



# Development to Train High School Students' Reading Literacy Skills

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Received: May 2, 2023

Revised: July 4, 2023

Accepted: August 25, 2023

Published: August 31, 2023

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DOI: [10.29303/jppipa.v9i8.3763](https://doi.org/10.29303/jppipa.v9i8.3763)

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**Abstract:** This study aims to develop an E-Module to train high school students' reading literacy skills. The e-module was designed using Canva-assisted power point and saved in power point show. The power point show is then sent via WhatsApp for students to use. This research uses the development method with the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) according to. The implementation phase uses a pretest - posttest non-equivalent control group design to obtain information about the effect of the developed E-Module. This research was conducted at a public high school in Cimahi City, West Java Province in February-March 2023. The sample for this study was taken by convenience sampling, namely 30 students from class XI IPA 1 as the experimental class and 30 students from class XI IPA 2 as the experimental class. control. The instruments and data collection techniques used in this study were the due diligence validation sheets, readability tests and reading literacy skills tests. The results showed that the feasibility test for the developed E-module showed very feasible criteria, the readability test showed a result of 80% with easy-to-understand criteria and the development of this E-module could increase reading literacy skills by 0.7 with high criteria on the indicator of finding information, 0.8 with high criteria on indicators of interpretation and integration and a score of 1 with high criteria on evaluating and reflecting indicators.

**Keywords:** Development; E-module; Reading literacy ability

## Introduction

Education in Indonesia is now entering 21st century education where one of the conditions that must be met by students in order to have 21st century competence is literacy skills (Miftakhurrohman et al., 2023). However, in Indonesia literacy skills are still a problem because they are still relatively low (Rahmawati et al., 2022) when viewed from the results of the Program for International Student Assessment (PISA) which aims to measure reading literacy skills in 2019 it shows that Indonesian students only occupy positions sixth from bottom with a score of 371 (Andriani et al., 2021; Rompegading et al., 2022; Rosmiati et al., 2022; Mouli et al., 2023; Rivai, 2022). This shows that the development of education in Indonesia is still far behind compared to other countries in the world.

The low level of reading literacy skills of students in Indonesia prompted the government to launch a Free Learning program. The program launched by Nadiem Anwar Makarim as Minister of Education, Culture, Research and Technology consists of four points, namely: the National Standardized School Examination was abolished, this program was returned to school policy, the National Examination was replaced with a National Assessment. Consists of three parts, namely the Minimum Competency Assessment, the Character Survey, and the Learning Environment Survey (Marisa 2021; Yamtinah et al., 2022).

Minimum Competency Assessment is an assessment that measures the minimum abilities needed by students to be able to learn and is a simplified form of the National Examination which is so complex (Lestari, 2022). Unlike the National Examination (UN),

### How to Cite:

Faidah, S. T. R., Sriyati, S., & Priyandoko, D. (2023). Development to Train High School Students' Reading Literacy Skills. *Jurnal Penelitian Pendidikan IPA*, 9(8), 6045-6055. <https://doi.org/10.29303/jppipa.v9i8.3763>

which is held at the end of the level, the National Assessment (AN) is carried out in the middle of the level, namely in grades 4 SD, 8 SMP, and 11 SMA (Yamtinah et al., 2022). The reason why the National Assessment (AN) will be carried out at the middle level is to give time for schools and teachers to make improvements before the child graduates and the results of the AKM cannot be used as a selection tool for students which will cause stress for children and parents (Baro'ah, 2020). The assessment in this AKM measures the two most basic competencies, namely reading literacy and numeracy skills (Pusmenjar 2020; Hindriana et al., 2023).

Reading literacy skills consist of two contents that indicate the type of text used, namely informative text and fictional text. At the cognitive level, reading literacy consists of three levels, namely knowing or finding information, interpreting and integrating, and evaluating and reflecting. The context consists of personal, socio-cultural and scientific. The form of AKM questions consists of multiple choice, complex multiple choice, matching, short entries and descriptions (Kemendikbud, 2020).

