DESIGNING *PONDOKENGLISH* WEB APP: A SUPPLEMENTARY ENGLISH MATERIAL FOR ISLAMIC BOARDING SCHOOL STUDENTS IN PALOPO

A Magister Thesis

Submitted to Fulfill the Requirements for A Master's Degree in English Educational Study Program (M.Pd)

IAIN PALOPO

Submitted by

IMAM FADLI
2205040014

POSTGRADUATE PROGRAM
STATE ISLAMIC INSTITUTE OF PALOPO
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2205040014

HALAMAN PENGESAHAN

Tesis magister yang berjudul "Designing *PondokEnglish* Web App: A Supplementary English Material for Islamic Boarding School Students in Palopo" yang ditulis oleh "Imam Fadli" NIM "2205040014", mahasiswa Program Studi Tadris Bahasa Inggris Pascasarjana IAIN Palopo, yang telah dimunaqasyahkan pada hari Senin, 19 Agustus 2024 telah diperbaiki sesuai catatan permintaan Tim Penguji dan diterima sebagai syarat meraih gelar magister dalam bidang Ilmu Tadris Bahasa Inggris (M.Pd.)

Palopo, 20 Agustus 2024

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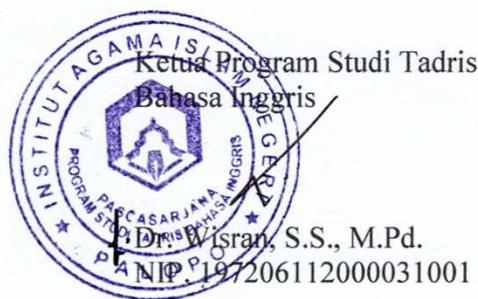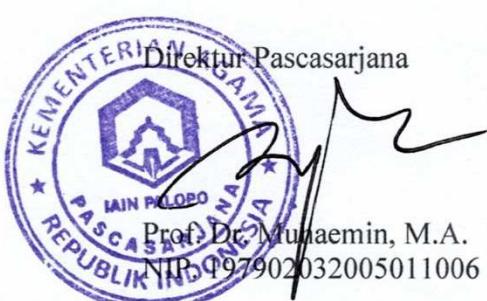
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In the Name of Almighty Allah swt., all praises for mercy and blessings on this occasion, the researcher can complete the magister thesis, which is entitled "Designing PondokEnglish Web App: A Supplementary English Material for Islamic Boarding School Students in Palopo." Moreover, *shalawat* and *salam* to the beloved prophet Muhammad saw., who has fought for the teachings of Islam on earth.

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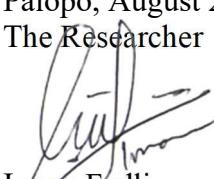
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ABSTRACT

Imam Fadli, 2024, "*Designing PondokEnglish Web App: A Supplementary English Material for Islamic Boarding School Students in Palopo*". A Magister Thesis of English Educational Study Postgraduate Program in State Islamic Institute of Palopo Supervised by Sahraini and Magfirah.

Designing a web app as a supplement to English material is necessary. This study aims to design an appropriate web app to supplement Islamic Boarding School (IBS) students in Palopo for learning English. The study follows a research and development design, utilizing the waterfall model to develop a web app tailored to the needs of IBS students. Data collection methods include interviews, questionnaires, and document analysis to gather qualitative and quantitative data. The researcher designed the web application by integrating Islamic values and aligning it with students' needs, which were identified during the needs analysis interviews. The design used WordPress and the Elementor plugin to build the web app. The web app is validated through Focused Group Discussion (FGD) by four experts, two material experts, and two web design experts to ensure the web app's performance and quality. In FGD sessions, the experts concluded that the web app suited English learning and confirmed that the web app is appropriate for testing by practitioners (English teachers and IBS students). However, the practitioners have participated in the testing phase and deemed the web app attractive and highly useful for students and teachers. Hence, the web app supplemented the IBS students' learning of English by providing an enjoyable and engaging learning experience.

Keywords: English web app, research and development, Islamic boarding school

ABSTRAK

Imam Fadli, 2024, "*Designing PondokEnglish Web App: A Supplementary English Material for Islamic Boarding School Students in Palopo*". Tesis Program Studi Tadris Bahasa Inggris Program Pascasarjana Institut Agama Islam Negeri Palopo. Dibimbing oleh Sahraini dan Magfirah.

Merancang aplikasi web sebagai suplemen materi bahasa Inggris sangat dibutuhkan. Penelitian ini bertujuan untuk mendesain aplikasi web yang sesuai untuk siswa pesantren di Palopo dalam pembelajaran bahasa Inggris. Penelitian ini menerapkan desain Penelitian dan Pengembangan, dengan menggunakan model Waterfall untuk mengembangkan aplikasi web. Metode pengumpulan data meliputi wawancara, kuesioner, dan analisis dokumen untuk mengumpulkan data kualitatif dan kuantitatif. Peneliti mengembangkan aplikasi web dengan mengintegrasikan nilai-nilai keislaman dan menyelaraskannya dengan kebutuhan siswa, yang diidentifikasi selama wawancara analisis kebutuhan. Perancangan ini menggunakan WordPress dan *plugin* Elementor untuk membuat aplikasi web. Aplikasi web divalidasi melalui Diskusi Kelompok Terarah (DKT) oleh empat ahli, dua ahli materi, dan dua ahli desain web untuk memastikan kinerja dan kualitas aplikasi web. Dalam sesi DKT, para ahli berkesimpulan bahwa aplikasi web tersebut telah sesuai dengan pembelajaran bahasa Inggris dan mengkonfirmasi aplikasi web dapat diuji coba ke para praktisi (guru bahasa Inggris dan siswa). Sementara itu, para praktisi telah berpartisipasi dalam fase uji coba dan menyatakan aplikasi web atraktif dan sangat berguna untuk siswa dan guru. Sehingga, aplikasi web ini menyuplementasi pembelajaran bahasa Inggris santri dengan menyediakan pengalaman pembelajaran yang menyenangkan dan menarik.

Kata kunci: web app bahasa Inggris, penelitian dan pengembangan, pesantren

CHAPTER I

INTRODUCTION

A. Background

Today's learning is much different with the presence of technology. In current education, however, technology is seen as an effective tool for the learning process, which has led to teachers using a greater number of appliances in their practices.[1] With technology, teachers are facilitated with new pedagogical approaches (for instance, flipped classrooms and blended learning) and teaching contexts (such as synchronous online and language lessons). Meanwhile, this phenomenon was explained centuries ago in QS Yunus/10: 101.[2]

قُلِ انْظُرُوْا مَاذَا فِى السَّمٰوٰتِ وَالْاَرْضِۗ وَمَا تُغْنِى الْاٰيٰتُ وَالنُّذُرُ عَنْ قَوْمٍ لَّا يُؤْمِنُوْنَ

Translation:

> "Say (Prophet Muhammad), "Pay attention to whatever is in the heavens and on the earth!" Those signs (of Allah's greatness) and warnings (to avert Allah's punishment) are useless for those who do not believe."

In the preceding paragraph, the verse explains how to observe all events in the sky filled with stars, sun, and moon. The verse also describes the miracles of day and night, as well as other life phenomena that are close to human life. In terms

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[1] Benjamin Luke Moorhouse, Lucas Kohnke, and Yuwei Wan, "A Systematic Review of Technology Reviews in Language Teaching and Learning Journals," *RELC Journal* 54, no. 2 (2023): 426–44, doi:10.1177/00336882221150810.

[2] "Qur'an Kemenag," accessed October 1, 2023, https://quran.kemenag.go.id/quran/per-ayat/surah/10?from=101&to=101.

of technological evolution, rapid development has not escaped God's intervention so that humans, with their minds, can apply technology to learning practices.

Furthermore, it is indisputable that technology plays an essential role in the flow of information in the digital era.[3] Generation Z, primarily in the present era, utilizes Information and Communication Technology (ICT) in learning and is proficient in using technologies such as social media.[4] In addition, several gadgets usually exist in every English learning, for instance, a projector to display materials, speakers to listen to audio, a pointer to highlight text or slides, and a laptop or desktop to assist the teacher with several tasks. Hence, it confirms that technology has several positive impacts on teachers in teaching language learning in the current era.

In Indonesia, specifically, English is a second language and a compulsory subject taught from secondary to tertiary education levels. Learning English starting at the secondary level aims to give students the ability to read English textbooks in related fields. Once the students have English ability, they can obtain information from international literature. Other than regular schools in Indonesia, the oldest educational institution in Indonesia that also studies English is known as the Islamic Boarding School (IBS).[5]

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[3] Ratna Rintaningrum, "Technology Integration in English Language Teaching and Learning: Benefits and Challenges," *Cogent Education* 10, no. 1 (2023), doi:10.1080/2331186X.2022.2164690.

[4] Maslawati Mohamad, Fatin Kamilia Mohd Arif, and Noorhayati Mohd Noor, "Online Game-Based Formative Assessment: Distant Learners Post Graduate Students" Positive Perceptions towards Quizizz," *International Journal of Scientific and Technology Research*, 2020.

[5] Nilna Azizatus Shofiyyah, Haidir Ali, and Nurhayati Sastraatmadja, "Model Pondok Pesantren di Era Milenial," *BELAJEA: Jurnal Pendidikan Islam*, 2019, doi:10.29240/belajea.v4i1.585.

IBS are educational institutions in Indonesia that contribute significantly to the social and religious dynamics. Apart from being a place for producing scholars, IBS provides educational services from kindergarten to higher education.[6] Moreover, IBS applies special rules to improve students' English performance and proficiency compared to language learning in public schools in Indonesia. Based on the pre-observation into IBS students, they should memorize five to ten English expressions, phrases, or words in one day to increase vocabulary capacity. The memorized vocabularies relate to the IBS students' routines, and the teachers usually compile a sentence based on it. For instance, IBS students must memorize greetings, idioms, permissions, nouns, verbs, adjectives, and pronouns.

Foreign language learning is essential, especially for the modern IBS model (*pesantren khalafiyah*), which slightly adapts the regular curriculum (Ministry of Religious Affairs curriculum) into the IBS curriculum.[7] Moreover, the modern IBS model requires students to communicate in Arabic or English to train them to master foreign languages actively.[8] Therefore, English learning material is strongly needed in IBS, especially for vocabulary mastery.

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[6] Muhaemin Muhaemin, "Kontribusi Pesantren Dalam Merespon Dinamika Sosial Keagamaan," *Palita: Journal of Social-Religion Research* 4, no. 1 (2019), doi:10.24256/pal.v4i1.596.

[7] Jafar Amirudin and Elis Rohimah, "Implementasi Kurikulum Pesantren Salafi dan Pesantren Modern dalam Meningkatkan Kemampuan Santri Membaca dan Memahami Kitab Kuning," *Jurnal Pendidikan UNIGA*, 2020, doi:10.52434/jp.v14i1.908.

[8] Hamid Fahmy Zarkasyi, "Modern Pondok Pesantren: Maintaining Tradition in Modern System," *TSAQAFAH*, 2015, doi:10.21111/tsaqafah.v11i2.267.

However, the need for quality education at IBS must be balanced with Society 5.0, which utilizes technology as part of humanity. Based on initial observations, English teachers explained that they usually use textbooks and teaching modules as teaching materials. The learning strategy should be changed based on the demands of the period, one of which is by including technological elements in the learning process. Hence, using web apps as English learning material is required to build a learning process that is modern and more effective, particularly in acquiring English vocabulary.

Website as an English vocabulary learning material beneficially up to 80% of students' experience related to satisfaction, interest, need, and achievement in the classroom.[9] Web-based English learning can be used as a literacy media information technology,[10] facilitate independent teaching, and as a dynamic strategy that helps reinforce cognitive approaches.[11] Moreover, gamified learning significantly improves knowledge of idioms through websites.[12] However, IBS stakeholders forbid students from taking their smartphones or other communication devices to school. This regulation aims to improve students' concentration while in

[9] Risa Mufliharsi and Eva Nurul Candra, "Improving Students' of Non-English Department Perspective In Learning Vocabulary Through Website," *Getsempena English Education Journal (GEEJ)* 4, no. 2 (2017): 78–83.

[10] Iwan Fauzi et al., "Mengatasi Anxiety dalam Berbicara Bahasa Inggris Melalui Pembelajaran Berbasis Web," in *Prosiding Seminar Nasional Pascasarjana (PROSNAMPAS)*, 2022.

[11] Jacquline Mariduena Macancela, "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles.," *Journal of Science And Research*, 2019.

[12] Amanda Müller et al., "Learning English Idioms With a Web-Based Educational Game," *Journal of Educational Computing Research* 56, no. 6 (2018): 848–65, doi:10.1177/0735633117729292.

boarding school and make students more sensitive to their surroundings.[13] Thus, the IBS stakeholders have already provided computers and internet connections for students to browse and learn online.

Meanwhile, the development of web apps English vocabulary material is highly required considering that there is no availability in English vocabulary learning web apps for IBS students. The available web app provides learning English in general (for example, Duolingo) and as teaching exercises media (Quizlet and ClassMaker). Most previous studies already discussed the effectiveness of websites as support in English learning from 2017 to 2019. Meanwhile, the issue of designing or developing a website suitable for learning English vocabulary still needs more discussion.[14] Related to IBS students, the closest study similar to the research's topic discussed designing an English learning website for IBS students to learn English generally (grammar, tenses, and vocabulary).[15] Thus, the researcher tries to fill the gap by developing a web app with English material on vocabulary learning.

Moreover, according to the preceding problems, the researcher in this study develops a web app suitable for the current learning needs. Furthermore, the research proceeds the previous study in designing English pictorial vocabulary

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[13] Miftachul Ulum and Abdul Mun'im, "Digitalisasi Pendidikan Pesantren (Paradigma dan Tantangan dalam Menjaga Kultur Pesantren)," *AnCoMS (Annual Conference for Muslim Scholars)*, 2019.

[14] Mufliharsi and Candra, "Improving Students' of Non-English Department Perspective In Learning Vocabulary Through Website"; Müller et al., "Learning English Idioms With a Web-Based Educational Game"; Macancela, "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles."

[15] Fauzi et al., "Mengatasi Anxiety dalam Berbicara Bahasa Inggris Melalui Pembelajaran Berbasis Web."

book for Islamic students.[16] The research objectives are to develop and test the efficiency of web app English vocabulary learning material suitable for IBS students. The research utilizes the research and development design and waterfall instructional model when designing the web app. A limited trial is implemented for students and teachers to test the web app's efficiency. This research fulfills the need for English vocabulary learning materials at IBS through the web app.

B.   Research Question

The design of a web app to supplement English learning for Islamic Boarding School (IBS) students requires a comprehensive methodological approach. Therefore, the research question focuses on "how an appropriate web app to supplement English material for IBS students in Palopo is designed."

C.   Research Objective

By utilizing a comprehensive methodological approach, the research aims to design a web app to supplement English learning. Hence, the study addresses "to design the appropriate web app in supplementing English material for IBS students in Palopo."

D.   Significances of The Research

Theoretically, the research contributes to design an English material supplementary web app for IBS students in Junior High School Datok Sulaiman Putri Palopo. Considering the unavailability of web app on English learning. Furthermore, the research proceeds the previous study in designing an English

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[16] Imam Fadli, "Designing A Colorful Pictorial English Vocabulary Book For The First-Grade Students of SMP Datok Sulaiman Putri Palopo" (Institut Agama Islam Negeri Palopo, 2022).

vocabulary pictorial book for Islamic students, which the researcher conducted. Practically, the research is going to be:

1. A supplement learning material for online English learning of Islamic students.

2. A contribution to offering an English learning method specifically in Islamic boarding schools.

E.   Specifications and Expected Products

The expected product is a web app supplementing English learning material for Islamic Boarding School (IBS) students. The web app contains of English materials from the textbook and English vocabulary with related pictures, phonetic symbols, and additional explanation with Islamic values. The English materials were selected by adjusting the suitable phase on Junior High School based on Merdeka curriculum. Meanwhile, the selected vocabularies were adjusted based on Islamic vocabulary and the daily expressions in the boarding school. Those vocabularies displayed as digital cards with illustration pictures, phonetics symbols, and translations into Bahasa Indonesia. Furthermore, social media is integrated into the web app to broaden the audience's coverage.

F.   Development Assumptions and Limitations

The assumptions of the researcher in developing web app English vocabulary learning material are listed as follows:

1. The web app supplements English materials in Islamic boarding school.

2. The web app is reliable (efficient and effective) when used on computer.

3.   The web app is maintainable and reusable for other English material development.

4.   The web app has several interactive exercises that can be sent directly to the teacher's email.

5.   The English vocabularies in the web app consists of Islamic glossary with an additional explanation from Islamic proof (*dalil*) and Quran verses.

The limitations of the research in developing web app English vocabulary learning material are classified as follows:

1.   The web app is only accessible when the device is connected to an internet connection.

2.   The web app only covers three chapters instead of the five chapters in the textbook.

3.   The web app is unsuitable for English language learning in general schools.

4.   The web app is not yet responsive to the smartphone.

5.   The coverage of English materials and vocabulary on the web app is not enough for long-term English learning.

CHAPTER II

REVIEW OF RELATED LITERATURE

A.   Review of Related Research Findings

English is the first foreign language taught in the educational system in Indonesia, and the demand for English learning has risen alongside the development of technology. Using technology in English learning, like computers, is considered by many teachers essential to providing high-quality learning.[1] By applying technology, English learners are significantly up to 80% in learning the four skills of English.[2] In the 21st century, English language learning is implementing Computer-Assisted Language Learning (CALL), rapidly growing interest in present and future language teaching and learning.[3] Since CALL has potential in teaching, several educational institutions in Indonesia have been impatient in combining the traditional learning method with learners' current needs. In addition, the current English learning vocabulary trends are blended with technology that enhances learners' long-term vocabulary retention.[4] Therefore, the implementation

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[1] Mohammad Reza Ahmadi, "The Use of Technology in English Language Learning: A Literature Review," *International Journal of Research in English Education*, 2018, doi:10.29252/ijree.3.2.115.

[2] Van Lam Kieu et al., "The Effectiveness of Using Technology in Learning English," *AsiaCALL Online Journal*, 2021.

[3] Muzakki Bashori et al., "Web-Based Language Learning and Speaking Anxiety," *Computer Assisted Language Learning*, 2022, doi:10.1080/09588221.2020.1770293; Maslawati Mohamad et al., "Online Game-Based Formative Assessment: Distant Learners Post Graduate Students' Challenges towards Quizizz," *International Journal of Scientific and Technology Research* 9, no. 4 (2020): 994–1000.

[4] Tao Hao, Zhe Wang, and Yuliya Ardasheva, "Technology-Assisted Vocabulary Learning for EFL Learners: A Meta-Analysis," *Journal of Research on Educational Effectiveness* 14, no. 3 (2021): 645–67, doi:10.1080/19345747.2021.1917028.

of CALL by using a mobile application in vocabulary learning strongly impacted the performance in autonomously learning of English vocabulary.[5]

Most previous studies have largely focused on the efficiency of using website for teaching or learning English rather than developing a web app as an English learning material supplement. The study has found that assisting English learning with website facilitates independent learning,[6] as a dynamic strategy that encourage cognitive approach,[7] and flexibility learning.[8] The current websites that are available for learning English, such as ESOL Courses, British Council, BBC, and Cambridge, meanwhile, do not fulfill the functional and usability criteria.[9]

Moreover, the use of gamification in web app significantly impacted to the students' learning outcomes, motivation, and satisfaction.[10] The effect of digital games is currently as a trend issue in English learning specifically in vocabulary acquisition studies.[11] Some gamified English vocabulary learning applications have

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[5] Hao Jan Howard Chen et al., "Investigating the Impact of Integrating Vocabulary Exercises Into an Adventure Video Game on Second Vocabulary Learning," *Journal of Educational Computing Research* 59, no. 2 (2021): 318–41, doi:10.1177/0735633120963750; Ratna Rintaningrum, "Technology Integration in English Language Teaching and Learning: Benefits and Challenges," *Cogent Education*, 2023, doi:10.1080/2331186X.2022.2164690.

[6] Aminah Suriaman, Asfah Rahman, and Nurdin Noni, "Developing Web-Based English Instructional Material Oriented to Promote Independent Learning at Indonesian University Context," *Journal of Language Teaching and Research* 9, no. 2 (2018): 336, doi:10.17507/jltr.0902.15.

