

# The Learning Outcomes in Appreciating Indonesian Fiction and Non-fiction Books Through E-learning Modules

Tridanova Saftiah<sup>1</sup>, Efendi Napitupulu<sup>2</sup>, Hamonangan Tambunan<sup>3</sup>

{[tridanovasaftiah@gmail.com](mailto:tridanovasaftiah@gmail.com)<sup>1</sup>, [napitupuluefendi@gmail.com](mailto:napitupuluefendi@gmail.com)<sup>2</sup>,  
[hamonangantambunan@unimed.ac.id](mailto:hamonangantambunan@unimed.ac.id)<sup>3</sup>}

UPTD. SMP Negeri 10 Torgamba<sup>1</sup>, Universitas Negeri Medan<sup>2</sup>, Universitas Negeri Medan<sup>3</sup>

**Abstract.** Following the applicable curriculum, we developed an E-learning skills module to appreciate fiction and non-fiction books for class VIII students. The e-learning module consists of (1) Instructional objectives. (2) Initial guidelines. (3) Teaching materials that students must understand, (4) Discussion questions that students must work on, (5) General description of learning components. (6) Assessment. (7) Answer Key. Two test groups were involved in investigating the impact of using the e-module. Participants involved in the experimental and comparison groups each amounted to 30 students with the types of instruments used in the research, namely (1) questionnaire; (2) Interview sheet and list of questions; (3) assessment sheet, and (4) learning achievement test. All instruments have previously been examined for their validity and reliability through trials. The results of the analysis show that using e-modules in learning provides better results than without using e-modules.

**Keywords:** The learning outcomes, appreciating books, e-learning modules.

## 1 Introduction

Primary and secondary education institutions in Indonesia strive to meet the requirements set because literacy is needed in every aspect of modern life. To meet the cognitive demands of the 21st century, literate people must have broad literacy. This includes being an innovative and independent thinker who continually generates new information. This vision includes thinking and other critical high-level thinking abilities, questioning the opinion of a writer or speaker, and assessing the plausibility of reasoning. Scaffolding Higher order thinking skills (SHOTS) are required to understand the large amounts of data that exist in our digital and computer society. Students must understand and review the literature, according to the Common Core State Standards (CCSS). The goal of 21st century literacy is to increase text-dependent literacy and close reading. [1].

Through continual training and numerous educational initiatives, literacy skills can be developed [2], [3]. It encompasses all of the skills associated with learning a language, including reading, writing, speaking, listening, and critical thinking. Developers provide a variety of language-learning options, such as video instruction [4], internet assistance [5], utilization of intercultural language learning sites [6], and WebQuests [7]. Digital technology has also been studied and found to provide optimistic effects for language acquisition [8]. It is identical to learning through e-learning modules, which are extensively used in a variety of learning domains, including medicine [9], [10], [11], and teacher training [12]. It demonstrates the possibility of using e-modules in Indonesian language instruction. Specifically, the e-module focuses on developing the ability to evaluate both fiction and non-fiction literature. This is important to improve students' literacy skills because no e-module follows the Indonesian language curriculum for grade 8.

Therefore, we believe that it is essential to continue researching and developing the E-module through experimentation. Did the e-module improve students' learning outcomes in valuing fiction and non-fiction books? One of the questions we have for our investigation. In this study, we summarize the responses to these queries.

## **2 Literature Review**

### **2.1 Literacy Skills**

The capacity to identify, understand, interpret, generate, communicate, and calculate with written and printed resources under a variety of conditions. continuous learning that enables individuals to achieve their goals, realize their full potential, and participate meaningfully in both local and global communities. Numeracy, or the capacity for basic arithmetic computations, is typically encompassed within the meaning of literacy. It is possible to distinguish between functional literacy and other quantifiable measures of literacy, such as the literacy rate (<http://uis.unesco.org/>). Speaking, writing, listening, and reading are examples of literacy abilities. They also possess knowledge of print, the correspondence between letters and sounds, and awareness of language sounds. Spelling, comprehension, and vocabulary are other literacy abilities. Through the use of technology, media, and text reading, they aid in our knowledge acquisition [13], [14].

