Feasibility of E-learning Textbooks of Item Analysis Material to Improve Student Competence

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A R T I C L E   I N F O

A B S T R A K

Pengembangan buku ajar e-learning penilaian pembelajaran materi analisis butir soal didasari oleh masih kurangnya dosen dalam mengembangkan buku ajar yang diimplementasikan dalam pembelajaran virtual. Hal ini menyebabkan siswa menjadi kurang berminat belajar sehingga menyebabkan menurunnya hasil belajar siswa. Pengembangan buku ajar dengan e-learning bertujuan untuk memenuhi buku ajar yang dapat diakses melalui Vinesa sehingga siswa dapat mengakses buku ajar tersebut kapan saja dan dimana saja, sehingga diharapkan kompetensi hasil belajar siswa dapat meningkat. Analisisnya menggunakan teknik deskriptif kuantitatif. Sasaran penelitian ini adalah 90 siswa. Data diperoleh melalui observasi, wawancara, angket, dan tes. Penelitian pengembangan menggunakan model ADDIE (Analysis, Design, Development, Implementation, Evaluation). Hasil kelayakan pengembangan buku ajar e-learning Penilaian Pembelajaran dinyatakan layak dengan a) hasil validasi materi sangat layak (91%), b) hasil validasi materi pembelajaran sangat layak (90%) c) hasil validasi media pembelajaran sangat layak (94%) d) hasil validasi bahasa sangat layak (90%), e) hasil uji coba individu sangat layak (80%), f) hasil uji coba kelompok kecil sangat layak (83%). Penelitian ini menyimpulkan bahwa pengembangan buku ajar e-learning Penilaian Pembelajaran dengan materi analisis butir soal sangat layak digunakan untuk meningkatkan kompetensi siswa dan layak digunakan karena ketersediaan sumber belajar yang terbatas waktu dan tempat.

A B S T R A K

The development of e-learning textbooks of learning assessment with items analysis material is based on the fact that there is still a lack of lecturers in developing textbooks that are implemented in virtual learning. This causes students to become less interested in learning, causing a decrease in student learning outcomes. The development of textbooks with e-learning aims to fulfill textbooks that can be accessed through Vinesa so that students can access the textbooks anytime and anywhere, so it is expected that the competence of student learning outcomes can increase. The analysis uses quantitative descriptive techniques. The target of this study was 90 students. Data were obtained through observation, interviews, questionnaires, and tests. Development research using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The feasibility results of e-learning textbook development for Learning Assessment are declared feasible by a) the results of material validation were very feasible (91%), b) the results of learning material validation were very feasible (90%) c) the results of learning media validation were very feasible (94%) d) the results of language validation were very feasible (90%), e) the results of individual trials were very feasible (80%), f) the results of small group trials were very feasible (83%). This study concludes that the development of e-learning textbooks for Learning Assessment with items analysis material was very feasible to be used to improve student competence and deserves to be used as the availability of learning resources that are limited in time and place.

1. INTRODUCTION

Education is one of the important pillars in community development and producing a competent and competitive generation. In the world of education, textbooks are a mandatory source of reading for

students and lecturers in universities. Students and lecturers use textbooks to study the material. Textbooks are one of the concrete indicators of the realization of the academic climate on campus. Learning activities on campus can run effectively and efficiently if textbooks are available (Maamuujav et al., 2019; Mirnawati & Rahmat, 2022). Textbooks can be made by lecturers themselves, or related agencies. Permendiknas Article 1 Number 2 of 2008 explains that textbooks are references that must be used at the level of basic education to higher education (Devirita et al., 2021; Kusuma & Rakhman, 2018). Textbooks are one of the reference books for student activities. Textbooks or sincere works are used by lecturers or educators in carrying out teaching and learning activities. Textbooks can also be said to be textbooks or textbooks (Puspasari & Suryaningsih, 2019; Suwarni, 2015; Syarofi & Nugraha, 2022). Textbooks are one of the media that has a major contribution to the learning process. Teaching materials in the form of textbooks or references are learning resources (Irwansyah, 2018; Mustafa & Winarno, 2020). Textbooks are one of the books that become a reference in learning activities or lectures for students and lecturers. The advantages of textbooks are to: 1) assist teachers in implementing the curriculum, 2) become teaching guidelines in determining and choosing teaching methods, 3) allow students to learn new material, 4) long use time, 5) uniformity of textbooks can indicate standards and materials in teaching, 6) provide continuous and harmonious classroom lessons, even though there is a change of educators, 7) provide a better understanding of knowledge and teaching methods when used from year to year (Millah, 2012; Pransiska, 2018).

