

The development of cultural integrated Indonesian speaking e-module for higher education students in Indonesia

Munirah*, Syahrudin, and Akram Budiman Yusuf

Postgraduate Education in Indonesian Language and Literature, Universitas Muhammadiyah Makassar
90222, Indonesia

ABSTRACT

The importance of language proficiency, particularly speaking skill competence, has been acknowledged in the field of education for many years. However, despite numerous efforts to improve it, the achievement of student speaking skill competence is still far from the expected target. One of the main reasons behind this problem is the availability, accessibility, and validity of the teaching materials used. This study aimed to address the issue of unsatisfactory Indonesian students' speaking abilities, which are partly attributed to the lack of available teaching media, particularly those that integrate cultural values. Therefore, this research used research and development study of a speaking skill e-module that is integrated with cultural values that was developed in an Android-based device. The module was designed for university students in South Sulawesi, Indonesia. The results of the study indicated that the use of the speaking e-module helped improve students' speaking abilities, as well as their understanding of cultural values. Therefore, this research is also expected to reach the potential to be beneficial to a wider audience in Indonesia, beyond the scope of South Sulawesi universities.

Keywords: Cultural values; speaking abilities; speaking e-module

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INTRODUCTION

The significance of language proficiency, particularly speaking skill competence, has been acknowledged in the field of education for many years. However, despite numerous efforts to improve it, the achievement of student speaking skill competence is still far from the expected target (Amoah & Yeboah, 2021; Ravindran et al., 2022; Zhao & Yang, 2023). One of the main reasons behind this problem is the availability, accessibility, and validity of the teaching materials used. As mentioned by Rahmatollahi and Khalili (2015) The students voiced their worries about the substandard language media materials that were accessible to them. They also regarded the programs on TV and Radio as insufficient and inappropriate for the

purpose of learning the language (Rahmatollahi & Khalili, 2015)

In the Indonesian context, the Indonesian language serves as the national language and is anticipated to be employed by citizens throughout the entirety of Indonesia. The role of the Indonesian language is significant as it unifies a nation with over 700 languages and dialects, provides a means of communication for Indonesians to participate in the global community, and serves as a symbol of the country's identity and culture, reflecting its history and values (Sneddon, 2003). Furthermore, Simpson (2007) contends that the Indonesian language, functioning as a symbol of national unity and facilitating a shared sense of identity among the country's diverse ethnic and linguistic groups, has

* Corresponding Author
Email: munirah@unismuh.ac.id

also served as a crucial instrument for the government in promoting a cohesive and integrated national identity. However, Indonesia's diversity of local languages and cultures often pose a challenge for its people to communicate in the national language, Indonesian or Bahasa Indonesia (Pisani, 2014; Taylor, 2004). Collins (1983) further explains that the complex historical and social factors behind the use of local languages in Indonesia, including colonialism, nationalism, and regionalism, contribute to the prevalence of their use in daily life. In addition, despite efforts to teach Indonesian language in remote regions of Java and other islands, Adriana (2013) highlights that many students still face difficulties in communication, with teachers recognizing their students' linguistic deficiencies and acknowledging the potential benefits of using local languages, but often unable to do so due to circumstances beyond their control. Hence, Indonesian students residing in rural areas face the challenge of improving their proficiency in the national language, Indonesian, due to limited access to learning resources, including instructional media and materials.

Abrar et al. (2018) advocate for the incorporation of media and technology to facilitate Indonesian students in language learning and foster their speaking skills. Furthermore, the dearth of suitable media is compounded by the absence of culturally relevant content in the available modules. The present generation's inclination, the university students for example, towards neglecting their local cultural values, primarily due to the influence of modernization, has had a discernible impact on their learning outcomes, particularly in the realm of speaking skills, especially in South Sulawesi. Alptekin (2002) has previously highlighted the significance of learning a language as a form of enculturation, where one imbibes new cultural frames of reference and a novel world view, mirroring that of the target language culture and its speakers. In addition, the integration of language and culture is fundamental to language learning, as both subjects are inherently intertwined. Kramsch (2016) underscores the significance of culture in language learning, emphasizing that cultural immersion is a constant presence in language classrooms in which that language learners strive for communicative competence while simultaneously navigating the complexities of their surroundings, thereby honing their ability to comprehend and interpret the world around them. Consequently, the inclusion of cultural values pertinent to the target audience in the learning media is deemed to be of paramount importance. To address these pressing issues, the current study was undertaken with the aim of bolstering the students' speaking proficiency whilst simultaneously acquainting them with their cultural roots and traditions.