[7] Macancela, "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles."

[8] Yuditra Farmana and Muhammad Yasin, "Development of Web-Based English Learning Media Using Content Management System (Word Press) And Elementor Plugin," *International Journal of Education Research & Social Sciences* 2 (2022): 2256–64.

[9] Natividad Aguayo and Cristina M. Ramírez, "Does Technical Assessment Matter? Functionality and Usability Testing of Websites for ESL/EFL Autonomous Learners," *Research in Learning Technology* 28 (2020): 1–26, doi:10.25304/rlt.v28.2353.

[10] Zhonggen Yu, "Learning Outcomes, Motivation, and Satisfaction in Gamified English Vocabulary Learning," *SAGE Open* 13, no. 2 (2023): 1–14, doi:10.1177/21582440231158332.

[11] Hao Jan Howard Chen and Hsiao Ling Hsu, "The Impact of a Serious Game on Vocabulary and Content Learning," *Computer Assisted Language Learning* 33, no. 7 (2020): 811–32, doi:10.1080/09588221.2019.1593197.

been recently developed and applied to education as mentioned by Lai and Chen, such as Baicizhan, New Oriental Fun Vocabulary, Hujiang Fun Vocabulary, and Kingsoft Vocabulary.[12] The four learning applications focus on learning English and compatible with smartphone learning.

Regarding learning English in IBS, there is a study about developing website for e-learning in IBS,[13] and a book of English for Islamic education.[14] The website contains the material of English grammar, tenses, and vocabulary. Meanwhile, the website currently inactive for used. In addition, the English book contains basic vocabularies accomplished with several tasks for Islamic students.

B.   Some Pertinent Ideas

1.   The current English learning

The latest learning materials, including high schools in Indonesia, are developed based on learning outcomes in the Merdeka structural curriculum. According to the Presidential Degree, learning achievement is the abilities acquired through the internalization of knowledge, attitudes, skills, competencies, and work experience accumulation.[15] Furthermore, the Merdeka Curriculum emphasizes student-centered learning focused on students' needs and potentials.[16]

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[12] Yu, "Learning Outcomes, Motivation, and Satisfaction in Gamified English Vocabulary Learning."

[13] Hartanto, Sekreningsih Nita, and Eka Resty Novieta Sari, "E-Learning Bahasa Inggris Berbasis Website Pada Pondok Pesantren Miftahul Huda Kabupaten Madiun," *Prosiding Seminar Nasional Teknologi Informasi dan Komunikasi (SENATIK)* 5, no. 1 (2022): 55–64.

[14] Sahraini, Annisatul Miftahul Jannah, and Edwal Robhy, *English for Islamic Education* (Palopo: Aksara Timur, 2021).

[15] Peraturan Presiden, "Peraturan Presiden (PERPRES) Nomor 8 Tahun 2012 Tentang Kerangka Kualifikasi Nasional Indonesia," Pub. L. No. 8 (2012).

[16] Dodi Ilham et al., "Caring Values in Islamic Religious and Moral Education on Merdeka Belajar Curriculum: A Study of Fifth-Grade Student and Teacher Books," *AL-ISHLAH: Jurnal Pendidikan* 15, no. 4 (2023): 4626–4639, doi:10.35445/alishlah.v15i4.3763.

The learning outcomes of Merdeka curriculum consist of six phases (Phase A to F) and high school students belong to the fourth phase (Phase D).[17] Phase D contains learning curricular activities and projects to strengthen the profile of Pancasila students whose total learning hours in a year reach 25%. Furthermore, a project to support the profile of Pancasila is implemented flexibility. In context, the project should refer to Pancasila students' learning outcomes based on students' phase, and does not have to be associated with learning outcomes in subjects.

In the implementation of the latest curriculum in Indonesia, most of the teachers apply the learning blended with technology. The current English learning vocabulary trends are learning blended with technology that enhances learners' long-term vocabulary retention.[18] In addition, several gadgets usually exist in learning process, for instance, projector to display materials, speaker to listen to audio, pointer to highlight text or slide, and laptop or desktop to assist several tasks for teacher.

In the 21st century, English language learning is implementing Computer-Assisted Language Learning (CALL), which rapidly growing interest in present and future language teaching and learning.[19] Since CALL has potential in teaching, several educational institutions in Indonesia have been impatient to combine the

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[17] Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia, "Keputusan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia Nomor 262/M/2022," Pub. L. No. 262/M/2022 (2022).

[18] Hao, Wang, and Ardasheva, "Technology-Assisted Vocabulary Learning for EFL Learners: A Meta-Analysis."

[19] Muzakki Bashori et al., "'Look, I Can Speak Correctly': Learning Vocabulary and Pronunciation through Websites Equipped with Automatic Speech Recognition Technology," *Computer Assisted Language Learning*, 2022, doi:10.1080/09588221.2022.2080230; Mohamad, Arif, and Noor, "Online Game-Based Formative Assessment: Distant Learners Post Graduate Students" Positive Perceptions towards Quizizz."

traditional learning method with learners' current needs. Therefore, the implementation of CALL by using a mobile application strongly impacted the performance in autonomously learning.[20]

2. Multimedia input on English learning

In the past decade, teachers and researcher have sought to make learning instruction more effective by incorporating glosses into authentic texts,[21] captioned videos,[22] and multimedia input.[23] In this context, multimedia input proves more beneficial than simplified text, as learners have the opportunity to engage with authentic text without requiring additional time and effort. Multimedia input has emerged as an essential part in teaching English. Multimedia is the tools (channels, gadgets, and machines) that transmit texts, graphics, audio, videos, and pictures to students.[24]

Moreover, multimedia represents the merger of video technology and computer networks, involving the integration of hardware, software, and various media components. Furthermore, multimedia also pertains to developing and

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[20] Chih Ming Chen, Liang Chun Chen, and Shun Min Yang, "An English Vocabulary Learning App with Self-Regulated Learning Mechanism to Improve Learning Performance and Motivation," *Computer Assisted Language Learning*, 2019, doi:10.1080/09588221.2018.1485708; Rintaningrum, "Technology Integration in English Language Teaching and Learning: Benefits and Challenges," 2023.

[21] Feng Teng, "Retention of New Words Learned Incidentally from Reading: Word Exposure Frequency, L1 Marginal Glosses, and Their Combination," *Language Teaching Research*, 2020, doi:10.1177/1362168819829026.

[22] Mark Feng Teng, "Incidental L2 Vocabulary Learning from Viewing Captioned Videos: Effects of Learner-Related Factors," *System*, 2022, doi:10.1016/j.system.2022.102736.

[23] Mark Feng Teng and Danyang Zhang, "The Associations between Working Memory and the Effects of Multimedia Input on L2 Vocabulary Learning," *IRAL - International Review of Applied Linguistics in Language Teaching*, 2023, doi:10.1515/iral-2021-0130.

[24] Najla'a H. Al-Ajmi and Zainab M. Aljazzaf, "Factors Influencing the Use of Multimedia Technologies in Teaching English Language in Kuwait," *International Journal of Emerging Technologies in Learning (iJET)* 15, no. 5 (2020): 212–34, doi:10.3991/IJET.V15I05.12277.

applying diverse media and communication technologies to enhance visualization and collaboration. Hence, as a tool, multimedia can enhance digital teaching by applying interactivity through the incorporation of visualization and collaboration with students.

Figure 2.1 Multimedia input in vocabulary learning

In learning English, multimedia input allows teachers to develop learning materials based on students' necessity,[25] construct knowledge with cognitive aids,[26] and improve students' vocabulary.[27] The multimedia input can be integrated into an authentic material that facilitates students to easier in acquiring material, particularly vocabularies as shown in Figure 2.1.[28] Simultaneously, the learning

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[25] Marlin Steffi Marpaung and Hardi Jhon Pinondang Situmeang, "Enhancing Students' Vocabulary through Authentic Materials and Multimedia," *Acuity: Journal of English Language Pedagogy, Literature and Culture*, 2020, doi:10.35974/acuity.v5i2.2247.

[26] Mark Feng Teng, "The Effectiveness of Multimedia Input on Vocabulary Learning and Retention," *Innovation in Language Learning and Teaching* Vol. 17, no. 3 (2023): 738–754, doi:https://doi.org/10.1080/17501229.2022.2131791.

[27] Di Zou and Mark Feng Teng, "Effects of Tasks and Multimedia Annotations on Vocabulary Learning," *System*, 2023, doi:10.1016/j.system.2023.103050.

[28] Fadli, "Designing A Colorful Pictorial English Vocabulary Book For The First-Grade Students of SMP Datok Sulaiman Putri Palopo."

experience will be more engaging when teachers creatively blend verbal and visual elements, enabling students to comprehend the lessons effectively.

There are three assumptions of cognitive theory in multimedia learning: the dual channel assumption, limited capacity assumption, and active processing assumption as illustrated in Figure 2.2.[29] In the first assumption, individuals are believed to have distinct channels for processing visual and auditory information. When information is conveyed visually, such as through illustrations, animations, video, or on-screen text, individuals initiate processing through their eyes (visual channel). Conversely, when information is presented auditorily, such as through narration or nonverbal sounds, processing begins through the ears (auditory channel).
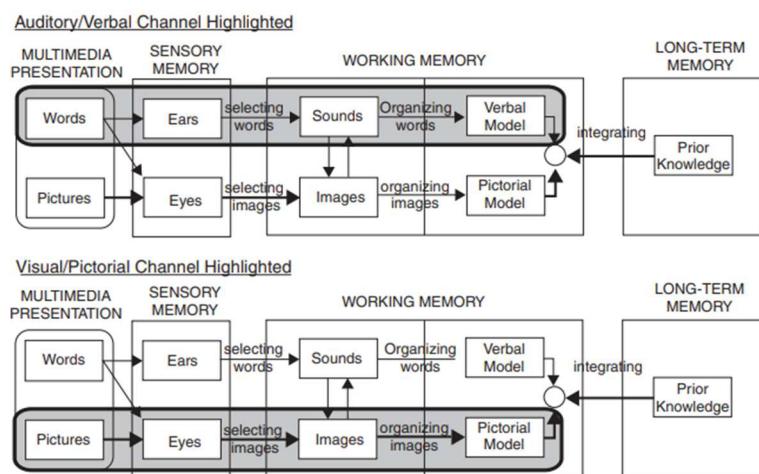
Figure 2.2 The auditory and visual channel in a cognitive theory of multimedia learning

[29] Richard E. Mayer, *Multimedia Learning*, *Cambridge University Press*, 3rd ed. (Cambridge, 2020), doi:10.1017/9781316941355.

The second assumption, people are limited in the amount of information that can be processed in each channel at one time, which is called a limited capacity assumption.[30] Learners' working memory has a limited capacity to hold only a few images at any given time, making it more effective to extract information from an illustration or animation that represents key aspects of the presented material rather than replicating the exact copy of the material. For instance, when presented with an illustration or animation of a tire pump, the learner may create mental images of specific actions, such as the handle moving down, the inlet valve opening, and air flowing into the cylinder.

In the case of narration, the learner's working memory allows for retaining only a few words at a time, capturing key portions of the presented text rather than a verbatim reproduction. For example, if the spoken text is "When the handle is pushed down, the piston moves down, the inlet valve opens, the outlet valve closes, and air enters the bottom of the cylinder," the learner might retain the following verbal representations in auditory working memory: "handle goes down," "inlet valve opens," and "air enters the cylinder."

Meanwhile, knowing the limits on each channel processing capacity is crucial. The simple way to measure someone's cognitive capacity is to give a span test.[31] For example, the teacher reads a list of digits (i.e., 9-7-8-6-2-5-4-1) and asks students to repeat orderly. The most extended list that students recite without

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[30] Richard E. Mayer, *Multimedia Learning, Cambridge University Press*, 3rd ed. (Cambridge, 2020), 63.

[31] Richard E. Mayer, *Multimedia Learning, Cambridge University Press*, 3rd ed. (Cambridge, 2020), 67.

making an error conclude as student's memory span. Moreover, the teacher shows a series of pictures at one per second (i.e., sun-pen-book-apple-chair-cat) and asks students to repeat in an orderly manner. Meanwhile, the students can stimulate with chunking technique, such as grouping the eight digits 9-7-8-6-2-5-4-1 into three chunks 978-625-41 (i.e., "nine seven eight" pause "six two five" pause "four one").

Moreover, the third assumption is that humans play an active role in processing information, a concept known as the active-processing assumption.[32] Mayer clarifies that the third assumption is that individuals actively participate in cognitive processing to form a cohesive mental representation of their experiences. These cognitive processes involve paying attention, organizing incoming information, and integrating it with existing knowledge.

3.   Web app supplementary on English learning

A website is a set of web pages that contain information and are accessed through a web browser (for instance, Google Chrome, Mozilla Firefox, or Microsoft Edge).[33] However, there is often a misunderstanding related to websites and applications. According to the Oxford Dictionary, an application is a program designed to execute a particular job, such as a piece of software.[34] The software is designed to assist the user in performing specific tasks in electronic hardware, such as a computer, smartphone, or tablet. Moreover, an application can serve a variety

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[32] Richard E. Mayer, *Multimedia Learning*, *Cambridge University Press*, 3rd ed. (Cambridge, 2020), 68.
[33] Brian Messenlehner and Jason Coleman, *Building Web Apps with WordPress: WordPress as an Application Framework*, Second Edition (O'Reilly Media, 2019).
[34] "Definition of Application Noun from the Oxford Advanced Learner's Dictionary," accessed June 15, 2024, https://www.oxfordlearnersdictionaries.com/definition/english/application?q=application.

of functions and purposes, ranging from productivity, entertainment, communication, and education.

Meanwhile, Messenlehner and Coleman's book specified that a web app is a combination of a website and application.[35] In short, a web app is an application that operates through a web browser. These applications are constructed using specialized programming languages such as HTML, CSS, and JavaScript. When these web applications are executed, these browser technologies will be hidden. However, when these apps are integrated into Android or iOS apps or web browsers, they still contain systems capable of parsing these programming languages.

Both website and web app have an interactive elements.[36] While websites can also display hyperlinks and scrolling, the web app usually uses other methods for navigating systems that allow users to interact with more than clicks. For instance, on web apps that offer transactional experiences (such as Tokopedia, Shopee, and others) that provide contact forms or application forms on company career pages. On the other hand, web apps have more interactive User Interface (UI) elements, including toolbars, drag-and-drop features, rich text editors, and sliders.

Moreover, web apps facilitate several tasks rather than only a content.[37] Generally, the users surfing on a website for experiencing a content, like receiving

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[35] Messenlehner and Coleman, *Building Web Apps with WordPress: WordPress as an Application Framework*, 2.

[36] Messenlehner and Coleman, *Building Web Apps with WordPress: WordPress as an Application Framework*, 3.

[37] Messenlehner and Coleman, *Building Web Apps with WordPress: WordPress as an Application Framework*, 4.

current news from news pages or searching food recipes on Google. But at the moment, the users operate website for specific tasks, such as using Google Maps for navigating driver directions, Gmail for writing emails, Trello for managing task lists, and YouTube for watching videos. Meanwhile, several web apps provide diverse browsing experience which consistently as content based, including social media Facebook and X (previously known as Twitter), that involves about 90% readings.

In English learning, website facilitates independent learning,[38] uses as a literacy media information technology,[39] and as a dynamic strategy that help reinforce cognitive approach.[40] Teachers in independent learning responsible to develop learning materials and methods that pertinent to student's needs, and web app learning attends to fill these requirements. Additionally, web app English learning increases students' digital literacy and becomes human resources, which is highly needed in current industrial development. Moreover, using websites allows students to learn without being in the classroom (dynamically) because the material can be accessed as long as you have an internet network and adequate devices.

In addition, using the website as a learning medium allows students to learn more satisfactorily and can access the website to find out information anytime and

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[38] Suriaman, Rahman, and Noni, "Developing Web-Based English Instructional Material Oriented to Promote Independent Learning at Indonesian University Context."

[39] Fauzi et al., "Mengatasi Anxiety dalam Berbicara Bahasa Inggris Melalui Pembelajaran Berbasis Web."

[40] Macancela, "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles."

anywhere without being limited by time and place.[41] BBC, British Council, Cambridge, and ESOL Courses are some websites available for English learning. Meanwhile, Aguayo & Ramírez explained in their study that the functionality and usability criteria of available website for those English are not fulfilled.[42]

Meanwhile, the availability of web app to learn English is consider to significantly increase. The available website provides learning English in general (for example, Duolingo) and as teaching exercises media (Quizlet and ClassMaker). Most previous studies already discussed the effectiveness of websites as support in English learning, but do not discuss the design or develop a web app that is suitable for supplementing English learning.[43] In fact, the amount of vocabulary is the first premise to communicate with other fluently.[44] It also occur especially for Islamic Boarding School students, which has English as foreign language learning material.[45]

Students can quickly learn computer and smartphone vocabulary on the Duolingo English learning web app. Duolingo facilitates attractive illustrations and several tasks to be more fun and accessible to comprehend English vocabulary, as shown in Figure 2.3. Furthermore, Duolingo provides a thematic unit that enhances

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[41] Farmana and Yasin, "Development of Web-Based English Learning Media Using Content Management System (Word Press) And Elementor Plugin."

[42] Aguayo and Ramírez, "Does Technical Assessment Matter? Functionality and Usability Testing of Websites for ESL/EFL Autonomous Learners."

[43] Macancela, "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles."

[44] Zhihong Bai, "An Analysis of English Vocabulary Learning Strategies," *Journal of Language Teaching and Research* 9, no. 4 (2018): 849–55, doi:10.17507/jltr.0904.24.

[45] Ulya Zuhairati, Asnawi Muslem, and Dohra Fitrisia, "An Analysis of English Language Used in Daily Communication by Students of Dayah or Islamic Boarding Schools," *English Education Journal* 13, no. 1 (2022), doi:10.24815/eej.v13i1.23112.

English vocabulary. Meanwhile, it has general vocabulary categories and does not provide Islamic vocabulary.

In the Baicizhan and New Oriental Fun Vocabulary learning application, the students can quickly learn vocabulary on a smartphone with attractive illustrations and examples for each word accompanied by audio and videos to be more fun and more accessible to comprehend English vocabulary. Baicizhan provides peer gaming scores as gamified learning, and the students' vocabulary range will be stored as references. The scope of vocabulary in Baicizhan is widely diffused from middle school, TOEFL, to IELTS words.
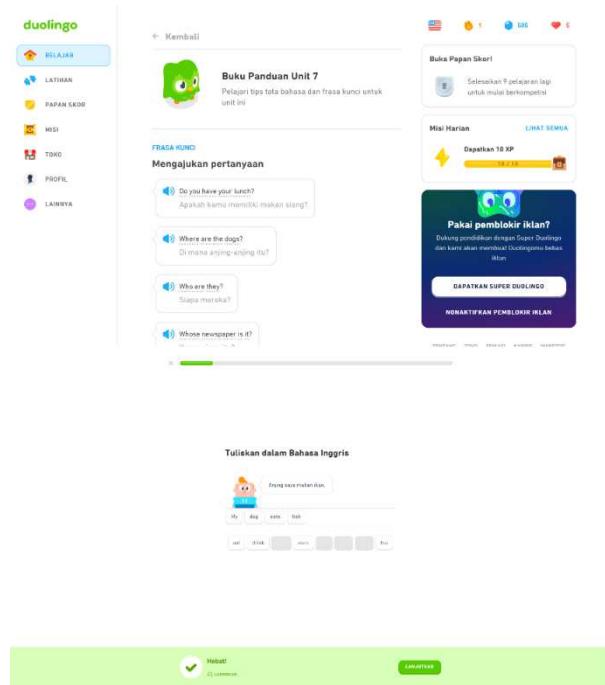
Figure 2.3 Duolingo English learning web app

Moreover, the combination of web app and social media has become innovative learning that creates an efficient and exciting atmosphere for learning

English.[46] We Are Social reported that on January 2023, 167 million Indonesian people were using social media actively, which equals 60,4% of the total population.[47] It confirms that social media is highly suggested as a learning material for English, especially for Indonesian students. Furthermore, social medias for instance Facebook, Instagram, and WhatsApp confirm suitable for learning English.[48] Facebook, as a social media, has useful impacts in students' language skills, motivation, confidence, and attitudes in English learning.[49] Moreover, Facebook is usually utilized to share and find information such as journals, articles, and videos.