Textbooks are teaching tools containing the core content of subject matter that is arranged in a structured way, intending to present the overall competencies that must be mastered by students during the teaching and learning process. Textbooks must be arranged in an orderly layout, attractive, easy to read, and easy to understand by readers and comply with applicable writing principles (Muazzomi & Sofyan, 2021; Sitinjak & Siahaan, 2021). Textbooks have characteristics including using a structured sequence, outlining instructional goals, motivating students, anticipating difficulties, providing training, presenting summaries, and focusing on students as well as can usually be used independently by students because they are structured and complete. Textbooks have characteristics, namely; 1) arranged in an organized manner, 2) outlining learning objectives, 3) generating motivation, 4) predicting learning difficulties, and 5) preparing summaries (Gunawan et al., 2020; Suttrisno & Puspitasari, 2021). Textbooks focus on students as the main target, and can often be used independently by students because they are arranged completely and structured. Systematic textbooks can motivate, and assist students in overcoming learning difficulties, becoming valuable instruments in facilitating an effective and efficient learning process. Textbooks are an important tool in education that provides guidance and information needed by students to achieve optimal competence and understanding (Basuki, 2015; Syamsi et al., 2013).

The development of textbooks in the university environment still faces several challenges. Most lecturers do not have an adequate understanding of developing textbooks, so the number of decent textbooks is still limited. As a result, teaching still tends to be conventional and lecturer-centered, which makes students passive and less active in the learning process. In practice, there are still many lecturers who have a limited understanding of developing textbooks in each lecture, so the number is still small (Nuryasana & Desiningrum, 2020; Taufikurrahman, 2018). Most lecturers have not developed proper textbooks so teaching material is still conventional. There are still many lecturers who have not mastered how to develop textbooks so lecturers in delivering material are still teacher-centered, this makes students tend to be passive and tend to only listen, less active and less varied learning (Ina Magdalena et al., 2020; Mujahida & Rus'an, 2019). Even though making textbooks is a lecturer strategy for increasing the productivity of the teaching and learning process. Lecturers must be facilitators as well as motivators to students by facilitating various learning resources that can support the learning process. The development of textbooks has several reasons such as: 1) students can carry out learning easily, 2) practical in learning the material, and 3) students can repeat or learn new lessons. Textbooks must first be tested to students, evaluated, and revised to get quality textbooks (Hanifah, 2014; Purba et al., 2020). The development of textbooks has several strong reasons, such as facilitating learning for students, providing practicality in learning the material and allowing students to repeat or learn new lessons in more depth. However, it is important to pilot and evaluate textbooks by involving students to ensure their quality before they are widely used.

Based on the explanation and analysis above, there has been a gap between the expectations to be achieved and the facts that occur today. The hope is to create a decent Learning Assessment textbook that can improve learning competence. In fact, what is happening today and almost in all universities, lecturers are still few who develop e-learning textbooks. This will certainly affect the effectiveness of the course lectures (Dwivedi et al., 2019; Setiyani, 2020). One of the causes of low-quality of learning is due to the lack of maximum use of textbooks. Poor textbook references result in low student learning outcomes. Learning

competence is defined as the level of mastery of the material provided and changes in behavior after they follow learning. Textbooks are used by lecturers in carrying out teaching to improve the quality of learning.

Conventional learning is different from online learning. Conventional learning is gradually being replaced by online learning that uses technology and electronic media to deliver learning materials to students remotely (Vidanti & Susilowibowo, 2021). E-learning has a level of practicality (Faradayanti, 2020; Nedeva & Dimova, 2010) improving the quality of teaching and learning activities, as an innovative tool ease of use of services in e-learning, the advantages of e-learning are innovatively positively related to student assessment in obtaining e-learning content (Kumar, 2013; Stecuła & Wolniak, 2022). Learning using e-learning has a positive influence on learning outcomes. The e-learning learning method provides empirical evidence of the effect of benefits, comfort, and learning outcomes experience. Learning using e-learning has also proven effective.

