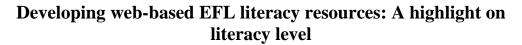


# AL-TARBIYAH: JURNAL PENDIDIKAN (The Educational Journal)

http://www.syekhnurjati.ac.id/jurnal/index.php/tarbiyah Vol. 34 No. 2, December 2024

DOI: 10.24235/ath.v34i2.15947



Aji Nurohman<sup>1\*</sup>, Nana Priajana<sup>2</sup>, Muhsiyana Nurul Aisyiyah<sup>3</sup>

<sup>1,2,3</sup> UIN Siber Syekh Nurjati Cirebon, Indonesia \*Corresponding author: <u>ajinurrohman@gmail.com</u>

#### Article Info

How to cite this article:

Nurohman, A., Priajana, N., & Aisyiyah, M.N. (2024). Developing web-based EFL literacy resources: A highlight on literacy level. *AL-TARBIYAH: Jurnal Pendidikan (The Educational Journal)*, 34(2), 66-78.

doi:https://dx.doi.org/<u>10.24235/ath.</u> v34i2.15947

Article history:

Received: January 3<sup>rd</sup>, 2024 Accepted: February 16<sup>th</sup>, 2024 Published: December, 2024

Copyright © 2024 Al-Tarbiyah: *Jurnal Pendidikan* (The Educational Journal), under the Creative Commons Attribution 4.0 International License.



#### Abstract

Generally, Indonesian students need to improve their literacy. According to the 2022 PISA study results, 70% of Indonesian students are below the minimum literacy competency level. It shows Indonesia's standard student literacy level is still at level 2 PISA. Therefore, this study aims to develop EFL digital literacy resources that can assist learners in improving their literacy skills. This research is an research and development (R&D) study using the ADDIE method. The data was obtained from literature review analysis regarding website characteristics and MCA (Minimum Competency Assessment) literacy questions. The analysis results show there are eight characteristics of an excellent website for learning that should be considered when developing literacy resources, and MCA questions can be used to measure students' literacy levels. In the design and development stages, the website was developed based on the characteristics of a good website obtained in the analysis stage. Following the MCA model, the website contains fiction and nonfiction text that can foster creativity and critical thinking skills. By using interactive features and appealing visuals, a fun and educational literacy experience is created for students.

**Keywords:** digital learning resources, literacy, MCA, reading resources,

#### INTRODUCTION

In the last decades, there has been hightened attention on literacy within educational context. Traditionally, literacy is defined as the capacity to read and write and is recognized as one of the measures of a country's social and educational standing (Barus et al., 2021). Literacy is emphasized by including reading as a subject in the school and university curricula. Literacy in reading is critical for personal growth, self-image, professional progress, learning, and national development.

The hightened concern on literacy within the country arises from successive PISA studies showing lower rankings for Indonesian students (Esti et al., 2023; Romli et al., 2024).

According to a PISA study on Indonesian students' literacy, Indonesia was ranked 69<sup>th</sup> out of 80 countries that participated in the survey (OECD, 2023). Various variables contribute to Indonesians' poor reading interest such as children from an early age are not instilling reading habits; educational facility access is not distributed evenly, and academic facility quality could be better; and book production in Indonesia remains relatively low (Solahudin et al., 2022). Other factors contributing to low literacy level in Indonesia are a lack of early literacy training, a lack of literacy teaching resources and methodologies, and a lack of understanding among students and teachers about the value of literacy (Prasetia et.al., 2022; Widiati et al., 2023). Literacy is crucial for students in order to be critical thinkers and be aware of relevant issues (Arvianti, 2023; Yasdin et al., 2023).