Reading is the process of deciphering written symbols and letters by looking at them. The development of essential reading literacy skills involves many literacy skills. Reading skills have an impact on a child's reading capacity, or how well they can read and understand what they're reading. Throughout their elementary school years and beyond, children continue to refine and build a variety of reading ability. This literacy summary highlights key points (a) Decoding: Figuring out pronounce it (or begin sounding it out) a written phrase that you are unfamiliar with is the definition of decoding in reading. Children find it easier to understand, recognize, and ascertain the pronunciation or meaning of words they possible lack of sight previously thanks to this process, (b) Phonemic awareness: A subset of phonological awareness known as phonemic awareness is limited to the study of phonemes. It describes the capacity to concentrate on particular sounds inside spoken words, (c) Reading fluency: Word recognition and understanding are combined through fluency in reading. You can read more easily and without getting stuck on words when you have fluency. It's the final fundamental

ability required to read, (d) Understanding what you have read by using the abilities you have learned and processed to read is known as reading comprehension. In adulthood, reading comprehension is also an essential talent. For instance, reading comprehension abilities are necessary in order to comprehend important correspondence, contracts, work papers, emails, etc. [15], [16]

## **2.1 E-learning module**

Digital resources used for education, usually for online or remote learning, are called e-learning modules. These virtual courses can be found online in a variety of formats, including text-based materials, interactive games, movies, and simulations. They can be utilized as supplementary materials or as a part of a longer course or program. They can be accessed via a computer or other gadgets, such a tablet or mobile phone, and they are frequently made to be self-paced so that students can go at their own pace [17]. E-learning modules are used to convey instructional content to a wide audience in a variety of settings, such as business training, K–12 education, and higher education.

This e-learning module was developed within the framework of the philosophy of self-regulated learning (SRL). The independent method via which pupil convert their mental aptitudes into academic capabilities is known as self-regulation [18]. This approach emphasizes just how important is it for pupils to acquire the skills necessary to actively participate in their education. Several essential processes, such as self-direction, self-efficacy, self-awareness, self-reflection, and self-motivation, are used to achieve learning [19]. For the purpose of strengthening pupils' literacy abilities through education, this theoretical framework is crucial. Learning practices that are self-regulated in elementary school can help children learn throughout their lives, leading to an appreciation of competency and improved literacy quality, according to a systematic review conducted by the authors. Self-motivation and task analysis make up the forethought phase. Strategic planning and goal setting are included in this phase. Learners' attitude to the task, goal orientation, planning strategies and determining work interests, and task performance at the targeted performance level are all impacted by their attitudes on self-motivation..

The procedures of self-control and self-observation make up the performance phase. Self-instruction techniques are included in this phase; these are often decided upon during the planning stage. Self-observation encompasses the learner's evaluation of their own progress as well as self-assessment of study habits, including time management. This cycle also includes individual perspectives on learning value, self-efficacy, and how well the task can be completed. Self-reaction and self-judgment are integrated into the self-reflection phase. During this stage, the student evaluates their work according to the evaluation standards and their own objectives. If the student fails to meet their objective, the learning cycle recommences with an analysis of the tactics that have and have not been successful. Through this adaptive process, the student can stay motivated to start the work again in hopes of achieving a higher result.

## 3 Methods

### 3.1 E-learning module design

Three proficient Indonesian language speakers and one proficient media designer collaborated to create the e-learning program. The online course teaches Indonesian readers the essential ideas for valuing both fiction and non-fiction works. The e-learning module consists of (1) Instructional objectives, which are structured with the idea of learner behavior. (2) Initial guidelines containing information related to student learning activities. (3) Instructional resources that learners need to comprehend, (4) Questions from the discussion that students must work on, (5) Overview of learning components. (6) Assessment. (7) Answer key.

### 3.2 Instruments

Three different kinds of instruments are employed in the study, including (1) a questionnaire to collect initial data as a basis for developing the e-module; (2) Interview forms and a set of inquiries to elicit data from students as possible users; (3) assessment sheet, which is used by the validator to assess the e-module, and (4) Learning achievement test, which is used to test the impact of using e-module on learning. Trials have been used to examine the validity and reliability of all prior instruments.

### 3.3 Participants

Two schools were selected as the test groups for the e-module: An experimental group was one of them with 30 students, and the other as a comparison group with 30 students not using the e-module. Prior to putting the module into practice, the starting capabilities of both groups were examined. The two groups' initial knowledge did not differ substantially.

