

Development of Gender-Based Digital Modules As A Supplement to Learning Indonesian Language Level in Denpasar

I Gusti Ayu Putu Tuti Indrawati¹, Ni Wayan Eminda Sari², I Komang Widana Putra³, Ni Luh Eka Purnami Pinatih⁴, Kade Purwaregina Yunita⁵

¹ Universitas Mahasaraswati Denpasar, Indonesia; indrawati@unmas.ac.id

² Universitas Mahasaraswati Denpasar, Indonesia; emindasari@unmas.ac.id

³ Universitas Mahasaraswati Denpasar, Indonesia; mangwidana@unmas.ac.id

⁴ Universitas Mahasaraswati Denpasar, Indonesia; yunitapurwaregina@gmail.com

⁵ Universitas Mahasaraswati Denpasar, Indonesia; ekapurnami001@gmail.com

ARTICLE INFO

Keywords:

digital module;
Indonesian language learning;
gender

Article history:

Received 2024-02-19

Revised 2024-07-02

Accepted 2024-07-21

ABSTRACT

Integrating gender-based modules in language learning is important for creating inclusive and equitable learning environments, valuing the diversity of gender experiences, reducing stereotypes and biases, increasing student engagement, and supporting gender equality and sensitivity in society. So this research aims to develop a gender-based digital module as a supplement to Indonesian language learning and describe the validity of the digital module as a supplement to Indonesian language learning. This research is a type of research and development (Research and Development) with the ADDIE model approach, namely Analyze, Design, Development, Implementation. Six expert validators, two teachers, twenty-five and seventy-five pupils from class X are the subjects of this study, which aims to evaluate the usefulness and efficacy of the designed module. In this study, questionnaires, student essays, interviews, and observation were all used as data gathering methods. Both qualitative and quantitative data analysis methodologies were used in this investigation. According to the study findings, the digital module's validity scored 4.08 in the very good category. Teachers' and students' practicality results also received a very good rating of 4.13, suggesting that gender-based digital modules can be used to enhance high school Indonesian language instruction. With a score of 71% on the N-Gain effectiveness test, it can be concluded that the gender-based digital module is beneficial for teaching Indonesian language proficiency. As a result, it is determined that the gender-based digital module is legitimate and useful for use as an addition to high school Indonesian language instruction.

This is an open access article under the [CC BY-NC-SA](https://creativecommons.org/licenses/by-nc-sa/4.0/) license.



Corresponding Author:

I Gusti Ayu Putu Tuti Indrawati

Universitas Mahasaraswati Denpasar; indrawati@unmas.ac.id

1. INTRODUCTION

Industrial Revolution 4.0 has brought a series of changes accompanied by increased competitiveness in the world of education. Education can now be implemented in a way that is more current thanks to

technological advancements (Andrzej Szymkowiak et al., 2021; Burbules et al., 2020; Gumantan et al., 2021). Digital technology is the main thing that is integrated in learning in this era of the industrial (Kalolo, 2019; Rajas-Fernández et al., 2021; Sharma, 2019). Teachers have a part to play in developing digital and autonomous learning innovations that will facilitate students' use of developed technology to learn in an engaging and enjoyable learning environment (Fletcher et al., 2020; Haleem et al., 2022; Mukramah et al., 2023). Learning Indonesian Language and Literature includes learning by applying four language skills, namely listening, speaking, reading and writing (Mukramah et al., 2023; Praheto et al., 2020; Suyitno et al., 2019). In practice, the application of these four language skills will be easy for students to understand and implement if they are accompanied by applying digital literacy in the ongoing learning process (Biletska et al., 2021; Liza & Andriyanti, 2020; Maphosa & Bhebhe, 2019).

In reality, Problems in learning Indonesian at school are often related to gender inequality in learning approaches. Sometimes, the material presented tends to be gender stereotypical, with examples that emphasize the traditional roles of men and women in society. This can result in unequal participation and learning motivation between male and female students. Apart from that, learning Indonesian is considered trivial or less interesting for some students because of their lack of involvement in the learning process. Learning resources that still rely on printed books and Student Worksheets (LKS) tend to be monotonous and do not accommodate diverse learning styles, especially for students who are more responsive to visual or interactive learning. This can limit students' learning potential and hinder the optimal development of their Indonesian language skills. Therefore, it is necessary to develop gender-based digital modules as alternative learning resources that are more inclusive, interactive and relevant for all students, regardless of their gender.

Modules are learning packages that can be used independently, so that students can manage their study time and understand the learning material independently (Madrazo & Dio, 2020; Martiningsih et al., 2019; Suartama et al., 2022). Modules that can be said to be appropriate and can be used for learning activities are modules that are appropriate from the aspects of the suitability of content, language, presentation, and graphics (Lau et al., 2019; Sanusi et al., 2020; Syazali et al., 2019).

In addition to materials and graphics, digital modules can also include suitable audio and video content. This makes them an intriguing substitute for traditional instructional resources (Anita Winandari et al., 2022; Dewi et al., 2022; Mulyadi et al., 2018). students can efficiently manage their study time with digital modules (Alrikabi et al., 2022; Bernacki et al., 2002; Kyaw et al., 2019). Unlike printed modules, which are often colorless and so have a less clear image, digital modules can be created to be aesthetically pleasing (Bukhori et al., 2024). Digital modules are educational tool that can facilitate the application of independent learning (Gillaspy & Vasilica, 2021; Lopezi & Chuan, 2022). Learning that stresses student independence in the process can be carried out thanks to self-determined learning. (Karrie A. Shogren Sheida et al., 2020).