Hence, incorporating social media into the web app offers a contemporary and interactive educational experience. This platform promotes collaborative learning and cultural exchange among students from various backgrounds. Social media engagement facilitates instant feedback and access to authentic material, enriching language acquisition and deepening understanding of the Islamic values embedded in language use. This dynamic approach increases linguistic proficiency and fosters cultural awareness and global connectivity, making it a powerful tool for modern language education.

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[46] Pikir Wisnu Wijayanto and Elis Hernawati, "Designing Android-Based Mobile Application for Language Learning (MALL) for the National Exam Simulation," *Jurnal Edukasi dan Penelitian Informatika (JEPIN)*, 2019, doi:10.26418/jp.v5i2.31226.

[47] Shilvia Widi, "Pengguna Media Sosial Di Indonesia Sebanyak 167 Juta Pada 2023," *DataIndonesia.Id*, 2023, https://dataindonesia.id/internet/detail/pengguna-media-sosial-di-indonesia-sebanyak-167-juta-pada-2023.

[48] Kadek Puspa Ariantini et al., "Integrating Social Media into English Language Learning: How and to What Benefits According to Recent Studies," *NOBEL: Journal of Literature and Language Teaching* 12, no. 1 (2021): 91–111, doi:10.15642/nobel.2021.12.1.91-111.

[49] Muhammad Kamarul Kabilan, Norlida Ahmad, and Mohamad Jafre Zainol Abidin, "Facebook: An Online Environment for Learning of English in Institutions of Higher Education?," *Internet and Higher Education*, 2010, doi:10.1016/j.iheduc.2010.07.003.

4.   English learning on Islamic Boarding School

English is considered learnable on the website, effective and educative, especially in Islamic Boarding School (IBS) students. Islamic Boarding School (IBS) applies special rules for improving students' English performance and proficiency compared to language learning in public schools in Indonesia. The IBS students are sometimes obliged to speak a foreign language (English or Arabic) daily. It caused the students to speak Bahasa Indonesia to ask for something, talk small talk, and communicate in the classroom.

Moreover, IBS students must memorize at least five to ten English expressions, phrases, or words in one day to increase their vocabulary capacity. The memorized vocabularies relate to the IBS students' routines, and the teachers usually compile a sentence based on it. For instance, IBS students must memorize greetings, idioms, permissions, nouns, verbs, adjectives, and pronouns.

However, learning English is traditionally studied in IBS using textbooks as the main source but in limited numbers. Especially in Palopo, according to the interview with the IBS English teachers said that the existence of English books is still low. Moreover, according to the teacher, the student's proficiency in the use of technology is still rigid. On the other hand, foreign languages mastery, entrepreneurship, and Information and Communication Technology (ICT) abilities by IBS students are needed in the millennial era to produce human resources that can compete amid current market needs.[50]

C.   **Conceptual Framework**

The conceptual framework illustrated on Figure 2.4 outlines the procedure and theories connection of designing an appropriate web app to supplement English learning material for IBS students. The design begins with the three input concepts: Computer-Assisted Language Learning (CALL), multimedia input, and independent learning. The theories cover the current English learning and Merdeka Curriculum which represent of independent learning. These inputs are synthesized into two resources of the English textbook and the English vocabulary book with Islamic glossary.

The development procedure is arranged into five phases. The analysis phase involves identifying the students' necessity, potentials, and problems that occur in learning English. In design phase, the designing of a blueprint for the web app is conducted as well as the detailing of the chapters scope and sequence. During the implementation phase, the blueprint is combined into a final draft and validated into Focused Group Discussion (FGD). The integration and testing phase includes limited trial and gathers feedbacks from students and teachers to refine the web app perspectives. Finally, the maintenance phase focuses on maintaining the hosting and functionality of the web app.

Figure 2.4 Conceptual framework

English Learning in IBS

CALL | Multimedia Input | Independent Learning

English textbook in IBS Datok Sulaiman Putri Palopo

English vocabulary book with Islamic glossary

Analysis Phase
- Students' necessity
- Potentials
- Problems

Design Phase
- Web app prototype
- Scope and sequence of chapters

Implementation Phase
- FGD and validation
- Finishing prototype into final web app

Valid | Not valid

Integration and Testing Phase
- Limited try-out
- Practitioners' (students and teachers) perspective

Maintenance Phase
- Fixing any issues
- Maintaining the hosting
- Maintaining the web app

An Appropriate Web App to Supplement English Learning Material for IBS

Figure 2.4 Conceptual framework

METHODOLOGY OF THE RESEARCH

A.   Research Design

Research and Development applied to the study in developing a web app to supplement English learning material and applied Waterfall model, which illustrated on Figure 3.1. The Waterfall model was implemented to design the appropriate web app in supplementing the English material for IBS students. Furthermore, it is utilized to create the web app, which is suitable for developing software. In collecting the data, interviews, questionnaires, and direct observation deployed to collect qualitative and quantitative data. Additionally, the designed web app was validated by four experts: two material experts and two web design experts.
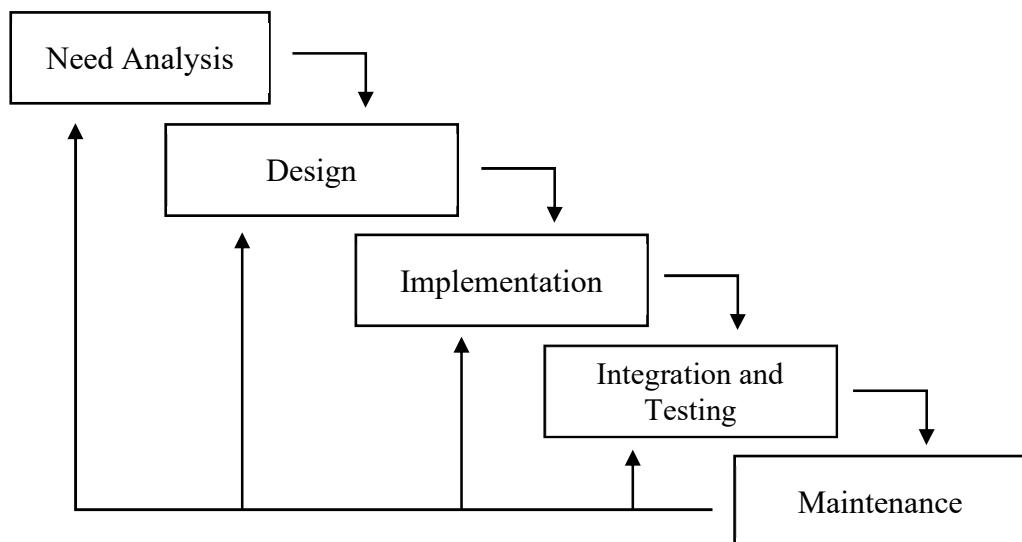
Figure 3.1 Waterfall model[1]

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[1] Titis Wisnu Wijaya et al., "Utilizing the Website Integrated with Social Media as an English Teaching Platform," *Kontribusia : Research Dissemination for Community Development*, 2023, doi:10.30587/kontribusia.v6i1.4654.

B.   Research Location and Time

The study focused on the Junior High School of Islamic Boarding School Datok Sulaiman Putri Palopo. The choice of research location is based on the number of populations and phenomena represented in the study. In addition, the research location was selected based on the results of a survey of Islamic boarding schools, which still maintain aspects of Islamic language in Palopo city. Students not only learn English but also have access to learning by using computers to browse the web app.

C.   Research Subjects and Object

Twenty subjects participated in the research, consisting of two English teachers, fifteen IBS students (six seventh-grade students and nine eighth-grade students), and three validators. English teachers and IBS students are not only the informants but also the practitioners in web app testing. All of the participants produced the primary data in the research. During the research, participants were permitted to withdraw if they objected to providing data or for any other considerations. Moreover, two materials and one media validator provided corrective feedback to measure the web app performance. Furthermore, the object of the research is the English learning material for IBS students. The research aims to develop web app to supplement English learning material in addressing IBS problems and potentials.

D.   Development Procedure

The waterfall instructional model, which consists of need analysis, design, implementation, integration, testing, and maintenance, was applied to designing a web app for supplementing the English learning material.[2]

1.   Need analysis

During the analysis phase, a thorough investigation determined the probability of a performance gap. Meanwhile, the performance gap can be classified into potentials or problems that became as a basis in development research.[3] According to Sugiyono, the potential is everything that possesses the ability or capacity to be developed, resulting in an additional value. Additionally, a problem is a phenomenon that arises due to a discrepancy between what occurs and what is expected, thus becoming an area of concern, a condition to be improved, or an issue that the researcher aims to eliminate.

In constructing the appropriate product, extensive research was conducted to determine students' and teachers' needs (lacks, wants, and necessities). The interview was conducted with teachers and students about the performance gap in learning English. The primary focus of these interviews was to identify the performance gap in learning English, aiming to understand the underlying issues and challenges the learners face. Through these discussions, valuable information was obtained, highlighting the areas where students struggle and the support

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[2] Winston W. Royce, "Managing the Development of Large Software Systems (1970)," in *Ideas That Created the Future*, 2021, doi:10.7551/mitpress/12274.003.0035.

[3] Sugiyono, *Metode Penelitian dan Pengembangan (Research and Development/ R&D)*, Cetakan ke-2 (Bandung: Alfabeta, 2015).

teachers require to enhance their instructional methods. The researcher determined the analysis summary at the end of the analysis phase.

2.   Design

The design phase is to generate the desired performance and web app material by designing the prototype. The material topics were designed based on the IBS Datok Sulaiman Putri Palopo curriculum and an English vocabulary book. Even more, gamified features are constructed into web app as English learning tasks. The designed web app is validated by experts about the material and web design (user interface) of the web app. In the design phase, research instruments were also designed to gather the web app's performances for implementation in the evaluation phase.

However, the prototype requires hosting and domain as the publication room. Hosting became the land of web apps for standing on the World Wide Web. Meanwhile, a web app requires a name or address in a million web apps on the World Wide Web, known as a domain. The web app prototype temporarily used a template from WordPress to adjust the contents and menus appearing in the user interface.

Furthermore, a web app builder such as Elementor is necessary. Elementor helps reduce the cost of web app building, generate landing pages more efficiently, and reduce the time required to develop the web app. Moreover, Elementor also supports improving a web app's Search Engine Optimization (SEO), which improves web app ranking in search engine results such as Google. However, several additional features, such as an audio player, tasks, and interactive animation,

are slightly unavailable in Elementor. Therefore, additional tools (plugins) are required to customize the web app to match the needs analysis provisions.

Moreover, the development of a supporting guidebook and social media are essential in this phase. The researcher created a comprehensive guidebook designed to aid admins, teachers, and students in effectively utilizing the web app. This guidance book includes step-by-step instructions, practical tips, and troubleshooting advice to ensure a smooth user experience. For admins, it covers aspects such as system maintenance (hosting and domain) and database management. Teachers are provided with the development of content to be more suitable for future needs. Students receive clear instructions on navigating the web app. In addition, social media platforms, which is Instagram, was also integrated into the web app.

3. Implementation

In the implementation phase, the researcher conducted a Focused Group Discussion (FGD) with four validators, including two material experts and two web design experts. During the FGD, the researcher presented the web app, providing a detailed walkthrough of its features and functionalities. It was followed by a discussion session where the validators shared their insights and suggestions. The researcher diligently noted every feedback from the validators, ensuring that all comments and recommendations were documented for further consideration. Additionally, the researcher collected quantitative and qualitative data during the FGD to comprehensively understand the validators' perspectives. At the end of the FGD, the researcher distributed questionnaires to the validators to gather more

structured feedback and quantitative assessments of the web app's effectiveness and usability.

4.   Integration and testing

The integration and testing phase prepared the learning environment and effectively engaged the students. Once the web app had been revised, it was directly tested in English learning sessions. During this phase, the researcher tested the web app with practitioners, including IBS English teachers and students, to gather practical insights and feedback. Additionally, the researcher actively sought out any web app bugs that could obstruct the learning process, ensuring the application was as efficient and user-friendly as possible.

In the current phase, several testing methods were constructed: interviews, questionnaires, Search Engine Optimization (SEO), and Google PageSpeed Insight. The interview and questionnaire were utilized to collect User Experience (UX) while exploring the web app to learn English. SEO assessed the web app's optimization when users searched the web app online. Meanwhile, Google PageSpeed Insight calculated the web app's insights when users access mobile and desktop, including performance, accessibility, and SEO of the web app.

5.   Maintenance

The final phase of the Waterfall Model is maintenance, a crucial step for ensuring the web app's long-term necessity and reliability. The maintenance phase addresses post-deployment issues and ensures the web app fulfills user requirements. The researcher has strategically selected two types of administrators to manage the web app's maintenance: one dedicated to controlling the web app

hosting and another focused on the web app management. The hosting admin ensures the server's stability, security, and performance, while the web app admin monitors and updates the web app content, fixing bugs and implementing new features as required. The admins ensure the infrastructure and the software remain robust and responsive to future users' needs.

E.   Data Collection Technique

The research data was collected in each step of the Waterfall instructional research model. The researcher used three techniques to gain the data: interview, questionnaire, and document analysis.

1.   Need analysis

In the analysis phase, the researcher collected several data related to students' and teachers' needs through interviews. The data in need analysis phase collected by utilizing a structured and open-ended questions. The researcher interviewed two English teachers at the Junior High School of IBS Datok Sulaiman Putri Palopo during the need analysis phase. The questions pertain to the performance gap of the students in learning English and the probability of the performance gap. Moreover, the researcher interviewed several delegations of seventh and eighth-grade students to confirm the performance gap mentioned by the teachers.

2.   Design

The data in the design phase collected from document analysis by combining the English textbook and English vocabulary book. The data from the documents were utilized to conduct several tasks and performance objectives

corresponding to supplement English learning material using a web app. In addition, the Phase D of the Merdeka curriculum would be the main focus because phase D is designated for high school students.

3.   Implementation

The Focused Group Discussion (FGD) and questionnaire were used in the implementation phase to collect data from validators and practitioners. Through FGD, the researcher invited three validators (two material experts and one media expert) to discuss about the web app performance and appropriateness in a particular place. The material expert validated the appropriate language and the scope of material used in the web app as well as the guidance module on using the web app for both students and teachers. The media expert validated the web app's performance and appropriateness. In addition, there were five options in questionnaire used Likert Scale for attaining validators' answers.

4.   Integration and testing

The questionnaire deployed in the integration and testing phase. The questionnaire addressed into students' and teachers' perspective while using the final web app. The questionnaire was equipped with a Likert Scale of open-ended and close-ended questions for gaining the data validity.

5.   Maintenance

In the maintenance phase, the corrective feedbacks from validators and practitioners became the main data to ensure the web app's necessity and reliability. The questionnaires deployed to obtain the quantitative and qualitative data from the

experts and practitioners' judgements. The questionnaires utilized Likert scale of open-ended and close-ended question.

F.   Data Analysis Technique

1.   Data analysis on need analysis phase

Before conducted the interview, the researcher validated the research instruments quantitatively. The researcher utilized Likert Scale and calculated the average score for each characteristic to determine the instruments' reliable and validity.[4]

$$x = \frac{\sum X}{N}$$

X   = The average score

$\sum X$ = Summative of a characteristic

N   = Number of instruments' questions

Table 3.1 Table of Data Conversion

Characteristics	Average
Objectives	
Scope of Content	
Language	
Average Score	

Meanwhile, the data from interview of need analysis phase is analyzed with Thematic Analysis.[5] The thematic analysis supported in identify and determine the

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[4] Sugiyono, *Metode Penelitian dan Pengembangan (Research and Development/ R&D)*, 2nd ed. (Bandung: ALFABETA, 2016), www.cvalfabeta.com.

[5] Sukirman and Muhammad Kamarul Kabilan, "Indonesian Researchers' Scholarly Publishing: An Activity Theory Perspective," *Higher Education Research and Development* 42, no. 8 (2023): 2030–2047, doi:10.1080/07294360.2023.2209522.

problems and potentials according to the IBS students. Furthermore, the qualitative descriptive technique is implemented to explore an in-depth overview of specific findings and phenomena during the need analysis phase. The findings displayed as a descriptive summary by arranging the time of occurrence in chronological order.

2.   Data analysis on design phase

At first, the researcher purchasing the reliable hosting as the web app's foundation. Next, the installation of a website builder, such as Elementor, is required to reduce the cost and time in website building and generate landing pages more efficiently. Moreover, during the design phase, a document analysis was implemented to determine the suitable scope and sequence of chapters for the web app.[6] Data from both printed and electronic English textbooks, as well as English vocabulary books, were systematically analyzed. This document analysis helped classify appropriate learning objectives and components for each chapter.

3.   Data analysis on implementation phase

Data from the implementation phase was collected through Focus Group Discussions (FGD) and questionnaires used for web app validations. The FGD was conducted to gather suggestions and corrections from validators and practitioners. Data from the FGD were identified, analyzed, and classified based on emerging themes. Conversely, data from the questionnaires were analyzed quantitatively using the Likert Scale. The researcher calculated the average score, determined the percentage, and categorized the scores based on the scale range.

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[6] Hani Morgan, "Conducting a Qualitative Document Analysis," *Qualitative Report*, 2022, doi:10.46743/2160-3715/2022.5044.

Excellent : $4,1 > \bar{x} \leq 5,0$

Good : $3,1 > \bar{x} \leq 4,0$

Average : $2,1 > \bar{x} \leq 3,0$

Inferior : $1,1 > \bar{x} \leq 2,0$

Low : $0 > \bar{x} \leq 1,0$

Table 3.2 Categories of Product Evaluation

Score	Percentage	Categories
4,1 – 5,0	81% - 100%	Excellent
3,1 – 4,0	61% - 80%	Good
2,1 – 3,0	41% - 60%	Average
1,1 – 2,0	21% - 40%	Inferior
0 – 1,0	0% - 20%	Low

4. Data analysis on integration and testing phase

The data collected from the limited trial in the integration and testing phase were analyzed using quantitative descriptive methods. The results from the questionnaires provided an overview of the actual situation and answered questions related to students' perspectives on the use of web app.

5. Data analysis on maintenance phase

The data obtained from the maintenance phase consisted of reports or findings of errors in the web app. This information was promptly addressed and corrected by the admins.

CHAPTER IV

FINDINGS AND DISCUSSIONS

A. Research Findings

1. The findings on the need analysis phase

The research was conducted from May 19, 2023, to June 24, 2024, from the need analysis to the integration and testing phase. In the first step, the researcher validated the research instrument to ensure the accurate and reliable results used in the need analysis phase. The process involves a series of in-depth tests and evaluations of the instrument, including validity and reliability tests. In addition, the validation process also involves expert feedback to identify and correct any weaknesses or biases that may exist. Based on the expert's instrument validity results, the average score is 4,6 with an "Excellent" range based on the following calculation.

$$\bar{x}(\text{objectives}) = \frac{\sum X}{N} = \frac{15}{3} = \mathbf{5}$$

$$\bar{x}(\text{scope of content}) = \frac{\sum X}{N} = \frac{17}{4} = \mathbf{4,3}$$

$$\bar{x}(\text{language}) = \frac{\sum X}{N} = \frac{18}{4} = \mathbf{4,5}$$

Description:

$\bar{x}$ = Average score

$\sum X$ = Summative of a characteristic

N = Number of instruments' questions

Table 4.1 Average score of instruments' validity by the expert

Characteristics	Average
Objectives	5
Scope of contents	4,3
Language	4,5
Average score	**4,6**

After validating the research instruments, the researcher interviewed two English teachers and fifteen students (participants' name are pseudonym), who were delegated from the seventh and eighth grades, related to the problems and potentials. Several problems and potentials indicate the necessity of web app to supplement English learning material. Moreover, the use of web app has significant potential to increase students' interest in learning interactively with technology engagement.

> Mr. Ali (P1) "I think it would be great if there was a website like this. Later on, let's say I, let's say I teach here, we just direct (students) to the lab, let's go to the lab all, then there is a web if we open there is learning media, it can be like that too because I usually teach using the computer lab so when there is material that wants to be conveyed via the internet, I suggest going to the computer lab, try to open this video and also observe it using the media if using a mobile phone, it cannot be done if we are directed to the computer laboratory". (Interviewed on May 19, 2023).

> Balqis (P3) "Not yet (a web app)... maybe it's easier that way, sir." (Interviewed on May 19, 2023).

