



# InJAERe: Indonesian Journal of Arts Education Research

InJAERe

Journal homepage: <https://ejournal.upi.edu/index.php/ijaer>

## E-module-Based Dance Learning to Improve Understanding of Basic Movement Techniques of Buka Lawang Dance

Amalia Rizki Putriani<sup>1\*</sup>, Trianti Nugraheni<sup>2</sup>, Yuliawan Kasmahidayat<sup>3</sup>

<sup>1</sup> Arts Education Study Program, Universitas Pendidikan Indonesia, Indonesia.

<sup>2</sup> Arts Education Study Program, Universitas Pendidikan Indonesia, Indonesia.

<sup>3</sup> Arts Education Study Program, Universitas Pendidikan Indonesia, Indonesia.

Correspondence: [amaliarizkiputriani17@upi.edu](mailto:amaliarizkiputriani17@upi.edu)

### ABSTRACT

This study aims to develop an E-module-based teaching material product to improve student's understanding of basic movement techniques of Buka Lawang Dance at SMA Negeri 1 Kibin. The method used in this study is Research and Development (R&D). With the research flow, namely: 1) Research and data collection (Problem analysis, Literature study, Field study), 2) Planning (E-module design, design validation by expert judgment), 3) Field trial (Small group trial, revision of trial results, limited field trial, product refinement), 4) E-module-based teaching material product of basic movement techniques of Buka Lawang Dance. The population in this study were 187 students of SMAN 1 Kibin, with a sample of 20 students. The feasibility test of the E-module from the material expert obtained a feasibility percentage of 96%, the results from the media expert were 94.5%, so the E-module was very worthy of being tested. The results of the small group learning evaluation (Pretest - Posttest) obtained that the hypothesis test  $t_{count} > t_{table}$   $0.8 > 0.2$ . Evaluation of limited scale learning outcomes  $t_{count} > t_{table}$   $3.2 > 0.7$ . The small group user acceptance test questionnaire obtained a percentage of 88%. The limited scale user acceptance test percentage of 96%. Based on the test results, the teaching materials based on the E-module of the basic movement techniques of the Buka Lawang Dance can improve the understanding of basic dance movements of students at SMA Negeri 1 Kibin.

### ARTICLE INFO

#### Article History:

Submitted 06/12/2024

First Revised 07/01/2025

Accepted 10/02/2025

First Available Online 30/05/2025

Publication Date 30/05/2025

#### Keyword:

Teaching Material, E-module,  
Buka Lawang Dance, Basic  
Movement Techniques of Buka  
Lawang Dance

## 1. INTRODUCTION

Learning is one of the fundamental aspects of education, understood as a process of communication among educators, students, and learning sources. There are three types of education: formal, informal, and nonformal education. Formal education, often referred to as school-based education, consists of a structured sequence of educational levels, start from Elementary School (Sekolah Dasar, SD) to Higher Education (*Perguruan Tinggi*, PT), both public and private institutions. According to the Indonesian National Education System Law (*Undang-Undang Sistem Pendidikan Nasional*, UUSPN) No. 20 of 2003, Chapter VI, Section One, Article 13, Paragraph 1, it is stated that the educational pathways consist of formal, non-formal, and informal education, which may complement and enrich one another (Fitriani, 2015). The educational system in schools comprises several components that must be managed effectively. These include: curriculum, educational personnel (teachers), students, finance and funding, educational facilities and infrastructure, stakeholders, and special services.

The components managed within schools must be interconnected and mutually supportive because these components significantly influence educational objectives and student learning outcomes. Teachers, who play a crucial role in the teaching and learning process, must understand each of the necessary components. The curriculum implemented in schools greatly affects the requirements needed by all components, including facilities and infrastructure. As educators, teachers must be able to utilize the curriculum optimally to create dynamic and engaging teaching and learning activities. Moreover, teachers must promptly recognize educational developments throughout the entire educational process, such as those experienced during the COVID-19 pandemic. This phenomenon brought about a shift in the learning model to distance education, which impacted teaching and learning activities and altered all aspects of the learning components, ranging from teaching materials, teaching media, learning assessments, to facilities and infrastructure.

School-based education serves several functions, including the development of student's abilities, the formation of character and personality so that students may become better individuals, and the preservation of cultural heritage within society. Through the educational process, each individual in society comes to know, absorb, inherit, and internalize various elements of their culture—such as values, beliefs, knowledge, and technologies—that are essential for navigating their environment (Saniati, 2021). Therefore, the educational process must adapt to the ongoing developments within society in order to remain engaging for both educators and students. The objectives of arts education are: (1) to nurture and develop student's creativity and sensitivity, (2) to support the holistic formation and development of student's personalities, and (3) to provide the widest possible opportunities for creative expression through art appreciation and artistic expression (Iryanti, 2001). In dance education, learning can help students discover the relationship between their bodies and their entire existence as human beings. Dance education functions as an alternative means for the development of student's souls toward maturity. Artistic experiences can enable students to understand arts education. Therefore, in art education, it is essential to involve elements of art appreciation, both tangible and virtual, as well as artistic expression through practical assessment. Thus, arts education has a dual function: in the sense of aesthetic education (appreciation), it serves as a medium for preserving and transmitting traditional cultural values; and in the sense

of creative education, it functions as a medium to develop innovative cultural creativity (Saniati, 2021).