Digital modules offer flexibility of access and interactive capabilities that traditional learning resources lack, such as videos and simulations, that can enhance student understanding (Dewi et al., 2022; Mulyadi et al., 2018). However, they also have disadvantages, such as dependence on devices and a stable internet connection, as well as potential distractions from technology use (Alrikabi et al., 2022; Bukhori et al., 2024). Compared to printed materials, digital modules are easier to update and more environmentally friendly, but may be less convenient for long-term learning due to eyestrain and digital distractions (Mulyadi et al., 2018).

The digital module that will be developed in this research is a gender-based digital module. Gender is a social construction, namely a construction that is created and carried out in everyday life. Hoskin (2020) states that gender issues are always related to views about the process of someone being considered feminine or masculine. In other words, gender always describes social rules attached to masculinity and femininity. By understanding gender, it is hoped that the teaching materials developed, especially Indonesian language teaching materials, will not cause gender inequality (Lee & Mahmoudi-Gahrouei, 2020; Tyarakanita et al., 2021; Widodo & Elyas, 2020). In this case, teaching material refers to efforts to study the language arrangement of sentences. Examining broader linguistic units. In this way, teachers

and students are expected to be able to carry out learning based on the teaching materials contained in the gender-based digital module. This study focuses on creating and validating a gender-based digital module to support high school students' study of Indonesian language in Denpasar.

Several studies on gender-based digital modules in research conducted by Azizah (2022) on gender-based scientific literacy abilities through problem-based learning models assisted by e-modules on ecosystem concepts show that gender-specific PBL model literacy abilities among students show that female students reading is superior to male students. Research conducted by Astuti (2023) on the development of a gender-based circulatory system e-module for Class VIII MTS shows that the gender-based circulatory system e-module developed is considered very valid and suitable for use as teaching material in activities learning. Apart from that, research also conducted by Nurlita (2023) on the Effectiveness of Gender Fair Based SPLDV Module Development to Improve Students' Mathematics Learning Achievement and Motivation showed the results that mathematics modules based on gender fair SPLDV material were effective in increasing students' mathematics learning motivation and achievement. The three studies have similarities with the research to be carried out, namely both developing gender-based digital modules. However, the three studies have not focused on Indonesian language learning, so research developing gender-based digital modules as a supplement to high school Indonesian language learning is important. To address the gender equality gap in Indonesian language learning, this study aims to develop and validate a gender-based digital module as an additional teaching resource for high school students in Denpasar.

2. METHODS

This research is an effort to present innovation in Indonesian language learning in high school (with digital module output) by examining the gender value perspective in each material presented in the module. The learning development (R&D) approach combined with the ADDIE development model is the strategy employed in this study to accomplish this goal. Exemplary educational The five stages of the ADDIE instructional process are analysis, design, development, implementation, and dynamic evaluation. At the analysis stage, researchers carried out field observations by conducting identification towards teaching modules, learning media, learning processes. Data collection techniques at this stage are through observation and interviews. The results at the analysis stage become the basis for developing digital modules. The second stage is designing teaching modules which are developed by adapting to objective and basic competencies that will be achieved by students. The third stage includes validity testing and practicality testing. The data collection technique at this stage uses an open questionnaire. The validity test involved 6 experts with 2 experts each in each field, namely material, media and language experts. Validity testing is done to determine the validity of the module that is being produced. The experts' evaluations and suggestions will be considered by researchers as they work to improve the module. To assess the practicality of the module being produced, a small group of 25 students from class X and two teachers participated in the test. This practicality test is predicated on the idea that the product can be distributed to a wider audience if the findings demonstrate the generated module's applicability. On the other hand, if the findings demonstrate that the module under development is unrealistic, it must be altered in light of feedback from educators and students. The path that media validity criteria take is as follows.

Table 1. Module Validity and Practicality Criteria

| Score | Description |
|-------------|---------------|
| ≥ 4.00 | Very Feasible |
| 3.00 – 3.99 | Feasible |
| 2.00 – 2.99 | Less Feasible |
| 1.00 – 1.99 | Not Feasible |

If the module developed is valid and practical, then the next stage is implementing the product to a larger group. The implementation phase involved 75 students as samples selected using saturated sampling techniques due to the relatively small population of less than 100 people.

The final stage is an evaluation to determine the effectiveness of the developed module. This evaluation was conducted using the T-test and N-Gain test. The T-test assessed the impact of the module as a supplement to Indonesian language learning, while the N-Gain test measured the extent of the module's contribution to genre-based Indonesian language learning. The N-Gain test makes the presumption that if a student receives a score in the medium or high range, the designed module has been effective in raising their proficiency in genre-based Indonesian language acquisition. A lower score indicates that the developed module was a failure or an unsuccessful attempt. The impact of employing modules is assessed by the N-Gain criteria based on Hake (1999), and the results are as follows.

Table 2. N-Gain Test Criteria

| Intervals | Criteria |
|--------------------|----------|
| $g \geq 0.7$ | High |
| $0.3 \leq g < 0.7$ | Middle |
| $g < 0.3$ | Low |

To obtain the T and N-Gain test results, a pretest and posttest were carried out on the experimental and control classes. The purpose of the pretest was to assess students' baseline knowledge prior to receiving treatment, and the posttest was used to gauge their progress following that time. As a result, the researcher created a class with two distinct treatments: an experimental class and a control class. Students in the experimental class will receive instruction through designed digital modules. In the meantime, a power point will be used to teach the control lesson.