English is a compulsory subject in junior high schools and senior high schools in Indonesia (Fitriati & Rata, 2021). In Indonesian context, English is categorized as a foreign language (EFL). Albeit its position as a foreign language, English as a Foreign Language learning could also be used to develop reading programs that eventually foster students' literacy skills, critical thinking, and creativity (Afrilyasanti et al., 2025). Several studies have attempted to utilize EFL to promote literacy. Buanawaty (2021) developed a reading program to promote literacy skills by using the problem-solving method through Google Jamboard tool. This study explored if that method may help students increase their literacy skills. The findings revealed that students' reading skills are improved which are reflected in students' thoughts in Google Jamboard and learning transcripts, demonstrating the depth of students' thinking and understanding of texts, visuals, and circumstances. Another study was conducted by Fraseda et al. (2022) who developed content for junior high school students based on Sanggau regency folktales. The research explored the students' literacy level, product needs, product subjects, and product design. Furthermore, Barus et al. (2021) did a case study on the development of literacy utilising the Plomp model: basic research, prototype, and evaluation. These objectives are expected to be met through the EVIETA application, which is an online learning component of IPB University's Vocational School. The validation of teaching materials results demonstrates that the EVIETA IPB application is significant and can be assessed. The researchers chose this specific topic since it is important yet uncommon for schools to provide reading resources based on their students' literacy level. Therefore, this research attempted to develop a website that provides reading resources in various literacy levels.

## RESEARCH METHOD

This study used a qualitative approach with research and development (R&D) design. According to Waruwu (2024), a research and development method is one that is used to develop and test a product. The research and development method is used to create specific products and test their effectiveness. The R&D model used in this study is the ADDIE model with 5 steps: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. However, because of the time constraint, the researchers limited this research to the third stage which is the development stage. The technique to collect data in need analysis is literature review. The literature review results were then used as the basis for developing the web based EFL literacy resources.

#### FINDINGS & DISCUSSION

This section presents and discusses the study findings and discussion based on three stages: analysis, design, and development.

## **Analysis**

Before developing a web-based EFL literacy resource, the characteristics of the web and MCA literacy are explained in the first stage. The results of the analysis are as follows.

## Characteristics of Website

After reading carefully and analyzing the theories and research related to digital literacy and digital literacy resources as well as examining various websites, there are eight characteristics that should be considered when developing web based-digital literacy resources. The researchers use the following characteristics when conducting website analysis: 1) The website provides a source of available information, 2) The website provides an opportunity to express ideas and thoughts, 3) The website creates a healthy environment (Using polite language, Respect personal privacy, No Cyberbullying), 4) The website provides information in wide variety of digital media (Text, video, animation, audio), 5) The website provides critical thinking skill (Analysis & evaluation), 6) The website has attractive visual design (Color, text, space), 7) Hyperlinks, 8) The website can be access in anytime. Based on the findings of the five websites examined, the detailed explanation of each characteristic is presented in Table 1 below.

Table 1. Characteristics of Website

No	Characteristics	Descriptions
1	Providing Source of Material	The website should provide a source of available information (Purnamasari et.al, 2021). Therefore, the website should provide sources of information they get, such as including links or reference books. So that website visitors can find out the source of the information and who wrote it, because the information available on the internet is unlimited, knowing the author's background is one way to ensure that the information obtained is factual.
2	Communicative	The website should provide an opportunity to express ideas and thoughts. This is necessary to make learning on a website more interactive and to establish communication between visitors who can share information with one another.
3	Providing Healthy Environment	The website should create a healthy environment, meaning that the website must be a pleasant place for visitors to gather information and converse. The digital world, like the real world, has rules that must be followed in order to create a healthy digital environment. Every internet user, according to Kusumastuti et al. (2021), must use polite language and refrain from using obscene or vulgar language. Then, when discussing, visitors must be able to respect others' privacy and not offend them personally, as this includes cyberbullying.