### 3.4 Data collection and data analysis

For three months, both groups received instruction. At the conclusion of the class, data on learning outcomes from the two groups were gathered using a learning achievement test instrument. The data were analyzed using the t-test through the IBM SPSS 26 Program.

## 4 Results

### Description of learning outcomes

The learning outcomes of the two groups are shown in Table 1. Learning using the e-module (Group 1, Experiment group) shows an average learning result (Mean) = 78.73, SE = 1.153, and Group 2 (controlled group) is Mean = 63.33, SE = 1.611.

**Table 1. Learning outcome Description**

Group		Statistic	Std. Error
Post-Test Score	Experiment	Mean	78.73
		95% Confidence Interval	Lower Bound 76.38

	for Mean	Upper Bound	81.09	
	5% Trimmed Mean		78.81	
	Median		78.00	
	Variance		39.857	
	Std. Deviation		6.313	
	Minimum		68	
	Maximum		88	
	Range		20	
	Interquartile Range		11	
	Skewness		-.017	.427
	Kurtosis		-.919	.833
Controlled	Mean		63.33	1.611
	95% Confidence Interval	Lower Bound	60.04	
	for Mean	Upper Bound	66.63	
	5% Trimmed Mean		63.37	
	Median		64.00	
	Variance		77.885	
	Std. Deviation		8.825	
	Minimum		50	
	Maximum		76	
	Range		26	
	Interquartile Range		16	
	Skewness		.035	.427
	Kurtosis		-1.216	.833

The data normalcy test findings (Table 2) show that the control group data is not normally distributed based on the Shapiro-Wilk Test (Sig = .022 < .05). Therefore, the following analysis used nonparametric statistical tests.

**Table 2. Tests of data normality**

	Group	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Post-Test Score	Experiment	.120	30	.200*	.935	30	.067

Controlled	.155	30	.064	.916	30	.022
------------	------	----	------	------	----	------

\*. This is a lower bound of the true significance.

- a. Lilliefors Significance Correction
- b. The nonparametric statistical test results (Table 3) show Sig. = .000, they rejected the null hypothesis. It explains that learning outcomes using e-module (Group 1, Experiment group) significantly differ from those without an e-module (Group 2, Control group).

**Table 3. Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Post-Test Score is the same across categories of Group.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

The variance in the two groups' means visually appears as Figure 1.

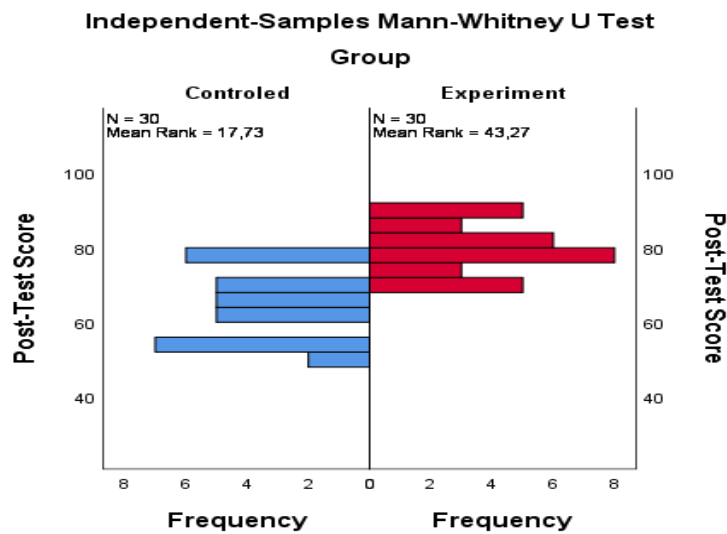


Figure 1. Groups' learning outcomes have the different testing result

## 5 Discussion

The test findings demonstrate the beneficial effects of using e-modules in Indonesian language instruction, particularly when it comes to the area of appreciating fiction and non-fiction literature. This supports the claim that digital learning can have positive outcomes [8]. Therefore, in accordance with the findings of testing in learning in a variety of other sectors, including medical. So, all learning activities benefit from the use of e-modules. [9], [10], [11], and teacher training [12]. This inquiry, however, is still limited to the study of Indonesian, particularly with regard to the subject matter covered in the eighth-grade secondary school curriculum. It is also envisaged that further research would be able to improve knowledge on the integration of e-modules into other educational resources.