Table 3. Research design

| Group | Pretest | Process | Posttest |
|------------|--|--|--|
| Controls | Students' knowledge about Indonesian language learning | Teachers use PowerPoint in the learning process | Students' knowledge about Indonesian language learning |
| Experiment | Students' knowledge about Indonesian language learning | Teachers use digital modules in the learning process | Students' knowledge about Indonesian language learning |

The test instrument in this research used was an essay. Students are asked to identify and create anecdotal texts. Anecdotal texts created by students are based on gender themes in the form of short, interesting and entertaining stories. The anecdote text developed by students has meaning contained in it. Indicators in essay questions consist of (i) identifying the characteristics of anecdotal texts; (ii) identify the meaning implied in the anecdote text; and (iii) creating an anecdotal text with a gender theme.

A validity and reliability test was first conducted on the instrument as indicated in the following table to determine whether the items used could accurately and consistently assess students' knowledge.

Table 4. Instrument Validity Test Results

| No | Indicator | Sig value. (2-tailed) |
|----|---|-----------------------|
| 1. | Identify the characteristics of anecdotal texts | 0.598 |
| 2. | identify the implied meaning in the anecdote text | 0.601 |
| 3. | create anecdotal texts with gender themes | 0.645 |

Table 4 shows that the three items developed have a significance value > 0.05 . This shows that the instrument developed is valid in assessing student knowledge. On the other hand, the instrument reliability test can also be seen in the following table.

Table 5. Reliability Test Results

| Cronbach's Alpha | N of Items |
|------------------|------------|
| ,723 | 25 |

Cronbach's Alpha results show a value of $0.723 > 0.05$ with the conclusion that the instrument developed is reliable and can be used to assess student knowledge.

Both quantitative and qualitative data analysis techniques were used in this study. Open-ended surveys were used to get expert feedback on media quality, and qualitative analysis was employed to enhance the media generated. To raise the caliber of the media, this input is examined while it is being created. Use the SPSS version 25.0 program's Independent Sample T-test to ascertain how employing digital courses has affected students' knowledge.

3. FINDINGS

3.1 Analysis Stage


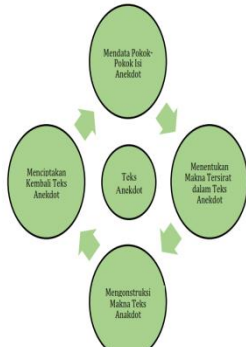

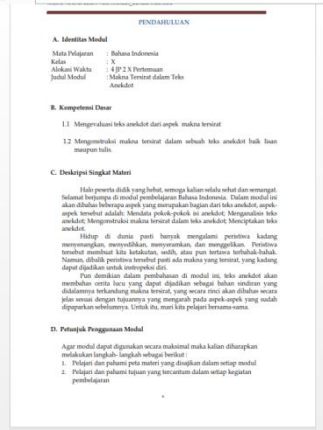
In the initial stages of this research, a series of activities were carried out involving exploration of the research location. This activity includes interviews with the principal and related teachers at the school, with a focus on the implementation of learning both online and offline. The interview results indicated that at SMA (SLUA) Saraswati 1 Denpasar, learning still predominantly uses printed textbooks. Apart from that, researchers have also conducted theoretical studies from various sources, including relevant online books, especially in the context of using digital modules as learning media.



At this stage, researchers conduct an analysis of student characteristics as a basis for designing appropriate modules. The digital modules developed are expected to be able to improve student learning outcomes by considering their preferences and needs. Based on the results of observations and interviews with class X students, a number of important information was obtained. It turns out that students are more interested in using various learning media. They also have access to adequate devices, such as laptops and cellphones, to study online. Apart from that, students tend to be more motivated if learning is not only focused on textbooks, student worksheets (LKS), and conventional printed modules. In this case, they feel they are helped better in understanding the material with interesting and interactive digital modules. Thus, these characteristics are an important basis for designing modules so that they can achieve learning objectives optimally according to students' needs and interests.

3.2 Design Stage

Furthermore, the preparation of the module framework is based on the Learning Implementation Plan (RPP) for high school students of Indonesian language subjects. The module to be developed consists of three main parts: the cover, introduction, content, and final part. The following is the compiled module design framework.

Table 6. Module Design

| No. | Part | Information |
|-----|---|--------------------|
| 1. |  | Cover |
| 2. | <p>PETA KONSEP</p>  | Module Concept Map |
| 3. |  | List of contents |
| 4. |  | Introduction |