However, there are still many teachers who are confused about the concept of the national assessment, especially the Minimum Competency Assessment concept which is used to measure students' cognitive abilities (Hindriana et al., 2023). Now the teacher as an educator is facing a new challenge, namely the teacher should be a good facilitator in training and improving students' reading literacy achievements in preparation for facing AKM (Lestari, 2022).

Based on the results of interviews with the State High School Biology teacher in Cimahi City, it can be seen that the school also has not implemented reading literacy in assessment activities at school. In addition, teachers use more teaching materials from publishers and less innovation in developing teaching materials by teachers in everyday learning. This can result in students not being trained in reading literacy skills in the learning process. One form of teaching materials is a module. The Ministry of Education and Culture recommends that teachers prepare modules for each subject where modules can assist students in implementing learning (Barlian et al., 2022). Modules are also called media for independent learning because they are equipped with instructions for self-study (Ndao & Jumandi, 2022; Rahmatsyah & Dwiningsih, 2021).

The module itself has the meaning as a complete unit in the form of teaching materials consisting of a series of learning activities arranged to help students achieve their goals. In the module there is learning material which includes objectives, material descriptions, summaries, assignments and evaluation (Rasmi et al., 2023). Learning with modules allows a

student who has a low learning speed to understand one or more learning outcomes more quickly. This is because the module functions as a guide in understanding the material, as well as a motivator for studying the material being studied (Yendrita, 2020; Wenno, 2010).

In the era of the industrial revolution 4.0 and 21st century learning, many electronic modules have been developed that are designed using *software* and can be read on electronic devices (Prabasari et al., 2021). E-Modules are teaching materials that are packaged digitally so that they can assist teachers in facilitating students in their learning process (Pramana et al., 2020). E-modules are digital-based non-printing teaching material products that are independently designed to be studied by students who can access and use them via computers, laptops, tablets, or even smartphones. The components of e-modules can also attract students' interest to learning because it combines various media in the form of text, graphics, music, animation, and video, so students don't get bored just looking at writing (Elisa et al., 2022).

Based on interviews with Biology teachers, there are a number of things that make teachers not yet develop materials, especially E-Modules, namely the teacher's busy teaching hours, causing teachers not to have enough time to develop teaching materials. So based on the explanation above it is necessary to develop an E-Module to train high school students' reading literacy skills.

## Method

This research is development research. Method development is the process used to develop and validate a product. The development model used in this development research is the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) according to Branch (2009) which has the aim of producing valid and practical products. This study involved two media and material experts and one biology teacher to validate the E-Module. The limited trial involved 30 students and the individual trial involved 4 students in class XII IPA 6. The population in this study were students from a public high school in Cimahi City majoring in Science class XI in the odd semester of 2022-2023. The research sample was taken by convenience sampling with the consideration that the sample studied was a sample that had been determined by the school. The sample in this study were 30 students from class XI IPA 1 as the experimental class and 30 students from class XI IPA 2 as the control class.

The instruments used in this study included validation sheets for the eligibility of the E-Module adaptation from BNSP (2008), Rumpang test to test

readability, practicality question sheets for E-Modules and tests to measure reading literacy skills in the form of multiple choice, complex multiple choice and essays. briefly refers to AKM in the form of content (information text), cognitive processes (finding information, interpretation and integration, evaluation and reflection), context (scientific) for the developed E-Module.

On the reading literacy test, the pretest and posttest data were obtained from the questions given to students and calculating the N-Gain. N-Gain is a comparison of the gain scores obtained by students with the highest gain scores that students might get (Sugiyono, 2014). The N-Gain calculation is obtained from the pretest and posttest scores of each experimental class and control class. The N-Gain formula according to (Hake, 1998), as equation 1.

$$N - Gain = \frac{\text{posttest score} - \text{pretest score}}{\text{maximum score} - \text{minimum score}} \quad (1)$$

The criteria for assessing the N-Gain score can be seen in Table 1.

**Table 1.** N-Gain Score Category

Range	Criteria
$(\langle g \rangle) > 0.7$	Tall
$0.7 > (\langle g \rangle) > 0.3$	Currently
$(\langle g \rangle) < 0.3$	Low

## Results and Discussion

The results of the development carried out in this study were E-Modules to train students' reading literacy skills on Respiratory System material with the steps for developing E-modules as follows:

### Analyze

At this stage the researcher conducted a needs analysis to find needs related to the development of teaching materials in learning. For this stage, information gathering was carried out through interviews with Biology subject teachers which were held on September 24 2022 at a public high school in Cimahi City. This interview aims to obtain data regarding needs and related constraints in learning that has been carried out so far. From this interview, it is expected that the product that will be made is in accordance with the product needed in the learning activities of students.