Over the past few years, the Indonesian curriculum has undergone significant development, particularly in higher education institutions such as universities. The introduction of the "Merdeka" curriculum aims to equip students with the necessary skills to confront the challenges posed by the ever-evolving worlds of science and technology, as well as the demands of the business and industrial sectors and to seek a deep appreciation for cultural values and morals, reflecting the dynamic nature of society (Indonesian Ministry of Education and Culture, 2020). According to Wringe (2006), moral education rooted in social norms and values holds the potential to foster the desired character education. Baker (2012) adds that the ideal approach to satisfy learners' requirements for flexibility and mindset in communicating with the international society is to incorporate educational materials that incorporate cross-cultural appreciation. Therefore, to comprehend specific circumstances that vary from those in the target language, it is critical to incorporate local culture when studying language, underscoring the significance of doing so.

As a result, I posit that increasing university students' exposure to social values can serve as a means to attain the objective of the Merdeka Curriculum. In accordance with one of the objectives of the Merdeka Curriculum for university students, which aims to equip them with the skills necessary to confront advancements in science and technology, this research will develop an electronic speaking skills module in the form of an Android-based application. Since the electronic module was meant for utilization by university students in South Sulawesi, an android-based system was chosen to be developed due to the findings of Khojasteh et al. (2022)'s study, which suggested that e-learning could be viewed as a more adaptable and convenient option for adult learners. The selection of an electronic module can also be attributed to the growing relevance of digital resources in the classroom, which have been demonstrated to greatly enhance students' learning experiences. As posited by Travis and DeSpain (2018), the utilization of digital resources can enrich language learning experiences. Within the English-speaking academic landscape, a notable body of research has explored the potential of digital pedagogy in higher education (Battershill & Ross, 2022). Given the existence of numerous prior studies on the development of Indonesian speaking skills materials for university students in Indonesia, the present study aims to differentiate itself by concentrating on the creation of a speaking skill module that emphasizes Indonesian cultural values and is tailored to higher education students, thereby aligning with the objectives of the Merdeka curriculum.

METHOD

In this study, a research and development approach (R&D) was utilized to systematically design and enhance the speaking skills e-module through the application of formative and summative evaluations (Gall et al. (2007). Research and Development (R&D) methodology is highly appropriate for conducting research related to the development of module material, as it involves a cyclical process of identifying needs, designing solutions, and evaluating outcomes. According to Cohen et al. (2017) this approach enables researchers to systematically address complex educational problems and refine instructional materials based on evidence-based feedback. Similarly, Gall et al. (2007) stated the value of R&D methodology in producing effective educational interventions that are grounded in empirical evidence and responsive to contextual factors. Therefore, R&D methodology is an ideal choice for education research that seeks to improve teaching and learning through the development of module materials. Incorporating the seminal work of Thiagarajan (1974), the present investigation employs the 4D framework as a guiding principle. Thiagarajan's (1974) 4D model comprising define, design, develop, and deploy phases. As Thiagarajan argued, this approach enables researchers to thoroughly analyse the complexities of the learning process, from defining the learning objectives to designing instructional materials and assessing the outcomes (Thiagarajan, 1974).

Participants

Data for this research was collected from three universities in South Sulawesi (University A, B, and C). Nevertheless, the majority of document analysis was conducted at University A, where the module was also introduced to students and lecturers in the Indonesian Language study program. In total, three lecturers participated in this study. One lecturer took part in the initial limited trial, while two others contributed to the full-scale trial, where they were asked to implement the prototype of the Indonesian speaking skills e-module into the speaking skills course for university students. In terms of the student participants, a total of 70 individuals were selected from three different universities (A, B, and C) using purposive sampling techniques. Specifically, students who had completed the Indonesian Speaking Skills course in the previous semester from Indonesian Language study programs were deliberately chosen as the sample population. Of the 70 students, 19 participated in the first limited trial of the module, and an additional 51 students from the same department took part in the full-scale trial. Pre- and post-tests were administered to all 70 participants to evaluate the efficacy of the e-module.

Data collection and analysis

To seek Indonesian speaking skill material that can potentially be integrated with local culture, a document analysis was conducted encompassing curriculum, lesson plans, graduate learning outcomes, and course learning outcomes from three universities in South Sulawesi. Once the module was created, the content underwent validity test by media and material experts before being introduced to scholars at University A. A pre-test and post-test were also administered to assess the significant influence of the module, and a Likert scale questionnaire was distributed to both students and lecturers for quantitative analysis.