There have been many studies examining e-learning-based textbooks such as; research by previous study which concluded that there is an influence of e-readiness on graduate achievement; there is an influence of e-learning on graduate achievement; and there is the effect of e-books on graduate achievement (Dudung et al., 2022). Other research concluded that high-category students are taught through the PBL learning model with the help of hypermedia-based e-books compared to the use of printed teaching materials (Awaludin et al., 2020). Another research proves that the results of the effectiveness test show that Android-based e-textbooks have a significant effect on student learning outcomes (Batubara et al., 2022). In addition, the usefulness, ease of use, and satisfaction with Android-based e-textbooks are also very good. Previous study states that interactive e-book media can increase student knowledge (Wulandari et al., 2019).

In addition, Learning Assessment e-learning textbooks have not been maximally developed by most lecturers at UNESA for students to use in accessing textbooks through Vinesa (Virtual Learning UNESA). In this study, there are also not many UNESA lecturers who research related to the feasibility as well as the use of teaching materials through UNESA virtual learning. The urgency of this research is how to solve the right solution or way to solve these learning problems using interesting and challenging media so that it can liven up the learning atmosphere (Ariyani & Kristin, 2021; Herawati, N. S., & Muhtadi, 2018). Students in learning are expected to solve a problem. Current learning provides opportunities for independent learning to students, learning is not centered on lecturers but on students, interesting, interactive, affordable, efficient, effective, accessible, flexible, and meaningful is very possible to do e-learning or online (Ambiyar et al., 2021; Aurora & Effendi, 2020). The rapid development of information technology such as computers is a "solution" for student learning services, namely e-learning-based learning delivered electronically. E-learning learning is a learning process by relying on electronic facilities, especially the Internet in the learning process (Elyas, 2018; Jawas, 2019). E-learning-based media is media with the help of internet applications that can connect educators and students in online classes.

The results of observations and interviews with undergraduate students of the Educational Technology study program obtained several facts, such as the Learning Assessment course is a very fun course for students because there is material for analyzing question items. After all, students as prospective teachers must know how to analyze question items. Students stated that the Learning Assessment course did not have a textbook. Students hope that Learning Assessment textbooks in the form of e-learning can make students learn without having to go to campus, meaning that students can learn independently. This makes students bored and results in decreased student learning outcomes.

This study aims to assess the feasibility of e-learning textbooks of Learning Assessment as evidenced by the validation process from a team of learning media experts, learning material experts, learning design experts, and linguists, individual trials, and small groups, it is hoped that this research will produce quality Learning Assessment e-learning textbook products and can be used more widely, especially for undergraduate students of the Educational Technology study program. The novelty of this study is that there are no researchers who have examined e-learning textbooks of learning assessment with item analysis material.

2. METHOD

Development with a quantitative approach to produce products that are suitable for use (Rahman et al., 2021). For textbook feasibility testing, development research subjects are needed for validation, namely: a material expert, a media expert, and a learning design expert. Individual product trials required 3 students and 6 students for small group trials. Students are selected heterogeneously with low, medium, and high abilities. The subjects of this study used simple random sampling (Sugiyono, 2018). The data were analyzed in a quantitative descriptive manner. Quantitative analysis techniques are applied to calculate the feasibility of textbooks. Textbooks first by experts (experts' judgment) are validated in terms of media,

material, and learning design. Observations were made in the Educational Technology Study Program, with the object of researching undergraduate students who were taking Learning Assessment courses, b) The interview method is data collected through systematic questions and answers and the results are documented. The interview method is by making a list of questions for students to be studied (Dwiqi et al., 2020; Pramana et al., 2020). Interviews were conducted with S1 students who were taking Learning Assessment courses and their lecturers, c) researchers made a list of questions given to media experts, material experts, and learning design experts to measure the feasibility of textbook products for Learning Assessment courses called the questionnaire method.