Learning is a process of interaction between students, educators, and learning source within a learning environment. It is a process that leads to behavioural improvement, from inability to ability or from ignorance to knowledge, as exemplified in dance learning, which requires a process aimed at developing the potential and creativity possessed by students through dance learning. Dance education is not intended to train students merely to be skilled dancers for performance purposes; rather, the focus of this subject is on the creative process of the students. This is emphasized by Murgianto in Masunah (2012), who states: All these benefits can be achieved if blended learning is implemented in a planned manner, with a well-directed process design. Blended learning can enhance access and convenience, allowing the learning process to be conducted more flexibly. According to Fatirul and Waluyo (2020, p. 44), the blended learning model is a teaching method that harmoniously integrates face-to-face meetings with online learning materials. It combines conventional learning—where educators and learners meet directly—with online learning that can be accessed anytime and anywhere. Blended learning can improve learning delivery during the current pandemic, compared to intensive face-to-face learning, which carries a higher risk of virus transmission. Moreover, blended learning allows for a more carefully planned learning design, as it typically involves learning designers and technology experts who support the adaptation of learning processes. It also enhances guidance and motivation, as blended learning provides a clear flow through structured learning source, learning activities, and assessment, all supported by well-defined step-by-step guidance.

*Nilai tari dalam dunia pendidikan menurut hemat saya, bukan terletak pada latihan kemahiran dan keterampilan gerak (semata-mata) tetapi lebih kepada kemungkinannya untuk memperkembangkan daya ekspresi anak. Tari harus mampu memberikan pengalaman kreatif pada anak-anak dan harus diajarkan sebagai salah satu cara untuk mengalami dan menyatakan kembali nilai estetik yang dialami dalam kehidupan.*

(In my opinion, the value of dance in the field of education does not lie solely in the practice of movement skills and proficiency, but rather in its potential to develop children's expressive abilities. Dance must be able to provide children with creative experiences and should be taught as a means of experiencing and re-expressing the aesthetic values encountered in life).

The statement above explains that dance education is not intended to train students to become proficient dancers or to make them performers. Furthermore, dance learning requires students to be more active participants, as they are not merely subjects who listen to and receive material from the educator, but also active agents in every aspect of the learning process. Dance education is a part of the arts and culture curriculum, which plays a role in guiding students to develop logical thinking, ethics, and aesthetics through the introduction of both traditional and non-traditional art forms.

The learning process will not be effective if the teaching materials used by educators do not align with the student's characteristics and needs. Given the vast array of available teaching materials, educators sometimes combine different materials to optimize the effectiveness of the learning process. Teaching materials are teaching tools in the form of learning content designed to address a particular topic, and they can be either printed or non-printed. Teaching materials play a critical role in the learning process. Through the careful selection of appropriate materials, teachers can create effective learning

experiences. The selection of teaching materials should not be arbitrary; it must be adjusted to align with the learning subject, classroom atmosphere, student characteristics, and the broader school environment.

The use of technology in learning activities enhances student engagement and the overall effectiveness of education. In the learning process, students are expected not only to rely on teachers as the sole source of knowledge but also to utilize various learning source, including textbooks, reading materials, the internet, news, and other supporting media that can enrich their knowledge and understanding. The role of technology in education can serve as a solution for learning activities. The Association for Educational Communication and Technology (AECT) defines educational technology as the ethical study and practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources. The primary objective is to make learning more effective, efficient, and engaging. AECT representatives have stated that effective learning is learning that adapts to the developments of times. According to Percival and Ellington, in conventional learning, despite the availability of numerous learning source, textbooks remain the most frequently used source of knowledge aside from the instructor (Saniati, 2021). In the context of online learning, the use of printed textbooks as the primary learning material presents certain challenges in effectively delivering course content. According to Percival and Ellington, in conventional learning, despite the availability of numerous learning source, textbooks remain the most frequently used source of knowledge aside from the instructor (Saniati, 2021). In the context of online learning, the use of printed textbooks as the primary learning material presents certain challenges in effectively delivering course content. As the use of technology-based learning media becomes increasingly prevalent, the process of knowledge transmission is shifting the teacher's role to facilitator (Wulandari et al., 2020). The integration of technological media in the learning process is expected to create a learning atmosphere that optimizes the development of student's talents, interests, potential, and educational needs.

The teaching and learning activities conducted from 2020 to 2022 have greatly required innovations in technology-based learning materials to facilitate the learning process. The necessity of online learning has led to all teaching and learning activities being conducted virtually, including the delivery of materials, student attendance, and assessments. This situation has compelled educational institutions to innovate their learning processes. One significant impact of the COVID-19 pandemic on education has been the increased use of technology in teaching and learning activities across educational institutions. One significant impact of the COVID-19 pandemic on education is the increase use of technology on teaching and learning activities across educational institutions. Technology in education can be utilized to support the achievement of educational goals, including its application in learning media, learning evaluation, learning activities, and teaching materials.

Fundamentally, all students possess creative potential that must be nurtured in order for them to lead passionate and productive lives and to fulfil their roles as independent members of society. Student's understanding in dance education encompasses both cognitive and psychomotor domains, which facilitate the development of their creativity. Creativity in dance learning can be fostered by educators through various methods and approaches depends on the topic being taught. The learning concept can be designed into teaching materials that are systematically and carefully planned, with an emphasis on

cognitive and psychomotor understanding as a strategy to cultivate student independence. The strategy of utilizing teaching materials to stimulate student's comprehension can be implemented through a combination of printed and non-printed teaching materials—specifically through the use of electronic modules (e-modules).

One of the innovations that can be utilized in the learning process is electronic modules (e-modules), which are highly efficient as learning media. The role of innovative teaching materials is crucial, especially in the post-Covid-19 pandemics to ensure that the education sector is better prepared to respond on urgent changes in the future. The use of technology and e-modules offers an enjoyable alternative solution due to their more engaging presentation, which facilitates student's understanding dance material, thereby ensuring that learning objectives are met and ensures the content is delivered in alignment with the intended learning objectives. Learning is conducted using web links commonly known as electronic learning or e-learning. E-learning is a learning system used as a medium for teaching and learning processes without requiring direct face-to-face interaction between educators and students (Handaini & Zulfah, 2021). In summary, e-learning is an efficient learning process that can be applied in both close and remote settings, based on electronic platforms utilizing internet. With the use of technology, dance teachers can deliver learning experiences that are more informative, innovative, detailed, and imaginative. Students can be engaged in a more immersive educational environment that supports the development of their artistic character.

