

What is The Teacher's View of The Development of Digital Teaching Materials in Indonesian Language Learning in Middle Schools?

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Abstract

One of the digital technologies that is developing in the world of education is digital teaching materials to support learning. These teaching materials are useful for assisting the learning process and facilitating students with different learning styles. However, current teaching materials are still dominated by printed teaching materials, so innovation in learning is necessary. Based on this, the aim of this research is to determine teachers' responses and views regarding the development of digital teaching materials in Indonesian language learning in secondary schools. This research is descriptive research using survey methods. The population of this study consisted of Indonesian language teachers in West Sumatra who taught at the secondary school level. The sample for this research was 118 teachers. In this research, samples were taken from the population using purposive sampling. The instrument used was a questionnaire. The instrument was developed via the Google Form application and distributed using the WhatsApp application media. The results of the research show that the teaching materials currently used by teachers are in accordance with student characteristics, are contextual and support language skills learning and are project-based. However, these teaching materials still need to be developed and simplified because students still have difficulty understanding the available material. Apart from that, the teaching materials are also not yet interactive and contain learning videos that can facilitate students' different learning styles. Furthermore, the P5 project in Indonesian textbooks is still limited and needs further development.

Keywords: Digital Teaching Materials; Teachers Respons; PjBL; P5

Abstrak

Salah satu teknologi digital yang berkembang dalam dunia pendidikan adalah bahan ajar digital untuk menunjang pembelajaran. Bahan ajar ini berguna untuk membantu proses pembelajaran dan memfasilitasi siswa dengan gaya belajar yang berbeda-beda. Namun bahan ajar saat ini masih didominasi oleh bahan ajar cetak sehingga diperlukan inovasi dalam pembelajaran. Berdasarkan hal tersebut, maka tujuan penelitian ini adalah untuk mengetahui tanggapan dan pandangan guru mengenai pengembangan bahan ajar digital dalam pembelajaran bahasa Indonesia di sekolah menengah. Penelitian ini merupakan penelitian deskriptif dengan menggunakan metode survei. Populasi penelitian ini terdiri dari guru bahasa Indonesia di Sumatera Barat yang mengajar pada tingkat sekolah menengah. Sampel penelitian ini adalah 118 guru. Dalam penelitian ini sampel diambil dari populasi dengan menggunakan purposive sampling. Instrumen yang digunakan adalah angket. Instrumen dikembangkan melalui aplikasi Google Form dan disebarakan menggunakan media aplikasi WhatsApp. Hasil penelitian menunjukkan bahwa bahan ajar yang digunakan guru saat ini sudah sesuai dengan karakteristik siswa, bersifat kontekstual dan mendukung pembelajaran keterampilan berbahasa serta berbasis proyek. Namun bahan ajar tersebut masih perlu dikembangkan dan disederhanakan karena siswa masih kesulitan memahami materi yang tersedia.

Selain itu, bahan ajar juga belum interaktif dan berisi video pembelajaran yang dapat memfasilitasi gaya belajar siswa yang berbeda-beda. Selain itu, proyek P5 dalam buku teks bahasa Indonesia masih terbatas dan perlu pengembangan lebih lanjut.

Kata Kunci: *Bahan Ajar Digital; Respon Guru; PjBL; P5*

Introduction

Teaching materials are one of the determining factors for the success of educational goals (Emidar et al., 2023; Mazgon & Stefanc, 2012; Ramadhan et al., 2022; Syahyuri & Harared, 2022). Teaching materials are components that cannot be separated in the learning process, because they have a very important position in learning, namely as a support for the successful implementation of the learning process and have an effective influence in increasing student activity and learning outcomes (Kadek et al., 2021). Teaching materials are expected to make it easier for educators to convey learning material and make it easier for students to accept the material provided with the help of teaching materials (Umihani et al., 2023). Teaching materials are likened to rails that guide learning activities so that they run according to the expected goals. If the expected goals can be directed properly through the availability of teaching material contents such as materials, modeling, exercises, reflections, and competency tests; undoubtedly good learning outcomes will be achieved (Utomo, 2019).