At this stage several problems were found, including the teaching materials currently used which are still in printed form, namely government-issued textbooks; not yet developed electronic-based teaching

materials; The teaching materials provided tend to be very monotonous so that they do not attract the attention of students and there are no teaching materials that can train students' reading literacy and numeracy skills.

At the analysis stage, curriculum analysis was also carried out and produced a number of findings Which regarding the school curriculum curriculum Which used school is curriculum 2013; learning in school held face to face with limited time; respiratory system material delivered 2-3 meetings with material covering structure and function organ breathing , mechanism ever f asan, capacity and volume air breathing too disturbance related organ system respiration and mean mark which is obtained on material system respiration in schools are still below the minimum completeness criteria 75 results the refers on results learning participant on year teachings previously. After obtaining data from the results of needs analysis and curriculum analysis , the next thing that will be done is the evaluation process for taking solutions related to existing problems. Based on things Which has exposed, researcher develop product in the form of teaching materials, namely the development of E-Modules to train reading literacy and numeracy skills.

### Design

The planning stage is the stage for finding effective and efficient ways to develop E-Module drafts that can train reading literacy skills. At this stage the researcher clarifies the description regarding the E-Module that will be developed so that it can be used independently by students in learning. In line with Yahdiyani et al. (2022) basically E-Modules are teaching materials made with the aim that students can study independently with complete content. At this stage, the researcher clarifies the description regarding the EM module to be developed, namely the E-Module is designed by presenting pictures, gifs, tables, diagrams and practice questions to train reading literacy skills; The E-Module presents the characteristics of "Markica (Let's Read)" which contains points or the essence of the material being presented with the use of abbreviations or donkeys to make it easier for students to understand and remember the material they are studying.



**Figure 1.** Display "Markica (Let's Read)"

The E-Module presents a "Practice Room" by presenting practice questions to practice reading literacy skills.



Figure 2. Display of the practice room

The E-Module will also present "Self-Reflection" where students are given the opportunity to express their feelings after studying the sub-chapter material on the respiratory system by choosing an emoji that represents their feelings.



Figure 3. Display of self reflection

E-Module present reading literacy content . In section this learner given a stimulus in the form of reading text of news and info graphics. In literacy reading covers the topic of the structure and function of each respiratory organ in humans, distinguishing the mechanisms of inspiration and expiration in the process of chest breathing and human abdominal breathing, disorders and abnormalities in the human respiratory system. The following Figure 4 and Figure 5 are appearance page E-Module on reading literacy content in practice questions and practice rooms.

In Figure 4 is a display of practice questions in the E-Module with the topic of discussion regarding the structure and function of each respiratory organ in humans, distinguishing the mechanisms of inspiration and expiration in the process of chest breathing and human abdominal breathing, disorders and abnormalities in the human respiratory system. Students are asked to answer questions based on the text that has

been presented where the questions are made based on indicators of AKM questions, namely finding information with questions in the form of complex multiple choice, namely true and false, interpretation and integration as well as evaluating and reflecting on multiple choice questions.

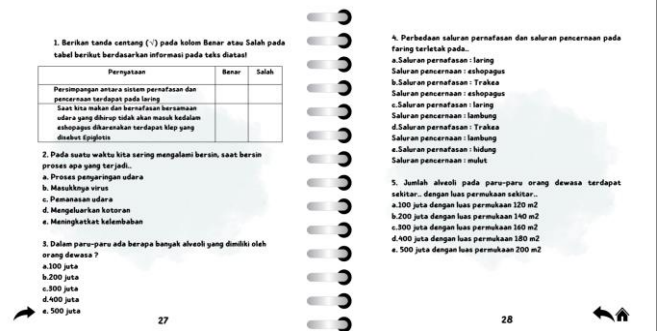


Figure 4. Exercise on reading literacy skills

The questions in the practice questions are made according to the indicator of finding information where students are required to be able to find information that is written or written directly in the reading text on this indicator, which is included in the level of competence to find information. Furthermore, in the indicators of interpretation and integration, students are required to be able to understand so that they can distinguish these indicators, including the level of understanding competence.