Model using ADDIE (Analysis, Design, Development, Implementation, Evaluation). Considerations of using the ADDIE model because; 1) can be adapted in product development, including textbooks, 2) product improvements can be made at every step, 3) simple, systematic and practical development flow. Researchers use the ADDIE model because this model is used to develop a learning product design. The ADDIE model is used because this model is considered suitable for the development of learning media (Hidayat & Nizar, 2021; Melliyanti & Suniasih, 2022). The stages of ADDIE are: 1) the analysis stage: applying analysis between expectations and reality in the learning process on campus. Needs analysis is applied by giving questionnaires to lecturers and students to identify textbook needs. This stage uses questionnaire, interview, and observation methods, 2) the design stage will produce a design or make a textbook design to be developed, 3) the development stage is assessed by experts and revised. The design is already in real form in accordance with the draft that has been made previously, 4) the implementation stage is carried out to test the products that have been made. Products are validated by material experts, teaching material experts, media experts, and linguists, after being deemed feasible, the product will be tested to students in individual groups and small groups, 5) evaluation stage: actually the evaluation has been carried out at each stage. The product has been said to be in accordance with expectations and successfully based on needs analysis.

Several instruments were used in the study, namely: observation sheets, interviews, and questionnaires. The use of observation sheets to find the relationship of everything with learning on campus such as; learning facilities, learning process, and student characteristics. Table 1 presents the conservation grid.

Table 1. Observation Grid

No	Question
1.	Are students focused on Learning Assessment courses?
2.	Are students actively participating in learning?
3.	How many students are actively participating in lectures in class?
4.	Are teaching materials used in Learning Assessment lectures?
5.	Are lecturers the only primary source of learning?

The interview sheet is used to find out a variety of more in-depth information related to the use of e-learning textbooks for Learning Assessment. Table 2 presents a grid of interviews.

Table 2. Interview Grid

No	Question
1.	Does the Learning Assessment course use textbooks?
2.	The use of textbooks by lecturers, can they support learning activities?
3.	Is the textbook used appropriately?
4.	Do textbooks need to be developed again?
5.	Do students have to use textbooks?
6.	Does the textbook come with clear examples?
7.	Is the internet connection at UNESA good?
8.	What is the lecturer's strategy in dealing with problems that occur when teaching Learning Assessments?
9.	What methods are used during the learning process of Learning Assessment?
10.	Whether students can study independently in Learning Assessment courses?

Feasibility tests are carried out by material experts, teaching material experts, media experts, and linguists before Learning Assessment textbooks are developed and implemented. The test used several questionnaires aimed to find out whether or not the textbook developed is feasible to be implemented. Table 3, Table 4, Table 5, and Table 6 present instrument grids from materials experts, media experts,

design experts, and group trials per individual and small group. This instrument aims to determine the quality of learning material contained in Learning Assessment textbooks that have been developed. Table 3 presents a grid of expert instruments of learning materials.

Table 3. Learning Material Expert Grid

No	Aspects		Indicator
1	Learning indicators and objectives	a	Compatibility between achievement indicators and subthemes
		b	Preparation of learning objectives with the ABCD model
		c	Compatibility of indicators with Basic Competencies
2	Lesson Plan	a	The material is easy to understand
		b	There are initial, core, closing, and time allocation activities along with their stages
3	Content	a	The contents of the Material are arranged in order
		b	By using easy-to-understand language
		c	Materials are arranged based on KD and learning indicators
4	Evaluation	a	There are questions
		b	Suitability of evaluation to the material

Instruments are applied to assess the quality of developed textbooks for Learning Assessment courses. The grid of teaching material experts is shown in Table 4.

Table 4. Teaching Material Expert Grid

No	Aspects		Indicator
1	Aspect of Textbook Appearance	a	Display cover design according to the theme
		b	Images according to the competencies achieved
		c	A4 Paper (UNESCO)
		d	Color match of letters and numbers
		e	Font size accuracy
2	Aspek of Language Use	a	Conformity of the text to the competencies achieved
		b	The use of language is easy to understand
		c	Systematics of writing according to EYD

This instrument is used to determine the quality of e-learning textbooks of Learning Assessments that have been developed. Table 5 presents a grid of learning media experts.