No	Characteristics	Descriptions
4	Using Multimedia	The website should provide information in multiple forms (text, video, audio, animation). Interactive learning media is software that combines multiple multimedia components such as text, graphics, animations, videos, and audio and presents them interactively for educational purposes. In general, the benefits of using multimedia include that learning activities may be more entertaining and engaging, learning time is used more efficiently, student learning quality improves, and the teaching and learning process can run anywhere and at any time (Halim, 2024).
5	Providing Critical Thinking	The website should provide critical thinking skill (analysis & evaluation). Analyzing facts to comprehend a problem or topic as a whole is known as critical thinking. Gathering data, asking fundamental questions, and analyzing potential solutions are typical steps in the critical thinking process (Suryana et al., 2021).
6	Using Attractive Design	The website should have an attractive visual design (Color, text, space). A good visual design always uses colors that are consistent and comfortable to look at, a consistent graphic layout will make it easier for visitors to read and understand the text/information in the design. Web design combinations of colors, lines, navigation and fonts must be adjusted, such as not using more than two different color combinations, and using computer standard fonts such as San Serif and Arial Black. All websites adhere to good visual standards, such as using no more than two basic colors and fonts that adhere to computer standards (Jongmans et al. 2022).
7	Providing Hyperlinks	The website should contain hyperlinks. Because hyperlinks are important and cannot be separated in a computer program Hyperlinks are collections of documents connected by links. Hyperlinks are a valuable resource for retrieving web information (Haddaway et al., 2022).
8	Accessible	The website must be accessible anytime, anywhere using any device (Soussi, 2020). Such as when you want to discuss with other visitors, all websites provide a way of logging in using Google or social media such as Facebook to make it easier for visitors.

# Minimum Competency Assessment (MCA)

Minimum Competency Assessment (MCA) is used by researchers in developing and adapting literacy resources. MCA is specifically created to assess students' thinking or reasoning abilities when reading information and texts that contain challenges that require knowledge to solve (Maharani, & Wahidin, 2022). The text content used to prepare MCA questions is divided into two categories: fictional texts and informational (nonfiction) texts. Students can gain enjoyment, appreciate tales, and perform reflection through fiction works in order to live up to

the author's life difficulties. Students, on the other hand, can gain facts, data, and information from information (nonfiction) books in order to build scientific insights and knowledge.

Fiction works present an idealized version of life, an imagined universe built from many essential aspects such as story, characters, place, and point of view. The author purposefully creates all of these components, making them comparable, mimicked, and analogous to the actual world so that it appears to have occurred and existed (Nurgiyantoro, 2016). Fiction texts are those that are written or spoken with creative purpose. The presenting style includes words with symbolic/figurative/figurative connotations. Words and phrases that are appropriate for the circumstance. Fiction texts feature elegant or well-organized language, as well as an appealing, emotive, and aesthetic presenting style. Folklore, legends, fables, myths, science fiction, satires, poetry, prose, drama, novels, rhymes, sonnets, epics, illustrated stories, fantasy stories, irony, song lyrics, travel notes, and biography/autobiography are examples of fiction texts that can be used as a reading stimulus in compiling MCA questions (Mukhlis et al., 2022).

On the other hand, information text, often known as non-fiction text, is text that is based on true facts, events, or something else that exists and occurs in real life. Reviews, explanations, descriptions, analyses, descriptions, and evaluations that are offered in detail, depth, and comprehensively on an issue are examples of information text (Nurgiyantoro, 2016). The language used is scientific, and it is denotative since it refers directly to the reference. The presentation is objective and rational since it is based on scientific facts and natural events. Advertisements, publications, infographics, and scientific journals are examples of informational texts that may be utilized as reading stimuli while constructing MCA questions. In MCA, the literacy assessment uses cognitive levels as a competency that is measured as presented in Table 2 below.

Competency **Sub-competency** Access and Retrieve Access and search for textual information b. Finding and choose relevant information Interpret and Integrate a. Read the text literally b. Make inferences, correlations, and predictions in both singular and plural texts Assessing the quality and credibility of content in single and **Evaluate and Reflect** multiple information texts b. Assessing the text's presentation format c. Analyzing on the conversation's contents for making decisions, making choices, and linking the text's themes to individual experiences

Table 2. Assessment Indicators

MCA questions might be multiple-choices, complex multiple choices, matching, filling, or writing or description in nature.

#### *Multiple-choice questions*

A multiple-choice question has a subject and several answer options. Students are asked to answer questions by selecting one correct response from a list of numerous options. The number of answer options is proportional to the level.