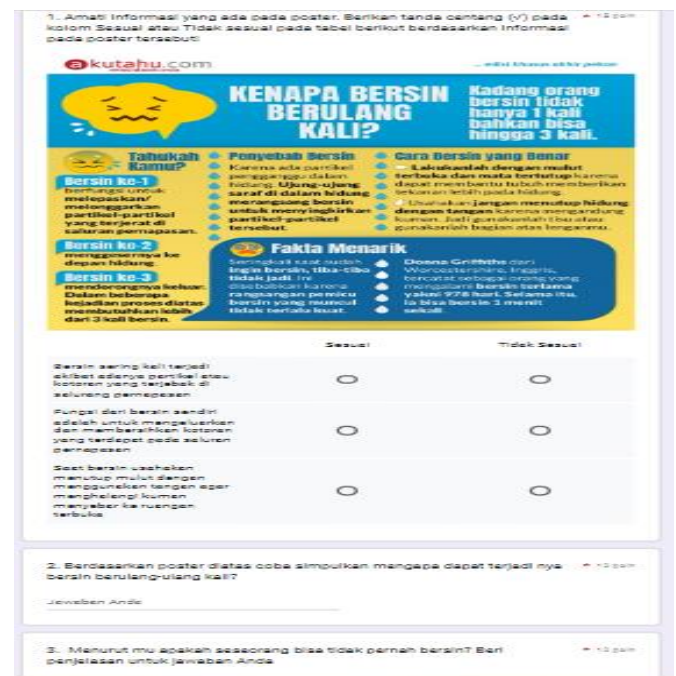


Figure 5. Room for practicing reading literacy skills

In Figure 4.5 is the display of the practice room in the E-Module where in the questions a stimulus is

presented in the form of an infographic with three questions with indicators adjusted to the AKM indicators. In the questions that are in the practice room students are required to be able to find information on this indicator included in the level of remembering competence, in the interpretation and integration indicators this indicator is included in the understanding competency level and in the evaluation and reflection indicators it requires students to be able to draw up and understand conclusions based on picture on the infographic where this indicator is included in the competency level to apply.

*Develop*

On the respiratory system was developed to train the reading literacy skills of high school students based on the validation results of two experts and one teacher and students for trials before the implementation stage on the revised results. Findings at the development stage include findings on series test in stage development. Series test the covers test validate, test legibility and limited trials.

In draft 1 it produces At the beginning it shows the cover. Cover consisting of the UPI logo; title; description of E-Module for high school level; supporting image; name of author and supervisor. The contents of the designed E-Module consist of a table of contents; foreword; core competencies and basic competencies; learning objectives; concept map and instructions for using the module and introduction. The sections of the E-Module consist of cover topics; topic title; discussion of each chapter; summary; evaluation; self reflection; glossary and bibliography. The development of the E-Module which is carried out to train students' reading literacy skills consists of: markica; a practice room and practice questions that have keys for right or wrong answers and reasons why the answers are right or wrong.

*Validation*

At this stage it is carried out with the aim of measuring whether the product being developed is feasible and in accordance with the capabilities being measured. This is done by testing the validity of the

product by two experts and one teacher. In addition, the instruments that have been prepared, both the reading literacy ability test instruments are validated by validation experts and revised according to comments and suggestions. Furthermore, at this stage the reading literacy and numeracy ability test instruments have been validated by experts tested on 30 class XII students who have received Respiratory System material to determine the validity and reliability of these instruments. Limited trials were conducted to determine the readability of the product being developed and the feasibility of the questions before being implemented in learning activities. The results of this limited trial will be revised according to the suggestions obtained. The validation results can be seen in Table 2.

*Outcomes*

Based on Table 2, all validators stated that the developed E-Module was included in the very feasible category with an average percentage of 97.1%. So it can be concluded that the E-Module can be used to train students' reading literacy skills.

