined more simply as a form of learning that combines online learning with face-to-face learning (Shafira & Minsih, 2022) . This definition emphasizes that the essence of blended learning is not simply adding online components to conventional classes, but rather designing a fully integrated learning system to improve the effectiveness of the teaching and learning process (Khoiroh, 2018) . This approach builds a relationship between conventional-based learning contexts and technology-based learning contexts by supporting the learning process of all forms of subject matter distributed online to advance technology in education (Utama & Hartono, 2022) . This is in line with the view that digital transformation in the education sector is characterized by the implementation of learning models that combine conventional and e-learning, although its implementation still faces challenges related to infrastructure readiness and teacher competency (Hermila & Bau, 2023) .

These problems arise due to the lack of ability of educators in using technology and the inadequate availability of digital technology infrastructure in the school environment (Hermila & Bau, 2023) . According to Bonk & Graham, blended learning can combine the positive aspects of two learning environments, namely classroom learning with e-learning (Irsalina & Dwiningsih, 2018) . This combination is intended to overcome the limitations of space and time that exist in traditional learning while utilizing the advantages of technology in providing accessibility and flexibility for students (Anggraini et al., 2024) . According to Garrison & Vaughan, the basic concept of this learning model is optimizing the integration of oral communication in face-to-face learning with written communication in online learning (Usman, 2019) . The combination of these two forms of communication is expected to create synergy that enriches the process of information exchange and facilitates more dynamic collaboration between educators and students (Lestari et al., 2022; Sukma et al., 2022) .

## **Learning in the Digital Age**

The rapid development of information and communication technology has brought fundamental changes to various aspects of human life, including education, which is now moving towards digital transformation. This transformation requires adjustments in the education system, including the development of electronic learning media, the use of social media for learning activities, and the implementation of online learning strategies or a combination of online and face-to-face learning (Purnasari & Sadewo, 2021) . The application of technology in education requires teachers to combine traditional learning models with advances in information technology to balance students' diverse learning styles (Nurhasanah et al., 2022) . However, the implementation of technology in learning still faces various challenges, particularly related to the gap in access and technological infrastructure between urban and rural areas, as well as limited human resource competency in optimally

operating digital devices (Hamilaturroyya & Adibah, 2025; Primansyah et al., 2025; Subroto et al., 2023) .

These limitations include a lack of teacher preparation for technology-based learning, an inability to operate the necessary devices, and low digital literacy among educators (Hermila & Bau, 2023; Sari, 2021) . Therefore, strengthening teacher capacity through ongoing training and providing adequate technical support is a crucial prerequisite for the successful integration of technology into learning practices in schools (Hermila & Bau, 2023; Utamingtyas, 2022) .

## **Learning Module Development**

Learning modules function as planned teaching materials that are systematically arranged to facilitate students' understanding of the subject matter, which in the context of technology-based learning requires the integration of digital content with appropriate pedagogical strategies. The development of these modules not only focuses on the conceptual presentation of the material but must also consider aspects of interactivity and ease of access for students through various available digital platforms (Mahfuz, 2021; Sutiani et al., 2022) . In the design process, digital modules must be designed with a user-friendly interface and incorporate various multimedia elements such as video, animation, and interactive simulations to increase the appeal and effectiveness of material delivery (Nurjanah et al., 2025; Ulumi et al., 2023) .

Packaging materials in digital format is a challenge for teachers to create teaching materials that are not only informative but also interactive, considering the need for varied learning resources that are in line with technological developments (Kelana et al., 2025) . In addition, teachers often experience obstacles in terms of limited resources, lack of technology training, and very rapid technological changes that make it difficult for them to integrate technology into the curriculum (Hulu, 2023) . Another problem often encountered is the inability of teachers to integrate learning media with the existing curriculum effectively (Yuniarto et al., 2025) . To overcome these obstacles, close collaboration is needed between teachers as material presenters, content experts to validate the accuracy and depth of teaching materials, and educational technology experts to ensure the technical aspects and functionality of the module run well (Yogi et al., 2025) .