The learning process is conducted using an e-module of cultural arts teaching materials on dance, based on the student textbook published by the Ministry of Education and Culture of the Republic of Indonesia in 2017 for the second semester. This material covers basic dance movements, expecting students to be able identifying various types of basic dance movements, perform them with proper technique, and communicate them both orally and in writing. In delivering this material, the teacher ideally show videos of dance performances and explain each basic movement featured in the textbook. However, the textbook only contains images and the names of dances, with insufficient visual documentation. Furthermore, the types of dances featured in the textbook are not from Banten Province, where SMA Negeri 1 Kibin is located. This poses a challenge in the teaching and learning process, as students struggle to grasp the material effectively. In response to this issue, to ensure that dance learning is not limited by time and place, an innovation was developed in the form of a learning module that provides text, audio, and video resources packaged within a web-based dance learning platform.

The dance curriculum in senior high schools (SMA) includes the appreciation of dance artworks and self-expression through dance creations. The objectives of dance education are to develop sensory perception sensitivity through various creative artistic experiences aligned with the student's character and stages of artistic ability development; to stimulate the growth of imaginative ideas; and to enhance the ability to discover various creative ideas in solving artistic or aesthetic problems through processes of exploration, creation, presentation, and appreciation according to student's interests and potentials. Many schools had transforming printed teaching materials into non-printed (digital) formats without altering the core values embedded in the printed versions, which still serve as the primary learning source. With the implementation of e-module-based teaching materials, students are expected to be more focus on learning and improving their understanding of basic dance movement techniques. Private and international schools have been among those to develop such teaching materials, while public schools generally still use printed materials that converted to PDF format.

This problem occurs at SMA Negeri 1 Kibin, where cultural arts teaching materials are already available in PDF format to support technology-based learning. However, students still experience difficulties in learning basic dance movements, which causes them to lose focus and show disinterest in participating in the lessons. Consequently, students have not developed an adequate understanding of the techniques involved in basic dance movements. Teachers face challenges in delivering the material comprehensively and in incorporating local cultural elements into the learning process. While the PDF version of the student textbook helps teachers explain the content provided in the text, it does not support the demonstration of dance examples or fundamental movement techniques. For these demonstrations, teachers must resort to other applications, as such visual content is not integrated into the same platform as the textbook. Additional learning obstacles arise during discussions and competency test questions included in the textbook. Students often fail to pay attention to the teacher, as the questions provided do not have clear or definitive answers. This situation has further diminished the effectiveness of the learning activities and student academic performance often fails to meet the Minimum Competency Criteria (*Kriteria Ketuntasan Minimal* or *KKM*).

A recurring reality is that the prevailing pattern of dance learning in schools often fails to cultivate both cognitive and psychomotor intelligence effectively. Learning activities are frequently perceived merely as a transmission of knowledge or information, rather than as a process of receiving and activating that information. This is indicated by student learning outcomes that are not oriented toward a comprehensive understanding of the subject matter being taught. In fact, the objective of dance education in schools is not to produce students who are experts or highly skilled dancers, but rather to facilitate meaningful changes in students across cognitive, affective, and psychomotor domains. This educational paradigm, however, is often overlooked by dance educators. Another issue observed in practice is that dance learning based solely on printed materials tends to be ineffective in creating a dynamic, engaging, and creative learning environment. As a result, student's creative abilities in the learning process often remain underdeveloped and less visible.

The aforementioned issues have made the researcher realize that the implementation of E-module-based teaching materials for dance education—by integrating textbook content with supplementary materials—is expected to enhance the effectiveness of dance learning activities in both distance learning and face-to-face settings. According to Prastowo, the use of interactive teaching materials in the learning process encompasses three objectives: cognitive, psychomotor, and affective domains (Malalina & Kesumawati, 2014). The e-module-based teaching material for cultural arts subjects, specifically on basic dance movements, serves as a learning medium to enhance the effectiveness of blended learning and improve the expected learning outcomes. By utilizing the teaching materials used by SMA Negeri 1 Kibin, which are distributed by the government as one of the main learning sources in schools, the researcher intends to develop these materials using technology to facilitate the learning process.

Based on the explanations from above regarding the importance of adapting teaching materials into an e-module, particularly for students at SMA Negeri 1 Kibin, the researcher proposes research entitled "E-module-Based Dance Learning to Improve Understanding of Basic Movement Techniques of Buka Lawang Dance." The formulated research questions include: How is the E-module-based dance learning designed? How is the implementation of dance learning based on e-module? And what are the outcomes of applying E-module-

based dance learning in improving the understanding of basic dance movements in the Buka Lawang dance among Grade X students at SMA Negeri 1 Kibin? The aim of this research is to determine the level of student understanding of basic dance techniques after being given treatment in dance learning based on e-module.

## 2. LITERATURE REVIEW

### 2.1. Learning Components

The learning process is inseparable from its components, such as learning objectives, teaching materials, methods and media used, evaluation, and the individuals involved in the process—namely, teachers and students. The key components of the learning process include learning objectives, teaching materials, learning methods and media, and learning evaluation.

Learning objectives are the targets intended to be achieved through learning activities. They serve as intermediate goals in the effort to attain higher-level objectives, namely educational goals and national development goals. Therefore, setting clear learning objectives is a crucial aspect of any learning process. In addition to considering the general learning objectives, the objectives of Cultural Arts and skills learning, particularly dance, must be aligned with the specific goals intended. The objectives of dance learning aim to enhance student's understanding intelligence in aspects of the basic movements of the Buka Lawang dance, including explanation, interpretation, application, perspective, empathy, and self-knowledge.

Learning materials essentially constitute the “content” of the curriculum, which includes subjects or fields of study along with their topics, subtopics, and details. According to Bloom's Taxonomy and its collaborators, learning materials encompass three domains: cognitive (knowledge), affective (attitude), and psychomotor (skills). The process of learning basic movement techniques refers to Gusyantu (2013), who states that,

*Pemahaman teknik gerak dasar tari dalam bentuk E-modul menyertai teknik bergerak gerak tari yang benar akan memberikan kemudahan dalam melakukan gerak tari secara berkelanjutan.*

(Understanding basic dance movement techniques in the form of an e-module, accompanied by correct dance movement techniques, will facilitate the continuous execution of dance movements).