The product being developed is in the form of an E-Module with specific dimensions: E-Module size with a length of 16 cm and a width of 9 cm; type of writing for each *Bobby Jones Soft title* with size 50 and for type of writing material *Alegreya* size 17; the cover of the E-Module is adjusted to the content of the material; The E-Module was designed using the Canva application and stored in the form of a *power point show* consisting of 75 pages and the E-Module developed is divided into three parts, namely introduction, content and closing.

The first part consists of 6 pages, namely cover, table of contents, preface, core competencies, basic competencies, learning objectives, concept maps, instructions for use and introduction. The content section consists of 68 pages with learning activities consisting of materials, practice rooms, summaries, practice questions, assessments and question columns. The closing section consists of 2 pages containing a glossary and bibliography. The E-Module validation test resulted in findings in the form of notes from the validators.

**Table 2.** E-Module Validation Results

Validators	Percentage of each aspect						Presentation score (%)	Criteria
	A1	A2	A3	A4	A5	A6		
Expert 1	93	93	95	93	75	100	93	Very worth it
Expert 2	100	100	100	100	100	100	100	Very worth it
Teacher	100	100	100	100	100	100	100	Very worth it
Average							97.1	Very worth it

Information : A1= Content Eligibility; A2= Language; A3 = Serving; A4 = Graphic; A5 = Aspects of Student Activities; and A6 = Aspects of Assessment of Learning

Notes from the validator reviewed again by researcher so as to produce E-Module draft 2, namely the type of letters used are less varied so as not to make students interested in wanting to read and the size of the letters that are still too small makes it difficult for students to read; The images and videos presented in the E-Module are not communicative; The language used is everyday language but does not use standard language and the instruments used to train reading literacy skills do not address everyday topics.

After obtaining the results of the E-module validation in the very feasible category, a limited trial was carried out to determine the readability of the product being developed and the feasibility of the questions before being implemented in learning activities. The readability test was carried out using the gap test on class XII students who had been given the E-Module. Data analysis on the readability percentage of the module is 80% based on Rankin and Culhane's criteria (1969). Based on the results of the gap test, it can be concluded that the developed E-Module is an easy-to-understand teaching material.

In addition to carrying out the readability test, individual trials were also carried out where students

were given the opportunity to express the obstacles experienced in understanding the content of the E-Module and also the obstacles in operating the E-Module. Individual trials were attended by four students and carried out through discussion activities and the results obtained that the E-Module developed was included in the very practical category with a percentage of 100%. Besides That, found Also a number of notes from learners Which can become material consideration repair draft 2 that is for choosing the *font* size when the E-Module is opened on a smartphone, *the* title of each discussion piles down blocking the text below. These findings will be used as material for revision E-Module draft t 2 to produce E-Modules draft 3.

### Implementation

At the implementation stage, the implementation of the E-Module was carried out in the learning process to determine its effect on students' reading literacy skills. The research design that will be used is *the pretest - posttest non-equivalent control group design* to determine students' reading literacy skills before and after using the developed E-Module. The processing results of *the pretest* and *posttest values* can be seen in Table 3.

**Table 3.** Statistical Test Results for Reading Literacy Ability

Results	Pretest		Posttest	
	Control	Experiment	Control	Experiment
N	50	50	50	50
Mark average	45	41	75	91
std. Deviation	17.9	11.6	10.4	10.1
Normality	0.00 (Abnormal)	0.00 (Abnormal)	0.00 (Abnormal)	0.00 (Abnormal)
Homogeneity	0.012 (Homogeneous)		0.23 (homogeneous)	
Mann-Whitney U	0.152 (not significant)		0.000 (significant)	

Based on the data in Table 3, it can be seen that reading literacy skills before being given the developed E-Module (pre-test) have a significant value of 0.152 (>0.05). So this shows that there is no significant difference in students' reading literacy skills before learning. In other words, students' reading literacy skills are the same.

Furthermore, students were given treatment by providing E-Modules that were developed in the experimental class and textbooks in the control class.

The results of the Mann Whitney U test on the post-test with a significant value of 0.000 (<0.05) it can be concluded that the use of the E-Module has a significant effect on training students' reading literacy skills.