> Fauzia (P4) "Because maybe some students are not interested in learning English, because they are still using books, still manually, but maybe if you use technology like the website, you mentioned earlier, maybe it can make some students or more students interested." (Interviewed on May 19, 2023).

To enhance the web app, the findings point to the application of multimedia input. Students tend to prefer learning interactively with displaying images, videos,

and audios. In addition, the students stated that they usually assigned to design posters using Canva.

> Mr. Ali (P1) "... if (about) the enthusiasm, a lot of students are also enthusiastic to participate in learning by using media. They like, they like using media like Canva, with like PowerPoint, they are enthusiastic to learn, because why, there are visuals, they are also excited to learn." (Interviewed on May 19, 2023).

> Mrs. Aisyah (P2) "The learning motivation is more (increased) when using the technology. Like seeing videos, students like it more, it's more interesting than not using the conventional (LCD)." (Interviewed on May 25, 2023).

> Inayah (P15) "If there is an assignment. Create this, create that, we are told to design a poster and then we are told to use Canva or edit it ourselves in Canva, sir…" (Interviewed on April 29, 2024).

Visually, most of the students require an illustration picture with Islamic students and with fresh color palate into the web app. Moreover, the student also needs to input Islamic vocabularies and its English translation.

> Ghina (P13) "The ones with animated pictures inside. If it's a picture of a girl (it's good if) she wears a headscarf." (Interviewed on April 29, 2024).

> Azalia (P16) "Certainly Islamic words, sir, because there are already many (available), sir." (Interviewed on April 29, 2024).

To enrich the web app's content, most the students require an e-book on the web app, several tasks, and verbs with their forms.

> Inayah (P15) "It's good that we have books. The electronic book. Practice questions too, sir. If we have it, it's better." (Interviewed on April 29, 2024).

> Azalia (P16) "If (we) find a word, there is the verb two (and) verb three, sir." (Interviewed on April 29, 2024).

> Nuha (P17) "It has question and answer. Like there is a question and (we) answer it." (Interviewed on April 29, 2024).

However, most of students consider vocabulary as the crucial aspect into the web app so that the students can speak English fluently.

> Daneen (P5) "Vocabulary. Because if you don't know vocabulary, it's difficult to learn English." (Interviewed on May 19, 2023).

> Alina (P7) "In my opinion, the vocabulary should be improved so that it can be easier to speak." (Interviewed on May 19, 2023).

> Khansa (P11) "The same thing too (that is) vocabulary. Because if I memorize a lot of vocabulary, it will be easier for me to simplify my English" (Interviewed on May 25, 2023).

> Chafia (P12) "Vocabulary, that is the first mastery to be able to speak English." (Interviewed on May 25, 2023).

In contrast, the designing of web app as a supplement in English vocabulary learning material facing several problems, for instance, students forbit to bring any devices, students' information technology needs to be improved, and students require more practice in using English vocabulary. To overcome the problems, the web app should be appropriate to any web browsers in the computer. It is supported by the existence of computer laboratory that has 20 desktop units available.

> Mr. Ali (P1) "If it's a matter of whether they are updated (of technology), maybe they are not, because of why, every month, maybe every second there are developments (information) that they should know but they don't know…" (Interviewed on May 19, 2023).

> Mrs. Aisyah (P2) "… there are provided in the computer lab, there are approximately 20 computers that can be used alternately…" (Interviewed on May 25, 2023).

Hence, several findings in the need analysis phase thematically classified into the potentials and problems, as shown below.

Table 4.2 The classification of potentials and problems in English learning on
Junior High School of IBS Datok Sulaiman Putri Palopo

Potentials	Problems
1. IBS has an internet connection and 20 computer units as a platform for learning English using the web app.	1. Students are prohibited from bringing gadgets to IBS.
2. Students are more enthusiastic about learning by using learning aids.	2. Students' information technology needs to be improved.
	3. Students require more practice in using English vocabulary.
	4. The web app is unavailable for learning English.

2.   The findings on the design phase

The researcher designed the web app prototype during the design phase. The
web app prototype was designed based on integrating English vocabulary book and
English textbook in junior high school through document analysis. The English
textbook aligns with the current curriculum at IBS Datok Sulaiman Putri Palopo,
which is the Merdeka curriculum. By closely examining the needs and preferences
of the students, the web app incorporates features that cater to their learning styles
and interests, making the study of English vocabulary more engaging and effective.
Additionally, the Merdeka curriculum emphasizes student-centered learning and
flexibility. It ensures that the digital tool not only enhances the learning experience
but also supports the educational goals of the curriculum.

To begin with the web app prototype, the researcher designed the web app
identity, for instance, web app logo and brand name. After that, the researcher
purchased a reliable hosting and domain. The hosting should be completed with the
appropriate security to prevent the web app from several malware or any other
attacks. After that, the researcher installed a website builder, such as WordPress,

and added a supplement plugin Elementor to reduce time cost in building the web app.

a.   Findings of prototype design

(1)   Designing the web app identity

To begin with the prototype design, the researcher designed the web app logo and web app's brand name. The name should reflect Islamic boarding school and English values as the main issues in the web app. Therefore, the researcher selected "PondokEnglish" as the name of the web app. "Pondok" means Islamic boarding school in Bahasa Indonesia, and the following "English" is the integration between Islamic values and the English language.

Figure 4.1 Logo identity of the web app

The meaningful logo is another identity element that should be developed to largely reflect the web app. In designing the logo, the researcher used Adobe Illustrator CC 2021, a vector-based application suitable for designing a logo. As shown in Figure 4.1, the logo designed by implementing the golden ratio – a design guide consisting of grids and circles – and assists and maintains the proportions and

esthetics of the logo. In addition, the logo philosophy should cover web app utilization generally in terms of visual elements as well as the primary color of the logo.

The logo symbolizes Islamic values as the main component of the web app, as well as innovation and sustainability. As illustrated in Figure 4.1, the web app logo has three visual elements, which are Arabic term of IBS (معهد), leaves, and growth, that have its deep meaning, as follows.

- The "معهد" word signifies an Islamic boarding school in Arabic term;

- The leaves symbolize sustainability; and

- The growth exemplifies an innovation.

The Arabic letters reflect an Islamic school and the Arabic term is used to maintain Islamic values. The Arabic word pronounces *"ma'had"* means Islamic boarding school, in English as a foundation in the web app. The other visual element is leaves, which symbolize sustainability and highlight a renewal of learning English, which reflects a new beginning and growth. In addition, the leaves convey the nature of flexibility, where the leaves can adapt according to the season, so this aspect is implemented into a web app that can be adjusted to the needs of IBS students. Another visual element, growth, emphasizes the process of innovation in English learning by collaborating with technology to produce IBS students who are highly competitive.

(2)   Purchasing hosting for web app domain and installing WordPress account

After completing the fundamental web app identity, the researcher began to develop the web app by determining an appropriate web hosting service that meets

the needs of the web app. This choice is critical as it directly impacts performance, reliability, and user experience. Fundamental considerations include strong security measures such as Secure Sockets Layer (SSL) certificates, Distributed Denial of Service (DDoS), and firewalls to protect user data with 24/7 technical support to resolve issues promptly and minimize downtime. Adequate storage is required to accommodate needs as it is common in web apps to employ media such as images, audio, and documents. User-friendliness is also essential, with features such as an intuitive control panel and one-click installation making management easy. Lastly, affordability and hosting duration are essential factors, considering the researcher's capabilities and needs.
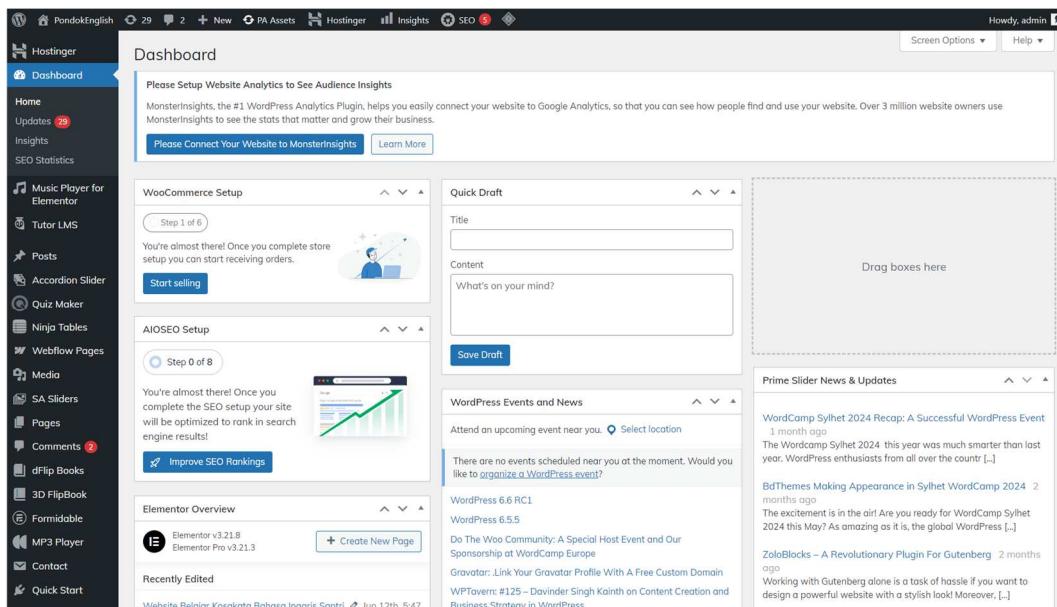

Figure 4.2 WordPress dashboard account

Secondly, the researcher registered an admin account to organize the hosting and web app domain and installed a WordPress account in the control panel. Selecting a suitable web app domain is crucial for ensuring the web app is easy to find online. A memorable and relevant domain name enhances accessibility and

user experience, helping users locate the web app without difficulty. Moreover, given the constraints of limited human resources and a restricted research period, using a WordPress account facilitated the development of the web app simply and quickly. On the WordPress page, WordPress's user-friendly interface and extensive library of plugins and themes allowed the researcher to implement essential features and customize the web app efficiently without requiring complex coding knowledge as well as streamline the design time. Due to the limitation of time and human resources, the researcher installed Elementor plugin for assisting in designing the web app.

After installing Elementor, the researcher initially set up a web app site by selecting the global color and font family related to the web app. As the dominant color of the logo, green is also implemented in the web app's primary color. The hex code for the primary color is #005C53, and the secondary color is #9FC131. To visualize the text, the researcher applied the Poppins font family. It is a sans-serif type font that is modern and tremendously corresponds to the web app visualization.

(3)   Generating the landing page and chapter components

Once the site setting was done, the researcher designed an attractive landing page (header, body, and footer) covering the general web app content. The color combination in the web app is customized into the web app logo, which is green. Figure 4.3 shows the researcher arranging the web app logo and name, followed by six menus on the header. The selection of menu lists is crucial because the list should cover all general navigation through pages in the web app. Meanwhile, the

body section starts from the hero section, consisting of the web app title, sub-title, featured image, and additional button. The featured image of the hero corresponds with the students' necessity in the need analysis phase, in which the students prefer an illustration picture of Islamic students as the main character. In addition, the feature image is also generated with AI with a combination of Adobe Photoshop CC 2021 to fix the image.
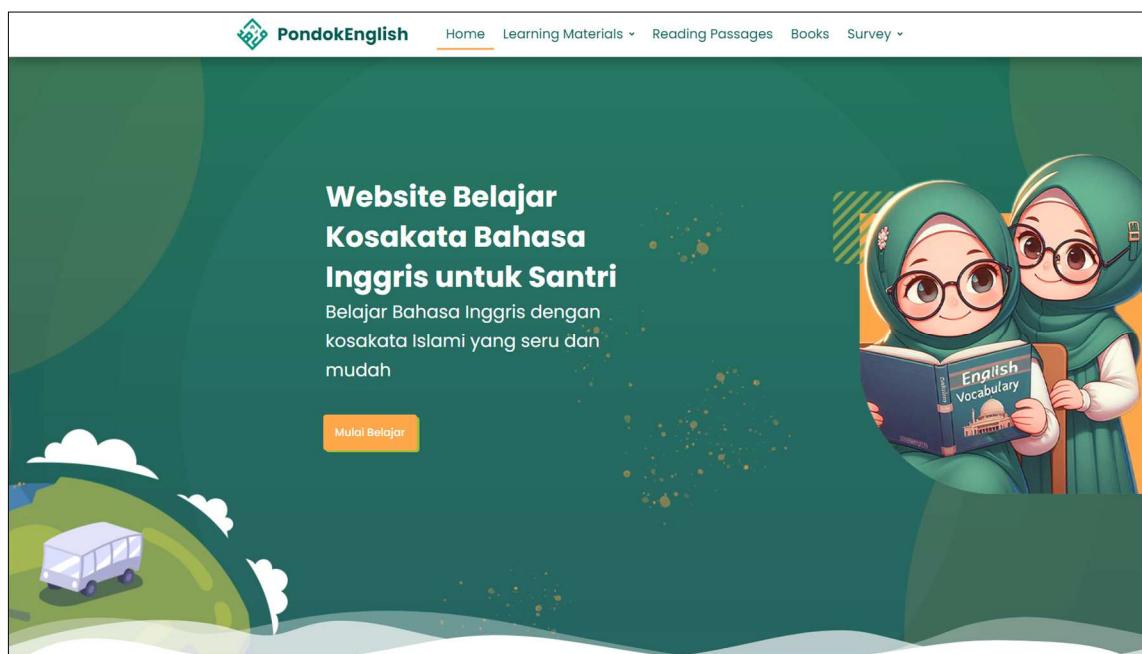
Figure 4.3 The header and hero section on the web app's landing page

Next, the researcher designs the materials section on the landing page. The section contains the featured image, chapter title, and chapter description. Also, the feature images are generated with an AI image generator. Usually, the generated images have several parts that need to be revised, such as the position of limbs, the number of fingers, and other details, thus requiring researcher to fix them through Adobe Photoshop. For adding animation, which is the students' requirement, the

chapter grid has a zoom hover animation and displays a gradient background when the user's cursor is in the chapter grid range, as shown in Figure 4.4.

Figure 4.4 Materials section in the landing page

In the following section, the researcher generated the reading column that assembled all the reading passages in the web app, portrayed in Figure 4.5. The selected passages are designed for IBS students and have Islamic content. As the animation feature, the section will endlessly switch to the left to display all the passages. However, the user can manually click the navigation button to swipe left or right of the passage. When the user has determined the passage, the user can click on the "Selengkapnya" button below to open the full passage. Users can also open a page containing a collection of all readings through the "Selengkapnya" button in the upper right corner. Also, the hover animation is applied when the cursor is on the range of the grid, which the image will increase the brightness.
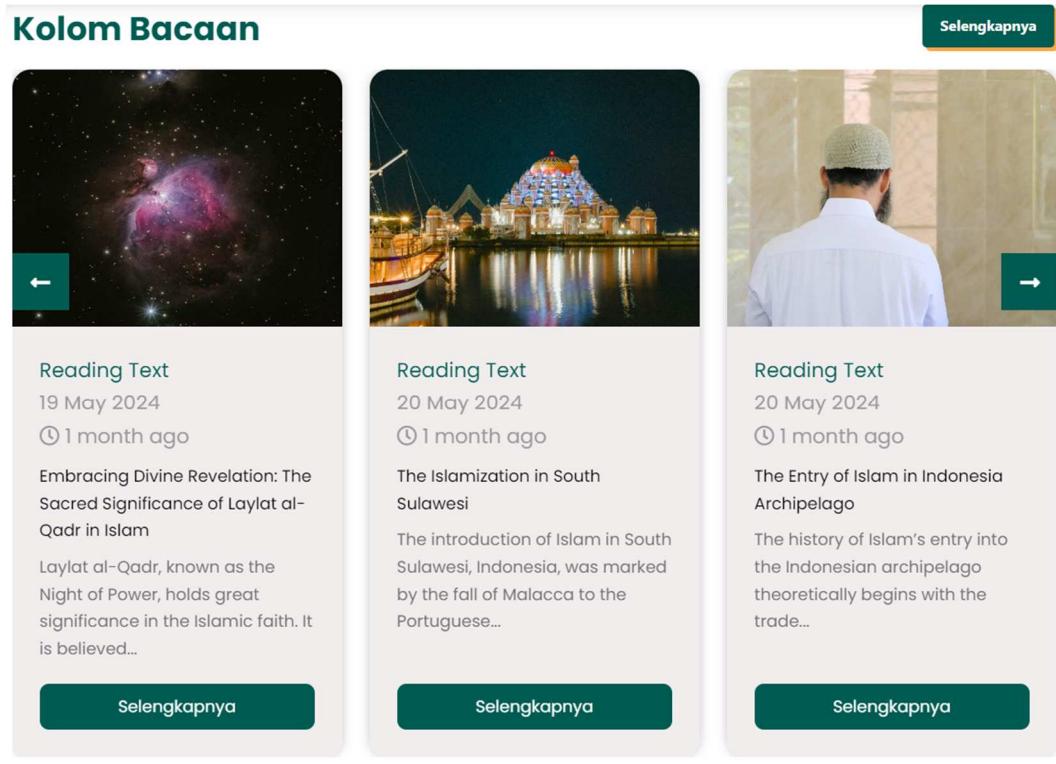
Figure 4.5 Reading column in the landing page

The electronic book catalog is followed on the web app landing page. The e-book catalog consists of readable e-books for users. Also, the researcher inputs the English textbooks utilized in the Junior High School of IBS Datok Sulaiman Putri Palopo. Like the reading column, the e-book catalog swipes left endlessly, and users can manually navigate to swipe the grid. Nevertheless, when the user clicks on the bottom of the "Selengkapnya" button, the user will automatically be directed to the book page. On the page, users will get experiences of reading a book virtually that are closely similar to reading a book physically.

As an additional feature, the researcher included the audio column that gathered all audio in the web app. As pictured in Figure 4.21, the audio collection is from the official site of SIBI, an official site for teachers to download every

textbook and audiobook. The audio column is designed as simply as possible so that the users can easily navigate to play, pause, and switch the audio. However, the users can download the audio freely by clicking the three vertical dots icon on the right side of every audio. To enhance the column's appearance, the researcher added a featured image as the cover of the audio player showing a female student listening to audio using a headset. The researcher also includes an animation in the title column underline, which can fade and show endlessly.

In the last body section, the researcher included the web app description. However, the description has been modified to include the team identity slide. The section contains the researcher's profile as the web app developer and the two supervisors. The section slides endlessly to the next profile, and the user can manually switch to the next slide by clicking the navigation button. As for the animation style, the researcher added a slide-to-right animation on the featured images and swiped up smoothly to the team identity component.

For the footer section, the researcher included the researcher's information as the web app developer, the location of the Postgraduate Program at the State Islamic Institute of Palopo, the researcher's social media, and the web app copyright information. There is no additional animation in the footer because the footer is designed to visualize the contact information and the copyright information. The contact information in the footer section is necessary for the users to communicate with the web app developer and enhance trustworthiness and credibility. In addition, copyright information is also significant for announcing clarification of ownership and as a form of responsibility for the content provided.
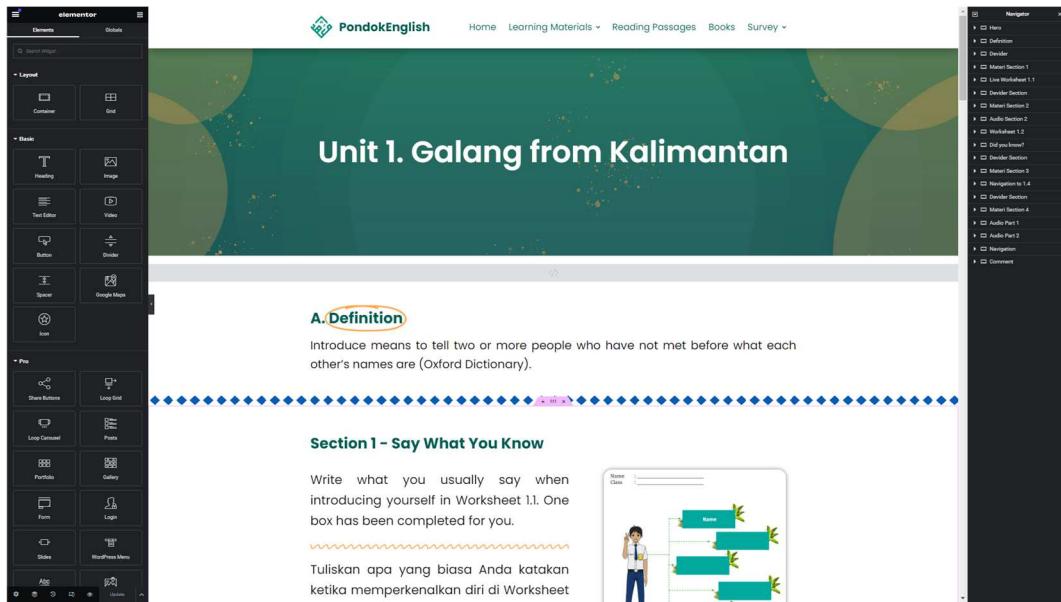
Figure 4.6 The Elementor plugin utilization in the web app

Once the landing page is designed, the researcher continued to develop the chapter pages. There are three of chapters that should be develop and each chapter has several units. The researcher still utilizes Elementor plugin to assist the site building, as shown in Figure 4.6. At the bottom of the page, the researcher facilitated with comment section and navigation button for moving to the next and previous page. Meanwhile, there is still additional code for improve the web app flexibility. So that, the researcher adapted the code from Element How website for showing and hiding certain section.[1] Based on Element How site, the code is allowed to use in the web app and prohibit to redistribution without permission.