Teaching materials are media that can become a facilitator between teachers and students to understand the material more deeply (Destiara, 2020). Teaching materials can be composed of several learning resources that contain messages, materials, or information related to the learning needs and competencies to be delivered (Pamungkas, 2020). The development of teaching materials functions as a learning resource that helps students maximize learning outcomes by increasing time efficiency and learning speed and minimizing the role of educators in presenting information (Umihani et al., 2023). The use of teaching materials refers to the way students use and interact with material (Guerrettaz et al., 2018; Pourhaji et al., 2023). With teaching materials, students will be able to shape their knowledge. Teaching materials can be taken from various learning sources. It is easier for students to create deeper understanding. With the formation of knowledge, students will have an impression of learning material, and it will be easier to understand the material they are studying (Pradana et al., 2023).

Teaching materials are materials in the form of materials, information, tools, and texts that are systematically arranged, used during learning to achieve the desired goals (Vidianti et al., 2022). A teaching material contains material or lesson content in the form of ideas, facts, concepts, principles, rules, or theories that cover subjects according to their scientific discipline and other information in learning (Thamrin, 2023). These teaching materials can take the form of textbooks, presentation slides, videos, and assignments given to students (Jasiah, 2019). Good teaching materials are teaching materials that are able to help students understand the material presented by the teacher (Syahyuri & Harared, 2022). Therefore, a professional educator needs to have the ability to develop interesting and innovative teaching materials (Faisal et al., 2020). There are 4 types of teaching materials according to their form, namely printed teaching materials, listening teaching materials, audiovisual teaching materials and interactive teaching materials as well as other supporting teaching materials (Widiyanti & Kurniawan, 2021).

A teacher must be able to choose and make teaching materials that are interesting and easy for students to understand, so that students feel that learning at school is not a burden for them (Mella et al., 2022). Good teaching materials must be appropriate to the difficulty level of the material, easy to understand, and attractive to students (Maison &

Wahyuni, 2021). In education in the current era, most still use printed teaching materials, such as textbooks which students cannot use from time to time, so that in this case the use of technology in learning is still lacking (Nafidah & Suratman, 2020; Prastowo, 2012). Therefore, in the 21st century, teachers must be able to develop and provide teaching materials that are appropriate to current developments (Al Maarif et al., 2023; Talitha et al., 2023). Teachers can use technology to create varied, interesting and interactive teaching materials (Mella et al., 2022). In recent years, the rapid revolution of the Internet and wireless communication technologies has resulted in the emergence of various interactive multimedia networks, such as mobile learning, mobile voice and instant messaging. Taking advantage of the convenience and popularity of the Internet to implement digital teaching materials and achieve the goal of national competitiveness will replace traditional teaching (Lin et al., 2017). The rapid development of computer technology has resulted in devices that are increasingly compact, small, fast, inexpensive, and interconnected (Sargeant, 2015). In the digital era, the use of technology has become a necessity in every aspect of life. Technology has brought about significant changes in the way learning, teaching and communicating. Teachers must adapt to these changes and use technology to support their learning (Talitha et al., 2023). The learning process carried out in schools currently does not make full use of technology, so the learning process is less innovative and interesting (Mukmin et al., 2018). With an attractive design of teaching materials can provoke students' interest in understanding and increasing knowledge through reading so that they can more easily imagine the concepts of each teaching material (Syahyuri & Harared, 2022).

Digital teaching material is a book that is displayed in digital form and is able to provide an attractive appearance because it is equipped with videos, content presentations, animations, educational games, online articles, and educational materials from traditional printed texts that have been scanned and uploaded (Mastroleo et al., 2020; Rice & Ortiz, 2021). As a support or complement to instruction, digital teaching materials must include textbooks, curriculum guides, task descriptions, and instructional software (Remillard & Heck, 2014). Digital teaching materials can be used as a medium of communication between teachers and students in the process of online learning and offline learning (Khoiron et al., 2021; Mella et al., 2022; Rahman & Dahlan, 2021). Digital teaching materials have the potential to increase individual interactivity (Choppin & Borys, 2017). Interactivity in a teaching material is needed to provide an interesting and different learning experience for students, as well as to increase students' motivation to study the material provided (Yuliana et al., 2021).