The results of the average difference test were obtained in the experimental class and the control class, the n-gain calculation was then carried out to find out the magnitude of the increase in students' reading literacy skills after being given treatment. The results of the n-gain calculation can be seen in Table 4.

**Table 4.** N-Gain Results of Reading Literacy Ability in Experiment Class and Control Class

Reading literacy indicator	Experiment	Interpretation	Control	Interpretation
Find information	0.7	Tall	0.5	Current-ly
interpretation and integration	0.8	Tall	0.6	Current-ly
evaluate and reflect	1	Tall	1	Tall
overall n-gain	0.87	Tall	0.73	Tall

Based on Table 4 it can be seen that the average n-gain results in the experimental class and control class are in the high category with a value of 0.87 in the experimental class and 0.73 in the control class. In the experimental class, students experienced an increase in all reading literacy indicators. While the control class experienced an increase only in evaluating and reflecting indicators.

The indicator for finding information, interpretation and integration is in the moderate category in the control class because the control class students have not been trained and are not used to solving questions in the form of story questions where the answers to the questions described are obtained from the presentation of the stories presented. Students are fixated on routine questions that only require simple solutions contained in textbooks and students memorize answers more. Finally, when students are given the same problem but presented in a different form, such as in the form of a story, students are unable to solve the problem given.

In the learning process in the classroom using textbooks, the material coverage is still too general where the textbooks used only focus on improving students' cognitive abilities. In the appearance of textbooks that are less attractive using less varied colors and less communicative language tends to make it difficult for students to understand the material. The textbook used does not have aspects to train students' reading literacy skills. As a result, students' reading literacy skills are low.

The practice questions in the textbook tend to train low-level abilities not focusing on reading literacy skills. During the learning process using textbooks the teacher uses the lecture method without adjusting to the character of the material provided so that the development of E-Modules can help students train their reading literacy skills. In line with the research conducted by Lufiah et al., (2022) the use of textbooks in the learning process is less attractive to students, but in learning with the use of digital modules it can provide significant results for developing students' reading literacy skills.

The results of the n-gain calculation show that students' reading literacy skills have increased after learning to use the developed E-Module. So it can be said that the use of the developed E-Module can train students' reading literacy skills.

The results of student responses in the experimental class also show that the use of E-Modules helps students understand the material provided. This is supported by the research results of Yusuf (2020) and Prawita et al. (2019) which show that learning using E-Modules can improve student learning outcomes, so that E-Modules

can be used to support the learning process and can be used as one of the best alternatives to increase student understanding. Research by Yanuarti et al. (2022) also states that E-Modules are teaching materials that are systematically and structured to achieve certain competencies.

In addition, based on the responses of students, it shows that students feel more motivated to learn to use the E-Module. This is because the E-Module being developed contains video illustrations, animations and pictures, as well as providing a practice room that trains students' reading literacy skills. The results of Sandika's research (2020) also show that the E-Module has several functions, one of which is as a motivator for students to continue reading and understanding the material.

Some research results show that the factors underlying the low reading literacy ability score are because students are not used to solving problems related to everyday life such as PISA questions. In learning the teacher only provides exercises at a low level and limited learning resources, namely textbooks (Putri & Zulkardi, 2018). So it is necessary to have teaching materials such as E-Modules which are developed with the "Practice Room" in the E-Modules which can train students in reading literacy skills.

The "practice room" contained in the E-Module is a room for students to practice reading literacy skills where in the practice room there are questions that can practice reading literacy skills. When students often practice, they will be familiar with questions that are commonly used to measure reading literacy skills. In line with Farida et al. (2021) that when students are trained by being given questions regularly it is hoped that students will get used to it so that their reading literacy skills get better and increase. This is supported by Nasoha (2022) which states that the use of teaching materials such as E-Modules is very important in training reading literacy skills compared to textbooks that have not trained reading literacy skills.