| | | |
|----|--|---------------------|
| 5. | <p>Makna Teroris dalam Teks Anekdot, Bahasa Indonesia</p> <p>KEGIATAN PEMBELAJARAN 1 Pukok-Pukok Isi Teks Anekdot</p> <p>A. Tujuan Pembelajaran</p> <p>Setelah kegiatan pembelajaran 1 ini diharapkan kalian mampu mendata pukok-pukok isi anekdot atau gambar yang disajikan dan menginterpretasi makna teroris dari teks anekdot dengan semangat, kritis dan kreatif.</p> <p>B. Uraian Materi</p> <p>1. Mendata Pukok-Pukok Isi Teks Anekdot</p> <p>Teks anekdot adalah cerita singkat yang menarik karena lucu dan mengesankan, biasanya mengenai orang penting atau terkenal dan berdasarkan kejadian yang sebenarnya. Tetapi, ada makna yang terisat yang terkandung dalam teks tersebut.</p> <p>Makna teks anekdot membawa fungsi sosial yang bertujuan mengkritik atau menyindir. Kritik dan sindiran tersebut diperoleh dari realita sosial yang terjadi dalam kehidupan sehari-hari. Hal tersebut disampaikan melalui bahasa sehingga tidak terkesan menghakimi atau menyudutkan pihak tertentu sehingga dapat disampaikan kepada beberapa ciri-ciri teks anekdot.</p> <p>Cerita dikemas dalam bentuk kisah, berita, kritik atau sindiran, melibatkan tokoh-tokoh yang dikenal oleh masyarakat. Berbentuk narasi singkat yang mengandung tokoh, alur, dan latar (time-episode-where). Anekdot dapat juga diungkapkan dalam bentuk gambar atau ilustrasi; biasanya dapat kita temukan di media cetak berupa komik atau di media elektronik berupa meme.</p> <p>2. Mengonstruksi Makna Teroris dalam Teks Anekdot</p> <p>Mengonstruksi teroris dari teks atau karikatur yang menurut KBBI salah satunya berisikan narasi. Maka apabila sama-sama mendapat awalatan mengkonstruksi teroris.</p> <p>Dalam menyusun atau mengonstruksi kita harus menentukan topik, sasaran, dan unsur kejiwaan dalam anekdot serta menyampaikan makna dan pesan teroris di dalamnya. Makna teroris dianalisis dan ditarikan berdasarkan fakta-fakta yang berhubungan dengan topik yang terisat dalam teks anekdot. Makna tersebut dihubungkan dengan nilai-nilai kehidupan sehingga pembaca dapat memahami dan merefleksikan isi teks anekdot tersebut.</p> | Learning Activities |
| 6. | <p>Makna Teroris dalam Teks Anekdot, Bahasa Indonesia</p> <p>EVALUASI</p> <p>Pilihlah satu jawaban yang tepat!</p> <p>1. Perhatikan gambar berikut!</p>  <p>Sumber: https://www.gurupendidikan.co.id/materi/teori-lingkaran-geometri-dan-kebangsaan</p> <p>Makna yang terisat berdasarkan gambar tersebut adalah...</p> <p>A. Hakikat di negeri ini sudah adil B. Rakyat koruptor yang korupsi dengan sejumlah uang demi ditinggalkan kemeraan C. Dengan uang, semua menjadi orang D. Uang Indonesia yang ditabungkan tidak sebanding dengan apa yang diperoleh E. Hakim sudah berlaku adil bagi koruptor</p> <p>2. Perhatikan gambar berikut!</p>  <p>Sumber: https://www.bahasa.com/2018/12/21/teori-lingkaran-geometri-dan-kebangsaan/</p> | Evaluation |
| 7. | <p>Makna Teroris dalam Teks Anekdot, Bahasa Indonesia</p> <p>DAFTAR PUSTAKA</p> <p>Konash, E. 2014. <i>Genre-jenis Teks dalam Mata Pelajaran Bahasa Indonesia SMA/MA/SMK</i>. Bandung: Yrama Widya.</p> <p>Konash, E. 2017. <i>Bahasa Indonesia untuk SMA/MA Kelas X</i>. Kelompok Pujuh, Jakarta: Penerbit Erlangga.</p> <p>Mufidhi, W dan Wahono. 2017. <i>EjPPI : Bahasa Indonesia untuk SMA/MA Kelas X</i>. Kelompok Vajuh, Penerbit Erlangga.</p> <p>Suharti, d. 2018. <i>Buku Guru Bahasa Indonesia Kelas XI Kurikulum 2013</i>. Jakarta: Pusat Kurikulum dan Perbukuan, Balitbang, Kemdikbud.</p> <p>Rusnadade. 2020. <i>Cerita Teks Anekdot</i>. Diambil kembali dari http://www.comedicals.org/ https://www.comedicals.org/conten-tek-anekdot/#/</p> <p>Sudiono, A. 2018. <i>15+ Cerita Teks Anekdot Lucu, Singkat, Menghibur, Bermanfaat</i>. Diambil kembali dari https://www.myspansih.com/</p> <p>Syahrul. 2018. <i>100+ Cerita Teks Anekdot Lucu dan Menghibur</i>. Diambil kembali dari http://anghal.com/ https://www.myspansih.com/conten-tek-anekdot/</p> <p>Topika. J. 2020. <i>Cerita Teks Anekdot</i>. Diambil kembali dari https://www.myspansih.com/ https://www.myspansih.com/conten-tek-anekdot/</p> | Bibliography |

| | | |
|----|---|----------|
| 8. | <p style="font-size: small;">Makna Tersirat dalam Teks Anekdot, Bahasa Indonesia</p> <hr/> <p style="text-align: center; font-weight: bold; font-size: small;">GLOSARIUM</p> <p style="font-size: x-small;"> Analisis : Penyelidikan terhadap suatu peristiwa(karangan, perbuatan, dan sebagainya) untuk mengetahui keadaan yang sebenarnya(jebah-musabah, duduk perkarnya, dan sebagainya) Anekdote : Cerita singkat yang menarik karena lucu dan mengesankan, biasanya mengenai orang penting atau terkenal dan berdasarkan kejadian yang sebenarnya Evaluasi Penilaian : Penerapan prosedur ilmiah yang sistematis untuk menilai suatu rancangan Humor : Sesuatu yang lucu Makna tersirat : Makna yang terkandung di dalamnya Sindiran : Perkataan(gambar dan sebagainya) yang bermaksud menyindir orang; cecilan (pekar) Teks : Naskah yang berupa kata-kata asli dari pengarang </p> | Glossary |
|----|---|----------|

3.3 Development Stage

3.3.1 Expert Validity Test

This validation test is a crucial step in developing digital modules. In this phase, eight specialists with specialized knowledge in media, language, and materials were involved in the research. The selection of knowledgeable team members is predicated on their proficiency with media, linguistic abilities, and knowledge of Indonesian language content. This expert team's primary validation goal is to evaluate how well the developed digital module products complement students' existing knowledge. The outcomes of this validation will serve as a crucial foundation for future growth, ensuring that the media aligns with the desired learning outcomes. The following table will show the outcomes of the validation procedure that this expert team completed.