Many studies have reported the advantages of using digital teaching materials, including increasing individual interactivity, accessible to all students, facilitating unlimited learning places and times, and providing more resources (Sofyan et al., 2023). The use of digital teaching materials in the learning process is one that can influence students' enthusiasm and ability to understand and think about the material presented (Ekawati et al., 2022). Digital teaching materials allow students to carry out activities of receiving materials, directions, and various learning information anywhere and anytime that are not limited to space and time. Digital teaching materials are also able to train students to learn independently from the various sources provided (Göçen Kabaran & Uşun, 2021). It is stated that students who are literate in technology today will make it easier for them to be interested in the information provided. with digital teaching materials and learning experiences designed with these materials will contribute to their positive attitude towards learning (Göçen Kabaran & Uşun, 2021). With the existence of digital teaching materials, it is hoped that it can attract the attention and interest of students so that they are motivated to study and prepare themselves before learning in

class, increase student competence, ease the burden on students because they do not need to carry them in printed form and can reduce global warming because they reduce paper use (Lilis, 2019). The use of digital teaching materials is considered effective for individual learning, so students can still learn without being accompanied by a teacher (Mella et al., 2022).

Research related to this has been carried out by previous researchers. Nurdin et al. (2023) conducting Research and Development (R&D) research by producing digital teaching materials through a problem-based learning model on flat-sided geometry material to improve students' critical thinking skills. In line with this, Faridha et al. (2023) developing digital teaching materials containing information about English for Special Purposes courses offered by the Public Administration Science Study Program, FISIP, and UMSJ. Next, Altun & Bulut (2022) examines the effectiveness of materials designed and distributed among course instructors for teaching intermediate-level writing courses in online platforms during the pandemic. This article reviews the literature in the fields of technology-enhanced language learning (TELL), activity theory, and scaffolding to understand the extent to which instructional materials are effective. R & D research was carried out using certain methods, one of which was research conducted by Lestari et al. (2023) conducting research to determine the role of the ADDIE model in designing digital teaching materials. The benefit of this research is to provide an understanding of the application of the ADDIE model in designing teaching materials, especially digital teaching materials.

Maladerita et al. (2023) conducting experimental research by testing the use of interactive digital teaching materials in social studies learning with the Discovery model. Furthermore, Kadarisman et al. (2022) conducting research aimed at fostering a culture of digital literacy in the school environment, increasing teacher knowledge and skills in the field of developing and utilizing digital teaching materials, improving student learning performance and increasing teacher knowledge and skills in terms of digital learning models and improving performance student learning using experimental methods. Likewise, research Irwansah et al. (2023) analyzes students' metacognitive abilities and the effectiveness of digital-based constructivist teaching materials to improve students' metacognitive abilities. In this research, the experimental class was given treatment using digital-based constructivist teaching materials in the learning process.

To carry out development, a needs analysis is needed to determine user needs for the product being developed. One of the studies conducted (Putri & Asrizal, 2023) analyzed the need to determine the need for digital teaching materials to improve 21st century skills. This research used a survey method with student respondents who were potential users of the product to be developed. This research is in line with this research. Based on this explanation, it is necessary to analyze how teaching materials are currently used, especially at the secondary school level. Many teachers currently use ready-to-use teaching materials, even though these teaching materials do not necessarily suit the needs and character of their students. The development of digital teaching materials created by teachers aims to make learning more efficient and effective and in accordance with the competencies to be achieved (Rasuanti et al., 2022). Moreover, the curriculum always changes with the times. As a result of these changes, teaching materials in the field have also changed. For this reason, adjusting the content of teaching materials in the form of product development is an important thing to implement (Umihani et al., 2023). Many previous researchers have conducted research on needs analysis. However, not many have been found regarding the use of P5-based digital teaching materials by implementing the "Curriculum Merdeka". Based on this, the aim of this research is to determine teachers' responses and views regarding the development of digital teaching materials in Indonesian language learning in secondary schools.

Methods

This research is descriptive research using survey methods. The survey method is defined as a research method that tries to define cases as taken from research samples obtained from the research population. The population of this study consisted of Indonesian language teachers in West Sumatra who taught at the secondary school level. The sample for this research was 118 teachers. Data on respondents to this study are as follows. First, the respondents were teachers who taught at junior high school (45.8%) and high school (54.2%) levels. Second, teachers have taught for 1-5 years (74.65%), 6-10 years (15.2%), 11-15 years (3.4%), more than 15 years (6.8%). In this research, samples were taken from the population using purposive sampling. The criteria used in this collection are, for example, a minimum bachelor's degree; have taught for at least one year; and already know the types and uses of digital media. The instrument used was a questionnaire. The instrument was developed via the Google Form application and distributed using the WhatsApp application media. This instrument is used to determine the competence and opinions of correspondents regarding the teaching materials currently used in learning.