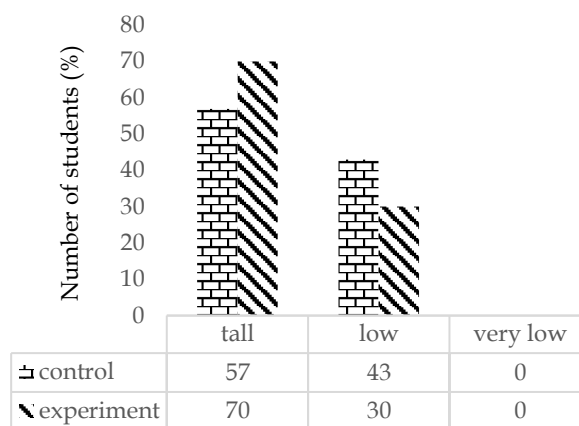


Figure 6. Indicator of Finding Information

The increase in indicator reading literacy skills can be grouped based on Purwanto's criteria (2008) so that there is a difference in the achievement of students' reading literacy skills in the control class using textbooks and the experimental class using E-Modules. Recapitulation of increasing reading literacy skills per indicator.

Based on Figure 6, it can be seen that on the indicator of finding information, students in the experimental class who are used to working on "practice room" students get more high criteria, namely 70% and low criteria, 30% on the indicator of finding information. The results of this study are in line with Mustagfiroh (2020) which states that students who are often given exercises can improve understanding so that they can increase students' ability to solve the questions given.

In the control class, the indicator found information on students obtaining high criteria of 57% and 43% of low criteria. This happens because students are still confused and do not recognize reading literacy questions. In the control class, students learning to use textbooks had difficulty understanding the material. Components in textbooks are considered less interactive because they tend to consist of writing and there are no exercises to train reading literacy skills (Setianingsih et al., 2022). So that the learning interest of students decreases and affects the learning outcomes of students. This is in line with Mulyono (2015) who stated that textbooks have several drawbacks, namely: they cannot show the dynamics of natural phenomena; not interactive and cannot support the learning process with more than one source.

Based on this statement, students considered reading literacy questions as a new challenge, but there were those who argued that reading literacy questions were more complicated than the usual problems they worked on in textbooks. In addition to reading literacy questions that have never been studied before, another reason is because reading literacy questions are in the form of stories and relate to everyday life in line with Chen et al. (2022) so that when working on reading literacy questions students are encouraged to read discourse and questions but are simultaneously asked to do so. think and understand the intent of the discourse and the questions asked. given temporarily for questions that students usually do only in the form of a rote test.

Supported by research conducted by Familiyana et al. (2022) that at the beginning students were not accustomed to working on questions for reading literacy skills so that it required practice, understanding and thoroughness and teachers who continued to try to train students to get used to it and over time they were able to improve the ability to answer reading literacy questions.

Improving reading literacy skills on indicators of interpretation and integration can be seen in Figure 7.

On the interpretation and integration indicators, the experimental class obtained 83% of the high criteria and 17% of the low criteria. This happens because in the experimental class when students can find information on a given problem so that students can easily interpret between parts of the text to come up with conclusions. In line with research conducted by Muslimah et al. (2020) which states that the higher the level of ability of students, the higher the tendency to solve questions correctly. Vice versa, the lower the level of ability of students, the lower the tendency to solve questions correctly.

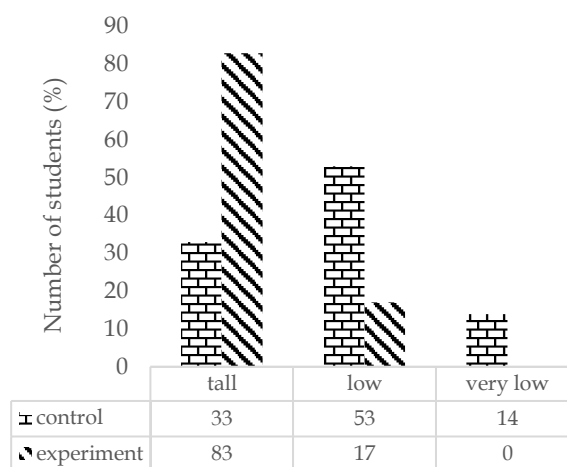


Figure 7. Interpretation and integration indicators

While the control class obtained 33% high criteria, 53% low criteria and 14% very low criteria. Students who have low and very low abilities must be given guidance and training so that when students are asked questions students can more easily understand and solve the questions given. Improving reading literacy skills on evaluating and reflecting indicators can be seen in Figure 8.