Procedures

Define

In this stage, the problem or opportunity is defined clearly. This involves identifying the problem or opportunity, determining the goals and objectives of the project, and establishing criteria for success (Thiagarajan, 1974). In the first year of this research, I endeavored to conduct a comprehensive needs analysis of the prospective users of the module, specifically the university students residing in South Sulawesi. In this regard, I did some sourcing towards valuable insights from key education stakeholders, local cultural experts, as well as professors and students. Furthermore, the product of this phase serves as the foundational blueprint for the creation and advancement of the e-module for Speaking Skills.

Design

Once the problem or opportunity has been defined, the next stage is to design a solution. This involves developing a plan for how the project will be carried out, including identifying resources and personnel needed, creating a timeline, and determining the budget (Thiagarajan, 1974). During this research period, I have undertaken three distinct design endeavors. Firstly, I have embarked on the development of course material that is anchored on the Graduate Learning Outcomes (CPL-Prodi) stipulated by the study program. Secondly, I have ensured that the contents embedded within the module are aptly aligned with the Course Learning Outcomes (CPMK). Lastly, I have delved into the design of the media utilized in disseminating the materials.

Develop

In this stage, the solution is developed, typically through a series of iterative steps. This may involve developing prototypes, testing and refining the solution, and making any necessary adjustments (Thiagarajan, 1974). During the second year, the product development stage persisted, involving sequential stages of creating the initial product, validating it, and conducting trials. In order to refine

the product, I sought expert opinions from content experts, media experts, lecturers, and students. As a result of this meticulous process, the output obtained was an E-module specifically tailored to improve the speaking proficiency of university students in South Sulawesi.

Deploy

The final stage involves deploying the solution or product to the intended audience. This may involve training users, establishing support systems, and monitoring the success of the project (Thiagarajan, 1974). The final stage involves the dissemination of the end-product, which entails two key steps: product socialization and publication.

FINDINGS

The module underwent four different stages, following Thiagarajan's (1974) framework. The first two stages (define and design) were completed in the first year of the research, while the remaining two (develop and deploy) were undertaken in the second year of the study.

Stage 1: Define

Curriculum Analysis and Media Choosing

I collected data on available lesson plans from the Indonesian Education study programs of three universities in South Sulawesi. While the main data was collected from University A, data from Universities B and C were also collected for comparison. In addition to examining these documents, I reviewed the speaking activities and topics discussed in Indonesian Language speaking skill courses at these three universities. Through this process, I discovered a lack of materials that incorporated local cultural issues and topics. Furthermore, the materials used were primarily paper-based, making them less accessible than Android-based systems. Therefore, after consulting with technology experts, the decision was made to develop the module using the Dart programming language. Based on the analysis done in this stage, two primary design processes were undertaken: the first involved creating a flowchart to outline the sequence and relationships of the program's processes that would be developed, while the second stage involved creating a storyboard that provided an overview of the E-Module as a whole.

Lesson plan for this module then was created based on the previous analysis on current lesson plans available in the participated universities. It was then validated before deployed

Stage 2: Design

Storyboard Design (Android Media)

Upon completion of the first stage, the module's storyboard design was produced. The storyboard provides an overview of the overall learning media

that will be integrated into the application, and serves as a guide to facilitate the media creation process. The storyboard design is presented as follows:

The Splash Screen

This is the initial display that appears when the application is opened for the first time, as shown in the following image.

Figure 1
KBBL E-Module Application



Figure 2
Splash Screen Application



Login and Home view

Following the splash screen, the login screen appears prior to entering the main page (Home). The main page displays three main menu selection buttons: the Application menu, the Teacher menu, and the General Module menu. The Module menu contains six menu selection buttons: Participant, Face-to-Face, Teleconference, Discussion, Assignment/LKM, and Quiz. The menu can be observed in the following image.

Figure 3
Login View

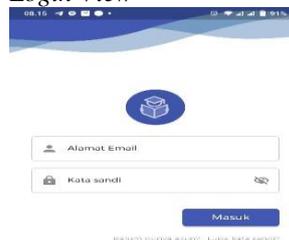


Figure 4
Home view



About Apps, The Teacher, and General Module Menu

The "About Apps" menu features an explanation of the KBBL E-Modul application, including details such as the name, address, and telephone number of the owner, as well as the purpose for which the application was created and contributor profiles. The "Teachers (Lecturers)" menu displays profiles of various lecturers who teach Speaking Skills courses. Finally, the "Module Menu" is a display that encompasses the modules included in the KBBL E-Modul application.