Table 7. Expert Validation Results

| Aspect | Score | Information |
|----------------|-------------|-------------------|
| Material | 4.12 | Very Valid |
| Media | 4.10 | Very Valid |
| Language | 4.02 | Very Valid |
| Average | 4.08 | Very Valid |

The timeline material that has been generated has been validated, and the findings reveal a score of 4.08, which is classified as "Very valid". This digital module satisfies the necessary validity standards for use in enhancing student knowledge, as indicated by the average score. This demonstrates how using this digital module can help with learning Indonesian language skills.

In the existing literature on educational module development, validation is an important step to ensure that the material presented is relevant, accurate and effective in achieving learning objectives. According to guidance from Azizah (2022), validation of educational modules should include evaluations from experts to ensure content appropriateness, readability, and alignment with applicable curriculum standards. The score of 4.08 achieved by this timeline media indicates that the digital module not only meets, but also exceeds the expected basic criteria.

In line with best practices in educational module development, as outlined by Nurlita (2023), modules that get high validity scores usually have characteristics such as clarity of learning objectives, ease of navigation, and content relevance. In this context, the developed timeline media has demonstrated that it is able to convey information in a way that is engaging and easily understood by students, which are key components of an effective educational module.

Furthermore, the results of this validation also contribute to the literature showing the importance of technology in education. According to research by Astuti (2023), the use of digital media in learning can increase student motivation and engagement, which in turn can improve learning outcomes. The high validity score of this digital module supports such findings, suggesting that the integration of technology in Indonesian language learning is not only well-received by students, but also effective in achieving learning objectives.

Thus, this validation result showing a score of 4.08 and a category of "Highly valid" not only provides confidence that this digital module is appropriate for use in the classroom, but also confirms that this module is in line with existing literature and best practices in educational module development. This suggests that this digital module can be relied upon as an effective tool in improving student knowledge and advancing educational practice.

3.3.2 Practicality Test

Practicality testing is an important stage in evaluating digital modules that have been developed in the context of Indonesian language learning. The goal is to gauge how useful this digital module is for learning Indonesian. Two seasoned Indonesian language professors and twenty-five students from SMA (SLUA) Saraswati 1 Denpasar participated in this practical test. Carefully chosen instructors and students were used as subjects for this practicality test, guaranteeing that they were representative of the several high schools in Denpasar City. As a result, the outcomes of this practicality test might offer a more comprehensive view of the experience of this digital module in many educational settings. This practicality test yielded the following table, which presents all of the findings.

Table 8. Practicality Test

| Aspect | Average Score | Category |
|-------------------------------------|---------------|------------------|
| Appropriateness of content/material | 4.05 | Very good |
| Media eligibility | 4.10 | Very good |
| Design feasibility | 4.25 | Very good |
| Average | 4.13 | Very good |

By examining the data in the aforementioned table, it is evident that both teachers and students gave practicality scores an average of 4.13. With this score, the produced digital module is rated as "very good," indicating a favorable evaluation. Therefore, we may conclude that this digital module is highly effective and useful in aiding Indonesian study. This demonstrates how learning the Indonesian language can be enhanced with the usage of gender-based digital modules.

3.4 Implementation Stage

At this stage, after ensuring that the digital module had been proven valid, practical, and provided additional benefits in learning Indonesian, the module was then applied to a larger group involving 75 students. Product implementation is carried out in experimental classes, where these students become test subjects to measure the effectiveness and efficiency of using the module in the learning process. This step was taken to expand the scope of use of the module as well as to collect further data regarding student responses and their impact on their learning outcomes. By involving a larger number of students, it is hoped that the implementation results can provide a more representative picture of the potential for using digital modules in improving the quality of Indonesian language learning.

3.5 Evaluation Stage

A media effectiveness test utilizing the t test was conducted to determine the efficacy of the produced digital module in addition to Indonesian language learning. 75 students from SMA (SLUA) Saraswati 1 Denpasar participated in a wide group media trial, from which the t test data was derived.

Two tests were administered to the same respondents a pretest and a posttest in order to gauge the media's efficacy. The following table displays the influence test results obtained using the t test.

Table 9. T test

| t-Test Results | Significance |
|---------------------------------------|---------------------|
| <i>of the Independent Sample Test</i> | 0,000 |

It is determined from the aforementioned data that there is a substantial influence on the usage of genre-based teaching modules as an addition to Indonesian language learning, with the significance value of the t test being 0.000 or less than 0.05. Next, an N-Gain test is administered to determine the percentage improvement in student knowledge on each indication. Here are the results of the N-Gain test.

Table 10. N-Gain Result

| No | Indicators | N-gain Score | Categories |
|-------------|---|---------------------|-------------------|
| 1 | Identify the characteristics of anecdotal texts | 0.71 | High |
| 2 | identify the implied meaning in the anecdote text | 0.73 | High |
| 3 | create anecdotal texts with gender themes | 0.68 | Medium |
| Mean | | 0.70 | High |

The aforementioned table indicates that learning local history through gender-based digital modules can be supplemented by 0.70 or 70% in the high category with learning Indonesian language. It is inferred from the aforementioned findings that using genre-based teaching modules is an addition to learning Indonesian. The gender-based learning materials produced were found to be valid, dependable, useful, and efficient for use in the study of Indonesian language based on the results of the research.