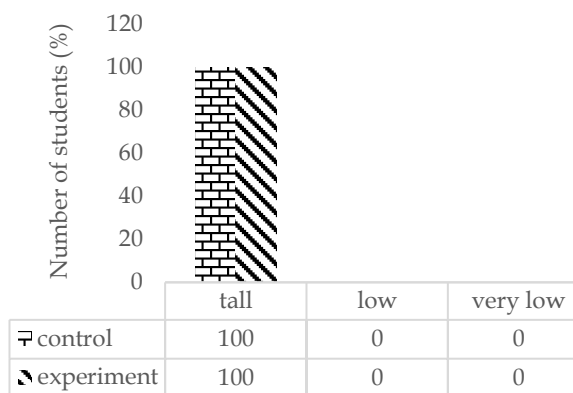


Figure 8. Evaluating indicators and reflection



Experimental class students have obtained high criteria on evaluating and reflecting indicators. Students in the experimental class try to increase their understanding and connect reading topics with their experiences so that all students can assess the appropriateness and achievability of the text and are able to link the contents of the text with other things in the class outside the text.

In the control class, judging by the indicators of finding information, the indicators of interpretation and integration, there are still students who get low and very low criteria. But on the indicators of evaluating and reflecting on all students can achieve high criteria. Even though it should be according to Permadi (2021) that the ability of students to achieve indicators of evaluating and reflecting can be achieved if students can analyze problems correctly, understand the intent of the questions correctly and provide the right reasons.

This happens because students have not been able to determine the initial information on the questions given as a determinant of the initial strategy. However, students use the knowledge that students already have in answering questions about indicators evaluating and reflecting without reading and understanding the text presented where the questions given are problems of everyday life.

The results of this study are in line with Saeful (2022) which reveals that reading ability is basically the ability to understand the information provided where in this process students will try to understand and evaluate the information and ideas presented. When students have experience or are usually trained in reading literacy skills, students will be able to understand, ask questions and interpret.

#### Evaluate

In the evaluation and improvement stage, it has actually started from a needs analysis to suggestions and input for making improvements. The purpose of the evaluation stage is to perfect the product and determine the level of product feasibility. The evaluation results were obtained from the validator and individual student trials which were used as a reference for making improvements to the E-Module if deficiencies were found in the E-Module being developed.

The E-Module developed in the form of a *power point show* on Respiratory System material has several advantages and disadvantages. The advantages of the developed E-Module are: The E-Module is packaged with a *power point show* so it's easy to carry anywhere; E-Modules can be accessed anywhere and anytime with or without internet; E-Modules can be used for independent study to provide opportunities for students to study at outside of school and the E-Module is

equipped with material, pictures, video and a "Practice Room" to train students' reading literacy skills.

In addition to having advantages in the developed E-Module there are also weaknesses in the developed E-Module, namely in the practice questions students can choose answers and get an evaluation of the answers given but the teacher cannot see the score obtained from the practice questions not like "Practice Room" which is directly connected to *the Google form* because in practice questions the most important thing is the evaluation of students' answers.

#### Conclusion

The results of the research that has been carried out show that the developed E-Module is very suitable for training reading literacy skills. The results of research on the E-Module developed in the experimental class proved to be able to train reading literacy skills compared to the control class which used textbooks. Improving the reading literacy skills of the experimental class on the indicator of finding information is 0.7 with high criteria, interpretation and integration is 0.8 with high criteria, evaluating and reflecting is 1 with high criteria.

#### Acknowledgments

The author respectfully thanks to my supervisor at the Indonesian University of Education for the guidance and support in completing this study. The author also thanks the teachers and all participants at SMAN 6 Cimahi for their assistance and participation carry out this study.

#### Author Contributions

Siti Tahany Rifa Faidah: writing-original draft preparation, result, discussion, methodology, conclusion; Siti Sriyati and Didik Priyandoko; proofreading, reviewing, and editing.

#### Funding

No grand research funding.

#### Conflicts of Interests

The authors declare no conflict of interest regarding the publication of this paper.

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