Figure 5
About Apps



Figure 6
The Teacher View



Figure 7



General Module Display of material, assignments and quizzes menu

The material menu display presents a comprehensive range of materials that will be analyzed, beginning from Chapter I through to Chapter XI of Speaking Skills, while corresponding assignments for each material can be found in the assignment menu. Additionally, the quiz display contains quizzes pertaining to each material.

Figure 8
Materials



Figure 9
Assignment



Figure 10
Quiz



Stage 3: Develop

This E-Module has been researched and developed based on a number of identified issues that arise during the teaching of speaking skills. These issues include the nature of instructional materials, teaching methodologies, the types of media utilized, students' varying linguistic backgrounds, inaccurate pronunciation, and regional dialects that impact the way Indonesian language is spoken by students at university level in South Sulawesi. This E-Module is believed to offer several advantages, including comprehensive content presented in simple and communicative language to aid student comprehension. Additionally, the E-Module is attractively packaged and can be accessed anytime, as it is in the form of an Android-based media that does not require an internet connection to access. Hence, to verify this assertion, a validity test was carried out by distributing the prototype to experts in materials and media for evaluation followed by a product trial to both lecturers and students. The data collected during the trial comprised responses from both students and lecturers in the form of questionnaires and pre-test and post-test. These were distributed after the product had been utilized by both parties during an Indonesian speaking skills

course at University A. Furthermore, the trials were conducted twice. The first iteration was a limited trial (pilot test) involving 19 students from University A, while the second trial was a full-scale test that involved 51 students from the same institution.

Validity Test

The tables presented illustrate that the mean score for the aspect of material suitability with the competency is 4.0, falling within the highly valid range ($3.5 \leq M \leq 4$). This indicates that the teaching material is suitable for use, specifically in terms of its compatibility with the competency. Similarly, the mean score for the aspect of material suitability with the sub-CP is 4.0, falling within the very valid range ($3.5 \leq M < 4$), signifying that the teaching material is appropriate for use in terms of its compatibility with the sub-CP. Additionally, the mean score for the aspect of systematic presentation of the material is 4.0, falling within the very valid range ($3.5 \leq M < 4$), which implies that the teaching material is highly suitable for use in terms of its systematic presentation. Likewise, the mean score for the aspect of clarity of the presented material is 4.0, falling within the very valid range ($3.5 \leq M < 4$), suggesting that the teaching material is suitable for use in terms of its clarity. Experts suggest that the teaching material and learning design are generally appropriate and can be used. However, they note that some factors, such as the accuracy and comprehensiveness of the material and emphasis on important points, need to be considered. Nonetheless, these comments do not require the entire revision of the teaching material; minor revisions are sufficient to categorize it as suitable for use. Furthermore, the mean score for the aspect of picture suitability with the material is 3.00, falling within the valid range ($2.5 \leq M < 3.5$), indicating that the aspect of picture suitability with the material is suitable for use. Finally, the mean score for the aspect of presentation of the list of references is 4.0, falling within the very valid range ($3.5 \leq M < 4$). Nevertheless, according to experts, it is necessary to pay attention to the suitability of picture selection with the material to ensure its easy comprehension during use. Clear descriptions of each picture are required to facilitate understanding during use.

Table 1
Validity Test Mean Score

Indicator	Mean	Validity Category
Suitability of material with competencies	4,00	Very Valid
Suitability of material with sub-CP	4,00	Very Valid
Systematics of material presentation	4,00	Very Valid
Clarity of presented material	4,00	Very Valid
Suitability of pictures with material	3,00	Valid
Presentation of bibliography and references	4,00	Very Valid
Average of Total Score	4.00	Very Valid

Table 2
Mean Score for the Aspect of Picture Suitability

Validity Category:	
$3.5 \leq M \leq 4$	Very Valid
$2.5 \leq M < 3.5$	Valid
$1.5 \leq M < 2.5$	Enough
$M < 1.5$	not Valid

The presented table shows that the teaching material is highly suitable for use, with an average score of 4.0 in terms of its compatibility with the competency, falling under the category of very valid ($3.5 \leq M \leq 4$). Similarly, the material is suitable for use in terms of its compatibility with the sub-CP, with an average score of 4.0 and a category of very valid ($3.5 \leq M < 4$). Moreover, the systematic presentation of the material and its clarity both

receive an average score of 4.0, signifying that they are highly suitable for use. While experts suggest that the teaching material and learning design are generally appropriate and can be used, they recommend considering factors such as accuracy and comprehensiveness of the material and emphasis on important points. However, minor revisions are needed, and the material can still be categorized as suitable for use. The aspect of picture suitability with the material receives an average score of 3.00, suggesting it is appropriate for use, and experts suggest clear descriptions of each picture to make it easy to comprehend. Finally, the presentation of the list of references is highly suitable for use, with an average score of 4.0 falling under the category of very valid ($3.5 \leq M < 4$).