This collaboration aims to produce modules that are not only content-relevant but also technologically feasible and pedagogically effective in supporting learning objectives in the digital era (Subroto et al., 2023; Yogi et al., 2025) . In developing a module, teachers must first conduct a needs analysis to determine student characteristics, initial abilities, and basic competencies that must be achieved so that the module created is more relevant, contextual, and appropriate to the level of cognitive development of students (Nurtaqiya et al., 2025) . In addition, the selection of materials and learning activities in the module needs to be adjusted to be applicable and contextual, considering that many teachers who already have technical understanding still have difficulty applying it in active learning strategies in the classroom (Hamilaturroyya & Adibah, 2025) .

Learning Module Development

## RESEARCH METHODOLOGY

### Research Approaches and Types

This study uses a research and development approach that aims to produce a valid and effective blended learning-based learning module product for use in the learning process in the digital era (Nuraini et al., 2023; Zahri et al., 2023) . Product development in this study refers to the ADDIE model which includes five systematic stages, namely Analysis, Design, Development, Implementation, and Evaluation, to ensure the resulting module is in accordance with learning needs and established quality standards (Lukman et al., 2022) . The ADDIE model was chosen because of its flexible and structured framework, allowing researchers to conduct evaluations and improvements at each stage of development to produce a quality product that is in accordance with field needs (Jafnihirda et al., 2023) .

### Development Model

The ADDIE model applied in this study consists of five main stages, namely Analysis, Design, Development, Implementation, and Evaluation, which serve as a systematic guide in creating effective learning module products (Adrianus et al., 2023) . The \*Analysis\* stage is carried out to identify learning needs and analyze student characteristics, while the \*Design\* stage focuses on systematically designing the module framework and structure (Aoetpah et al., 2023; Arum & Wahyudi, 2016) .

The \*Development\* stage is carried out to compile and develop all module components based on the design that has been made, then continued with the \*Implementation\* stage to try the module product in real learning, and the \*Evaluation\* stage to assess the quality and effectiveness of the resulting product (Gusvenisa et al., 2023; M, 2021) . In the \*Evaluation\* stage, researchers conduct a comprehensive assessment of the module product which includes aspects of validity, practicality, and effectiveness to determine the feasibility of the product before it is widely used (Bangun & Pangaribuan, 2024; Nesri & Kristanto, 2020) . The feasibility assessment includes the validity, practicality, and effectiveness of the product (Pixyoriza et al., 2022; Zulkan et al., 2023) . The validity of the product is assessed by material experts and media experts to ensure the suitability of the content and appearance, practicality is assessed through teacher and student responses to the ease of use of the module, and effectiveness is measured based on the increase in student learning outcomes after using the module (Hatisah, 2025; Prayitno & Masduki, 2017) .

### Development Model

### Subjects and Objects of Research

The subjects in this study involved media experts and material experts who served as validators to assess the feasibility of the product, while the object of the study was a blended learning-based learning module which was assessed based on aspects of the feasibility of the material content, the feasibility of the display, the media presentation, and the learning content aspects (Rafi'y et al., 2023; Ramadhina & Pranata, 2022) . The instruments used in this study consisted of expert validation sheets to assess aspects of the feasibility of the

material content, the feasibility of the display, the media presentation, and the learning content aspects, as well as teacher and student response sheets to measure the level of practicality of the product (Copriady et al., 2020; Safitri et al., 2023) .

The expert validation sheet was used to collect data on the product's feasibility level in terms of content and appearance, while the teacher and student response sheets were used to obtain feedback on ease of use and interest in the developed module (Andayani & Pratama, 2022; Wulandari & Sulistyowati, 2022) . The data collection instruments in this study consisted of an expert validation sheet, a teacher response questionnaire, and a student response questionnaire used to measure the validity and practicality aspects of the product (Pixyoriza et al., 2022) . The expert validation sheet contained assessment indicators covering material and media aspects to ensure the product met the established quality standards (Setyadi & Saefudin, 2019; Wulandari et al., 2021) . In addition, the teacher and student response questionnaires were used to determine the level of satisfaction and ease of use of the module in the learning process (Giawa et al., 2022; Widada & Waluyanti, 2019) .