# Complex Multiple Choice

Complex multiple-choice questions have a topic and various statements that must be chosen or answered to. Statements or answer options must work together to generate a coherent concept/competence detail. There are two types of complex multiple-choice questions used in MCA: (a) students select the statement that corresponds to the problem in the subject matter from the box or column supplied in front of each statement; and (b) students select from the Yes/No, True/False, or other categories beneath each statement that are relevant to the subject matter's difficulty. If there are 3-5 statements and two possible answers, the score is 1 or 0. The score is 1 if all answers are correct, and the score is 0 if any answers are incorrect. If there are more than 5 statements and more than 2 possible answers, score 2 1 0. Score 2 for all correct answers, 1 for 1 or 2 incorrect answers, and 0 for more than 2 incorrect answers.

## Matching format

The format of matching questions assesses students' ability to match and link the two statements given. There are two lines in this problem. The subject is in the first column (on the left), and the response is in the second column (on the right).

## Short answer and short essay

Short response and short questions for essays require students to respond in the form of words, phrases, numbers, or symbols. Brief essays are formatted as news sentences, whereas brief answers are formatted as questions.

# Essay

Essay questions challenge students to recall and organize thoughts by articulating or expressing these ideas in the form of textual descriptions. A score guide is provided in the description questions as a reference in scoring. Student responses will be graded depending on their complexity.

After reviewing literature related to MCA, the researchers determined the content of the web based EFL literacy resources. The website would contain fiction and nonfiction texts organized in six levels of literacy. The post reading assessment in the website would also follow the MCA model such as providing complex multiple choice questions, arrangement, and short answer questions and short essays.

# Design

After analyzing the characteristics of the website and MCA, continued by making a flowchart as an illustration of how the website was developed so that it is easy to understand, as illustrated in Figure 1.

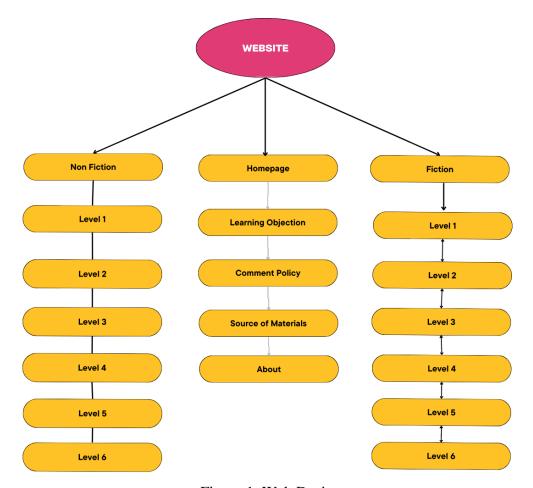


Figure 1. Web Design

# **Development**

## Homepage

Homepage is the main page that will appear when you first visit the website. This page contains an introduction to the website, and the content of the website. On this page there are also hyperlinks that will direct visitors to the available materials. The contact of the author of the website is also on this page, at the very bottom.

## Menu Bar

The menu bar is an expanse of horizontal that displays all of the accessible options for a certain program. A menu bar is also included on a website as shown in Figure 2. The primary goal is to offer a common home for menus specific to windows or applications that enable works such as opening documents, interacting with a program, or demonstrating instructions or guides. This website contains: home, materials, learning objectives, comment policy, and about.



Figure 2. Menu Bar

#### **Fiction**

There will be two materials on the website. Specifically, fiction and nonfiction text. Each material will have several texts. This page contains fictitious content such as definitions, types, functions, and examples. The content is provided in both written and video forms. The nonfiction menu then includes much of the content used to measure students' literacy levels. Students must be able to read and respond on the questions that are offered progressively from such levels, beginning with level one and continuing to level six as shown in Table 3. Questions and texts are available in the form of text, visuals, short stories, conversations, literature, and poetry.

Table 3. Fiction Questions

_	
Level	Questions
1	21
2	24
3	24
4	7
5	28
6	11

# Example of the text:

Ori the Brave By Irawati Subrata

At the orangutan shelter, little Ori woke up earlier than usual.