Table 3
Lesson plan Validity Test Result for the E-Module

Assessment Aspect	Mean	Validity Category
Formulation of Objectives	4.0	Very Valid
Content	3.6	Very Valid
Language	3,7	Very Valid
Clarity of Learning Steps	3,7	Very Valid
Assessment/Evaluation	3.7	Very Valid
Overall Average score	3.7	Very Valid

Table 4
Media (Android application) Validity Test Result for the E-Module

Indicator	Mean	Validity Category
Clarity of application title	4.00	Very Valid
Clarity of user instructions	4.00	Very Valid
Easily understood icons and buttons	4.00	Very Valid
Appropriate selection of colors, font types, font sizes, and font colors	3.00	Valid
Appropriate use of images in the material	3.00	Valid
Clarity of material description	4.00	Very Valid
Ease and simplicity of use	4.00	Very Valid
User friendly	4.00	Very Valid
Media can be used anytime and anywhere	4.00	Very Valid
Media can help students learn independently	4.00	Very Valid
Media can improve students' understanding of the material	4.00	Very Valid
Average of Total Score	4.00	Very Valid

The overall assessment by media experts yielded an average total score of 4.00. Based on the media validity category table in Table 4.4, the media used falls into the "very valid" category ($3.5 \leq M \leq 4$), indicating that it is highly suitable for use. Although there are some areas that require revision, they do not diminish the media's validity.

Questionnaires

Table 5 indicates that during the limited field trial, four aspects received less than optimal responses from the students. These aspects were teaching method variations, teaching materials equipped with examples and exercises, easily understood teaching materials, and satisfaction with the teaching materials used by the lecturers. Although the aspect of teaching method variations was well responded to

by 5 students, it was still not optimal as they believed that additional methods were necessary to teach speaking skills. Similarly, although the aspect of teaching materials equipped with examples and exercises was well responded to by 4 students, it was still not optimal. However, the aspect of easily understood teaching materials was well responded to by 2 students, and satisfaction with the teaching materials used by the lecturers was well responded to by 2 students. Even though the responses from the students were not optimal for these four aspects, the teaching materials can still be used with some improvements, such as adding more exercises and teaching methods that are suitable for the materials being taught. Six aspects were responded to optimally by the students, indicating that they were of very good quality.

Table 5
Students Responses from the Limited Trials

No	Evaluation	Student Responses				
		Very Poor	Poor	Sufficient	Good	Very Good
1	The lecturer clearly communicates the course objectives					19
2	The teaching materials are complete and in line with the syllabus					19
3	The assignments cover the course concepts and materials					19
4	The lecturer is skilled at guiding the course proceedings					19
5	There is variation in the teaching methods				5	14
6	The use of Android media in teaching is effective					19
7	The lecturer encourages curiosity					19
8	The teaching materials are supplemented with examples and exercises				4	15
9	The teaching materials are easy to understand				2	17
10	Your satisfaction with the teaching materials used by the lecturer				2	17

In the expanded field trial, Table 6 indicates that there were two aspects of evaluation that did not achieve optimal results. These aspects pertained to teaching method variations and the use of teaching materials with examples and exercises. Although two students gave good answers, the scores were not optimal because they felt that teaching method variations were inadequate and more examples and exercises needed to be added. However, 51 students responded very positively to the aspects of

conveying lecture objectives, completeness of teaching materials according to the syllabus, mastery of concepts and materials, skilful course guidance, use of Android media in teaching, encouragement of curiosity, easily understood teaching materials, and satisfaction with the teaching materials.

As for the conclusion from the results of the two stages of testing, they are shown in the following table.