Table 5. Learning Media Expert Grid

No	Aspects		Indicator
1	Text Aspect	a	Text clarity
		b	Text type
2	Image Aspect	a	Image layout
		b	Image quality
		c	Image interest
3	Animation Aspect	a	Animation quality
		b	Suitability of animation to the material
4	Audio Aspect	a	Clarity of sound music and narrator
5	Accessibility Aspect	a	Interactive link learning
		b	Seamless interactive links
6	Design Aspects	a	Banner E-Learning
		b	Use of background color
		c	Font size
		d	Font color
		e	Font type

This instrument aims to assess the quality of learning in the development of textbooks for Learning Assessment courses. The grid of learning experts is shown in Table 6.

Table 6. Learning Expert Grid

No	Aspects		Indicator
1	Aspects of Learning Design	a	Clarity of formulation of learning objectives
		b	Selection of teaching materials
		c	Organizing teaching materials
		d	Learning activity steps
2	Strategy	a	Systematic in material delivery
		b	Motivated students
		c	Providing opportunities for independent learning
		d	Providing opportunities for students to access materials through the internet
3	Evaluation	a	Questions according to indicators
		b	The questions are accompanied by working instructions

The use of instruments to determine the language quality of the e-learning textbook of Learning Assessment that has been developed. The grid of linguists is shown in Table 7.

Table 7. Linguist Grid

No	Aspects		Indicator
1		a	The language used is communicative and simple.
2		b	Sentence conformity to EYD
3	Language	c	Language according to student cognition
4		d	Sentences are clear and easy to understand
5		e	Accuracy in structuring sentences
6		f	Terms that are difficult or not understood are explained

The use of instruments to determine student responses related to the application of developed textbooks. The instrument grids of individual groups and small groups are presented in Table 8.

Table 8. Trial Test Per Individual and Small Group Grids

No	Aspects		Indicator
1	Ease of navigation	a	Easy navigation to operate
		b	Navigation menu compatibility
2	Cognition	a	Make it easier for students to learn
3	Display	a	In harmony with the content of the material
		b	Content placement accordingly
		c	Color composition is appropriate
		d	Text is readable

The next step is to test the validity of the instrument. Experts carry out instrument validation of instrument items, and the results of the assessment are in accordance with the feasibility category. Data analysis uses qualitative and quantitative descriptive data analysis methods. The use of this method is to process data in the form of input, criticism, and suggestions in improving textbook development products from the results of validation of learning material experts, learning media experts, learning design materials, test subjects per individual, and small groups. The reference used to make decisions is presented in Table 9.

Table 9. Textbook Eligibility Criteria with a Scale of 5

Score	Criteria	Information
81% - 100%	Excellent	Very decent, no revision required
61% - 80%	Good	Feasible, no revision required
41% - 60%	Enough	Less feasible, needs revision
21% - 40%	Less	Not worth it, needs revision
0% - 20%	Very Lacking	Very unfeasible, and needs revision

3. RESULT AND DISCUSSION

Results

Analysis

Observation and interview methods are used at this stage so that the products created are in accordance with students, learning objectives, material, and learning environment. Interviews were conducted with lecturers who teach Learning Assessment courses, observations were made during Learning Assessment lectures in the Educational Technology study program. From interviews and observations, data were obtained that there were gaps including a) students did not understand the Learning Assessment material so learning was not optimal, b) lecturers used printed textbooks in delivering material so students felt bored with the use of printed textbooks then the absorption of knowledge was less optimal and also had an impact on student activity in learning, causing learning outcomes to decrease, c) students need a variety of learning that varies according to their learning style, d) students do not use their smartphones as educational facilities.

At this stage, problems are raised that become the basis for teaching Learning Assessments, student characteristics to find out the diversity of student abilities, and identification of material to be in accordance with the development of textbooks as a determinant of student competence. The points that need to be obtained at this stage are 1) Determination of learning objectives, 2) Learning objectives achieved.