## 6 Conclusion

The findings of the investigation lead to the conclusion that e-modules are very suitable to be developed as an Indonesian language learning resource. Students are more motivated and encouraged to learn on their own.

### Acknowledgment

The author would like to express gratitude to everyone who helped in the study, especially to the heads of related institutions.

## References

- [1] A. Vincent Ciardiello. 21st century literacy skills: The SHOTS strategy, p.2. International Literacy Association. <https://www.literacyworldwide.org> (2015).
- [2] Purnell, M., Royal, B., & Warton, L. Supporting the development of information literacy skills and knowledge in undergraduate nursing students: An integrative review. *Nurse Education Today*, 95, 104585 (2020).
- [3] Kowalski, M. J., Elliot, A. J., Guzman, J. C., & Schuenke-Lucien, K. Early literacy skill development and motivation in the low-income context of Haiti. *International Journal of Educational Research*, 113, 101972 (2022).
- [4] Maribel Montero Perez & Michael P. H. Rodgers. Video and language learning, *The Language Learning Journal*, 47:4, 403-406 (2019).
- [5] Michael Vallance. Internet-aided Language Learning, *Intelligent Tutoring Media*, 7:3-4, 137-145 (1997).
- [6] Jeong-Bae Son & Ji-Yong Park. Intercultural usability of language learning websites, *International Journal of Pedagogies and Learning*, 7:2, 135-141 (2012).
- [7] Selami Aydin. WebQuests as language-learning tools, *Computer Assisted Language Learning*, 29:4, 765-778 (2016).
- [8] Norbert Pachler. Foreign language learning with digital technology, *The Language Learning Journal*, 39:3, 383-384 (2011).

- [9] Umar Z. Ikram, Marie-Louise Essink-Bot & Jeanine Suurmond. How we developed an effective e-learning module for medical students on using professional interpreters, *Medical Teacher*, 37:5, 422-427 (2015).
- [10] Patricia Solomon & E. Lynne Geddes. An interprofessional e-learning module on health care ethics, *Journal of Interprofessional Care*, 24:3, 311-314 (2010).
- [11] Antoine Fourré, Auriane Fierens, Jef Michielsen, Laurence Ris, Frédéric Dierick & Nathalie Roussel. An interactive e-learning module to promote bio-psycho-social management of low back pain in healthcare professionals: a pilot study, *Journal of Manual & Manipulative Therapy*, 30:2, 105-115 (2022).
- [12] L. Pombo, M. Smith, M. Abelha, H. Caixinha & N. Costa. Evaluating an online e-module for Portuguese primary teachers: trainees' perceptions, *Technology, Pedagogy and Education*, 21:1, 21-36 (2012)
- [13] Shukhan Ng, Brennan R. Payne, Xiaomei Liu, Carolyn J. Anderson, Kara D. Federmeier & Elizabeth A. L. Stine-Morrow. Execution of Lexical and Conceptual Processes in Sentence Comprehension among Adult Readers as a Function of Literacy Skill, *Scientific Studies of Reading*, 24:4, 338-355 (2020)
- [14] Manon Grube, Freya E. Cooper & Timothy D. Griffiths. Auditory temporal-regularity processing correlates with language and literacy skill in early adulthood, *Cognitive Neuroscience*, 4:3-4, 225-230 (2013)
- [15] Elaine Carlson, Frank Jenkins, Tiandong Li & Mary Brownell. The Interactions of Vocabulary, Phonemic Awareness, Decoding, and Reading Comprehension, *The Journal of Educational Research*, 106:2, 120-131 (2013)
- [16] Elizabeth S. Mathews & Margaret O'Donnell. Phonological decoding and reading comprehension in deaf and hard-of-hearing children, *European Journal of Special Needs Education*, 35:2, 220-235 (2020)
- [17] Logan, R. M., Johnson, C. E., & Worsham, J. W. Development of an e-learning module to facilitate student learning and outcomes. *Teaching and Learning in Nursing*, 16(2), 139-142 (2021)
- [18] Zimmerman, B. J. Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64-70 (2002)
- [19] Kowitlawakul, Y., Chan, M. F., Tan, S. S. L., Soong, A. S. K., & Chan, S. W. C. Development of an e-learning research module using multimedia instruction approach. *CIN: Computers, Informatics, Nursing*, 35(3), 158-166 (2017)