"Come on!" said Ito. "Time to practice!"

Ori learn to climb, swing and build nests.

If you are proficient then Ori can play in the forest. Ori is actively practicing. It's a great teacher.

Ito climbed high. Ori climbs like Ito

Ito swung fast. Ori swung to follow. Suddenly, Ito swung faster and disappeared among the trees. "Come back Itoooooooo!"

Ori looks for Ito to the end of the shelter.

Ori had never ventured into the forest alone.

Bracing herself, Ori jumped to the next tree and then climbed even higher.

He swung as fast as he could through the dangling tendrils.

In a moment, Ori was already very far from the shelter. But, Ito has not been found.

Ori is feeling hungry! He saw several orangutans eating durian.

They invite Ori to eat together.

It was getting dark. Ori prepares to build its own nest for the first time.

Up in the tree, Ori found Ito who was waiting for him.

After a long day little Ori fell into a deep sleep and dreamed of her adventures tomorrow.

The text is included in the literary text of the type of fictional story. According to Isro'iyah and Herminingsih (2023), fictional texts have elements that build stories; these elements are events, stories, plots, characterizations, characters, themes, settings, points of view, language styles, and messages. The text has the elements mentioned above, namely plot, setting, characters, and characterizations.

#### Non Fiction

This page contains nonfiction material or informative text, such as definitions, types, functions, and examples. The content is available in text and video formats. The example of the text can be seen in Figure 3. The non-fiction menu then includes numerous materials used to assess student literacy levels. Students must be able to comprehend material and concentrate on the questions offered in the level sequence, starting with the first level and advancing to level sixth as presented in Table 4. Questions and readings are available in text, images, biography, info graphic, and news.

Table 4. Non-Fiction Questions

Level	Questions
1	29
2	21
3	35
4	29
5	40
6	39

# Example of the text:



Figure 3. Info Graphic from Text Level 2

This text is included in the information text because it displays factual information about sufficient sleep time. In accordance with the opinions of Julaeha and Altaftazani (2021), an information text is a text that contains several combinations of data or real events that have gone through proper processing, which ultimately becomes easy to understand and provides benefits for the recipient. With that, this text includes informational text because it is a real text

that is processed and provides benefits to its readers. Apart from that, there is an image feature that shows a table of healthy daily habits for kids. Informational texts are always equipped with features to clarify the text, with which readers will easily find key information (Pusmenjar, 2020).

### Learning Objective

This page covers the learning objective for the website that mainly focuses on developing literacy resources. The learning objective page is captured in Figure 4.



Figure 4. Learning Objective Page

## **Comment Policy**

In order to maintain the web's ease, this website incorporates a comment policy when communicating with other visitors, as presented in Figure 5. Comments and discussion are important on this website. Nothing enhances the morale of this website's visitors more than a healthy discussion. This commenting policy is intended as a guide to maintain order in website visitors when discussing. The conversation can get heated at times, especially on the Internet. We expect all site visitors to follow this comment policy.

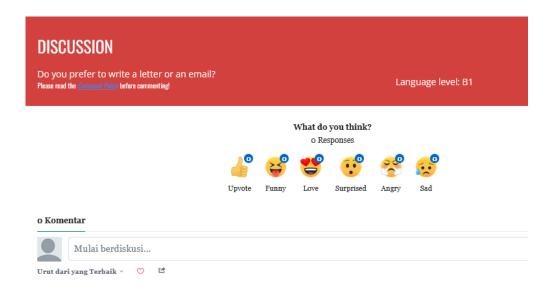


Figure 5. Discussion Column

The development of web based EFL literacy resources that refer to MCA is an attempt to use English learning to foster students' literacy. The development of students' literacy skills and criticial thinking skills can happen when students are reading in their native language or when they are reading in a foreign language such as English (Afrilyasanti et al., 2025). Moreover, the use of diverse genres such as fiction and non-fiction texts can cater to various students' learning needs and interests. Reading fictional stories could enhance students' creativity, develop their imaginations, while at the same time develop their language proficiency (Kunnazarova, 2023). Meanwhile, reading nonfiction texts offered real world context and broaden student's horizons on real world issues (Harvey, 2023). This approach not only broadens students' exposure to different genres but also fosters their critical thinking skills as they navigate through various types of content.