Result and Discussion

The results of this study were obtained from the results of the questionnaire analysis filled out by the teacher. The results of this study are based on three things, namely the evaluation of teaching materials; development of teaching materials by teachers; integration of the Pancasila Student Profile Strengthening Project (P5). First, evaluate teaching materials. To innovate teaching materials, it is necessary to evaluate the teaching materials currently used. These teaching materials can be in the form of ready-to-use teaching materials or teaching materials developed or designed by the teacher himself. This was done in order to find out the advantages of current teaching materials so that these advantages can be maintained. In addition, we also know the limitations of the teaching materials used to be able to innovate on the teaching materials used. The results of the analysis of the evaluation of the teaching materials can be seen in the following table 1.

Table 1. Evaluation of Teaching Materials

No.	Statement	Answer (%)				
		SA	A	D	DA	SD
1.	Students often have difficulty understanding the material provided.	30.5	40.7	18.6	6.8	3.4
2.	In my opinion, the material in the textbook corresponds to the characteristics of my students.	15.3	40.7	27.1	13.6	3.4
3.	In my opinion, the material in the textbook is meaningful and contextual.	20.3	47.5	23.7	8.5	0
4.	In my opinion, the text presented in textbooks is contextual.	16.9	47.5	27.1	8.5	0
5.	In my opinion, textbooks have supported all language skills	20.3	39.0	32.2	8.5	0
6.	The textbook has helped me in project based learning.	23.7	30.5	33.9	10.2	1.7
7.	The project shown in the textbook is easy to apply in my learning.	25.4	32.2	33.9	8.5	0
8.	The projects featured in the textbooks vary according to the material being studied.	23.7	39.0	27.1	10.2	0

9.	The textbook that I am currently using already contains learning videos.	6.8	15.3	28.8	28.8	17.3
10.	The textbook that I use contains an interactive evaluation, which has direct feedback to students.	0	15.3	20.3	47.5	16.9
11.	The textbook I'm currently using has clear and varied illustrations.	0	8.5	27.1	39.0	25.4
12.	The textbooks that I currently use help me to cater to the different learning styles of students.	15.3	33.9	28.8	20.3	1.7
13.	The textbook that I'm currently using helps me to meet the different abilities of students.	11.9	47.5	22.0	16.9	1.7
14.	The textbook that I use now has integrated social-emotional learning.	20.3	42.4	28.8	8.5	0

SA (Strongly agree); A (Agree); (D) Disagree; (DA) Don't agree; (SD) Strongly Disagree

Teaching materials are one of the learning tools that need to be present in the learning process. These teaching materials contain learning materials that need to be mastered by students to achieve the learning objectives planned and expected by the teacher. Based on the results shown in the table above, we can conclude the following things. First, students still have difficulty understanding the material available in the textbooks used, this is indicated by the percentage of 30.5% of teachers who answered strongly agree and 40.7% of teachers answered that they agreed. Second, the material in the textbooks used is in accordance with the characteristics of the students but the statements that reject this are also still high, namely 13.6% of teachers answering they disagree and 3.4% answering strongly disagree. Third, the textbooks used are contextual and meaningful. Fourth, the textbooks that have been used have supported learning all aspects of language skills. Based on the textbook material, the five statements in the table show that the textbook is contextual and in accordance with student characteristics. However, students still experience difficulties in understanding the material provided in the textbook.

One of the recommended learning models in the learning process in high schools, especially learning Indonesian, one of which is using Project Based Learning. This learning model is very suitable for use in productive language learning which aims to produce products. PjBL is the recommended model in the 2013 Curriculum and also in the Merdeka Curriculum. Based on this, in the analysis of the evaluation of teaching materials, it was found that the projects displayed in the textbooks currently used are easy to apply in learning. In addition, the projects are also varied and appropriate to the material studied. Based on the results of the questionnaire, it also shows that the teaching materials currently used help teachers in project-based learning. Based on this statement, the percentage of those who answered quite agreed showed a fairly high percentage, so that respondents still had doubts about the implementation of the project. Meanwhile, a small number of respondents also stated that they did not agree with the statements in the questionnaire. This is because the project is not an absolute thing that always appears in teaching materials, but is an alternative so that the textbooks currently used may not be entirely project-based.