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[1] "Amazing Elementor Show Hide Section Button - Element How," accessed June 30, 2024, https://element.how/elementor-show-hide-section/.

Figure 4.7 The adapted code from Element How for show-and-hide certain section

The code is applied to the specific button that will activate the command to show and hide a certain section. It allows the users to ensure to move to the next part of the page. Nevertheless, the unit has several hide-and-show sections, which makes the code not work for the other sections. Hence, as shown in Figure 4.7, the researcher modified the class code based on the necessity of the web app. Specifically, the researcher modified the class IDs of "toggleElem" and "toggleContent" in lines 14 and 15 to "toggleElem2" and "toggleContent2" and so forth for particular sections.

In the other chapter, specifically Chapter 2, the researcher designed a list of English vocabulary words using flashcard style, as shown in Figure 4.8. Likewise, the flashcard has two sides: the front side (given information) and the behind (new information). Typically, the flashcard will show the front side, which contains the given information for students. Then, when the cursor is in the flashcard area, the flashcard will automatically switch to the behind side, which is the new information

for students. The researcher added an illustration picture for each verb on the front side to enhance the visual element. It also supports the students' interest in applied multimedia learning.

Figure 4.8 The vocabulary list in Chapter 2: English and Islamic Vocabulary with flashcard style

(4)   Integrating the web app to social media

To enhance the flexibility of the web app, the researcher created an Instagram account for the web app, shown in Figure 4.9. It is also linked to the Instagram button on the footer section. Furthermore, social media has several benefits, such as enhancing visibility and range, strengthening brand exposure, and improving the SEO of the web app. The link to social media enables the users to find and follow the web app's updates on various platforms. Also, a consistent web app presence across multiple platforms helps strengthen the brand identity that can showcase data and insights from users through social media use.

Social media integration is also the result of a needs analysis of students who stated that they often access social media. Undeniably, Generation Z in Indonesia likes to open social media alone, while opening a website requires much effort. The integration of the web app with social media is expected to attract users

to revisit the web app page. In addition, social media activity can contribute to improved SEO, increasing traffic to the web app, thereby increasing user time and improving web app metrics.
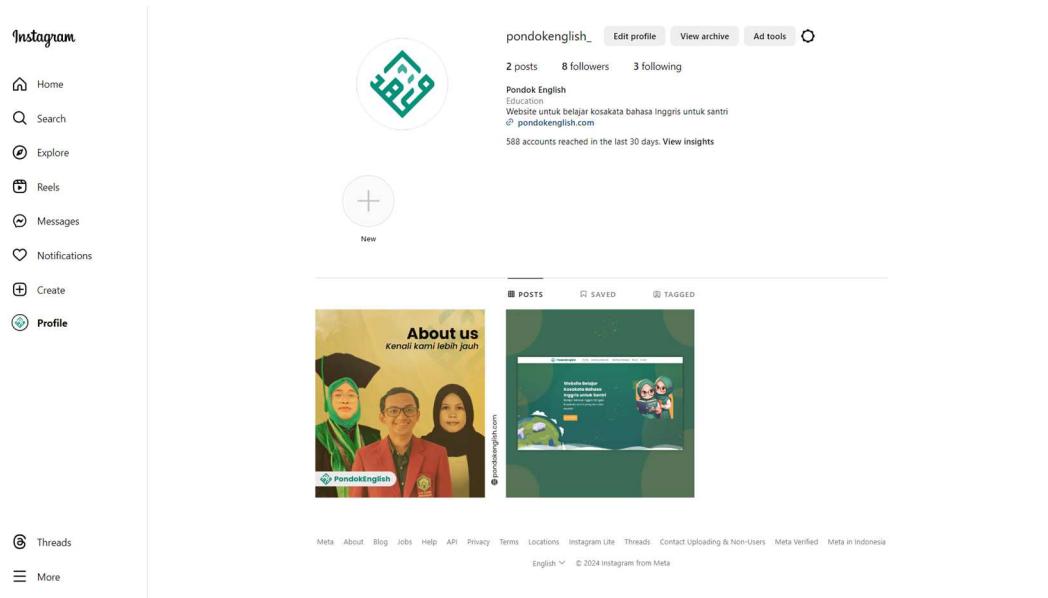
Figure 4.9 The web app's Instagram account

b.   Findings of document analysis

The researcher analyzes the seventh-grade English textbook and English vocabulary book to design the web app scope and sequence of each chapter. The researcher analyzes "English for Nusantara" textbook and "A Colorful Pictorial English Vocabulary Book for the First-grade Students of SMP Datok Sulaiman Putri Palopo" as the primary resources. According to the English textbook, the findings reveal that in seventh grade are in the Phase D which students are expected to be able to use spoken, written, and visual texts in English to interact and communicate in a wider variety of contexts and both formal and informal situations. Furthermore, the Merdeka curriculum consists of genre-based approaches,

Pancasila Student Profile, subject characteristics, learning outcomes, and learning

objectives.

Table 4.3 The findings of the document analysis on the seventh-grade "English for Nusantara" textbook

Background	The materials in the "English for Nusantara" book are designed to support seventh-grade students in developing English language skills using the Merdeka Curriculum, which is included in Phase D. The teaching also emphasizes strengthening characters such as faith and noble character, independence, critical thinking, creativity, mutual cooperation, and global diversity, following the Pancasila Student Profile. The objective is to shape independent, self-reliant, and confident students using English through various learning activities.
Approach	Genre-based approach
Pancasila Student Profile	1. Faithful and devoted to Almighty God, with noble character 2. Global diversity 3. Mutual cooperation 4. Creative 5. Critical thinking 6. Self-reliant
Subject characteristics in Phase D	1. The text types are narrative, descriptive, procedure, exposition, custom text (short message and advertisement), and original text. 2. The teacher can select the appropriate type of text to be taught based on the classroom conditions. 3. The focus of the learning process shifts to the students (students-centered). 4. Receptive skills (listening, reading, and viewing) and productive skills (speaking, writing, and presenting). 5. For seventh-grade students, the learning process focuses on spoken and written English reinforcement.

Learning outcomes in Phase D	1. Listening – speaking At the end of Phase D, students can engage in English in formal and informal contexts to share ideas, experiences, interests, opinions, and viewpoints. 2. Reading – viewing At the end of Phase D, students independently read and respond to various texts with learned structures and vocabulary, evaluate specific information, and identify purpose and understand implied information. 3. Writing – presenting By the end of Phase D, students can communicate ideas and experiences through simple and structured paragraphs, using specific vocabulary and simple and compound sentences to construct arguments and explain or defend opinions in informational, imaginative and persuasive texts.
Learning objectives in Phase D	1. To develop students' English communicative competence in the context of themselves, their school and their environment. 2. To develop intercultural competence for understanding and appreciating Indonesian and foreign cultures' perspectives, practices, and products. 3. To develop confidence so students can express themselves as independent and responsible individuals. 4. To have 21st century skills, including critical thinking, creativity, oral and written communication, collaboration, and digital literacy. 5. To become a citizen of the global community who still upholds the values of Pancasila by promoting the characteristics of the Pancasila Student Profile.

Figure 4.10 The English vocabulary book[2]

Moreover, the English vocabulary book, which shown in Figure 4.10, is thoughtfully organized into five comprehensive chapters: alphabets, things in school, activities in school, personal pronouns, and daily expressions. Generally, the book contains material about the alphabet, nouns, verbs, grammar, and regular expressions in Islamic glossaries. Additionally, the book features engaging illustration pictures that capture students' interest. The book includes English phonetic symbols, which are particularly beneficial for junior high school students of IBS Datok Sulaiman Putri Palopo, assisting them in developing accurate pronunciation and boosting their confidence in using new words.

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[2] Imam Fadli, *A Colorful Pictorial Vocabulary English Book for the First-Grade Students of SMP Datok Sulaiman Putri Palopo* (Palopo, 2022).

Table 4.4 The findings of the document analysis on the "A Colorful Pictorial English Vocabulary Book for the First-grade of SMP Datok Sulaiman Putri Palopo" vocabulary book

Chapters	The components of chapters
Part 1: Alphabets	1. English vocabulary for each letter 2. The pronunciation in English 3. Illustration picture for each vocabulary 4. Bahasa Indonesia translation
Part 2: Things in school	1. Things vocabularies in school 2. The pronunciation of each vocabulary in English 3. Illustration picture for each vocabulary 4. Bahasa Indonesia translation
Part 3: Activities in school	1. Verbs vocabularies in school 2. Regular and irregular verbs 3. The pronunciation of each verb 4. Illustration picture for each verb vocabulary 5. Bahasa Indonesia translation
Part 4: Personal Pronoun	1. Personal pronoun in English 2. The pronunciation in English 3. Illustration picture for each vocabulary 4. Bahasa Indonesia translation
Part 5: Daily Expressions	1. Daily expressions in English 2. Bahasa Indonesia translation

Hence, the web app's scope and sequence of each chapter is classified into Table 4.5. Due to limited time and human resources, researcher completed three chapters, which are Chapter 0: The Beginning, Chapter 1: About Me, and Chapter 2: English and Islamic Vocabularies.

Table 4.5 The chapters' scope and sequence on the web app

Chapter	Description	Pancasila Student Profiles	Learning outcomes	Learning objectives
Chapter 0: The Beginning	The chapter is designed to support students' learning process, especially those with no experience of learning English in primary school.	1. Self-reliant 2. Mutual cooperation 3. Global diversity	1. Listening–speaking	1. Students can recognize and pronounce all English alphabet letters independently. 2. Students can count and recognize numbers from 1 to 1.000 in English collaboratively with among students. 3. Students can identify, pronounce, and name the seven days of the week and twelve months in English. 4. Students can tell the time in English using digital clocks autonomously. 5. In English, Students can identify, pronounce, and name common family members (e.g., mother, father, sister, brother). 6. Students can identify the names of colors in English. 7. Students can ask using simple instructions (WH-Questions).

Chapter	Description	Pancasila Student Profiles	Learning outcomes	Learning objectives
Chapter 1: About Me	The chapter discusses how to greet and say goodbye to someone. Moreover, students also get information on how to introduce themselves and others.	1. Faithful and devoted to Almighty God, with noble character 2. Creative 3. Mutual cooperation 4. Critical thinking 5. Global diversity 6. Self-reliant	1. Listening-speaking 2. Reading-viewing 3. Writing-presenting	1. Students are able to introduce themselves and others. 2. Students are able to talk about hobbies. 3. Students are able to describe people's physical and personality traits. 4. Students are able to describe their daily activities.
Chapter 2: English Vocabularies	The chapter covers general English vocabulary and terms commonly used in Islamic boarding schools, including nouns, adjectives, and verbs.	1. Faithful and devoted to Almighty God, with noble character 2. Creative 3. Critical thinking	1. Listening-speaking 2. Reading-viewing 3. Writing-presenting	1. Students are able to classify general and specific English vocabulary to use in expressing their intentions in Islamic boarding schools. 2. Students are able to apply English verbs in more diverse contexts.

3.   The findings on the implementation phase

After validating the research instruments, the next step was to develop the web app according to the results of the need analysis from interview with English teachers and IBS students. After developing the web app, the researcher conducted FGD with material and web design validations.

Table 4.6 Validators' basic identity on the web app's FGD

Expertise	Gender	Final Academic Degree
Material$_1$	Male	Doctor in Linguistics
Material$_2$	Female	Doctor in Linguistics
Web design$_1$	Male	Bachelor in Informatics Engineering
Web design$_2$	Male	Magister in Computer and Information Technology

The Focused Group Discussion (FGD) was conducted to validate the web app performances. There are four expertise (two material and two web design experts) which validate the web app's performance. FGD was conducted in separate time, the material experts on June 22, 2024 and the web design experts on June 23, 2024 directly and virtually. Both material expertise has more than six years of teaching English and language literature experiences. Moreover, the web design experts have sufficient experiences in developing a website.

The findings on FGD with the experts were determined the average score. The average score (x̄) from expertise were calculated from summative score (ΣX) divided with number of questions (N) as follows.

$$\bar{x}(\text{material}_1) = \frac{\Sigma X}{N} = \frac{75}{16} = \mathbf{4,7}$$

$$\bar{x}(\text{material}_2) = \frac{\Sigma X}{N} = \frac{79}{16} = \mathbf{4,9}$$

$$\bar{x}(\text{web design}_1) = \frac{\Sigma X}{N} = \frac{79}{20} = \mathbf{4,0}$$

$$\bar{x}(\text{web design}_2) = \frac{\Sigma X}{N} = \frac{96}{20} = \mathbf{4,8}$$

In collecting the percentage score, the researcher calculated the mean scores by the validators, as follows:

$$x(\text{material}_1) = \frac{\bar{x}}{N} \times 100\% = \frac{4,7}{5} \times 100\% = \mathbf{94}\%$$

$$x(\text{material}_2) = \frac{\bar{x}}{N} \times 100\% = \frac{4,9}{5} \times 100\% = \mathbf{99}\%$$

$$x(\text{web design}_1) = \frac{\bar{x}}{N} \times 100\% = \frac{4,0}{5} \times 100\% = \mathbf{79}\%$$

$$x(\text{web design}_2) = \frac{\bar{x}}{N} \times 100\% = \frac{4,8}{5} \times 100\% = \mathbf{96}\%$$

The calculations by determining the percentages are tabulated into score's category, as follows:

Table 4.7 Data conversion in percentage and category

Expertise	Mean Score	Percentage	Category	Expertise Conclusion
Material$_1$	4,7	94%	Excellent	Feasible
Material$_2$	4,9	99%	Excellent	Feasible
Web design$_1$	4,0	79%	Good	Feasible
Web design$_2$	4,8	96%	Excellent	Feasible

During the FGD sessions, the researcher noted feedback from the experts regarding the web app. The experts provided both positive comments and constructive suggestions, as detailed below.

Table 4.8 Experts' feedback on the web app during FGD sessions

Expertise	Qualitative summary
Material$_1$	1. Use an Islamic terminology. 2. Greatly assist students in learning vocabulary. 3. Fairly complies with standard language.
Material$_2$	1. Use Islamic terminology, for instance "sawm" for fasting. 2. Fix several punctuation errors.
Web design$_1$	1. Remove the post date. 2. Remove the share button in reading passage. 3. Synchronize the typeface. 4. Remove comment section. 5. Reduce the spacing between containers in the "Books" page.
Web design$_2$	1. Create a submenu on Reading Passage menu. 2. The HTML structure is efficient and effective. 3. The maintenance of web app is simple. 4. The web app has simple design. 5. The use of JavaScript is optimal. 6. Media in the web app is compressed well. 7. The CSS design is responsive and creative.

Additionally testing to the web app, PageSpeed is utilized to measure the stability and performance of a website. The score of the web app's performance based on PageSpeed gets 85 for desktop usage, which is considered a well-optimized web app, as shown in Figure 4.11. However, the score was 68 on accessibility and 81 for best practices categories. Meanwhile, the SEO got 92, which ensures the web app is suitable for basic search engine optimization advice. It enables the web app to be more easily found through search engines such as Google.
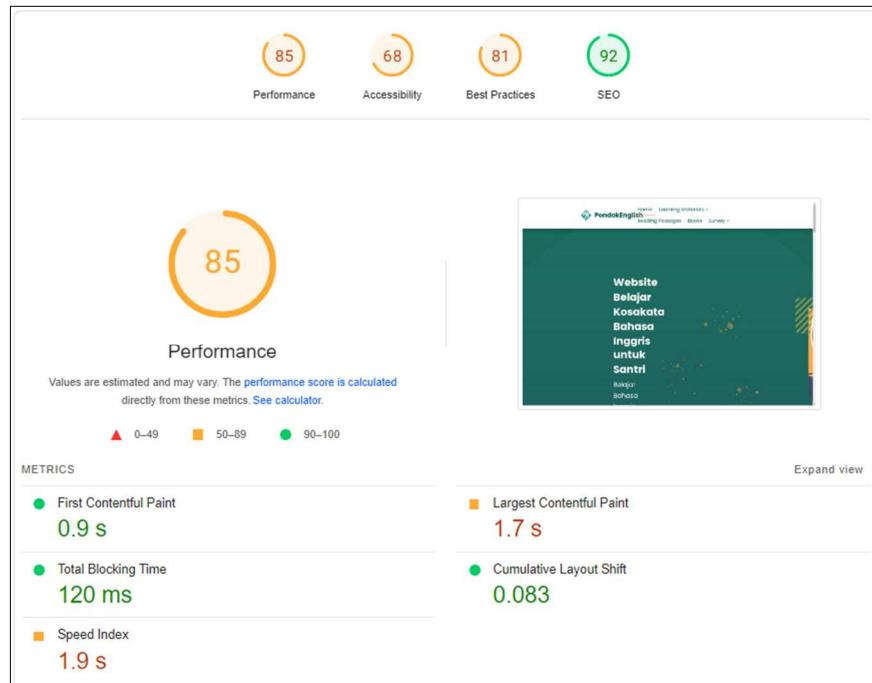
Figure 4.11 Web app's performance in desktop usage based on PageSpeed Insight

4.   The findings on integration and testing phase

Once the experts had validated the web app, the researcher conducted a limited trial to gather the perspectives of practitioners, including an English teacher and IBS students. The trial, which lasted an hour, took place in the school computer laboratory. An English teacher and fifteen students from the seventh and eighth grades (six seventh-grade students and nine eighth-grade students) participated in the limited trial. Initially, the IBS students completed a questionnaire aimed to explore their perspectives on the web app's visuals and overall usability, as shown in Table 4.9.

Table 4.9 The IBS students' perspective findings in using the web app

No	Statements	Average Score	Category
1.	The features found on the PondokEnglish page suit your requirements.	4,3	Excellent
2.	The use of PondokEnglish web app improves your skills in media literacy and information technology.	4,3	Excellent
3.	The content on the PondokEnglish web app is interesting and informative.	4,3	Excellent
4.	The use of the PondokEnglish web app assists you in enhancing your English vocabulary.	4,3	Excellent
5.	The use of social media on the PondokEnglish web app is effective.	3,8	Good
6.	The use of PondokEnglish web app in learning English vocabulary is more beneficial to you than learning by using LCD projector.	3,7	Good
7.	The use of speakers on the PondokEnglish web app is effective.	3,9	Good
8.	The use of PondokEnglish web app is more effective than learning using PowerPoint.	4,0	Good
9.	The use of computers is effective in your English vocabulary learning.	4,3	Excellent
10.	The use of smartphones helps in improving your English vocabulary.	4,2	Excellent
11.	The visualization of the text on the PondokEnglish web app is interesting and helps you in learning English vocabulary.	4,3	Excellent

No	Statements	Average Score	Category
12.	The visualization of images on PondokEnglish web app is interesting and helps you in learning English vocabulary.	4,3	Excellent
13.	The use of videos is effective in your English vocabulary learning.	4,1	Excellent
14.	The audio used on the PondokEnglish web app is clear.	4,1	Excellent
15.	The use of graphic visualizations helps you understand information more effectively.	4,1	Excellent
16.	The use of PondokEnglish web app improves your English skills.	4,0	Excellent
17.	The use of PondokEnglish web app overcomes your obstacles in learning English vocabulary.	3,9	Good
18.	The PondokEnglish web app model is useful and interesting for English vocabulary learning.	4,3	Excellent
19.	The PondokEnglish web app helps you in memorizing English vocabulary.	4,1	Excellent
20.	The selection of English vocabulary on PondokEnglish page is according to your skill level and needs.	4,1	Excellent
	Total score	**82,5**	

Subsequently, the calculation of students' perspective to the web app proceeded to determine the average score ($\bar{x}$) by divided the summative score (ΣX) and the total of questions (N_Q). Moreover, the average score was divided with the number of scale (N_S) to determine the percentage and its category, as shown in Table 4.10.

$$\bar{x} = \frac{\Sigma X}{N_Q} = \frac{82,5}{20} = \mathbf{4,12}$$

$$x = \frac{\bar{x}}{N_S} \times 100\% = \frac{4,12}{5} \times 100\% = \mathbf{82,47\%}$$

Table 4.10 Table of data conversion in students' perspective in using the web app

Average Score (x̄)	Percentage (%)	Category
4,12	82,47%	Excellent

Moreover, the English teacher, which also as the practitioners, filled the questionnaire to provide the perspective related with the web app's material, visual, and overall usability.