## Data Collection Instruments

The main instrument used in this study was a validation questionnaire aimed at experts to collect quantitative data regarding the feasibility of the product being developed (Risanti & Agustina, 2025) . The validation questionnaire included assessments from material experts and media experts to measure the validity aspect, while a student response questionnaire and learning implementation observation sheet were used to determine the level of practicality of the module (Setyadi & Saefudin, 2019) . The student response questionnaire used a Likert scale with four assessment categories, namely strongly agree, agree, disagree, and strongly disagree (Kalsum et al., 2018; Widada & Waluyanti, 2019) . The use of this Likert scale aims to measure students' perceptions and responses measurably to the module components used during the learning process (Rukman & Samsudin, 2022; Sari & Sari, 2018) .

The data obtained from the instrument were analyzed descriptively to determine the average score of the product's validity and practicality (Alwan, 2017; Kristina et al., 2022) . The validation and response data were then processed using descriptive statistical formulas to calculate the average value for each aspect assessed (Ramadhani et al., 2023; Sari et al., 2019) . The data analysis techniques applied in this study included quantitative and qualitative analysis, where quantitative data were obtained from the results of expert validation questionnaire assessments and student responses, while qualitative data came from comments and suggestions for improvement provided by validators and product users (Sinaga et al., 2023; Sistiowati et al., 2023) .

Qualitative data in the form of suggestions and input from material expert validators and media experts are described to improve the developed product, while quantitative data in the form of scores obtained from material validation questionnaires, media validation, and teacher responses as well as student response questionnaires (Atikah et al., 2023; Ayuningrum & Fitriyati, 2023) . The data analysis techniques used in this study are quantitative and qualitative descriptive analysis to process all collected data (Sari et al., 2020; Yuliana et al., 2023) . Quantitative descriptive analysis is carried out by calculating the percentage of scores from material experts and media experts, while qualitative

descriptive analysis is used to interpret suggestions or input for improvement obtained from material experts, media experts, and students as a basis for product revision (Permani & Priyanto, 2019; Rizqiyani et al., 2023; Sari & Silfianah, 2024) .

Quantitative descriptive analysis was conducted by calculating the percentage of the average value based on the Likert Scale score used in the validity and response test instrument (Lumbantobing et al., 2019; Setiani et al., 2021) . The scores obtained were then converted into qualitative data to determine the product feasibility category (Ikhsan et al., 2023; Oliviana et al., 2024) . Qualitative descriptive analysis was used to process data from the results of reviews by learning content experts, learning design experts, learning media experts and product trials with students by grouping information from qualitative data in the form of suggestions or input, responses, criticisms, and suggestions for improvement contained in the questionnaire and

## Data Analysis Techniques

Interview results (Riyani & Wulandari, 2022; Stefany, 2016) . Quantitative data obtained in the form of scores on the validation and trial questionnaires were analyzed using descriptive statistics by calculating the average score to determine the level of product feasibility (Hardianto et al., 2022; Yulianto, 2022) . Qualitative data in the form of input, comments, and suggestions from validators and users were analyzed descriptively to serve as the basis for product revision (Andriani et al., 2022; Sembiring et al., 2021) . Qualitative data in the form of input, responses, and suggestions from material experts, media experts, and users were analyzed descriptively to describe the characteristics of the data in each variable which were then used as the basis for product revision (Jundu et al., 2020; Prismanata & Ismaniaty, 2017) .