With the development of knowledge and technology, teaching materials can contain varied illustrations. Apart from that, teaching materials can contain learning videos and include interactive evaluations. Based on this table, it shows that the teaching materials

used do not contain videos and are not interactive. This is because the teaching materials used are still printed. Apart from that, videos are usually categorized as learning media by teachers and are separate from teaching materials. In fact, with the development of science and technology, now learning videos can be included in teaching materials using innovative applications.

Regarding the current curriculum, namely the Independent Curriculum, the teaching materials used should be able to help teachers meet the different learning styles and abilities of students. Apart from that, textbooks can also contain social emotional learning. Based on the table, it shows that the teaching materials used have helped teachers to meet the different learning styles and abilities of students. However, the percentage for learning that facilitates different learning styles still has a high percentage that answers disagree, namely 20.3%. This can also be related to the minimal use of illustrations and learning videos in teaching materials. If teaching materials contain media and are interactive, the materials can be useful for students who have audio or visual learning styles.

Second, development of teaching materials by teachers. Teaching materials are one of the tools that teachers need to develop. These teaching materials were developed based on needs, so it is necessary to analyze teacher responses regarding the development of these teaching materials. The results of the analysis from the evaluation of the teaching materials can be seen in the following table 2.

Table 2. Teaching Material Development

No.	Statement	Answer (%)				
		SA	A	D	DA	SD
1.	Need to make additional materials to complement the material in existing textbooks.	54.2	20.3	11.9	6.8	6.8
2.	In my opinion, it is necessary to simplify the material in the textbook.	32.2	22.0	33.9	5.1	6.8
3.	In my opinion, teaching materials need to be developed.	61.0	16.9	10.2	3.4	8.5

SA (Strongly agree); A (Agree); (D) Disagree; (DA) Don't agree; (SD) Strongly Disagree

Based on table 2, it shows that there is a need for additional teaching materials to complement the existing main teaching materials. In addition, teaching materials need to be simplified so that they are easy for students to understand and easy for teachers to use during the learning process. Apart from that, teaching materials need to be developed. Based on table 1, the development of teaching materials can be done using various illustrations, equipped with videos and interactive evaluations. In addition, these teaching materials can make it easier for teachers to teach students with different learning styles.

Third, the integration of the Pancasila Student Profile Strengthening Project (P5) in teaching materials. Based on the results of the study showed the following things. First, P5 can be integrated into text-based Indonesian learning. This is indicated by 84.7% of teachers answering "Yes" and 15.3% of teachers answering "Maybe". Second, the textbooks currently in use have been integrated with P5. This is indicated by 79.7% of teachers answering "Yes", 15.3% of teachers answering "Maybe" and 5.1% of teachers answering "No". Third, P5 is an activity listed in the textbook that the teacher is currently using. This is indicated by 55.9% of teachers answering "Yes", 22.7% of teachers answering "Maybe" and 20.3% of teachers answering "No". Based on this percentage, there is still a high number of answers that answer "No".

Based on the questionnaire, the P5 integration that has been integrated in the teaching materials that have been used is dominated by attitudes or characters that students need to have, such as mutual cooperation, a sense of nationalism, love of the country, creative and critical thinking, independence, self-confidence, working together, honest, piety, self-improvement, self-understanding. Most of them answered this. Based on that, the P5 that has been implemented has not been dominated by projects. However, there are several teachers who have integrated projects into P5, including the following. First, making a procedural text of local culture-laden entrepreneurship products for the August 17 parade. Second, the entrepreneurship program is applied to persuasive text learning. Third, the Suara Demokrasi project trains students to have the courage to make arguments or opinions. Fourth, create a writing program about bullying with 1000 words a day, to be used as an anthology book. Fifth, local wisdom by making regional specialties (rendang, lapek, pinyaram, etc.) which are written in the form of systematic procedural texts.

Based on the research results, it shows that the teaching materials contain project based learning, social emotional learning, and have been able to help teachers in the learning process to meet the different abilities of students. This is in accordance with the currently implemented curriculum, namely the Merdeka Curriculum. In a separate curriculum, project-based learning is differentiated and includes social-emotional learning. This is a category of good teaching materials. In accordance with statement Umihani et al. (2023) that good teaching materials contain material according to the content of the curriculum. The curriculum material recorded in basic competencies is outlined in the form of a logical and systematic explanation of the learning process in teaching materials so that teachers and students can carry out learning activities as they should. Student learning outcomes from a process and having good qualifications are a form of accountability to the existing curriculum.