Design

The application of the design stage is to 1) select software to overcome student learning gaps and design the framework of learning media to be developed. Researchers prepare materials needed for expert validation and student trials, 2) create workflows or flowcharts to describe the product thoroughly including scheduling media development, determining project teams, planning media specifications and material structures, and controlling the development work process 3) make storyboards as developer guidelines in incorporating material, developing media elements in accordance with the design framework, Review, and improve the media developed so that it is declared feasible for the implementation of learning. In the stage of developing a textbook, the researcher will input material and develop designs in the form of text, images, video, audio, and animation. 4) assemble assessment instruments, question items and make lesson plans related to the curriculum. Textbook products to be designed must be in accordance with the lesson plan. The lesson plan contains KD, indicators, learning objectives, material exposure, learning activities, rubrics, and evaluation sheets.

Development

The development stages carried out are: 1) Collection of e-learning textbooks of Learning Assessment such as materials, syllabi, text, images, videos, audio, and animations. (2) development of Learning Assessment books, such as inputting material and developing designs in the form of text, images, video, audio, and animation. The following is a look of the Learning Assessment textbook. Textbooks consist of intros, profiles, instructions, basic competence, materials, and evaluations. Figure 1 is a view of the Learning Assessment textbook.

Figure 1. Cover of the textbook

Implementation

Activities in this phase include: 1) testing the product through several scientific stages. This is done so that the product's validity, reliability, and usability can be measured and tested by involving experts. Some experts include material experts, teaching material experts, media experts, and learning linguists. At this stage, the material expert will assess in terms of the material presented in this Learning Assessment textbook. After assessing its feasibility, researchers get input, suggestions, and constructive responses from teaching material experts and linguists. After that, improvements were made according to records from related parties so that the material produced met the standards and according to student needs, 2) experts validated the textbooks followed by the application of trials. Product trials consist of individual group trials with a total of 3 students, and small group trials consisting of 6 students obtained variously with low, medium, and high abilities. After the trial, 6 students were required to submit responses or opinions about the Learning Assessment textbook developed as a form of evaluation to minimize shortcomings. The assessment carried out by several experts and product trials is intended to determine the feasibility of Learning Assessment textbooks that have been developed. A feasibility criterion of textbook with 5 scales is show in Table 10.

Table 10. Feasibility Criteria of Textbook with 5 Scale

Test Subjects	Result	Information
Learning materials	1	very high
Learning media	1	very high
Learning materials	1	very high
Learning media experts	1	very high
Linguists	1	very high
Product trials	1	very high

Table 11 describes content validation, design validation, media validation, and trial validation of learning products each obtaining a very high category. Feasibility test is using all aspects calculation using a 5-scale questionnaire on data collection techniques.

Table 11. Feasibility Criteria of Textbook with 5 Scale

Test Subjects	Respondent	Result	Information
Test learning materials	1	91%	very worthy
Test learning materials	1	90%	very worthy
Test learning media	1	94%	very worthy
Language test	1	90%	very worthy
Individual trials	3	80%	very worthy
Small group trials	6	83%	very worthy

Base on Table 11, expert assessment of learning materials gets 91% of results categorized as very feasible, expert assessment of learning materials gets 90% of results categorized as very feasible, expert assessment of learning media gets 94% of results categorized as very feasible, expert assessment of language gets 90% results categorized as very feasible. Individual trials get 80% results, categorized as very feasible. The results of the small group trial were 83%, categorized as very feasible.

Evaluation

The last stage is the evaluation of the Learning Assessment e-learning textbook product. The evaluation carried out on this development research is based on feasibility tests. Media due diligence is evaluated based on expert validation and product testing. The results of the evaluation are revised according to the results of the evaluation. Evaluation of e-learning textbook development for Learning Assessment aims as follows: 1) positive and better attitude changes toward learning activities, 2) increased abilities, and 3) institutional advantages as a result of increasing student competence.

Discussion

Educators who are less innovative in supporting the learning process will result in decreased student learning gains (Dwiqi et al., 2020; Izzah et al., 2022). Maximum learning outcomes are influenced by educators' strategies in implementing innovative learning models. The influence of educators' creativity affects learning interest (Andayani & Hadiati, 2022; Tri Pebrianto & Tauchid Noor, 2015). Based on the background of the problem, researchers offer solutions with innovative learning, that can be done anywhere

and anytime, and can be integrated into, and others, namely by developing e-learning textbooks of Learning Assessment. Learning assessment e-learning textbooks have several benefits, namely 1) media can be combined with text, 2) students can study flexibly place and time, and 3) can improve the quality of learning. 4) combined with a Learning Management System (LMS) such as uploading materials, conducting evaluations, and so on (Farhana et al., 2021; Marzal et al., 2022). The results of the material feasibility test were obtained at 91%, learning materials at 90%, media at 94%, language at 90%, individual trials at 80%, and small group trials at 83% then all of which are categorized as very suitable for use (Ernawati & Sukardiyono, 2017). This proves that the e-learning textbook for Learning Assessment is feasible for learning.