Discussion

Based on the research above, it is explained that all aspects of the digital module product are categorized as very good with an N-Gain test result of 70%. The results of this trial show that the gender-based Indonesian digital module is suitable for use in Indonesian language learning. This development stage is supported by the implementation stage, namely implementing the use of digital modules in class X SMA (SLUA) Saraswati 1 Denpasar. The learning process is carried out by utilizing digital modules as a supplement to classroom learning. At this stage it is known that students are increasingly enthusiastic and enthusiastic in following the teaching material. The final stage is an evaluation of the implementation of the digital module development that has been carried out. The results of this research support previous research conducted by Azizah (2023) which showed that the literacy skills of the gender-specific PBL model among students showed that female students' reading abilities were superior to male students. Research conducted by Astuti (2023) shows the results that the gender-based circulatory system e-module developed is considered very valid and suitable for use as teaching material in learning activities. Apart from that, research also conducted by Nurlita (2023) showed that the SPLDV gender-based mathematics module was effectively used in increasing students' motivation and mathematics learning achievement. Using e-modules as independent teaching materials not only makes learning activities more interesting, but also increases efficiency in the learning process. With e-modules, students can learn flexibly anywhere and anytime, not limited by time and space. Another advantage is that this e-module is equipped with clear images, animations, learning videos, and augmented reality (AR) technology which allows for more interesting and in-depth visualization of the learning material. This approach is in line with the views of Mariska and

Rahmatina (2022), who state that the use of interesting Canva-based teaching materials and learning videos can increase students' enthusiasm in the learning process. Thus, e-modules not only provide fun new experiences for students, but also encourage them to be more enthusiastic and enthusiastic in participating in learning.

The use of e-modules in the learning process has a number of advantages: (i) e-modules enable the distribution of information in learning to be more flexible and easily adjusted (Delita et al., 2022); (ii) the use of e-modules can increase student learning motivation (Wahyuningrum & Hartutik, 2023); (iii) e-modules make it easier for teachers to convey material to students (Okta Priantini & Widiastuti, 2021); (iv) with e-modules, students can access and read material anytime and anywhere using their cellphones (Anggraini & Armiati, 2022); and (v) using e-modules can also help protect the environment by reducing paper use. Apart from that, both students and teachers can use e-modules as independent teaching materials without the need for additional tools. Even though it has these advantages, using e-modules also has several disadvantages. For example, research conducted by Mukramah (2023) shows that e-modules that are not made well can cause misconceptions. Apart from that, creating e-modules also requires a special editing application and a stable internet connection.

The implementation of e-modules in the classroom presents various challenges that need to be overcome to ensure their effectiveness. One of the main challenges is the limited technological infrastructure. Not all schools have access to adequate hardware and internet connection, which are important prerequisites for the use of e-modules. In addition, teachers' readiness and ability to integrate technology into teaching is also an obstacle. Many teachers may need additional training to optimise the use of e-modules and ensure that they can take advantage of all available features. Another challenge is the difference in students' comfort level and skills with technology, which can create gaps in learning. In addition, data security and privacy issues are also important concerns, especially in protecting students' personal information. Finally, developing high-quality, curriculum-relevant e-module content requires significant time and resources, as well as continuous evaluation to ensure its appropriateness and effectiveness. Overcoming these challenges requires close co-operation between the government, schools, teachers and education technology providers.

4. CONCLUSION

This study's findings the gender-based digital module development of the Indonesian language learning process was successfully completed. According to the validation results, students' knowledge can be greatly enhanced by the digital module. Additionally, teachers and students participated in a practicality exam that demonstrated how beneficial and practical the module was for learning Indonesian. After passing the validation and practicality testing stages, the digital module was implemented in a larger group, involving 75 students in the experimental class. Evaluation was carried out to measure the effectiveness of the module using the t test, which showed a significant influence on Indonesian language learning. The N-Gain test results show an increase in student knowledge of 70%, high category. Thus, it can be concluded that this gender-based digital module is suitable for use as a supplement to Indonesian language learning. These findings support previous research which shows that a gender-based approach to learning can increase student motivation and learning achievement. This approach is also in line with the view that the use of technology in learning, such as e-modules with clear images, animations and learning videos, can increase students' enthusiasm in the learning process.

This study has several limitations that need to be considered. Firstly, the research sample was limited to a small number of students from one grade level in one school, so the results may not be generalisable to a wider population or to different educational levels. Secondly, the duration of the study was relatively short, which may not be sufficient to measure the long-term impact of using the digital module on student learning. Thirdly, the study did not consider external factors such as students' socio-economic background or the availability and quality of technology at home, which may affect the results of the study. Fourthly, although the digital module has been expert-validated, this

study has not explored how it can be sustainably integrated into the school curriculum. Finally, the focus of this study is on the validity and effectiveness of the module in improving students' knowledge, but has not measured the impact of the module on other skills such as critical thinking or creativity.

To overcome these limitations, several recommendations can be given for future research. First, it is necessary to conduct research with a larger and more diverse sample from various schools and education levels to increase the generalisability of the findings. Secondly, research with a longer duration is needed to measure the long-term impact of using this digital module on student learning. Third, future research should consider external factors that may affect the results, including students' socio-economic background and their access to technology at home. Fourth, there needs to be further exploration of the integration of these digital modules into the overall school curriculum to ensure their sustainability. Finally, future research should consider measuring the module's impact on various aspects of students' skills, such as critical thinking, creativity, and collaboration, to gain a more comprehensive understanding of the effectiveness of this gender-based digital module in Indonesian language learning.