Table 4.11 The English teacher's perspective findings in using the web app

No	Statements	Score	Category
1.	The material content on the *PondokEnglish* web app aligns with the learning objectives outlined in the Merdeka Curriculum for the junior high school level.	5	Excellent
2.	The vocabulary selection on the *PondokEnglish* web app is tailored to match the English proficiency level of junior high school students at IBS Datok Sulaiman Putri Palopo.	4	Good
3.	The vocabulary presented on the *PondokEnglish* web app is relevant to the daily lives and activities of students at the Junior High School of IBS Datok Sulaiman Putri Palopo.	5	Excellent
4.	The content on the *PondokEnglish* web app incorporates Islamic values that are relevant to the students at the	5	Excellent

No	Statements	Score	Category
	Junior High School of IBS Datok Sulaiman Putri Palopo.		
5.	The *PondokEnglish* web app provides enough exercises to hone students' English vocabulary skills.	4	Good
6.	The materials on the *PondokEnglish* web app are organized in a logical sequence, making them easy for students to follow.	4	Good
7.	The selection of images on the *PondokEnglish* web app is appropriate for the students at the Junior High School of IBS Datok Sulaiman Putri Palopo.	4	Good
8.	The selection of videos on the *PondokEnglish* web app is appropriate for the students at the Junior High School of IBS Datok Sulaiman Putri Palopo.	5	Excellent
9.	The audio selection on the *PondokEnglish* web app is appropriate for the students at the Junior High School of IBS Datok Sulaiman Putri Palopo.	4	Good
10.	The *PondokEnglish* web app includes an effective evaluation feature to measure students' vocabulary skills.	4	Good
11.	The features on the *PondokEnglish* web app are easy to find.	5	Excellent
12.	The features on the *PondokEnglish* web app are suitable for English vocabulary learning needs.	4	Good
13.	The using of *PondokEnglish* web app is effective in assisting teacher in English vocabulary learning.	4	Good
14.	The *PondokEnglish* web app assists to increase student engagement in English vocabulary learning.	5	Excellent

No	Statements	Score	Category
15.	The *PondokEnglish* web app provides fast access for users.	5	Excellent
16.	The navigation on the *PondokEnglish* web app is easy to understand.	4	Excellent
17.	The use of resources (such as internet data and hardware) on the *PondokEnglish* web app is efficient.	4	Good
18.	The *PondokEnglish* web app's use in English vocabulary learning enables English teachers to recommend it to their colleagues.	5	Excellent
19.	The *PondokEnglish* web app contains messages that are appropriate and aligned with the preferences of the target audience.	4	Good
20.	The *PondokEnglish* web app can motivate students to learn English vocabulary.	5	Excellent
21.	The *PondokEnglish* web app has an attractive layout.	4	Good
22.	The *PondokEnglish* web app has typography that is attractive and easy to understand.	4	Good
23.	The use of color combination on the *PondokEnglish* web app is attractive and appropriate.	5	Excellent
24.	The *PondokEnglish* web app is equipped with animations or videos that are relevant in explaining the material.	5	Excellent
25.	The icon on the *PondokEnglish* web app is clear.	5	Excellent
	Total score	**112**	

Hence, the calculation of English teachers' perspective to the web app proceeded to determine the average score ($\bar{x}$) by divided the summative score (ΣX) and the total of questions (N_Q). In addition, the average score was divided with the

number of scale (N_S) to determine the percentage and its category, as shown in Table 4.12.

$$\bar{x} = \frac{\Sigma X}{N_Q} = \frac{112}{25} = \textbf{4, 48}$$

$$x = \frac{\bar{x}}{N_S} \times 100\% = \frac{4,48}{5} \times 100\% = \textbf{89, 6\%}$$

Table 4.12 Table of data conversion in English teacher' perspective in using the web app

Average Score ($\bar{x}$)	Percentage (%)	Category
4,48	89,6%	Excellent

Hence, the practitioners stated the positive feedbacks and constructive suggestions related with the web app requirements, as detailed below.

Table 4.13 Practitioners' feedback on the web app during the limited trial sessions

Expertise	Qualitative summary
English teacher	1. The web app is impressive and attracts students' interest. 2. Students are more enthusiastic to learn using the web app. 3. The web app is expected to expand according to the students' needs in the future. 4. The web app is highly useful not only for students but also teachers. 5. The color palettes are attractive and not tedious.
Student	1. The use of the web app is easy to understand. 2. The web app is simple to use because it doesn't use other applications. 3. The web app is attractive. 4. Further explanation of vocabulary meaning is required.

5.   The findings on the maintenance phase

The maintenance phase commenced after the web app was deployed in the integration and testing phase. During this phase, feedback from both experts and practitioners was incorporated to make necessary revisions. The qualitative summaries provided by the judgments reflect their perspectives on using the web app as follows.

Table 4.14 The judgements corrections to the web app

Judgements	Validators	Qualitative Summary
Expertise	Material$_1$	1. Use an Islamic terminology.
	Material$_2$	1. Use an Islamic terminology. 2. Fix several punctuation errors.
	Web design$_1$	1. Remove the post date. 2. Remove the share button in reading passage. 3. Synchronize the typeface. 4. Remove comment section. 5. Reduce the spacing between containers in the "Books" page.
	Web design$_2$	1. Create a submenu on the "Reading Passage" menu.
Practitioners	English teacher	1. The web app is expected to expand according to the students' needs in the future.
	Students	1. Further explanation of vocabulary meaning is required.

Furthermore, the researcher had revised both expertise and practitioners' corrections. The material experts generally suggested the web app's content which changed the English vocabulary into more Islamic terminology. For instance, the

web app used "fasting" which revised into "sawm" and "pilgrimage" into "hajj", as shown in Figure 4.12. These revisions make the terminology more specific to Islamic practices and more suitable for IBS students. Moreover, the material$_2$ expert suggested to remove the period punctuation in the title, as shown in Figure 4.13. The material$_2$ expert considered that the title should not end with period.

Before revision   After revision
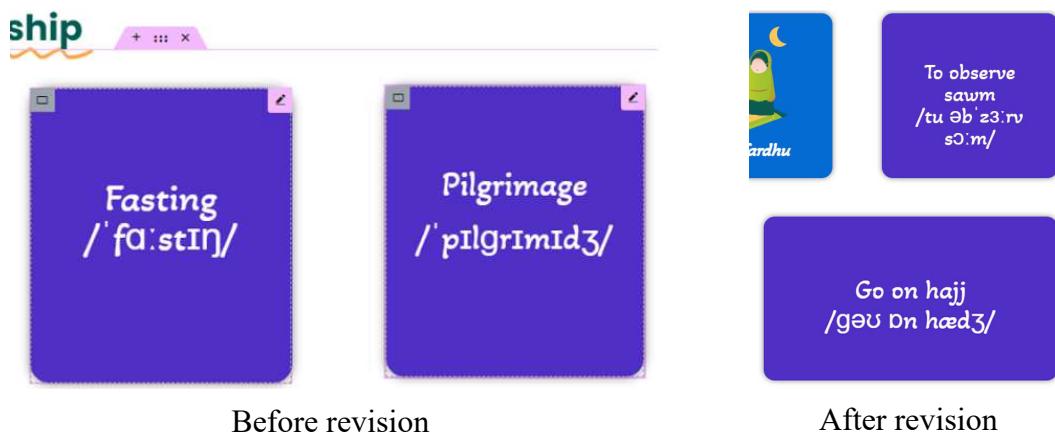
Figure 4.12 The revision of material$_1$ and material$_2$ experts related about the use of Islamic terminology

Before revision

After revision
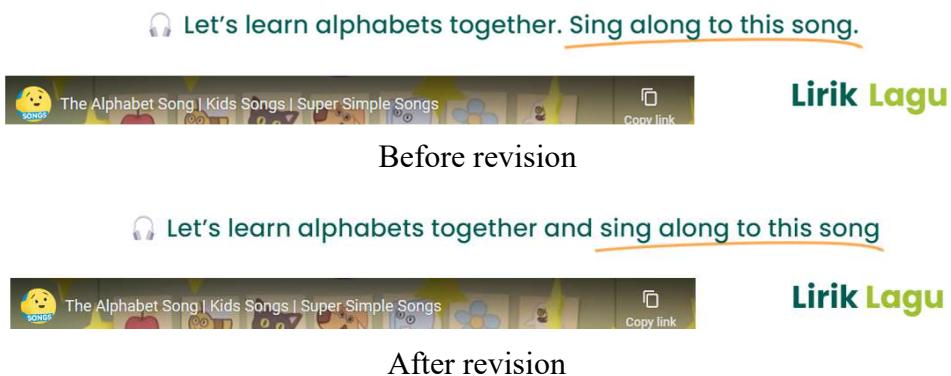
Figure 4.13 The revision of material$_2$ correction related with the punctuation error

On the other hand, the web design experts focused on enhancing the web app's visual appeal and performance. Several suggestions from the web design[1] validator, which decreased the app's pace, had to be removed. For instance, remove the post date as shown in Figure 4.14, remove the share button in the reading passage as shown in Figure 4.15, synchronize the typeface as shown in Figure 4.16, remove the comment section as shown in Figure 4.17, and reduce the spacing between containers in the "Books" page as shown in Figure 4.18.

Before revision

After revision
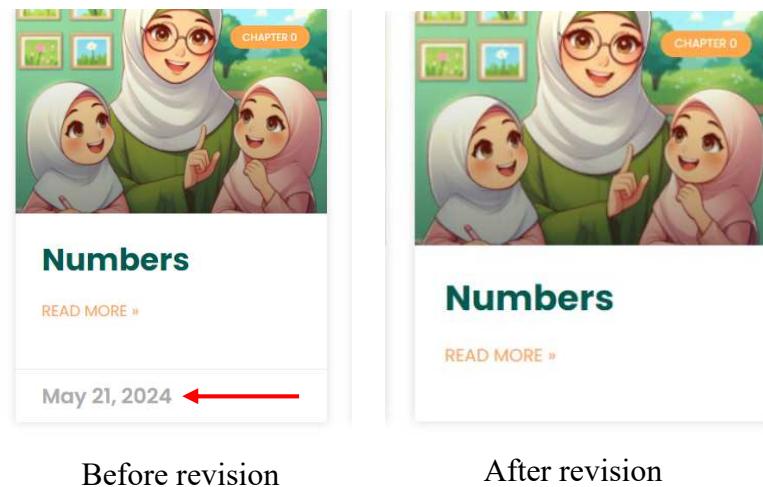
Figure 4.14 The revision of web design[1] expert correction about the post date

Before revision

After revision
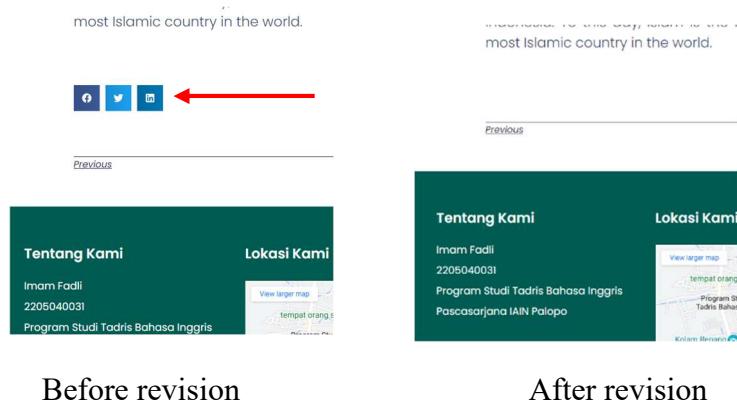
Figure 4.15 The revision of web design[1] expert correction related with the share button

Section 4 - Mendengarkan

Listen to Audio 1.2. Galang and Andre are introducing themselves to each other. The audio has two parts. You can listen to Part 1 and then Part 2. Or, you can listen to both Parts in one go.

~~~~~~

Dengarkan Audio 1.2. Galang dan Andre saling memperkenalkan diri. Audio ini terdiri dari dua bagian. Anda dapat mendengarkan Bagian 1 dan kemudian Bagian 2. Atau, Anda dapat mendengarkan kedua bagian sekaligus.

<div align="center">

Dengar Audio 1.2 Bagian 1   **Dengar Audio 1.2 Bagian 2**

</div>

Before revision

Section 4 - Mendengarkan

Listen to Audio 1.2. Galang and Andre are introducing themselves to each other. The audio has two parts. You can listen to Part 1 and then Part 2. Or, you can listen to both Parts in one go.

~~~~~~

Dengarkan Audio 1.2. Galang dan Andre saling memperkenalkan diri. Audio ini terdiri dari dua bagian. Anda dapat mendengarkan Bagian 1 dan kemudian Bagian 2. Atau, Anda dapat mendengarkan kedua bagian sekaligus.

<div align="center">

Dengar Audio 1.2 Bagian 1   **Dengar Audio 1.2 Bagian 2**

</div>

After revision

Figure 4.16 The revision of web design[1] expert regarding with the typeface synchronization

archipelago

The history of the entry of Islam in the Indonesia archipelago theoretically begins with the trade process with the Arabs

Read More

A. Regular verbs Berwudhu Ablute Abluted Abluted Tanya AskAskedAsked Menghindar AvoidAvoidedAvoided Merebus BoilBoiledBoiled Berdoa PrayPrayedPrayed Beribadah WorshipWorshippedWorshipped B. Irregular verbs

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Before revision
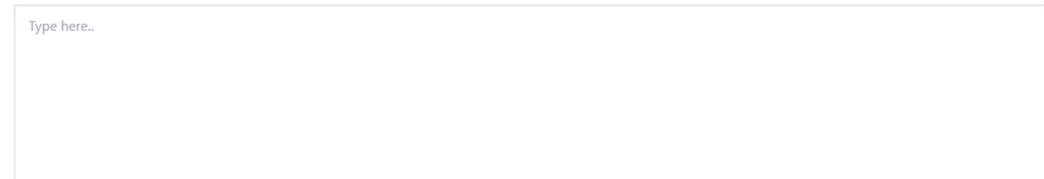
The entry of Islam in Indonesia archipelago

The history of the entry of Islam in the Indonesia archipelago theoretically begins with the trade process with the Arabs

Read More

Part 3. Activities in the school

A. Regular verbs Berwudhu Ablute Abluted Abluted Tanya AskAskedAsked Menghindar AvoidAvoidedAvoided Merebus BoilBoiledBoiled Berdoa PrayPrayedPrayed Beribadah WorshipWorshippedWorshipped B. Irregular verbs

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Tentang Kami

Imam Fadli

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Program Studi Tadris Bahasa Inggris

Pascasarjana IAIN Palopo

Lokasi Kami

Hubungi Kami

After revision

Figure 4.17 The revision of web design₁ expert regarding with the comment section

Before revision   After revision

Figure 4.18 The revision of web design$_1$ about spacing between containers

Meanwhile, the web design$_2$ validator recommended to enhance web app's navigation by adding the sub-menu into the "Reading Passages" menu as shown in Figure 4.19. By adding the sub-menu, the students and teachers easily navigate to the reading passage while using the web app in particular page.

Before revision   After revision
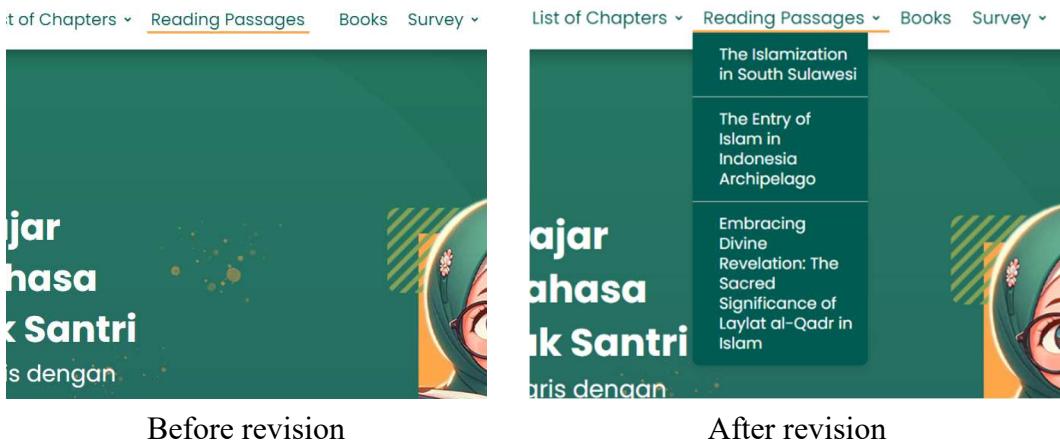
Figure 4.19 The revision of web design$_2$ expert about sub-menu on "Reading Passages" menu

Meanwhile, feedback from practitioners is also sought. Suggestions from the English teacher is considered by the web app admin and the hosting admin. The admins are responsible for maintaining the web app to meet future users' needs.

Specifically, the web app admin manages the app's content and updates the settings, while the hosting admin oversees the app's database and domain. Additionally, feedback from IBS students was incorporated by adding pop-up windows that provide additional explanation when students click on vocabulary terms as shown in Figure 4.20. In the pop-up window, the researcher included several explanations from the Qur'an and Hadith relevant to the vocabulary.
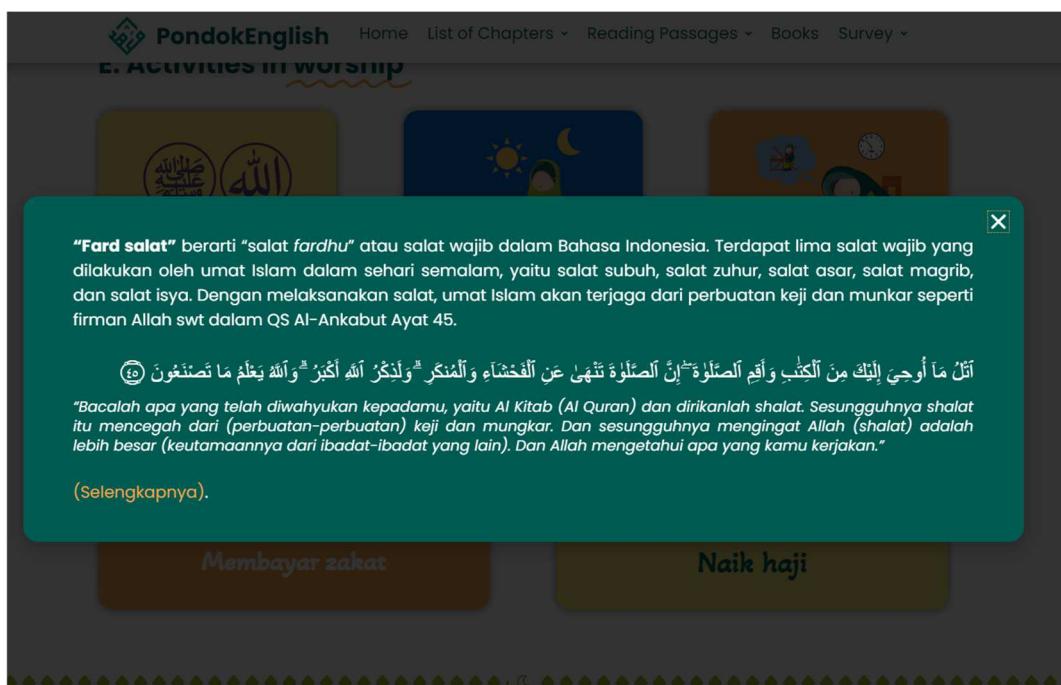
Figure 4.20 The additional explanation based on students' suggestion

B.   Discussion

In developing the web app, the researcher applied the Waterfall model by Winston C. Royce. The model has five phases: need analysis, design, implementation, integration and testing, and maintenance.[1] However, the model is typically used for software development that requires several human resource

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[1] Royce, "Managing the Development of Large Software Systems (1970)."

abilities, such as software engineering. The researcher made several key changes in adapting the model to the web app. For instance, instead of relying solely on a team to create the appropriate web app in each step, the researcher utilized the proper hosting services to protect the security and WordPress to assist in building the web app. These adaptations demonstrate the flexibility of the Waterfall model in different development contexts.