Table 6
Students Responses from the Full-scale Trials

No	Evaluation	Student Responses				
		Very Poor	Poor	Sufficient	Good	Very Good
1	The lecturer clearly communicates the course objectives					51
2	The teaching materials are complete and in line with the syllabus					51
3	The assignments cover the course concepts and materials					51
4	The lecturer is skilled at guiding the course proceedings					51
5	There is variation in the teaching methods				5	46
6	The use of Android media in teaching is effective					51
7	The lecturer encourages curiosity					51
8	The teaching materials are supplemented with examples and exercises				4	47
9	The teaching materials are easy to understand				2	49
10	Your satisfaction with the teaching materials used by the lecturer				2	49

Table 7
Conclusion of Students Responses from the Test Groups

Test Group	Subject	Mean	Description
Limited field trial	19	3.6	Good
Full-scale field trial	51	4.8	Very Good

Table 8
Conclusion of Instructors Responses from the Test Groups

Test Group	Subject	Mean	Description
Limited field trial	1	4.9	Very Good
Full-scale field trial	2	5.0	Very Good

The Android-based E-Module for Indonesian Language speaking skills course has been deemed fit for usage or implementation on a larger scale based on responses obtained from both students and instructors. This is due to its validation in terms of content or material, systematic presentation, graphic design, language, and media or technology used. Moreover, the limited and expanded field trials' results have shown that the E-Module is highly suitable for use, as the quality of its content, objectives, techniques, and learning have been effectively communicated to the targeted learners or users.

A pre-test and post-test

The efficacy of the E-Module was evaluated by examining the disparity between the initial and concluding proficiencies of the students, as determined by the results of a formative multiple-choice test that consisted of 30 questions. The criteria for learning completion (KKB) for the course were established at 75, and the E-Module was regarded as effective if there was a classical enhancement of 75% in the students' learning completion.

A total of 70 students from three different universities, segregated into three classes, were selected as subjects for the implementation of the E-Module. The course content concentrated on speaking skills that had been previously taught. Thus, the effectiveness of the E-Module was measured by initially assessing the students' abilities

before its implementation and then evaluating their final competencies after using the E-Module.

The outcomes of the pre-test of the Speaking Skills Android-based E-Module for students in the limited field trial are presented in the subsequent table:

Table 9
Result from pre-test in the limited trial

Statistic Value	Limited trial group (university A)
Evaluation Subjects	19
Ideal Maximum Score	100
Average Score	55.00
Highest Score	78.5
Lowest Score	33.5
Score Range	45
Failed	68.42% (13 students)
Passed	31.57% (6 students)

Table 9 displays the outcomes of the pre-test conducted in the limited field trial. The table indicates that only six students were able to attain a passing score, while 13 students did not pass. A passing score is defined as a student correctly answering at least 15 out of a total of 20 questions. Therefore, if a student correctly answers 15 questions, their final score would be 70, which meets the Minimum Mastery Criteria (Kriteria Ketuntasan Belajar or KKB). The final score is calculated by dividing the total score obtained by the maximum score (20), and then multiplying the result by 100.

Table 10
Result from pre-test in the Full-scale trial

Statistic Value	Full-scale trial group (university B)	Full-scale trial group (university C)
Evaluation Subjects	27	24
Ideal Maximum Score	100	100
Average Score	60,50	52,86
Highest Score	75	71,5
Lowest Score	41,5	26,5
Score Range	33,5	45
Failed	66.66% (18 students)	54,16% (13 students)
Passed	33.33% (9 students)	45,83% (11 students)

Table 10 displays the outcomes of the pre-test carried out during the extensive field trial. The table reveals that merely 20 students obtained a passing score, whereas 31 students did not pass. A passing score is described as a student correctly answering a minimum of 15 out of a maximum of 20 questions. Drawing upon these results, I inferred that the students' initial speaking skill proficiency was relatively weak. In general, the students grasped the essence of speaking skills but were only aware of speaking generally and did not comprehend the art of skilled speaking and its functions.

Based on Table 11 above, the pre-test results indicate that 13 students (68.42%) did not pass, while 6 students (31.57%) passed. In contrast, for

the post-test, only 2 students (10.52%) did not pass, while 17 students (89.47%) passed, indicating a significant improvement in performance.

Table 11
Result From Post-Test in The Limited Trial

Statistic Value	Limited trial group (university A)
Evaluation Subjects	19
Ideal Maximum Score	100
Average Score	77,62
Highest Score	88
Lowest Score	51,5
Score Range	36,5
Failed	10,52% (2 students)
Passed	89,47% (17 students)

Table 12
Result From Post-Test in The Full-Scale Trial

Statistic Value	Full-scale trial group (university B)	Full-scale trial group (university C)
Evaluation Subjects	27	24
Ideal Maximum Score	100	100
Average Score	75,44	74,23
Highest Score	91,1	91
Lowest Score	46,5	43
Score Range	44,6	48
Failed	3,70% (1 student)	8,33% (2 students)
Passed	96,29% (26 students)	91,66% (22 students)

According to Table 12 above, the pre-test results show that there were 31 students (60.78%) categorized as not passing and 20 students (39.21%) categorized as passing. Meanwhile, in the post-test results, there were 3 students (5.88%) categorized as not passing and 48 students (94.11%) categorized as passing. This indicates a significant improvement in the students' performance.