In the first meeting, the focus was on the Buka Lawang Dance e-module covering its history, types of dances, and the complete form of the Buka Lawang dance. Students were asked to watch and observe the Buka Lawang dance video embedded within the e-module. In the second meeting, students were instructed to practice the basic movements of the Buka Lawang dance involving the head and hands, which were first demonstrated by the teacher. Students were given time to understand these basic movement techniques through discussions with their seatmates. At the end of the session, the teacher asked students to submit videos demonstrating the basic head and hand movements of the Buka Lawang dance. The third meeting continued with students learning the basic movements involving the body and feet. Students were given time to study each basic movement. This was followed by dividing the class into small groups to facilitate discussions and encourage students to confidently showcase their learning outcomes, demonstrating the four basic parts of the Buka Lawang dance movements. In the fourth meeting, students were required to synchronize the Buka Lawang dance movements with the accompanying

music. This activity aimed to foster student's interest in dance arts and enable them to understand the basic movements of the Buka Lawang dance they had learned, performed in a complete form but divided into several movement segments.

The methods employed in teaching the basic movement techniques of Tari Buka Lawang include the lecture method, question-and-answer method, discussion method, demonstration method, and practice method. The learning media used is the Electronic Module (E-module) for the basic techniques of Buka Lawang dance. The lecture method is used by the teacher to explain the basic movement techniques of Buka Lawang dance as outlined in the E-module, which is structured into four main sections and movement forms. The question-and-answer method is applied to address student's difficulties in understanding the descriptions and movement forms being studied. The discussion method is used to enhance student's comprehension and knowledge, as well as to encourage them to share and apply their knowledge with their classmates. The demonstration method is conducted both from teacher to students and from students to students; through this method, students can develop empathy toward their peers. The Buka Lawang dance basic movement e-module serves as a supplementary learning source to the student textbook issued by the Indonesian Ministry of Education and Culture in 2017 under the 2013 curriculum. This e-module complements Chapter 13 of the textbook, which covers basic dance movements and accompanying music, and uses Buka Lawang dance, a traditional dance originating from Serang, Banten, as the focus of the learning material.

Evaluation is an action or process to determine the value of something (Wandlt, 2017). Evaluation is necessary in formal education at all levels. It is used to measure student's abilities after the learning process to assess their learning outcomes. In dance education, evaluation involves determining scores based on specific criteria to assess student's learning outcomes in dance lessons and to understand their comprehension of the material provided by the dance teacher during the assessment process. Evaluation of dance learning based on the e-module is conducted by providing practice questions at the end of each lesson, and summary test as competency test at the end of the dance learning using the e-module on the basic movement of the Buka Lawang dance.

## **2.2. Teaching Materials**

Books are used in the teaching and learning process as one of the sources of knowledge utilized by teachers and students. According to Suwarno (as cited in Oki Witasari, 2022), a textbook is a teaching material that is well-designed in accordance with learning principles or creative e-learning to achieve learning objectives (competencies). Teaching materials, on the other hand, are materials or content systematically arranged and used by educators and students during the learning process (Marselina & Muhtadi, 2019). Therefore, a textbook is a collection of teaching materials consisting of learning content and competency tests aimed at achieving specific learning goals.

According to Hadi, good teaching materials are those developed in accordance with user needs, which are based on geographical, ethnographic, and regional richness characteristics, as well as aligned with contemporary developments (Saswulan et al., 2020). From the statement above, it can be concluded that textbooks containing teaching materials that match the needs of the learning subjects can be utilized in any form.

Teaching materials are very unique and specific. Unique means that the teaching materials can only be used by certain users within a particular learning process.



Specific means that the content of the teaching materials is designed specifically to achieve particular goals for specific users. The systematic method of delivery is also adjusted to the characteristics of the subject matter and the characteristics of the students who use it (Sadjiati, I., 2017).

Teaching and learning activities in the classroom should not be limited to merely taking notes whose accuracy may be questionable (Marselina & Muhtadi, 2019). Students must be active in seeking out learning source. In this process, teaching materials are needed to broaden student's understanding and expand their ideas regarding basic dance movements. The more teaching materials used by students as learning sources, the better prepared they are to learn. According to Carl Rogers (Gazali, 2016), three essential elements of experiential learning are emphasized:

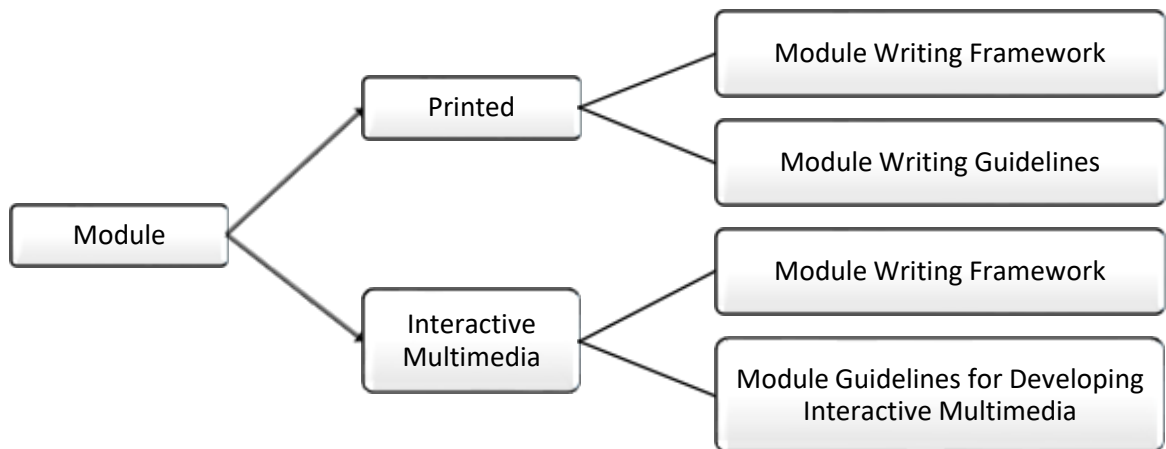
- Students should be confronted with real problems that require solutions.
- Once awareness of the problem is established, an attitude toward the problem also develops.
- The presence of learning source, whether human (e.g., teachers, peers) or in the form of written or printed materials.