1.   Need analysis phase

In the need analysis phase, the researcher collected data on students' and teachers' needs through interviews. The researcher interviewed two voluntary English teachers from the Junior High School of IBS Datok Sulaiman Putri Palopo to address the students' English learning by using the web app. Additionally, the researcher interviewed several seventh and eighth-grade students to verify the teachers' observations about the performance gap. Before conducted the interview, the researcher validated the research instruments to ensure the questions' validity and reliability.

a.   Validating the research instruments

The validating of research instruments found an excellent result from the validator. At first, the validator provided several suggestions and corrections that required the researcher to revise for better instrument. Furthermore, the researcher conducted an advanced validation of research instrument and obtained 4,6 average score. The average score included the characteristic of objectives with 5 average score, scope of contents with 4,3 average score, and language with 4,5 average

score, which achieved an "Excellent" grade. By that grade, the research instrument is usable for collecting data as the basis to develop the web app.

On the other hand, the researcher validated the web app component and obtained several suggestions and corrective feedbacks to the web app. Related with the material validation, the validation gained a positive qualitative summary judgement and the average score achieved the highest with 5 average score. As well as the language validation which also reached the highest with 5 average score. Meanwhile, for the design and layout validation slightly decrease with the 4,3 average score. Based on the validation score, both material and language validation touched 100% of percentage with an "Excellent" category. However, even though the design and layout slightly decrease, the percentage score still in high level with 95% and still get an "Excellent" category. Hence, all indicators are feasible to use without revision according to the validator judgements.

b.   Interviewing IBS English teachers and students

The interview utilized both structured and open-ended questions. Based on the needs analysis phase, the researcher identified several phenomena in IBS schools among seventh and eighth-grade students related to the English learning by using a web app. These phenomena are classified as potentials and problems.[2] Two potentials and four problems were identified in the design of the English learning web app supplementary for IBS. The main potential is the availability of computer units, demonstrating that IBS Datok Sulaiman Putri Palopo is currently embracing

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[2] Sugiyono, *Metode Penelitian dan Pengembangan (Research and Development/ R&D)*, 2nd ed. (Bandung: ALFABETA, 2016), www.cvalfabeta.com.

Society 5.0 learning.[3] Additionally, students' enthusiasm for learning using aids is another significant potential for designing a supplement English learning material web app. Since the web app generates multimedia input that retain in long-term memory. [4] Hence, the two essential potentials are the basis for designing the appropriate material supplement of English learning web app for IBS students.

Moreover, the web app features can also be practical teaching aids in English learning.[5] The IBS students expressed a strong inclination towards multimedia approaches, such as learning through audio, video, and text visualization (such as pictures). Notably, several students highlighted that they find learning English vocabulary more enjoyable and effective when pictures are used as illustrations for the vocabulary. This multimedia integration not only makes the learning process more interactive but also caters to different learning styles, thereby improving the students' overall retention and comprehension of English vocabulary.

Nevertheless, digitalization is highly desired for IBS students to develop into competitive human resources capable of meeting current market needs. To fulfill these demands, it is essential to enhance students' foreign language and ICT abilities.[6] The potential of IBS Datok Sulaiman Putri Palopo, with its provision of

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[3] Dea Ariani and Syahrani, "Manajemen Pesantren dalam Persiapan Pembelajaran 5.0," *Cross-Border* 5, no. 1 (2022): 611–21.

[4] Richard E. Mayer, *Multimedia Learning, Cambridge University Press*, 3rd ed. (Cambridge, 2020).

[5] V. V. Malinee and T Senthamarai, "The Use of Web 2.0 Tools in English for Specific Purpose: A Blended Learning Approach in English Language Teaching," *Article in Journal of Shanghai Jiaotong University*, 2020.

[6] Nilna Azizatus Shofiyyah, Haidir Ali, and Nurhayati Sastraatmadja, "Model Pondok Pesantren di Era Milenial," *BELAJEA: Jurnal Pendidikan Islam*, 2019, doi:10.29240/belajea.v4i1.585.

providing internet connection and 20 computer units, can be effectively harnessed to produce students who meet the expectations of the global job market. Moreover, the implementation of the Merdeka curriculum, which emphasizes student independence and flexibility in learning, underscores the importance of integrating digital tools into the educational process. Recognizing this, the researcher plans to develop a supplementary English material web app dedicated to learning English, aligning with the Merdeka curriculum's goals and ensuring that students are well-equipped with the necessary skills for navigating digital information.

Additionally, vocabulary is the most preferred option by IBS students for developing their English proficiency which also confirms Dakhi and Fitria statement that vocabulary is the basis in communicating.[7] The demand is because their student council routinely provides English vocabulary memorization, sometimes in the form of expressions. Moreover, their student council occasionally organizes English day, prohibiting students from using Bahasa Indonesia. Therefore, the English vocabulary of IBS students is considered essential to be developed, as Thornbury argues that it can be conveyed slightly without grammar, but nothing can be conveyed without vocabulary.[8] Based on these findings, the researcher realized that the English vocabulary of IBS students must be developed.

Apart from potentials, the researcher was concerned about the emergence of four fundamental problems. The prohibition of bringing gadgets to IBS is the main

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[7] Saniago Dakhi and Tira Nur Fitria, "The Principles and the Teaching of English Vocabulary: A Review," *JET (Journal of English Teaching)* 5, no. 1 (2019): 15, doi:10.33541/jet.v5i1.956.
[8] Scott Thornbury, "How to Teach Grammar," in *England: Pearson Education Limited*, 2002.

challenge in designing the web app. However, this can be mitigated by ensuring the app is accessible via computers with an internet connection. Additionally, the students' limited information technology skills are a concern. Therefore, the researcher must ensure clear instructions and provide a comprehensive guidebook.

However, according to the students, they have already been introduced to several familiar applications, such as Microsoft Excel and Microsoft Word. Despite this introduction, some students feel their computer literacy needs to be updated, as highlighted in interviews with Mr. Ali (P1) as the English teacher and students Alina (P7) and Daneen (P5). They expressed concerns about keeping up with the latest digital tools and technologies. Conversely, other student (P15) mentioned that they often use Canva to design flyers for their assignments, indicating a preference for more modern, user-friendly applications that support creative and practical tasks. The mix of familiarity with standard software and the desire for updated digital skills highlights the need for a balanced approach to enhancing computer literacy, integrating fundamental tools and contemporary applications to better prepare students for current and future demands.

Likewise, the researcher found that IBS students had issues with English vocabulary practices. Students need a particular book to develop their English vocabulary. Thus, the students only have English textbooks generally focusing on mastering English. Similarly, according to the English teacher, IBS students are required to be able to master foreign languages, one of which is English. Based on the information, the researcher will incorporate interactive exercises into the web app to fulfill students' English vocabulary needs.

In addition, the demand for a web app dedicated to learning English is eagerly anticipated by both IBS teachers and students. According to Fauzia (P4), an IBS student, the lack of interest in learning English among some students is partly due to the reliance on traditional, manual methods such as textbooks. She believes that the availability of a web app for learning English could significantly boost students' enthusiasm and engagement. Mr. Ali (P1), the English teacher, also expressed his keen anticipation for such a web app to enhance his teaching methods. This web app would not only support the digitalization of education for IBS students, aligning with current global demands but also address the issue of computer literacy. By integrating technology into the learning process, the web app can increase students' proficiency with digital tools, thereby overcoming one of the existing challenges at IBS.

2. Design phase

a. Designing the web app prototype

The design of web app prototype utilized WordPress editor. The researcher used WordPress editor to generate the web app prototype. The researcher utilized several block editors, which facilitated by WordPress, to create sections in web app prototype. The blocks are set of elements which used to build a content in WordPress editor. According to the Messenlehner and Coleman, WordPress editor previously known as Gutenberg editor which has "blocks" to be easier on building a website rather than using short codes or custom HTML.[9] However, the blocks are

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[9] Messenlehner and Coleman, *Building Web Apps with WordPress: WordPress as an Application Framework*, chap. 11.

in limited resources which forced the researcher to use the available elements. The blocks are highly useful for documenting the mechanism of using the web app.

b.   Analyzing Merdeka Curriculum to determine web app materials

In designing the web app, the researcher analyzed current curriculum (Merdeka curriculum) for the junior high school of IBS Datok Sulaiman Putri Palopo. As written in the regulation of the Minister of Education, Culture, Research and Technology of The Republic of Indonesia Number 12 of 2024, in Article 9 Paragraph (2) Point e, it is explained that learning outcomes at the junior high school level are included in the Phase D category.[10] In Phase D of English language learning, students are able to interact and communicate in applying oral, written, and visual texts in more diverse formal and informal situations.[11] In brief, in Phase D implements the genre-based approach which provides students with the ability to implement a variety of text genres (narrative, descriptive, procedural, specific texts such as short texts and advertisements, and authentic texts).

In addition, students can convey their ideas in discussions by speaking English in Phase D. These ideas develop students' understanding of implicit information and their inference skills in written texts. Thus, students can produce written and visual texts in English with a more diverse vocabulary. At the same time, students can also understand the purpose and audience when producing

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[10] Menteri Pendidikan Kebudayaan Riset dan Teknologi Republik Indonesia, "Kurikulum Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah," Pub. L. No. 12 Article 9 Paragraph (2) Point e (2024).

[11] Kepala Badan Standar Kurikulum dan Asesmen Pendidikan Kementerian Pendidikan Kebudayaan Riset dan Teknologi, "Capaian Pembelajaran Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah Pada Kurikulum Merdeka" (2022).

written and visual texts in English. However, in Phase D there are also three learning outcomes classified by language elements consisting of listening – speaking, reading – viewing, and writing – presenting as shown in Table 4.3.

After analyzing the English curriculum and textbook for junior high school, the researcher developed a mapping of materials to be implemented in the web app, starting with Chapter 0, as shown in Table 4.3. The mapping is classified into four main aspects: chapter, description, Pancasila Student Profiles, learning outcome, and learning objectives. Chapter 0 serves as prior knowledge for students who did not learn English in elementary school.[12] Therefore, Chapter 0: The Beginning covers several basic topics, such as the alphabet, numbers, time, family members, colors, and simple instructions.

The Merdeka Curriculum features a unique aspect called the Pancasila Student Profiles, which encompasses six characteristics: 1) Faithful and devoted to Almighty God, with noble character; 2) Global diversity; 3) Mutual cooperation; 4) Creative; 5) Critical thinking; and 6) Self-reliant. The goal of the Pancasila Student Profiles is to cultivate well-rounded, competent lifelong learners who embody the values of Pancasila.[13] In learning English, this profile is integrated through written texts, visuals, oral texts, and various activities developed during the learning process. Furthermore, the dynamic and flexible nature of English learning provides

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[12] Ika Lestari Damayanti et al., *English for Nusantara Untuk SMP/MTs Kelas VII*, Pertama (Jakarta Selatan: Pusat Perbukuan, 2022).

[13] Kepala Badan Standar Kurikulum dan Asesmen Pendidikan Kementerian Pendidikan Kebudayaan Riset dan Teknologi, Capaian Pembelajaran pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah pada Kurikulum Merdeka, 2.

opportunities for students to engage in the selection of texts and activities, promoting active involvement and personalized learning.

The six Pancasila Student Profiles are integrated into the web app. The first profile, faithful and devoted to Almighty God, with noble character, is emphasized through the incorporation of Islamic content throughout the web app, such as images, colors, and reading materials related to Islam. Secondly, the global diversity profile is highlighted in the "Did You Know??" section, providing additional knowledge about English culture that broadens students' cultural perspectives. The mutual cooperation profile is encouraged through interactive worksheets where the students can collaborate on exercises and help each other in navigating the web app. The creativity profile is nurtured through tasks requiring students to use Canva to design and express ideas visually. The interactive worksheet fosters the critical thinking profile, which challenges students to solve problems using the web app's digital tools. Lastly, the self-reliant profile encouraged students to pronounce vocabulary and complete the worksheet independently.
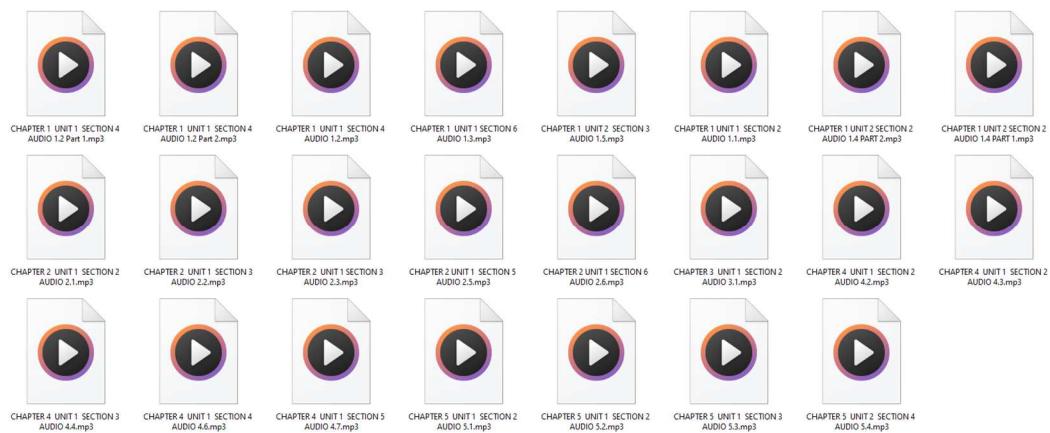

Figure 4.21 The listening audios for the web app

Moreover, the English curriculum includes six learning objective elements that students must be proficient in, one of which is listening skills. In listening skill involves understanding information, appreciating the speaker, and providing relevant, contextual responses. This process includes listening, identifying, interpreting language sounds, and comprehending meaning. Effective listening also encompasses nonverbal communication, capturing both explicit and implied meanings, and grasping the main and supporting ideas within the context of the conversation. In the web app, the researcher included several audios that suitable for Phase D. The origin of the audios got from the official site of SIBI.[14] These audios will be utilized into several tasks that included in unit materials.

Another critical element skill is reading, which involves understanding, applying, and reflecting on text based on its purpose and interest. Reading also helps students develop knowledge and potential for participating in society. The researcher incorporates a genre-based approach in selecting passages for the web app, focusing on descriptive and narrative texts. These texts are tailored to IBS students, featuring Islamic themes and aligning with the Pancasila Student Profiles, as shown on Figure 4.22. The passages come from both English textbooks and the researcher original.

Apart from reading skills, in Phase D of English, students also acquire viewing skills, which involve understanding, applying, and reflecting on visual texts based on their purpose and interest. While reading skills focus on text, viewing

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[14] "SIBI - Sistem Informasi Perbukuan Indonesia," accessed June 21, 2024, https://buku.kemdikbud.go.id/katalog/buku-audio-english-for-nusantara-untuk-smp-mts-kelas-viii.

skills focus on developing the ability to interpret pictures, diagrams, and infographics. Thus, the web app should visually embody meaningful elements that help students interpret images by combining verbal and visual language, as illustrated in Figure 4.23. In addition, the images used in the web app are sourced from English textbooks and an AI picture generator, ensuring a rich and diverse visual experience.

Passage 1: The entry of Islam in Indonesia archipelago (374 words)

1   The history of the entry of Islam in the Indonesia archipelago theoretically begins with
2 the trade process with the Arabs who came by sea. Since the early centuries AD, there have
3 been shipping and trade routes between islands and regions. In the eastern region, which
4 includes the East Indian archipelago and the South Coast of China, there were already relations
5 with the Arab world through trade.

6   To spread their merchandise in Indonesia, Arab traders entered through the sea route
7 from Aden along the coast to Maskat, Raisut, Siraf, Guandar, Daibul, Malabar Coast, which
8 includes Gujarat, Keras, Quilon, and Kalicut. After that, Arab traders then combed several
9 other locations such as the Strait of Malacca, Padang, Banten, Cirebon, Demak, Jepara, Gresik,
10 Ampel, Makassar, Ternate, Bone, and Peureulak – one of the Islamic kingdoms in Indonesia
11 that ruled in the East Aceh region, from 840 - 1292 known as the Sultanate of Peureulak. At
12 that time, the most popular item to be traded was bronze necklaces, spread throughout the
13 archipelago.

14   In addition, spices were also in demand by traders, and Maluku became an attractive
15 location for traders with its nutmeg and cloves. In the process of selling the spices, they were
16 then brought to the islands of Java and Sumatra to be marketed to foreign traders and brought
17 to their home countries. Not stopping at spices, Kapur Barus (camphor) was also a target for
18 traders. From the beginning of the 7th century AD, some ports became stopovers by foreign
19 traders, namely Lamuri (Aceh), Barus, and Palembang. The name Kapur Barus itself is thought
20 to have come from the name of a lime-producing location on the west coast of Sumatra known
21 as Barus.

22   In conclusion, it is estimated that Islam has entered the archipelago since the early Hijri
23 century. Although at that time, there was no recognition from the indigenous people to embrace
24 Islam, and only foreigners embraced the teachings. Apart from that, there are also differences
25 in viewpoints and evidence regarding the certainty of the origin of the arrival, the place visited,
26 the time, and historical evidence, which causes various theories of the entry of Islam into
27 Indonesia. To this day, Islam is the majority religion in Indonesia, making it the most Islamic
28 country in the world.

Figure 4.22 The Islamic theme reading passage for the web app

Figure 4.23 The visualization of pictures in the web app

At the same time, the learning outcome for English Phase D is to help students express their ideas, thoughts, and feelings orally in social interactions. It aligns with the development of speaking skills. The web app materials should include various text models comprising listening activities, language focus, and keywords to support the students' speaking skills. This approach enables students to practice and express their speaking skills through monologues or dialogues with their classmates. For instance, as illustrated in Figure 4.24, the chapter provides the name of twelve months in English, and the teacher can prompt students to pronounce the name and speak several simple words to practice speaking skills.

Additionally, in Phase D, the students should develop writing skills to convey ideas, express creativity, and communicate ideas when creating a text. The text should be engaging, well-structured, and use appropriate language elements. Therefore, to support students' writing skills, the web app facilitates several reference texts in different genres, allowing students to view several text examples.

Figure 4.24 Months of the year learning material in Chapter 0: The Beginning

The last learning objective element on the web app that students should obtain is the ability to present. Once the students have written a text, the students then deliver ideas into writing. Before presenting, the students prepared to compile and develop the ideas according to the audience. With the ability to present, the students can explain ideas fluently and accurately, which can be accounted for communicatively through various media and be understandable to the audiences. Meanwhile, the web app provides an attractive worksheet that can be authentic material for students' presentations.

Additionally, the learning outcomes in the web app are based on the Merdeka Curriculum, which combines two elements: listening – speaking, reading – viewing, and writing – presenting. Thus, the learning objectives are more complex because the learning material focuses not only on developing a skill but also two English skills at the same time. For instance, in listening and speaking, the students

are expected to use English to interact and exchange ideas, experiences, and views towards classmates or teachers. The listening elements can be obtained from repetition and vocabulary replacement during the discussion; meanwhile, the speaking elements can be obtained in a discussion, such as delivering opinions or preferences or creating comparisons. Hence, the web app's listening section encourages students to express their ideas inside an attractive worksheet.

The other combination element is the integration between reading and viewing skills. The integration of this element is expected for the students to be able to locate and evaluate main ideas and specific information by using the predictable structure and common vocabulary to read and respond to familiar and unfamiliar text independently. Nevertheless, the text may be printed or digital, for instance, visual, multimodal, or interactive texts that allow students to identify the text's purpose and initiate inference of the text's implicit information. However, to enrich the Islamic vocabulary of IBS students, the web app facilitates the number of Islamic vocabulary (commonly used in Islamic terms) and reading text that emphasizes Islamic topics. Thus, integrating structured text and the Islamic vocabulary collection is expected to independently enhance IBS students' response to familiar and unfamiliar text.