Stage 4: Deploy

Upon conducting validity tests and trials, the final version of the e-module for Indonesian Language speaking skills was officially launched for use in the speaking skill course within the Indonesian Language study program at University A. Here is the result of students' response towards the activity of this module deploy.

Table 13
Students Activities

No.	Category	Active	Less Active	Non Active
1	Observing the lecturer's explanation and taking necessary notes	89.67%	9.46%	0.88%
2	Reading the E-Module	89.76%	9.32%	0.90%
3	Asking / expressing questions or opinions to the lecturer or friends	90.30%	8.80%	0.83%
4	Working on tasks on the E-Module material in groups	90.58%	8.76%	0.66%
5	Presenting the results of group work	89.87%	9.53%	0.61%
6	Answering / responding to questions from the lecturer / friends	90.65%	8.42%	0.92%
7	Student activities that are not relevant to teaching and learning activities	0.71%	9.67%	89.63%

Based on the data presented in the table 13, the students' activities during the learning process are generally active and engaged. For activities such as observing the lecturer's explanation, reading the E-Module, asking or expressing questions, working on tasks in groups, presenting the results of group work, and answering or responding to questions, the proportion of active students ranges from 89.67% to 90.65%. This indicates a high level of student engagement and active participation in these learning activities. On the other hand, the proportion of active student involvement in activities not relevant to teaching and learning is significantly lower at 0.71%, while non-active participation in such activities is markedly high at 89.63%. This suggests that the students are mainly focused on educational activities, and minimal time is dedicated to irrelevant actions during the learning process.

From the table presented, students generally have a positive response towards different aspects of

their learning environment. Students expressed high levels of happiness, particularly with the teaching methods of the lecturer (61.33% very happy), the E-Module material (43.88% very happy), and the learning atmosphere in class (44.45% very happy). The novelty of the learning components was also well received, with many students indicating the E-Module and its material as new or very new. In terms of interest and understanding, a significant number of students showed a high level of interest in following learning activities like those they just did (50.15% very interested), and they expressed clear or very clear understanding of the language used in the E-Module and its material. Finally, the appearance of the E-Module and its materials was also of interest to a large percentage of students. Thus, overall, students expressed a high degree of satisfaction and engagement with their learning environment and materials.

Table 14
Students Activity

No. Aspects Responded	Very Happy	Happy	Quite Happy	Unhappy
1.a E-Module	36.99%	51.11%	11.9%	0%
1.b E-Module Material	43.88%	41.23%	14.92%	0%

No.	Aspects Responded	Very Happy	Happy	Quite Happy	Unhappy
1.c	Learning atmosphere in class	44.45%	33.4%	18.3%	3.85%
1.d	Teaching methods of the lecturer	61.33%	18.91%	19.76%	0%
1.e	Appearance of the lecturer	45.86%	46.02%	8.12%	0%
No.	Aspects Responded	Very New	New	Quite New	Not New
2.a	E-Module	26.3%	46.18%	13.71%	13.81%
2.b	E-Module Material	29.56%	52.61%	12.59%	5.24%
2.c	Learning atmosphere in class	22.1%	29.32%	20.88%	27.70%
2.d	Teaching methods of the lecturer	24.04%	39.02%	19.77%	17.17%
2.e	Appearance of the lecturer	17.17%	27.23%	24.69%	30.92%
No.	Aspects Responded	Very Interested	Interested	Quite Interested	Not Interested
3.	To follow learning activities, like you just did?	50.15%	39.51%	10.34%	0%
No.	Aspects Responded	Very Clear	Clear	Quite Clear	Not Clear
4.a	E-Module	41.09%	42.83%	16.08%	0%
4.b	E-Module Material	41.56%	32.49%	23.73%	2.22%
No.	Aspects Responded	Very Understanding	Understanding	Quite Understanding	Not Understanding
5.a	E-Module	21.98%	60.83%	17.19%	0%
5.b	E-Module Material	25.32%	48.11%	24.35%	2.22%
No.	Aspects Responded	Very Interested	Interested	Quite Interested	Not Interested
6.a	E-Module Appearance (writing, illustrations/pictures, and picture placement)	43.14%	45.06%	9.59%	2.22%
6.b	E-Module Material Appearance	43.92%	42.83%	9.92%	3.33%