The website was developed based on the characteristics of good websites. Developing web-based literacy resources that are not only educational but also appealing can increase students' engagement. The developed website adheres to the principles of a good visual design which uses colors that are consistent and comfortable to look at as well as a consistent graphic layout that will make it easier for visitors to read and understand the text/information in the design (Jongmans et al., 2022). Integrating elements of enjoyment and visual appeals into EFL reading resources can grab students' attention and foster a positive attitude towards language learning. By utilizing interactive features, vibrant visuals, and incorporating fiction and non-fiction texts, an immersive learning experience can be created, making the learning process enjoyable for students.

#### **CONCLUSION**

This research attempted to develop a product in the form of a website that can be used to promote students' literacy levels. Researchers conducted a critical literature review to determine the characteristics of websites that are good for learning. From the analysis obtained, the researchers concluded that eight web characteristics can be used as a reference for developing learning websites as a medium for measuring student literacy through MCA questions. Thus, this research and product can be a reference for teachers in testing their students' literacy skills and for future researchers who wish to discuss this topic further.

### **REFERENCES**

- Afrilyasanti, R., Basthomi, Y. and Zen, E.L. (2025). Fostering creativity and critical literacy: transforming EFL classes with engaging critical media literacy integration. *Asian Education and Development Studies*, 14(2), 133-151
- Arvianti, I. (2023). Infusing digital technology in critical literacy pedagogy to generate critical thinker. *Proceedings of UNNES-TEFLIN National Conference* (pp. 359-370).
- Barus, I. R. G., Simanjuntak, M. B., & Resmayasari, I. (2021). Reading literacies through evieta-based learning material: Students' perceptions (Study case taken from vocational school–IPB University). *Journal of Advanced English Studies*, 4(1), 15-20.

- Buanawaty, Y. G. (2021). Develop literacy skills through problem based learning by using google jamboard application at SD Gagasceria, Bandung. *Prosiding Seminar Nasional & Internasional*.
- Esti, I., Hersulastuti, H., Indiyah, P. A., & Kun, A. A. (2023). Portrait of education in Indonesia: Learning from PISA results 2015 to present. *International Journal of Learning, Teaching and Educational Research*, 22(1), 321-340.
- Fitriati, S. W., & Rata, E. (2021). Language, globalisation, and national identity: A study of English-medium policy and practice in Indonesia. *Journal of Language, Identity & Education*, 20(6), 411-424.
- Fraseda, E., Susilawati, E., Ikhsanudin, I., Bunau, E., & Surmiyati, S. (2022). Developing a picture book of local folktales to facilitate literacy for the 8<sup>th</sup> grade students of SMP Anak Negeri Sanggau. *Journal of English Educational Study (JEES)*, 5(2), 172-179.
- Haddaway, N. R., Page, M. J., Pritchard, C. C., & McGuinness, L. A. (2022). PRISMA2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optimised digital transparency and Open Synthesis. *Campbell systematic reviews*, 18(2), e1230.
- Halim, A. (2024). Optimization of interactive learning media usage in madrasah. *Indonesian Journal of Education (INJOE)*, 4(1), 114-127.
- Harvey, S. (2023). *Nonfiction matters: reading, writing, and research in grades 3-8.* Routledge.
- Isro'iyah, L., & Herminingsih, D. I. (2023). Teaching culture of others through English literature. *International Journal of Language and Literary Studies*, *5*(2), 136-146.
- Jongmans, E., Jeannot, F., Liang, L., & Dampérat, M. (2022). Impact of website visual design on user experience and website evaluation: the sequential mediating roles of usability and pleasure. *Journal of Marketing Management*, 38(17-18), 2078-2113.
- Julaeha, N., & Altaftazani, D. H. (2021). Pembelajaran mencermati isi teks informasi menggunakan metode project based learning pada siswa kelas III. *COLLASE* (*Creative of Learning Students Elementary Education*), 4(2), 207-214.
- Kunnazarova, G. (2023). Pedagogical essence of increasing the social-communicative activity of students based on fiction literature. *Mental Enlightenment Scientific-Methodological Journal*, *4*(4), 109-117.
- Kusumastuti, F., Astuti, S. I., Astuti, Y. D., Birowo, M. A., Hartanti, L. E. P., Amanda, N. M. R., & Kurnia, N. (2021). *Modul etis bermedia digital*. Kementerian Komunikasi dan Informatika.
- Maharani, B., & Wahidin, W. (2022). Analisis kemampuan literasi peserta didik sekolah dasar dalam menyelesaikan soal asesmen kompetensi minimum. *Jurnal Basicedu*, 6(4), 5656-5663.
- Mukhlis, M., Piliang, W. S. H., Rohimakumullah, M. A., Nabila, P. F., & Shomary, S. (2022). Workshop pengembangan soal AKM literasi membaca pada MGMP Bahasa Indonesia