Quantitative descriptive analysis was conducted by calculating the percentage of validation results to determine the level of product feasibility based on the validator's assessment score (Fikri, 2023; Nirahua et al., 2020) . The level of feasibility of research and development products can be seen based on the assessment score or validator analysis obtained, where the higher the score of the data analysis results, the better the level of product feasibility (Fikri, 2023) . Product feasibility criteria were determined by referring to a value conversion table that categorizes assessment scores into certain quality classifications (Handoyono & Mahmud, 2020; Nadhif, 2019) . The table contains the range of percentage scores converted into feasibility categories such as very feasible, feasible, less feasible, and not feasible (Simbolon et al., 2021; Syahrir & Susilawati, 2015) . This conversion of quantitative data into qualitative data is done by dividing the total score obtained by the maximum possible score, then multiplying by 100% to obtain the percentage value of product feasibility (Uska et al., 2022) . The percentage obtained is then classified into certain feasibility criteria, such as very good, good, fairly good, poor, and very poor, to determine the final status of the product being developed (Alwi et al., 2022; Arini et al., 2021) .

## RESULTS AND DISCUSSION

The five stages of the ADDIE model were implemented sequentially to produce a good module (Chalifah et al., 2020). The needs analysis stage was conducted by exploring and

gathering important information related to the problems encountered in improving the basic competencies of students in group A. Information collection was conducted through classroom observations and interviews with three kindergarten educators. The problem identified was the lack of a module to support learning from home or *online*. Furthermore, students experienced a decrease in learning motivation due to being required to study from home.

The second stage consists of creating a development plan, which includes the preparation of a module framework and determining the writing system. The third stage, namely the development of the learning module, is carried out by collecting several sources and references related to the theme and sub-themes, as well as collecting various images to support the creation of Student Worksheets (LKS). The learning module is prepared by taking into account the established framework and system, as well as the required module components. The module draft is tested and assessed by content experts and learning design experts before being implemented in the field trial. The field trial was conducted at a kindergarten in Surabaya in the odd semester of November 2020. The implementation of the learning module uses *Google Meet* media in a *Blended Learning* manner guided by educators. Students work independently on the assignments on the module worksheets. During learning conducted at home, students, accompanied by their parents, work happily.

Table 3. Results of Validation by Learning Design Experts

No.	Assessment Aspects	Score	Skor Maks
1.	Home page	13	15
2.	Content Eligibility	15	15
3.	Content Presentation	16	20
4.	Illustration or picture	10	10
5.	Worksheet	14	15
<b>Amount</b>		68	75
<b>Percentage</b>		90%	

### Learning Design Expert Validation Results

Draft I was submitted to an instructional design expert for testing and assessment of its feasibility. The instructional design expert involved in this study is a doctorate in Educational Technology. The results of the instructional design expert's assessment are shown in Table 3. From the instructional design expert's assessment, the module obtained a feasibility percentage of 90%, which is included in the very good category according to Table 2. The instructional design expert's suggestion was that the writing of instructions in the Student Worksheet (LKS) needs to be clarified and a separate guide module is needed for educators containing instructions for using the module. Based on these suggestions, the module was then revised before being tested in the next trial stage.

### Content Expert Validation Results

The first draft of the module was submitted to a content expert for assessment. The content expert involved in this study was an expert in early childhood education. The validation data

from the content expert is presented in Table 4. Based on the expert's responses, the module's feasibility percentage was 95%. This percentage was converted into the feasibility category in Table 2 and falls into the very good category. Therefore, the module can be used in the planned classes without revision.