DISCUSSION

This study offers essential insights into the potential of a speaking skill e-module that integrates cultural values, with the aim of enhancing Indonesian university students' speaking abilities. These findings align with the existing body of literature that emphasizes the significance of integrating technology into the learning process to improve students' language proficiency (Godwin-Jones, 2019). However, the unique aspect of this research is the integration of cultural values into the e-module, underscoring the role of cultural knowledge in enhancing language learning (Kramsch, 2016). Furthermore, the study's design aligns with Thiagarajan's (1974) framework, enhancing its reliability and providing a robust structure for future educational intervention design.

The results demonstrate that the e-module is effective in improving students' speaking abilities, while also enhancing their understanding of cultural values. This finding aligns with evidence from Puentedura's (2006) SAMR Model, which emphasizes that technology can redefine learning tasks, leading to the creation of new tasks, previously inconceivable. As such, the introduction of this e-module, which combines linguistic and cultural education, can be seen as a valuable step forward in language education. However, experts note that some factors, such as the accuracy and

comprehensiveness of the material and emphasis on important points, need to be considered. This suggestion is congruent with the principles of Universal Design for Learning (UDL) that emphasize the need to present information and content in different ways to cater to diverse learning needs (Rose et al., 2006).

Concerning the module's validity, the data indicate that the material, systematic presentation, and clarity are all rated highly valid. These results are consistent with Mayer's (2019) principles of multimedia learning, suggesting that learners understand better when words and pictures are presented concurrently. It is crucial, however, to ensure that the pictures used align with the material being presented, as clear descriptions of each picture can facilitate understanding. In terms of the e-module's overall validity, the results revealed that it fell into the "very valid" category, highlighting the potential of the developed module as a beneficial instructional tool.

The results of the pre-tests and post-tests illustrate a considerable improvement in students' speaking skills after using the e-module. This finding resonates with Gass and Selinker's (2008) interactionist theory, which suggests that interaction is pivotal in second language acquisition. Since the e-module encourages learners' interaction through its various tasks and exercises, it potentially

contributes to the learners' improved speaking abilities. The use of formative multiple-choice tests to measure the module's efficacy also aligns with the recommendations of Popham (2008), highlighting the importance of using formative assessment to monitor student learning and provide ongoing feedback.

Finally, the students' response towards the e-module in terms of engagement and satisfaction is noteworthy. These findings affirm that the learning environment plays a significant role in shaping learners' attitudes and motivations (Jang et al., 2010). The positive response could also be attributed to the novelty of the learning components and the cultural relevance of the content, which can boost learners' motivation and engagement (Chun et al., 2016). Overall, these findings underscore the potential of the developed speaking skill e-module in enhancing Indonesian students' speaking abilities while also fostering their understanding of cultural values.

CONCLUSION

In conclusion, the current study significantly contributes to the field of language pedagogy by elucidating the promising potential of an e-module incorporating cultural values in enhancing the spoken language proficiency of Indonesian university students. This research underscores the influential role of technology integration within the teaching-learning environment and underlines the importance of cultural understanding in augmenting language acquisition. The findings are consistent with various educational theories and principles, providing a robust testament to the e-module's effectiveness. In terms of engagement and satisfaction, students' positive response points towards a novel and culturally relevant learning environment that enhances learners' motivation, further validating the e-module's utility.

Nevertheless, despite the promising outcomes, there remain areas that warrant further exploration. Future research could consider a larger and more diverse sample size, which would strengthen the generalizability of the findings. There may also be value in examining the long-term effects of the e-module on students' speaking skills and cultural understanding to ascertain the sustainability of the observed improvements. Additionally, while the current e-module integrates cultural values into language learning, it might be beneficial to explore other dimensions of integration, such as literature or history, to offer a broader, more interdisciplinary approach to language learning.

Lastly, it would be constructive to conduct a detailed examination of the potential limitations in the comprehensiveness and accuracy of the module's content. This could result in improvements to the e-module and further contribute to its utility and

effectiveness in enhancing language learning. The continued development and refinement of such e-modules will undeniably play a critical role in the evolution of language pedagogy, offering students enriched learning experiences that cater to diverse learning needs and preferences.

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