From the explanation above, it can be concluded that the development of teaching materials in teaching and learning activities encourage students to think more critically and creatively. Learning materials play a vital role in achieving educational goals. The presence of learning source, whether human or in the form of written or printed materials, requires students to engage in higher-order understanding known as self-initiated learning. This refers to self-awareness and understanding initiated by the students themselves, involving their cognitive and intellectual abilities. Students are considered capable of making conscious decisions about their own learning abilities.

Carl Rogers (1951) stated that one of the keys supports for student-centered learning is the use of teaching materials. Teaching materials should enable students to engage in independent learning, helping them to understand the content, and enhance their knowledge of the subject matter provided in the textbook as the primary learning source.

### **2.3. Electronic module**

A module is a complete, self-contained unit consisting of a series of learning activities designed to help students achieve a set of clearly and specifically formulated objectives (Nasution, 2011). A module is one type of teaching material systematically prepared for students to be easily understood according to their level of knowledge and age, enabling them to learn independently (Fajarini, A., Soetjipto, B.E., & Hanurawan, 2016). The development of printed module-based teaching materials has been widely combined with non-printed resources (such as animations, videos, audio, and images) or interactive multimedia materials presented in various formats. This is supported by Mudlofir's view that modules can be divided into two types or forms (Mudlofir, 2011), which are illustrated in the following figure:



**Figure 1.** Mudlofirs' Module Format

#### 2.4. Understanding the Basic Dance Movement

Understanding the basic dance movement techniques is essential to achieving the learning objectives. Students must be able to comprehend the local traditional dance movements and perform them in accordance with the accompanying music. The form of understanding in learning outcomes involves the process of constructing knowledge through real experiences. Understanding is not static but evolves and changes constantly as students build new experiences that modify previous understandings. Referring to constructivist theory, the ability to understand is considered the highest cognitive level. This contrasts with Bloom's taxonomy, which places the ability to understand at the C2 level (Comprehension).

The six aspects of understanding according to Wiggins and Tighe (Edi, 2022) are forms of understanding used in learning outcomes, including the following:

- **Explanation**  
The ability to describe an idea in one's own words, establish connections between topics, demonstrate work results, explain reasons, methods, or procedures, clarify a theory using data, argue a point, and defend one's responses.
- **Application**  
The ability to use knowledge, skills, and understanding in real-life situations or contexts that resemble reality.
- **Perspective**  
The ability to view something from different points of view. Students can explain alternative sides of a situation, see the bigger picture, identify underlying assumptions, and offer critiques.
- **Empathy**  
The capacity to put oneself in another person's position, feel the emotions experienced by others, and understand thoughts that differ from one's own. It involves recognizing the value in things encountered.

- Self-Knowledge

The understanding of oneself, including one's strengths, areas needing development, and the internal processes of thought and emotion.

From the explanation above, it can be concluded that understanding holds a significant place in learning outcomes. In the topic of basic dance movement techniques, comprehension is essential to recognize each aspect of understanding as it relates to these techniques. This understanding aims to improve students' learning outcomes. Moreover, students not only achieve good final results but also gain the ability to comprehend the basic dance movement techniques of their local region and are capable of recognizing and understanding traditional dances from across the Indonesian archipelago (Nusantara).

### 3. METHODS

This research adopts a quantitative paradigm using an experimental research method. "Experimental research is a study conducted on variables for which data do not yet exist, thus requiring a process of manipulation through the provision of specific treatment stimuli to the research subjects, followed by observation or measurement of the effects" (Jaedun, 2011). This type of experimental research is characterized by testing variables that influence one another.

There are several forms of experimental designs that can be used in research, such as pre-experimental, true experimental, factorial experimental, and quasi-experimental. In this study, the researcher used a pre-experimental design, which observes only one group throughout the research without a control group for comparison. The specific type used is the One-Group Pretest-Post-test Design, in which an experiment is conducted on a single group observed during the pretest phase, followed by a treatment or intervention, and concluded with a post test. The variables used in this study include an independent variable (X) and a dependent variable (Y). The independent variable is the e-module on the basic movement techniques of the Buka Lawang dance, while the dependent variable is the understanding of basic dance movements.

This study aims to implement an e-module on the basic movement techniques of the Buka Lawang dance through the pre-experimental design method. The researcher chose this experimental method because the study involves directly testing the influence of one variable on another and examining a hypothesis of causal relationships. The researcher conducted an experimental study to directly test by controlling, manipulating, and observing students' understanding of basic dance movements through the application of the e-module for Buka Lawang dance at SMA Negeri 1 Kibin as an effort to enhance students' comprehension of basic movement techniques. This study specifically employed the pre-experimental design, using a one-group pretest-posttest design, in which a pretest was administered before the treatment and a posttest was conducted afterward. This design enables more accurate measurement of the treatment's impact, as it allows comparison with the pre-treatment condition. Ultimately, this approach enables the researcher to determine whether the learning objectives were successfully achieved.

Explanations:

$O_1$  : Pretest score (before given the treatment).

X : Treatment (implementations of the e-modul on the basic movement technique of the Buka Lawang dance).

$O_2$  : Posttest score (after given the treatment).