**Table 4. Hasil Validasi Ahli Isi**

No	Assessment Aspects	Score	Skor Maks
1.	Home page	15	15
2.	Menu Contents	4	5
3.	Learning Indicators	14	15
4.	Typography	12	15
5.	Father's Day	18	20
6.	Content Presentation	32	40
7.	Content Accuracy	35	35
<b>Amount</b>		130	145
<b>Installment-installment Persentase</b>		95%	

**Table 5. Results of Small Group Tests**

Aspect	Score Max	Respondent		
		1	2	3
Home page	15	14	14	15
Menu Contents	10	9	10	9
Indicator	20	20	18	19
Learning Accuracy	20	18	19	19
Material				
Content Presentation	25	24	22	24
Content Accuracy	30	23	24	24
Other Aspects	10	10	10	10
<b>Total</b>	130	118	117	119
<b>Percentage (%)</b>		91	90	92
<b>Rate- rate</b>				91 %

### Small Group Test Results

After going through expert content and learning design testing, the second draft of the module was prepared based on the experts' input . The second draft was then submitted to three educators at a kindergarten in Surabaya for trial testing. The following are the results of the small group test data analysis as shown in Table 5. The data in Table 6 shows that the module's feasibility assessment from respondent 1 was 91%, from respondent 2 90% and from respondent 3 92%. Therefore, the average module feasibility from the small group test was 91% , which after being converted into Table 2, is included in the very good category. Thus, the module can be used in field trials without requiring revision.

### Field Test Results

During the field testing phase, the module was piloted with 10 students. With the assistance of parents, a module feasibility questionnaire was used to obtain data that was then processed. The field trial data are presented in Table 6.

Table 6. Field Test Results

<u>Respondent</u>	<u>Amount</u>	<u>Percentage</u>	<u>Criteria</u>
1	72	96%	Very good
2	74	98%	Very Good
3	73	97%	Very Good
4	72	96%	Very Good
5	69	92%	Very Good
6	74	98%	Very Good
7	71	94%	Very Good
8	73	97%	Very Good
9	73	97%	Very good
10	67	89%	Good
<b><u>Skor Maks</u></b>	<b><u>75</u></b>		
<b><u>Rate- rate</u></b>		<b><u>95 %</u></b>	

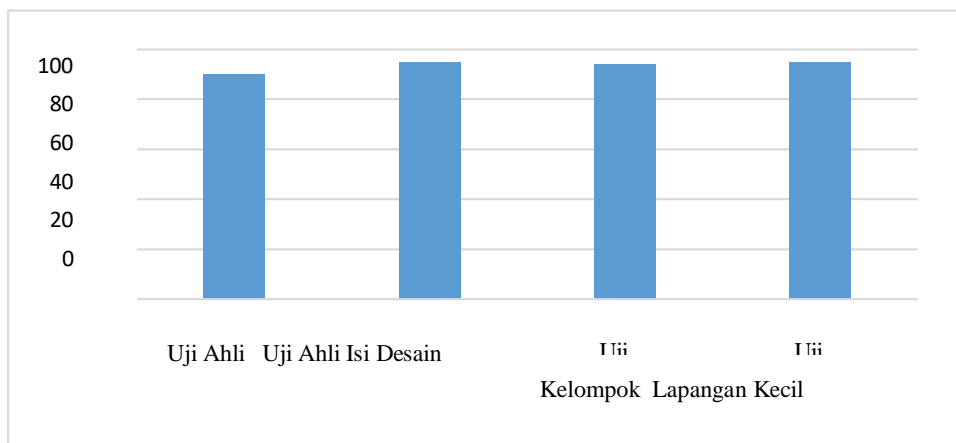


Figure 1. Recap of Module Feasibility Test

From the feasibility questionnaire given to 10 respondents, the data obtained in Table 6. The maximum score for each questionnaire is 75. From the questionnaire of 10 respondents, the scores obtained are in the range of 67 to 74. Based on the data in Table 6, the average

percentage of module feasibility is 95%. From the percentage, it is then converted into Table 2 to determine the feasibility category. After conversion, it can be concluded that the module is very feasible or very good. Thus, the module is ready to use without requiring revision.

Figure 1 shows that the module's feasibility has improved. The learning design expert's assessment yielded a 90% feasibility score, and the module content expert's assessment yielded a 95% feasibility score. After revisions, the second draft was tested on a small group of three kindergarten educators, achieving an average feasibility score of 91% and a field trial score of 95%. Therefore, the module's feasibility, from the expert trial to the field trial, remained in the very good or highly feasible category.