The results of previous research stated that e-learning-based textbooks as a companion for lecturers are very feasible to be used (Wijayanti et al., 2021). The development of digital textbooks using the 3D Pageflip application can increase the competence of Subject Content Knowledge and pedagogics (Firman Raharjo & Ikhsan Karimah, 2021). The development of books digitally in order to be able to utilize literacy flexibly both time and place and get the attention of lecturers and students. Previous research states that interactive e-books as e-learning textbooks through 4S TMD are suitable for use (Munawwarah & Anwar, 2020). This is in line with research conducted by Munir stating that textbooks with e-learning media are suitable for use by students (Munir, 2018). Other research states that 60% of students prefer to read e-books rather than print, this is because students have devices to access (Widya & Adri, 2021). The use of e-learning teaching materials has proven effective in increasing learning achievement (Harahap & Abidin, 2021; Suprayogie & Hakim, 2021; Vahlia, 2017). Applying teaching materials based on digital books has been proven to significantly improve learning outcomes (Farhana et al., 2021; Zaini et al., 2019). Combining teaching materials with the use of e-learning is proven to improve learning outcomes. Based on the results of the analysis, it can be suggested that e-books are used as a medium that contains the principles of traditional wisdom that are valued in Bali very adequately in the context of social studies learning. The study entitled Development of Textbook Based on Learning concluded that e-learning textbooks are appropriate to be developed (Setyansah & Apriandi, 2019). Thus, some of the advantages of e-learning textbooks are that students are able to use e-learning textbooks as independent learning aids because of the various content in e-learning textbooks, such as video, audio, animation, and practice questions. Students easily access e-learning textbooks and find the material needed and find solutions to challenges or problems faced in learning

This research has limitations, namely that individual trials have a feasibility value of only 80% bordering between feasible and very feasible to be able to improve student learning competence, although it can still be said to be feasible to use because experts and students provide very feasible assessments. The development of e-learning textbooks for Learning Assessment with items analysis material facilitated by UNESA (Vinesa) is feasible to use and can improve the learning competence of undergraduate students of the Educational Technology study program so that the implications of this development product can be monitored for the level of feasibility of improving student learning outcomes. This is quite reasonable because of several advantages of e-learning textbooks of Learning Assessment: 1) fellow students can help each other in doing assignments from lecturers, 2) textbooks can function as a substitute for lecturers, 3) increase learning opportunities with a more open and adaptive approach, 4) e-learning models lead students to learn independently, 5) e-learning encourages students to complete tasks on time in learning, 6) students have the flexibility to study in various locations and desired times.

The conclusions of some of these studies are known that the application of electronic learning or online learning is considered possible and quite feasible. E-learning textbooks are said to be feasible if the validity results of experts are at least in the good category. E-learning teaching materials are said to be feasible if a) there is an increase in pretests and postes, b) an increase in KKM scores, c) an increase in student interest in learning and a positive attitude towards the course. This is evidenced by the readiness of educators or lecturers, the ability to use applications, perceptions, and positive impacts achieved. With the help of online learning materials, students can create their information, learn a lot of material and study independently.

4. CONCLUSION

Experts and students provide very feasible assessments in the development of e-learning textbooks for Learning Assessment courses through Vinesa with the ADDIE development model, so e-learning textbooks for Learning Assessment courses have proven feasible to improve student competence in Learning Assessment, especially items analysis. The recommendation for the next development of e-learning is that it is expected that e-learning textbooks have a responsive design that can adjust the display to various devices such as computers, tablets, or smartphones. In addition, multimedia elements such as

videos, animations, images, and audio are added and to test the material that has been learned it is necessary to add quizzes or practice questions.

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