Based on the formulation categories, hypotheses are divided into two types. The null hypothesis, abbreviated as  $H_0$  and the alternative hypothesis, referred as  $H_a$ . The null hypothesis ( $H_0$ ) states that there is no relationship or influence between one variable and another. In contrast, the alternative hypothesis ( $H_a$ ) asserts that there is a relationship and influence between one variable and another. The hypotheses in this study are as follows:

**$H_a$**  : Teaching materials can enhance students' understanding of the movement techniques in the Buka Lawang dance through the implementation of e-module-based learning materials.

**$H_0$**  : Learning materials do not enhance students' understanding of the movement techniques in the Buka Lawang dance through the implementation of e-module-based learning materials.

## 4. RESULTS

### 4.1. E-module-Based Dance Learning Design .

To initiate the use of the e-module-based learning material, a link is required to direct users to the learning module on the basic movements of the Buka Lawang dance. This link is created using PDF Flip Builder and will serve as students' access point to the Buka Lawang basic movement learning module. The link can be distributed through chat applications either personally or via group messages.

[https://bit.ly/Modul Teknik Gerak Dasar Tari Buka Lawang](https://bit.ly/Modul_Teknik_Gerak_Dasar_Tari_Buka_Lawang)

The e-module on the basic movement techniques of the Buka Lawang dance consists of two learning units intended for tenth-grade students at SMA Negeri 1 Kibin to enhance their understanding of the basic dance movements. Unit 1 covers the basic movement techniques of the Buka Lawang dance, divided into two sessions: the first session focuses on the basic movements of the head and hands, while the second session addresses the basic movements of the body and feet. In Unit 1, several learning evaluations are provided to represent both cognitive and psychomotor understanding. Students' cognitive understanding is assessed through written questions designed to measure their knowledge of the basic movement techniques of the Buka Lawang dance, while psychomotor understanding is evaluated through student performances of the basic movements in front of the teacher or peers.

Unit 2 explains the musical accompaniment (iringan) of the dance, building on the foundational material introduced in Unit 1, which includes the movement form of Tari Buka Lawang presented through video. Students are expected to understand this material both descriptively and through practice. Once students have mastered the basic movement techniques of the Buka Lawang dance as a complete sequence, they will proceed to learn the rhythm counting of the dance. Students must be able to synchronize their movements with the beats of the Buka Lawang dance accompaniment.

The learning evaluations provided in the Buka Lawang dance e-module are considered sufficient to enhance students' understanding of the basic movement techniques of the Buka Lawang dance and can serve as a substitute for printed teaching materials while representing the local traditional dance art. The evaluations include crossword puzzles, fill-in-the-blank questions, multiple-choice questions, complex multiple-choice questions, reflections, word guessing, and matching exercises.

#### 4.2. Implementation of E-Module-Based Dance Learning

Cultural arts education, particularly dance, conducted at SMA Negeri 1 Kibin Serang refers to the 2013 Curriculum. Prior to each learning session, teachers prepare a lesson plan (Rencana Pelaksanaan Pembelajaran or RPP) for each meeting. In cultural arts learning, the dance material at SMA Negeri 1 Kibin is specifically intended for Grade X students. Dance learning is allocated 3 × 40 minutes per meeting. Based on an interview with the Grade X cultural arts teacher at SMA Negeri 1 Kibin, Ms. Resti Nilnal, S.Pd, on March 25, 2023, it can be described that the teaching of cultural arts at SMA Negeri 1 Kibin mostly consists of delivering dance materials that focus on the student text book as a single learning resource. However, the teacher observed that students showed little interest in the material. Students also found it difficult to understand the basic dance movements demonstrated from other regions and achieved unsatisfactory learning outcomes (Interview, March 25, 2023).

Based on the observation conducted in Class X-6, the learning process was carried out solely through lectures delivered by the teacher, without any demonstration of movement forms in the classroom. Appreciation activities were only followed by a few students who appeared to be focused, while the others were engaged in unrelated activities such as chatting, using their phones, or sleeping. As a result, students lacked a proper understanding of the lesson content. Furthermore, in the evaluation process, the teacher prioritized the learning outcomes over the students' experiential learning processes in the classroom.

On March 27, 2023, during the subsequent meeting, the researcher conducted an initial observation by entering the sample class, X-6, and attempted to deliver material on the basic movement techniques of the Buka Lawang dance. Simultaneously, the researcher assessed students' understanding through a multiple-choice pretest administered before the treatment was given. The pretest scores ranged from 1 to 10, with different scoring criteria applied. The assessment was based on understanding indicators such as knowledge, interpretation, application, perspective, empathy, and self-knowledge. Each indicator included sub-indicators that served as the basis for the researcher's evaluation.



**Figure 2.** Observation on class X-6 at SMA Negeri 1 Kibin, Serang.

The tenth-grade cultural arts textbook used at SMA Negeri 1 Kibin is published under the auspices of the Ministry of Education and Culture, with a revised edition from 2017. This student textbook was prepared by the government to support the

implementation of the 2013 curriculum. The textbook was compiled and reviewed by various parties under the coordination of the Ministry of Education and Culture. The dance material explained in this book, which serves as the reference for the content in the e-module, is found in Chapter 13: the definition of dance performance, understanding the basic movements of local traditional dances, practicing basic dance movement techniques, and performing dance movements in accordance with the accompaniment.

This research discusses the teaching material found in Chapter 13, Understanding Dance and Its Types, which aims to enhance students' knowledge of dance movements, as well as their understanding of the forms, types, and aesthetic values within various basic dance movements. The basic competencies targeted by this material include enabling students to identify different types of basic dance movements, perform these movements with proper technique, present basic dance movements using counts or beats, present them with accompaniment or music, demonstrate basic movements based on exploratory outcomes, communicate the variety of basic dance movements both orally and in writing, and participate in dance performances.

The dance featured in Chapter 13 is Lenggang Patah Sembilan, a traditional dance originating from Sumatra. Students experienced difficulty in learning this dance, and the teacher attempted to assess their knowledge of local traditional dance. The results showed that students had limited understanding of their own regional traditional dance. Based on this observation, the researcher concluded that students' level of interest greatly influences their comprehension and learning outcomes. These findings indicate the need for learning material that explains the basic movements of local traditional dances in a way that is more accessible and easier for students to understand.