## DISCUSSION

Module development can be a solution to learning challenges in kindergarten (Ulfa et al., 2019). Module development represents an urgent need for learning resources due to the lack of teaching materials or reference modules to support learning conducted from home. Therefore, modules can support the distance learning process (Prihatiningtyas & Tijanuddarori, 2021).

In this study, the module was developed through several processes, starting with an initial analysis of learning problems. The results of the initial analysis were then used to formulate students' learning needs. Therefore, the resulting module can meet students' learning needs (Meliana, 2020). This eliminates the need for educators to use numerous textbooks because the module already includes learning activities that can support the development of students' basic skills.

The application of the ADDIE model as a product development model (Andriani, 2019; Herminayu & Sulasmono, 2020) resulted in a module with high feasibility (Ardiansah & Miftakhi, 2020; Kurniawati et al., 2019). The application of the ADDIE development model in developing modules is very helpful because the steps of the ADDIE model are simple and clear (Inantaya, 2021). Likewise, in this study, the results of the validation data analysis of the module developed with the ADDIE model showed excellent or very feasible feasibility.

Based on the data obtained from expert testing, group testing, and field testing, it can be concluded that the developed learning module is highly suitable for use in learning activities. During the evaluation phase, suggestions for additional guidance modules for educators were developed to refine and simplify its use. Other revisions to the module included clarifying the instructions in the worksheets and taking into account the time required to complete tasks.

In line with research conducted by Bacotang et al. (2016) at a kindergarten in Malaysia, the application of the ADDIE model to module development resulted in modules with excellent feasibility. Furthermore, the use of modules in learning has been shown to improve children's initial abilities. Kurniawati et al. (2019) developed an animated learning video for early childhood using the ADDIE model as a guideline for product development. This study also produced a product with high feasibility. Similar research results were also found in a

study conducted by Nasohah et al. (2015), which found that the ADDIE model applied to module development can support the achievement of effective learning objectives. This is because the ADDIE model is simple, organized, effective to use, and has been validated (Soesilo & Munthe, 2020).

According to educators, developing *blended learning*- based modules can improve basic skills and creativity, is more efficient, and is an appropriate means of introducing students to the use of technology (Airlanda, 2016; Setiawan et al., 2019). Furthermore, the modules are more engaging for students (Burhan et al., 2017; Kamanitra & Deviana, 2019). Furthermore, the application of *blended learning* can also address learning challenges amid the pandemic. The application of *blended learning* in learning can increase student engagement (Miyanti, 2021). Student learning motivation has also increased (Anggraini et al., 2020; Muthmainnah & Suswandari, 2021) even for physical learning activities (Prastyo et al., 2020). Thus, the development of *blended learning*- based modules has several benefits that can help overcome learning obstacles amid the pandemic.

## CONCLUSION

The *golden age* is the most appropriate time to provide students with a strong and extensive foundation. However, students' basic skills have not yet reached the expected target. The pandemic has also triggered restrictions and obstacles. To address these issues, this research aimed to develop a *blended learning*- based module for kindergarten instruction to support the improvement of students' basic skills. The module development steps refer to the ADDIE model. The draft module was piloted in four stages: content expert trials, instructional design expert trials, small group trials, and field trials.

The content expert's trial results indicated a module feasibility rating of 95%, which is considered very good. The instructional design expert gave the module a feasibility rating of 90%, which is considered very good. Furthermore, the average feasibility rating from the small group test increased from 94 % in the previous draft. In the field test , the module feasibility percentage increased to 95%, which is considered very good.

*This blended learning* -based module makes a significant contribution to learning during the pandemic by addressing learning challenges . The module can increase student motivation and engagement in learning activities, even physical activities. *Blended learning* is also an effective way to introduce students to the use of technology. The results of this study can then be developed to further quantitatively test the application of *blended learning*- based modules.

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