REFERENCES

- Alrikabi, H. T. S., Jasim, N. A., Majeed, B. H., Zkear, A. A., & ALRubeei, I. R. N. (2022). Smart Learning based on Moodle E-learning Platform and Digital Skills for University Students. *International Journal of Recent Contributions from Engineering, Science & IT (IJES)*, 10(01), 109–120. <https://doi.org/10.3991/ijes.v10i01.28995>
- Andrzej Szymkowiak, Melović, B., Dabić, M., Kishokanth Jegathan, & Gagandeep Singh Kundi. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, 65, 1–10.
- Anggraini, S., & Armia, A. (2022). Development of E-Modules with Online Tests to Increase Students' Motivation and Learning Outcomes in Class XI. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, 14(2), 685–704. <https://doi.org/10.37680/qalamuna.v14i2.3496>
- Anita Winandari, Leo Agung Sutimin, & Triana Rejekiningsih. (2022). Benefits of Using Experiential Learning Based Electronic Modules to Facilitate Students Concierge Learning in Vocational High Schools. *Journal of Education Technology*, 6(4), 568–577. <https://doi.org/10.23887/jet.v6i4.48064>
- Astuti, D. N., & Wigati, I. (2023). Pengembangan E-Modul Sistem Peredaran Darah Berbasis Gender untuk Kelas VIII MTs. *Jurnal Penelitian, Pendidikan Dan Pengajaran: JPPP*, 4(2), 144–152. <https://doi.org/10.30596/jppp.v4i2.15774>
- Azizah, S. N., Juhanda, A., & Windyariani, S. (2022). Kemampuan Literasi Sains Berbasis Gender Melalui Model Problem Based Learning Berbantuan E-Modul pada Konsep Ekosistem Siti. *Jurnal Pendidikan MIPA*, 23(2), 681–691.
- Bernacki, M. L., Vosicka, L., & Utz, J. C. (2002). Journal of Educational Psychology: Editorial. *Journal of Educational Psychology*, 94(4), 659. <https://doi.org/10.1037//0022-0663.94.4.659>
- Biletska, I. O., Paladieva, A. F., Avchinnikova, H. D., & Kazak, Y. Y. (2021). Use of Modern Technologies By Foreign Language Teachers: Developing Digital Skills. *Linguistics and Culture Review*, 5(S2), 16–27. <https://doi.org/10.21744/lingcure.v5ns2.1327>
- Bukhori, A., Gani, H. A., & Yahya, M. (2024). *Digital Module Development of Islamic Education to Improve Student Independence in Learning at Middle School Program*. 2(1), 67–84.
- Burbules, N. C., Fan, G., & Repp, P. (2020). Five trends of education and technology in a sustainable future. *Geography and Sustainability*, 1(2), 93–97. <https://doi.org/10.1016/j.geosus.2020.05.001>
- Delita, F., Berutu, N., & Nofrion. (2022). Online Learning: the Effects of Using E-Modules on Self-Efficacy, Motivation and Learning Outcomes. *Turkish Online Journal of Distance Education*, 23(4), 0–3. <https://doi.org/10.17718/tojde.1182760>
- Dewi, Y. N., Zaim, M., & Rozimela, Y. (2022). Interactive Learning Using E-Learning Module in Learning English for Senior High School: A Review of Related Articles. *JELITA: Journal of Education, Language Innovation, and Applied Linguistics*, 1(2), 125–134.

- <https://doi.org/10.37058/jelita.v1i2.5306>
- Fletcher, J., Everatt, J., Mackey, J., & Fickel, L. H. (2020). Digital Technologies and Innovative Learning Environments in Schooling: A New Zealand Experience. *New Zealand Journal of Educational Studies*, 55(1), 91–112. <https://doi.org/10.1007/s40841-020-00156-2>
- Gillaspy, E., & Vasilica, C. (2021). Developing the digital self-determined learner through heutagogical design. *Higher Education Pedagogies*, 6(1), 135–155. <https://doi.org/10.1080/23752696.2021.1916981>
- Gumantan, A., Nugroho, R. A., & Yuliandra, R. (2021). Learning During the Covid-19 Pandemic: Analysis of E-Learning on Sports Education Students. *Journal Sport Area*, 6(1), 66–75. [https://doi.org/10.25299/sportarea.2021.vol6\(1\).5397](https://doi.org/10.25299/sportarea.2021.vol6(1).5397)
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3(May), 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Hoskin, R. A. (2020). “Femininity? It’s the Aesthetic of Subordination”: Examining Femmephobia, the Gender Binary, and Experiences of Oppression Among Sexual and Gender Minorities. *Archives of Sexual Behavior*, 49(7), 2319–2339. <https://doi.org/10.1007/s10508-020-01641-x>
- Kalolo, J. F. (2019). Digital revolution and its impact on education systems in developing countries. *Education and Information Technologies*, 24(1), 345–358. <https://doi.org/10.1007/s10639-018-9778-3>
- Karrie A. Shogren Sheida, Raley, S. K., Rifenshark, G. G., Lane, K. L., & Bojanek, E. K. (2020). *The Self-Determined Learning Model of Instruction: Promoting Implementation Fidelity*. <https://www.youthsporttrust.org/resources/inclusion/inclusion-2020-resources>
- Kyaw, B. M., Posadzki, P., Paddock, S., Car, J., Campbell, J., & Tudor Car, L. (2019). Effectiveness of digital education on communication skills among medical students: Systematic review and meta-analysis by the digital health education collaboration. *Journal of Medical Internet Research*, 21(8). <https://doi.org/10.2196/12967>
- Lau, X. C., Wong, Y. L., Wong, J. E., Koh, D., Sedek, R., Jamil, A. T., Ng, A. L. O., Hazizi, A. S., Ruzita, A. T., & Poh, B. K. (2019). Development and Validation of a Physical Activity Educational Module for Overweight and Obese Adolescents: CERGAS Programme. *International Journal of Environmental Research and Public Health*, 16(9), 1–16. <https://doi.org/10.3390/ijerph16091506>
- Lee, J. F. K., & Mahmoudi-Gahrouei, V. (2020). Gender Representation in Instructional Materials: A Study of Iranian English Language Textbooks and Teachers’ Voices. *Sexuality and Culture*, 24(4), 1107–1127. <https://doi.org/10.1007/s12119-020-09747-z>
- Liza, K., & Andriyanti, E. (2020). Digital literacy scale of English pre-service teachers and their perceived readiness toward the application of digital technologies. *Journal of Education and Learning (EduLearn)*, 14(1), 74–79. <https://doi.org/10.11591/edulearn.v14i1.13925>
- Lopez, J. V., & Chuan, E. (2022). Teaching Participation and Cognitive Understanding in the Mapping of Self-Determined Progress Modules in Chemistry and Its Implications. *Journal of Educational Research and Policies*, 4(12), 116–129. [https://doi.org/10.53469/jerp.2022.04\(12\).21](https://doi.org/10.53469/jerp.2022.04(12).21)
- Madrazo, A. L., & Dio, R. V. (2020). Contextualized learning modules in bridging students’ learning gaps in calculus with analytic geometry through independent learning. *Journal on Mathematics Education*, 11(3), 457–476. <https://doi.org/10.22342/jme.11.3.12456.457-476>
- Maphosa, C., & Bhebhe, S. (2019). Digital literacy: A must for open distance and e-learning (ODEL) students. *European Journal of Education Studies*, 5(10), 186–199. <https://doi.org/10.5281/zenodo.2560085>
- Martiningsih, I., Lisdiana, & Susilowati, S. M. E. (2019). Development of Module Based on Scientific Contextual Additives Material to Increase Learning Outcomes and Science Process Skills in Junior High School. *Journal of Innovative Science Education*, 8(2), 128–137. <http://journal.unnes.ac.id/sju/index.php/jise>
- Mukramah, W. A. N., Halim, A., Winarni, S., Yusrizal, Safrida, Jannah, M., & Wahyuni, A. (2023). Effect of Using Comic-based E-Module Assisted by the Flipbook Maker for Remediation of Newton’s Law Misconceptions. *Jurnal Penelitian Pendidikan IPA*, 9(8), 6384–6392.