**Table 1. Basic Competencies and Competency Achievement Indicators (CAI) in Dance Learning**

Basic Competencies	Competency Achievement Indicators (CAI)
Understanding the Basic Movement Techniques of the Buka Lawang Dance	<ul style="list-style-type: none"> <li>– Performing the basic movements of Buka Lawang dance according to each movement segment</li> <li>– Performing simple movement forms in coordination with the accompaniment of Buka Lawang dance</li> </ul>

The implementation of the e-module was carried out over four meetings, covering two learning units that encompass Chapter 13 in the student textbook. In the first meeting, the researcher administered a pretest to assess the students' level of understanding prior to the implementation of the E-module-based dance learning. In the second meeting, the teacher presented Unit 1, which covered the basic movements of Tari Buka Lawang focusing on the head and hand movements. In the third meeting, the teacher covered the material on the basic movements of the Buka Lawang dance involving the torso and feet. In the fourth meeting, the teacher explained and demonstrated simple movement patterns of the Buka Lawang dance accompanied by dance music. At the end of the learning process, the researcher administered a posttest to measure students' improvement in understanding the

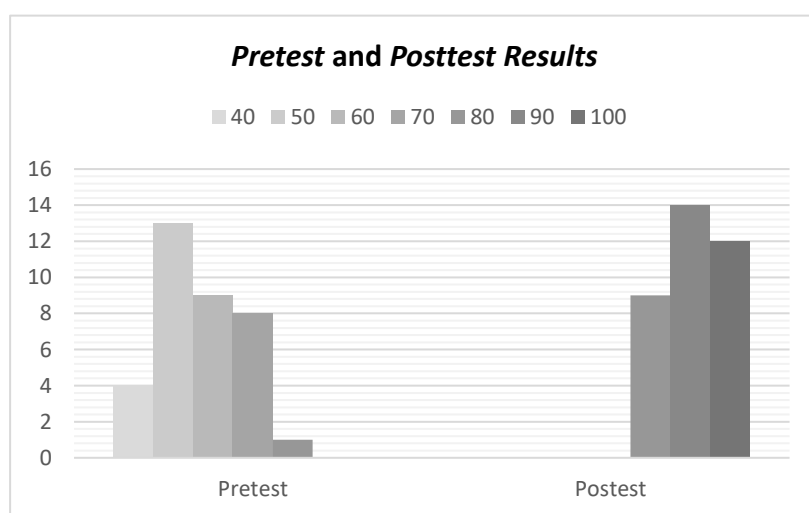
basic movement techniques of the Buka Lawang dance after the e-module-based dance learning.



**Figure 3.** Implementation of the E-Module in Dance Learning.

Data processing in this cultural arts learning activity is based on students' individual understanding of the basic movement techniques of the Buka Lawang dance, as reflected in the progressive improvement observed during each meeting. The use of e-module-based learning materials in cultural arts learning—specifically dance—at SMA Negeri 1 Kibin, particularly for class X-6, is aimed at enhancing students' understanding of basic dance movement techniques. The students' understanding of these techniques was identified as showing significant improvement in every session, as quantified by numerical data and analyzed by the researcher through individual assessments conducted in each meeting. This improvement is also evident from interviews with several students, who reported that learning dance using the e-module is more engaging, less monotonous, provides new experiences, and increases motivation during the learning process, thereby further enhancing students' understanding of basic dance movement techniques.

#### 4.3. Improvement in Students' Understanding of Basic Dance Movement Techniques.



**Figure 4.** Pretest and Posttest Score Data.

With the significance level of  $\alpha = 0,05$ .

The  $t_{table}$  value is determined from the t-distributions table using the following criteria:

$df = n-1, df = 35-1 = 34$ .

Sehingga  $t_{count}(\alpha, db) = t(0.05, 34) = 1.7$

$t_{count} > t_{table} \quad 17 > 1.7$

Based on the calculation data above, the difference between the  $t_{count}$  and  $t_{table}$  indicates that students' understanding of basic dance movements improved through the use of e-module-based learning materials in the Buka Lawang dance learning process. This results provides evidence that the experiment was successful in enhancing students' understanding of basic dance movements through the use of e-module-based learning materials for Buka Lawang dance. The improvement was observed across all aspects, including: explaining the basic movements, understanding foundational dance knowledge, demonstrating skill in performing basic movements, providing constructive peer feedback, collaborating in learning, and comprehending competency assessments.

## 5. CONCLUSIONS

In summary, the research findings on e-module-based learning of the basic movement techniques of the Buka Lawang dance lead to the following conclusions:

E-module-based learning materials for the cultural arts subject, specifically focusing on dance, were developed using the Buka Lawang dance to enhance students' understanding of the basic dance techniques. The Buka Lawang dance was selected as the learning material based on its status as local traditional dance in the area of SMA Negeri 1 Kibin. The Buka Lawang dance is a creative dance based on traditional patterns, functioning as a welcome dance and reflecting the ethnic identity of Banten, thus making it suitable for students' understanding of basic dance movements. The e-module-based learning material includes guidance on module use, core competencies, basic competencies, content organized into three units (dance description, basic movement techniques of the Buka Lawang dance, and dance accompaniment), evaluation, and a profile section. The module is composed of text, images, and video.

The e-module-based learning of the basic movement techniques of the Buka Lawang dance was developed using Canva, Corel Draw, and Microsoft Word, and compiled into an interactive format with PDF Flip Builder. Designed to resemble a traditional textbook but with enhanced visual appeal, it combines both printed and digital resources—including flipbooks, videos, and audio—all accessible online.