- SMA Kabupaten Kampar. Sajak: Jurnal Penelitian dan Pengabdian Sastra, Bahasa, dan Pendidikan, 1(2), 126-132.
- Nurgiyantoro, B. (2016). Penilaian pembelajaran bahasa berbasis kompetensi. BPFe.
- OECD (2023). PISA 2022 results (volume I): the state of learning and equity in education. OECD Publishing.
- Prasetia, I., Lisnasari, S. F., Gajah, N., Sekali, P. B. K., & Rahman, A. A. (2022). Influence of early childhood programs literacy movement on students' interest and reading ability. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(6), 7173-7185.
- Purnamasari, L., Herlina, K., Distrik, I. W., & Andra, D. (2021). Students' digital literacy and collaboration abilities: An analysis in senior high school students. *Indonesian Journal of Science and Mathematics Education*, *4*(1), 48-57.
- Pusmenjar. (2020). *Desain pengembangan soal AKM*. Pusat Asesmen dan Pembelajaran Badan Penelitian dan Pengembangan dan Perbukuan Kementrian Pendidikan dan Kebudayaan.
- Romli, S., Suhandi, A., Muslim, M., & Kaniawati, I. (2024). Research trends in the development of learning models oriented to increasing scientific literacy: A systematic literature review. *Indonesian Journal of Science and Mathematics Education*, 7(1), 66-79.
- Solahudin, D., Misdalina, M., & Noviati, N. (2022). Analisis faktor penyebab rendahnya minat baca pada siswa kelas 5 SD Negeri 4 Tanjung Lago. *Jurnal Pendidikan dan Konseling* (*JPDK*), 4(4), 1404-1407.
- Soussi, K. (2020). Web-based learning: Characteristics, practices, challenges, and recommendations. *International Journal of Science and Research*, *9*(3), 936-943.
- Suryana, D., Yulia, R., & Safrizal (2021). Model of questioning skill teacher for developing critical thinking skill in early childhood education in West Sumatra, Indonesia. *Educational Sciences: Theory & Practice*, 21(2), 101-114.
- Waruwu, M. (2024). Metode penelitian dan pengembangan (R&D): Konsep, jenis, tahapan dan kelebihan. *Jurnal Ilmiah Profesi Pendidikan*, 9(2), 1220-1230.
- Widiati, U., Karmina, S., & Zubaidi, N. (2023). Literacy teaching strategies: Do Indonesian secondary EFL teachers practice what they know? *LEARN Journal: Language Education and Acquisition Research Network*, 16(1), 339-364.
- Yasdin, Y., Yahya, M., Yusuf, A. Z., Musa, M. I., Sakaria, S., & Yusri, Y. (2021). The role of new literacy and critical thinking in students' vocational development. *Cypriot Journal of Educational Sciences*, 16(4), 1395-1406.