- <https://doi.org/10.29303/jppipa.v9i8.4389>
- Mulyadi, M., Atmazaki, A., & R, S. (2018). The Development of Interactive Multimedia E-Module on Indonesia Language Course. *International Conference of Innovation in Education (ICoIE 2018)*, 178, 291–295. <https://doi.org/10.2991/icoie-18.2019.65>
- Nurlita, S., Maslihah, S., Rahman, A., & Retnawati, H. (2023). Efektivitas Pengembangan Modul Spldv Berbasis Adil Gender Untuk Meningkatkan Prestasi Dan Motivasi Belajar Matematika Siswa. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 12(1), 556–562.
- Okta Priantini, D. A. M. M., & Widiastuti, N. L. G. K. (2021). How Effective is Learning Style Material with E-Modules During the COVID-19 Pandemic? *Jurnal Ilmiah Sekolah Dasar*, 5(2), 307. <https://doi.org/10.23887/jisd.v5i2.37687>
- Praheto, B. E., Andayani, Rohmadi, M., & Wardani, N. E. (2020). The effectiveness of interactive multimedia in learning Indonesian language skills in higher education. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 12(1), 1–11. <https://doi.org/10.21659/rupkatha.v12n1.34>
- Rajas-Fernández, M., Gértrudix-Barrio, M., & Baños-González, and M. (2021). Knowledge in Images and Sounds : Informative , Narrative and Aesthetic Analysis of the Video for MOOC. *MDPI*, 9(32).
- Sanusi, A., Sauri, S., & Nurbayan, Y. (2020). Non-Native Arabic Language Teacher: Low Teacher'S Professional Competence Low Quality Outcomes? *Arabiyat : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban*, 7(1), 45–60. <https://doi.org/10.15408/a.v7i1.12722>
- Sharma, P. (2019). Digital Revolution of Education 4.0. *International Journal of Engineering and Advanced Technology*, 9(2), 3558–3564. <https://doi.org/10.35940/ijeat.a1293.129219>
- Suartama, I. K., Mahadewi, L. P. P., Divayana, D. G. H., & Yunus, M. (2022). ICARE Approach for Designing Online Learning Module Based on LMS. *International Journal of Information and Education Technology*, 12(4), 305–312. <https://doi.org/10.18178/ijiet.2022.12.4.1619>
- Suyitno, I., Fawzi, A., Susanto, G., Anggari, P. D., & Arista, H. D. (2019). Designing Indonesian learning materials for communicative purposes for foreign learners. *International Journal of Learning, Teaching and Educational Research*, 18(10), 112–127. <https://doi.org/10.26803/ijlter.18.10.7>
- Syazali, M., Sari, N. R., Sukawati, S., Sari, W. R., Pertiwi, S. D., Putra, A., & Putra, F. G. (2019). Islamic-Nuanced Linear Algebra Module with Problem-Based Learning Approach for Linear Equation System Material. *Journal of Physics: Conference Series*, 1155(1). <https://doi.org/10.1088/1742-6596/1155/1/012097>
- Tyarakanita, A., Drajadi, N. A., Rochsantiningsih, D., & Nurkamto, J. (2021). The Representation of Gender Stereotypes in Indonesian English Language Textbooks. *Sexuality and Culture*, 25(3), 1140–1157. <https://doi.org/10.1007/s12119-021-09813-0>
- Wahyuningrum, P. M. E., & Hartutik, H. (2023). Development of E-Modules to Improve Motivation and Learning Outcomes of Catholic Religious Education for Public Elementary School Students. *JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan)*, 8(2), 948–959. <https://doi.org/10.31851/jmksp.v8i2.12693>
- Widodo, H. P., & Elyas, T. (2020). Introduction to Gender in Language Education. *Sexuality and Culture*, 24(4), 1019–1027. <https://doi.org/10.1007/s12119-020-09753-1>