The method used in this research is a pre-experimental design with a one-step pretest-posttest approach. The research flow is as follows: (1) Administration of a pretest at the beginning to assess students' initial understanding of basic dance techniques; (2) Implementation of the treatment using the e-module for the basic movement techniques of the Buka Lawang dance; and (3) Administration of a posttest at the end of the research to measure students' improved understanding. While the e-module was implemented over a six-month period, the core data collection took place over three weeks once the e-module was ready for student of X-6 to trials.

The evaluation of learning outcomes (pretest – posttest) in a small group showed the result of a hypothesis test where  $t_{count} > t_{table}$  ( $17 > 1.7$ ). This demonstrates that the experiment was successful in improving students' understanding of basic dance movements through the e-module for the basic movement techniques of the Buka Lawang



dance. Therefore, it can be concluded that the E-module-based learning material for understanding the basic movements of Tari Buka Lawang is highly suitable for use after the trial. Based on these test results, the Tari Buka Lawang E-module can effectively improve students' understanding of basic dance movements at SMAN 1 Kibin, Banten.

The improvement in dance learning through the e-module for the basic movement techniques of the Buka Lawang dance is evident from the students' learning outcomes as measured by competency assessments in the form of pretests and posttests. This is further supported by interviews with the cultural arts teacher who accompanied the researcher throughout the study. The teacher observed that students had achieved a very good level of understanding of basic dance movements. Students demonstrated successful learning outcomes in several aspects of comprehension, including: the ability to explain the meaning and description of the basic movements of the Buka Lawang dance; the ability to distinguish dance types according to their definitions and appearances; the ability to describe dance movements from local traditional dances; the ability to collaborate with classmates; and the demonstration of motivation in cultural arts learning activities.

## 5. REFERENCES

- Edi, S. (2022). *MODUL AJAR. Perencanaan Pembelajaran (Kurikulum Merdeka Belajar)*. Erlangga.
- Fajarini, A., Soetjipto, B.E., & Hanurawan, F. (2016). Developing a social studies module by using problem based learning (PBL) with scaffolding for the seventh grade students in a junior high school in Malang, Indonesia. *IOSR Journal of Research & Method in Education*, 6(1).
- Fitriani, E. (2015). Korelasi tingkat pendidikan formal orang tua dengan prestasi belajar bidang studi Akidah Akhlak di MA Matholi'ul Huda Pucakwangi Pati tahun pelajaran 2015. *Eprints.Walisongo.Ac.Id*.
- Gazali, R. Y. (2016). Pengembangan bahan ajar matematika untuk siswa SMP berdasarkan teori belajar ausubel. *PYTHAGORAS: Jurnal Pendidikan Matematika*, 11(2). <https://doi.org/10.21831/pg.v11i2.10644>
- Handaini, M., & Zulfah, Z. (2021). Penerapan e-Learning melalui Media Schoology untuk Meningkatkan Motiasi Belajar Siswa SMP Negeri 3 Tapung. *Mathema: Jurnal Pendidikan Matematika*, 3(1), 16. <https://doi.org/10.33365/jm.v3i1.993>
- Iryanti, V. E. . & J. M. (2001). IryaMempertimbangkan Konsep Pendidikan Seni (Considering the Concept of Art Education). . *Harmonia: Journal of Arts Research and Education*, .
- Malalina, M., & Kesumawati, N. (2014). Pengembangan Bahan Ajar Interaktif Berbasis Komputer Pokok Bahasan Lingkaran Untuk Kelas Viii Sekolah Menengah Pertama. *Jurnal Pendidikan Matematika*, 8(1). <https://doi.org/10.22342/jpm.8.1.1861.55-70>
- Marselina, V., & Muhtadi, A. (2019). Pengembangan Buku Digital Interaktif Matematika Pada Materi Geometri. *Jurnal Inovasi Teknologi Pendidikan*, 6(2), 196–207.
- Mudlofir, A. (2011). Aplikasi pengembangan KTSP dan bahan ajar dalam pendidikan agama Islam. Jakarta: In *PT Raja Grafindo Persada*. PT Rajagrafindo Persada.
- Nasution. (2011). *berbagai pendekatan dalam proses belajar dan mengajar*. Universitas Negeri Malang.
- Oki Witasari. (2022). *Implementasi metode, media, dan penilaian pembelajaran mata pelajaran pendidikan agama islam dan budi pekerti berbasis blended learning di sd negeri mengganti banyumas*.
- Padmini, K. H. ., & Atika, B. P. (2016). Teknologi Pendidikan Sebagai Pembelajaran Kompetitif Untuk Meningkatkan Prestasi Siswa: Studi Kasus Di Salah Satu SMA Di

- Salatiga. . *Prociding Ilmu Pendidikan*.
- Sadjiati, I., M. (2017). Berbagai Pendekatan dalam Proses Belajar dan Mengajar. *Pendidikan*, 3(1). <https://doi.org/10.1017/CBO9781107415324.004>
- Saniati, E. N. (2021). *PEMBELAJARAN TARI DODOGERAN MELALUI APLIKASI MULTIMEDIA INTERAKTIF BERBASIS ANDROID UNTUK PEMAHAMAN MULTIKULTUR SISWA DI SMAN 2 CIKARANG SELATAN*.
- Saswulan, F., Hadi, K., & Syamsu, F. D. (2020). Pengembangan Buku Digital Interaktif (BUDIN) pada Materi Struktur dan Fungsi Sel Terhadap Pemahaman Konsep Siswa Kelas XI SMA Negeri 2 Meulaboh. *Jurnal Genta Mulia*, 11(2), 77–84. <https://www.ejournal.stkipbbm.ac.id/index.php/gm/article/view/451/399>
- Wulandari, S., Wijaya, O. D., Laksono, I. T., & ... (2020). Penggunaan Media Pembelajaran Berbasis Teknologi Pada Guru Seni Budaya MTs Se-Kota Malang. ... (*Jurnal Pendidikan Dan ...*, 5(1), 82–95. <http://jurnal.untirta.ac.id/index.php/JPKS/article/view/7640>