Furthermore, the teaching materials used at this time have not integrated current technological advances. Teaching materials are still dominated by printed teaching materials. This is not because teachers have not utilized technology, but teachers often distinguish between teaching materials and learning media. Even though the two things are closely related and can be integrated with each other. This is in line with opinion Dewandono & Sutiyarti (2022) which states that teaching materials are actually also closely related to learning media because they are both tools used for teaching and learning activities. To integrate the two devices, you can use a flipbook based on the ease of access and attractiveness of the display presented. According to (Dewandono & Sutiyarti, 2022) Flipbook or Digital book is a form of presenting book learning media in virtual form. This teaching material is a book displayed in electronic form which can be accessed via smartphone and computer or laptop (Asrial et al., 2020; Nisa et al., 2020; Sitorus et al., 2019).

Digital teaching materials combine words, pictures, cartoons, and audio-visual films, transferring information into digitized forms (Yang et al., 2014). According to Agung & Akhyar (2019) the development of teaching materials in digital form is in line with developments and innovations in the field of education and in accordance with the current digital era. It is stated that learning experiences equipped with digital teaching materials will enable learners to be fast, effective, and willing to access information (Göçen Kabaran & Uşun, 2021). Digital teaching materials can give rise to six categories of conceptions of learning owned by teachers consisting of: prioritizing interaction with students, designing classes efficiently, improving the quality of learning, learning not always in class, prioritizing student independence, and expanding the scope of learning materials (Yang et al., 2014). Demirkan (2019) research found that digital teaching

materials are useful for successful learning, making the learning process more interesting and in line with current technological developments. It can be concluded that digital teaching materials have far greater advantages and benefits than printed teaching materials. Developing digital teaching materials requires technical expertise and scientific expertise (Ramdani et al., 2021).

Based on the research results, it shows that the teaching materials used still need to be developed and simplified. This is in accordance with statement (Sofyan et al., 2023) that teaching materials need to be evaluated and developed periodically. The development of teaching materials is aimed primarily at making certain adjustments to the latest teaching materials to suit current conditions, influenced by technology or market needs. However, problems may arise when teachers are unable to produce their own digital teaching materials. As a result, they rely on online digital materials with certain limitations, such as limited access to only one or two pages of articles and texts that are not physical (Larhmaid, 2018). Teaching materials like this are called ready-to-use teaching materials which are rarely designed to meet students' actual needs because they are not designed based on their needs (Indriyani & Ramadhan, 2017; Ramadhan et al., 2020).

Based on the research results, it shows that the Project for Strengthening the Pancasila Student Profile (P5) has been included in the teaching materials. However, not all teaching materials used by teachers contain projects and are integrated into text-based learning. One thing that has been implemented according to the project is creating procedural texts from entrepreneurial products containing local culture for the August 17 parade and entrepreneurship programs that are applied to learning persuasion texts. This is in line with research (Yuliasuti et al., 2022) that one of the applications of P5 is to increase the entrepreneurial spirit by making products that have selling value. Furthermore, (Nafaridah et al., 2023) P5 activities can be carried out by carrying out research so that students can apply knowledge to create a work or product. Based on this research, P5 in learning Indonesian can be applied in writing simple scientific essays.

Conclusion

Based on the research results, it shows that the teaching materials currently used by teachers are in accordance with student characteristics, are contextual and support the learning of language skills. Furthermore, the teaching materials used by teachers contain project-based learning. However, these teaching materials still need to be developed and simplified because students still have difficulty understanding the available material. Apart from that, teaching materials are also not interactive and contain learning videos that can facilitate students' different learning styles, namely visual, audio, audio-visual and kinesthetic. Furthermore, the P5 project in Indonesian textbooks is still limited and needs further development. Based on the results of this research, it can be used as a basis for further research, namely developing digital teaching materials in the form of e-modules based on PjBL and containing P5 in language learning. These teaching materials can be used as models or alternatives that teachers can use in the learning process. This research is part of the development research needs analysis so that further research continues to be carried out.

Acknowledgement

I would like to thank the respondents who were willing to fill out the questionnaire for data collection for this research. Thank you to Padang State University for providing a PNPB research grant with the Decree of the Chancellor of UNP Number 492/UN.35/LT/2023.

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