Lastly, integrating writing and presenting skills in Phase D stimulated students to communicate ideas and experiences in structured, simple paragraphs. Furthermore, students develop specific vocabulary and construct simple and compound sentences. Using examples, students can plan, write, and present informational, imaginative, and persuasive texts to construct arguments and defend

opinions. Thus, the web app facilitates IBS students in practicing constructing a simple paragraph by completing the worksheet and stimulating students to present ideas, as shown on Figure 4.25. The flowchart of the worksheet exercising by students and the involvement of teachers and admins in the web app are as follows.
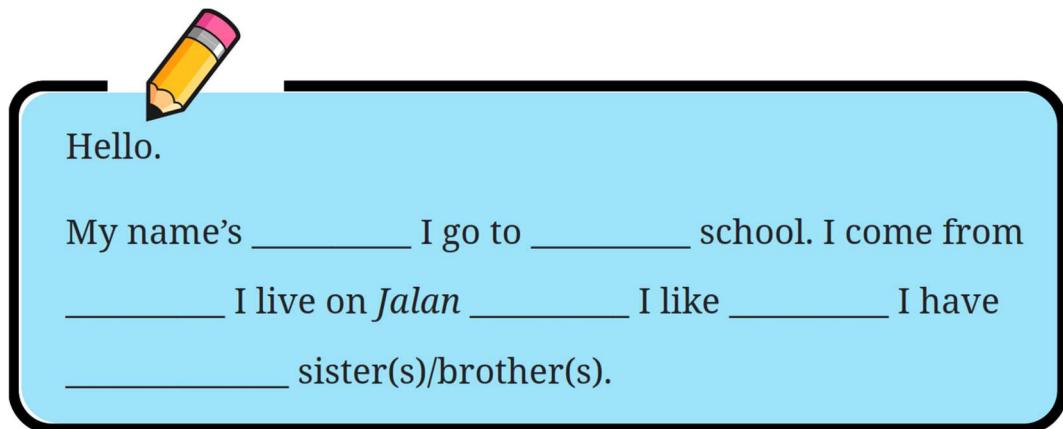
Figure 4.25 The writing task in Phase D for seventh-grade students[15]

Meanwhile, for the learning objectives, the web app combined with the five learning objectives in Phase D which have been written in Merdeka Curriculum. The basis of the web app is customized according to the aims of learning objectives in Phase D which emphasize on the development of English communicative competence, development in self-reliant, the 21st century skills, and becoming a global citizen with Pancasila value. However, the web app is designed to the IBS students, which means the main content is Islamic based. Despite that, the learning objectives maintain the five main objectives in Merdeka Curriculum, as written in Table 4.5.

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[15] Ika Lestari Damayanti et al., *English for Nusantara untuk SMP/MTs Kelas VII*, Cetakan Pertama (Jakarta Selatan: Pusat Perbukuan, 2022), 19.

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                  │   Admin   │◄──────────┐
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                 │  Worksheet  │          │
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                        │                 │
                        ▼                 │
                  ┌───────────┐           │
                  │  Students │           │
                  └─────┬─────┘           │
                        │                 │
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   ╱──────────╲      ◇─────────◇          │
   │ Teachers │◄─────│ Submit  │──────────┘
   ╲──────────╱      ◇────┬────◇
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                    │   End   │
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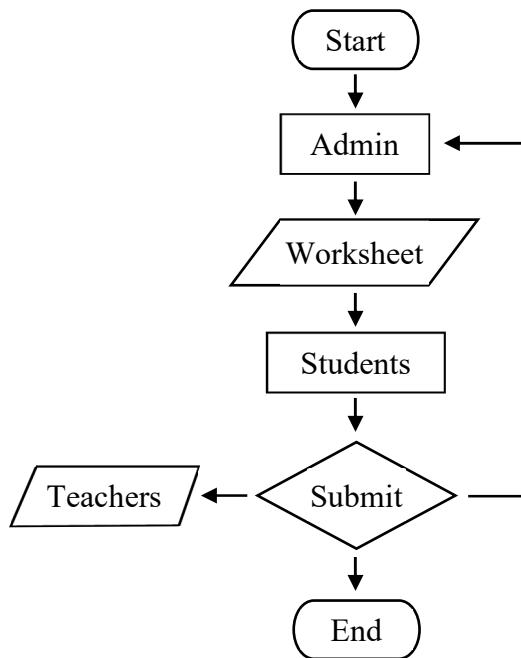
Figure 4.26 The flowchart of worksheet in web app

In the Chapter 0: The Beginning, the researcher combined the three Pancasila Student Profiles into the learning objectives. The self-reliant profile is emphasized in tasks where students are expected to perform independently in recognizing letters, telling a time, and asking with simple instruction. For the mutual cooperation profile, it is highlighted in tasks where students can benefit from collaboration in counting numbers, identifying the colors, and asking with simple instruction. Then, the global diversity profile is integrated into tasks and learning materials that involving cultural elements like days of the week, months, and family member names in English.

Secondly, Chapter 1: About Me, focuses on greeting and saying goodbye to someone and introducing themselves and someone, including hobbies, physical and personal traits, and daily activities. To support students, the chapter provides an audio and image illustration of sufficiently introducing oneself. Thus, the students'

listening and speaking skills are trained when introducing themselves. Besides that, the students achieve reading and viewing skills when they introduce themselves. At their time, the students also acquire writing and presenting skills when developing the text and explaining to the other students how to introduce themselves. On other occasions, the chapter also assists students in enhancing the six Pancasila Profiles during the learning.

Lastly, Chapter 2: English and Islamic Vocabularies provides several general and Islamic term English vocabularies. The vocabularies cover nouns, adjectives, and verbs that usually used in Islamic Boarding School. However, the researcher utilized available book of vocabularies that has been developed by researcher previously, as shown in Figure 4.10. The chapter aims to all learning objectives combination which also emphasize three Pancasila Student Profiles. To achieve the objectives, the chapter facilitates several materials and tasks that trained students' skill.

Meanwhile, the multimedia aspects integrated into the learning materials. The combination of pictures and words presentations have engaged students according to the findings on need analysis phase. Visual and audio payloads are integrated to construct knowledge and cognitive aspects of the students. Furthermore, the design of learning materials is expected to achieve the third assumption of cognitive theory which active-processing assumption that explained

by Mayer.[16] Because, the entire learning materials required the integration between paying attention and organizing incoming information with the existing knowledge.

3.   Implementation phase

Once the researcher obtains the result of instrument validations, the next phase is collecting data in the need analysis phase. The need analysis started on May 19, 2023, with Mr. Ali (P1) as the English teacher in the junior high school of IBS Datok Sulaiman Putri Palopo. At that time, Mr. Ali explained that the availability of an English web app is highly required in order to accelerate students' English proficiency, especially in English vocabulary. However, several students confirmed that learning digital technology is essential, considering several students lack computer literacy.

To validate the web app's performance, the researcher conducted a Focus Group Discussion (FGD) involving four validators. Two validators specialized in material, focusing on the content and language aspects of the web app, while the other two were web design experts, evaluating the technical and design elements. The first FGD session took place on June 22, 2024, with the material validators. The following day, June 23, 2024, the web design experts participated in the FGD. Throughout these sessions, the researcher diligently recorded the experts' feedback and distributed validation sheets at the conclusion of each FGD.

The validation sheets implement Likert scale for scoring the web app performances. Once the web app is developed, the researcher will directly validate

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[16] Mayer, *Multimedia Learning*.

the web app with the three experts: material, language, and design and layout experts. The expertise selection process followed the procedure used in the Postgraduate Program of the State Islamic Institute of Palopo. The procedure starts with registering at the office, and then the researcher will receive an official letter from the three experts. After the letter was delivered, the researcher then made a schedule for the experts to conduct validation. This process is carried out to follow existing procedures so that all actions can be accountable.

4.   Integration and testing phase

The researcher conducted an integration and testing phase to the practitioners, English teacher and IBS students. At first, the researcher contacted the IBS English teacher for asking permission in testing the web app and also intervening in requesting permission to authorities at IBS. The following testing phase occurred on June 24, 2024, for one hour in the afternoon. This testing process was conducted on a limited basis and involved fifteen IBS students, six seventh-grade students and nine eighth-grade students.

Limited testing was an option due to time constraints and students' willingness because, at that time, IBS students had to attend the boarding school classes. This trial process was carried out in the school computer laboratory, which also had permission from the school. In this trial phase, the researcher introduced the web app's features and then provided additional time to IBS students to further explore the web app's content. In the end, students were asked to fill out a survey that had been prepared on the web app to obtain student perspectives.

The English teacher confirmed that the web app is highly useful for teachers and recommended for every English teacher in IBS of Datok Sulaiman Putri Palopo. The web app is completed with the Computer Assisted Language Learning (CALL), multimedia input, and independent learning. According to the teacher, the efficiency of CALL can increase the students' interest in learning.[17] Therefore, the IBS of Datok Sulaiman Putri Palopo has adapted to apply the modern learning method for the students.

The English teacher also provided insights regarding using the web app to teach English. The English teacher described the app as impressive, noting its ability to boost student motivation. Integrating visual elements and non-monotonous colors was highlighted as a crucial aspect of the learning process. This observation aligns with Mayer's theory on the importance of multimedia input in education, underscoring the effectiveness of well-designed visual aids in enhancing learning outcomes.

With the presence of the web app, IBS students feel significantly assisted in learning English vocabulary through the integration of multimedia inputs such as videos, audios, and pictures. These diverse multimedia elements have proven to be highly effective in the educational process, providing a dynamic and engaging learning experience.[18] The incorporation of videos helps in demonstrating proper pronunciation and usage of vocabulary in context, while audios offer listening

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[17] Muzakki Bashori et al., "'Look, I Can Speak Correctly': Learning Vocabulary and Pronunciation through Websites Equipped with Automatic Speech Recognition Technology," *Computer Assisted Language Learning* 13, no. 1 (2022): 1, doi:10.1080/09588221.2022.2080230.

[18] Mayer, *Multimedia Learning*.

practice that reinforces comprehension skills. Pictures serve as visual aids that enhance memory retention and make abstract words more concrete and relatable. This multimedia approach not only caters to different learning styles but also maintains students' interest and motivation. Practitioners have expressed their satisfaction with the app's visualization, noting that the appealing and interactive design plays a crucial role in sustaining student engagement.

On the other hand, the web app facilitated independent learning that aligned seamlessly with the Merdeka Curriculum. Specifically, it met the requirements of Phase D, which emphasizes a student-centered approach to education.[19] The web app's design and content reflect this emphasis, allowing students to take control of their own learning process and progress at their own pace.[20] Additionally, the web app incorporates elements of the Pancasila Student Profile, embedding values and competencies that are integral to the curriculum. From the English teacher's perspective, the web app's material not only aligns with the learning objectives of the Merdeka Curriculum but also effectively supports the development of independent, motivated learners. This alignment ensures that students are not only acquiring vocabulary but also developing essential skills and values that are central to the holistic educational goals of the Merdeka Curriculum.

5. Maintenance phase

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[19] Menteri Pendidikan Kebudayaan Riset dan Teknologi Republik Indonesia, Keputusan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia Nomor 262/M/2022.

[20] Ilham et al., "Caring Values in Islamic Religious and Moral Education on Merdeka Belajar Curriculum: A Study of Fifth-Grade Student and Teacher Books."

The maintenance phase is conducted to keep the web app functioning properly. The maintenance process is largely determined from the initial stage of selecting the hosting service. Therefore, the researcher chose the right hosting that offered 24/7 communication and a backup guarantee. In addition, the security aspect is also an important point in maintaining the web app. Fortunately, the web app operates sufficiently due to the adequate hosting provider's security system. The researcher also linked the researcher's email to the hosting to always receive the latest reports about the web app.

In addition, input from several parties, such as English teachers, IBS students, validators, and supervisors, has been very helpful in maintaining the web app. As the design and layout validators noted, the clarity of references still needs to be maximized. Thus, it became the researcher's input to add references by linking them with web app content.

To manage and maintain the web app content, the researcher provides two types of admin, which are hosting admin and web app admin account. It enables to enhance the material and maintain the activeness of the web app. However, the hosting admin has access to manage the web app hosting while the web app admin is unable to access it. It is because accessing hosting service requires a specific account which has been connected to a Google account. To be able to see the flowchart of web app maintenance, it can be illustrated as follows.

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                    └─────────────┘
                           │
         ┌─────────────────▼─────────────────┐
         │      Username and password        │◄──┐
         └───────────────────────────────────┘   │
Rejected  │                    │                  Rejected
         ▼                    ▼
    ◇ Hosting            ◇ Web app
      admin                admin
         │                    │
  Accepted                Accepted
         ▼                    ▼
    ◇ Login              ◇ Login
         │                    │
  ┌──────▼──────┐      ┌──────▼──────┐
  │ Hosting     │      │ Content     │
  │ management  │      │ management  │
  ├─────────────┤      ├─────────────┤
  │ Database    │      │ Update      │
  │ management  │      │ setting     │
  ├─────────────┤      └─────────────┘
  │ Domain      │
  │ management  │
  └─────────────┘
         │                    │
         └──────►  End  ◄──────┘
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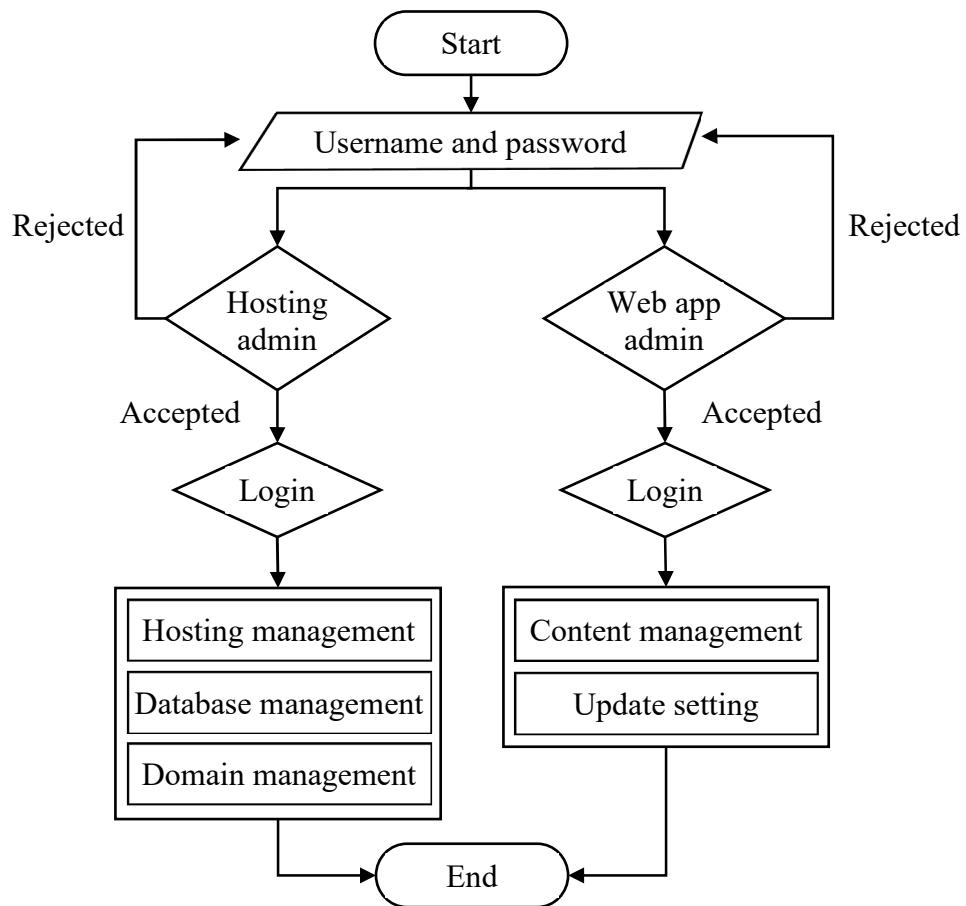
Figure 4.27 The flowchart of web app maintenance

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

A.   Conclusions

The design of a web app for supplements to English learning materials for boarding school students has been feasible based on the validation results by material and web design experts. In addition, practitioners (English teachers and students) confirmed the feasibility of this web app with more interactive and enthusiastic learning. The researcher applies the Waterfall model as the basis for development procedures in the web app development process. The researcher implemented WordPress and Elementor plugin to assist the web app's design. The content published on the web app is also aimed at IBS by integrating the Merdeka Curriculum currently in use and the integration of general English vocabulary and Islamic English glossary.

B.   Suggestions

1.   The web app is highly beneficial for supplementing the English material in IBS with enjoyable and attractive interaction. Furthermore, the computer literacy fluency also can be improved in line with the web app utilization. Meanwhile, the further explanation by the teacher remains required because the web app covers supporting material only.

2.   The web app consists of English vocabulary with Islamic English glossary and the regular material content from English. Moreover, the web app is completed with various interactive exercises that are enjoyable and attractive for students.

3.   Meanwhile, the web app still lacks in content. Therefore, further research is highly required to increase and update the web app content to enhance the scope of web app audiences.

BIBLIOGRAPHY

Aguayo, Natividad, and Cristina M. Ramírez. "Does Technical Assessment Matter? Functionality and Usability Testing of Websites for ESL/EFL Autonomous Learners." *Research in Learning Technology* 28 (2020): 1–26. doi:10.25304/rlt.v28.2353.

Ahmadi, Mohammad Reza. "The Use of Technology in English Language Learning: A Literature Review." *International Journal of Research in English Education*, 2018. doi:10.29252/ijree.3.2.115.

Al-Ajmi, Najla'a H., and Zainab M. Aljazzaf. "Factors Influencing the Use of Multimedia Technologies in Teaching English Language in Kuwait." *International Journal of Emerging Technologies in Learning (IJET)* 15, no. 5 (2020): 212–34. doi:10.3991/IJET.V15I05.12277.

"Amazing Elementor Show Hide Section Button - Element How." Accessed June 30, 2024. https://element.how/elementor-show-hide-section/.

Amirudin, Jafar, and Elis Rohimah. "Implementasi Kurikulum Pesantren Salafi Dan Pesantren Modern Dalam Meningkatkan Kemampuan Santri Membaca Dan Memahami Kitab Kuning." *Jurnal Pendidikan UNIGA*, 2020. doi:10.52434/jp.v14i1.908.

Ariani, Dea, and Syahrani. "Manajemen Pesantren Dalam Persiapan Pembelajaran 5.0." *Cross-Border* 5, no. 1 (2022): 611–21.

Ariantini, Kadek Puspa, Ni Komang Arie Suwastini, Ni Luh Putu Sri Adnyani, Gede Rasben Dantes, and I Gusti Agung Sri Rwa Jayantini. "Integrating Social Media into English Language Learning: How and to What Benefits According to Recent Studies." *NOBEL: Journal of Literature and Language Teaching* 12, no. 1 (2021): 91–111. doi:10.15642/nobel.2021.12.1.91-111.

Bai, Zhihong. "An Analysis of English Vocabulary Learning Strategies." *Journal of Language Teaching and Research* 9, no. 4 (2018): 849–55. doi:10.17507/jltr.0904.24.

Bashori, Muzakki, Roeland van Hout, Helmer Strik, and Catia Cucchiarini. "'Look, I Can Speak Correctly': Learning Vocabulary and Pronunciation through Websites Equipped with Automatic Speech Recognition Technology." *Computer Assisted Language Learning*, 2022. doi:10.1080/09588221.2022.2080230.

———. "'Look, I Can Speak Correctly': Learning Vocabulary and Pronunciation

through Websites Equipped with Automatic Speech Recognition Technology." *Computer Assisted Language Learning* 13, no. 1 (2022): 1. doi:10.1080/09588221.2022.2080230.

———. "Web-Based Language Learning and Speaking Anxiety." *Computer Assisted Language Learning*, 2022. doi:10.1080/09588221.2020.1770293.

Chen, Chih Ming, Liang Chun Chen, and Shun Min Yang. "An English Vocabulary Learning App with Self-Regulated Learning Mechanism to Improve Learning Performance and Motivation." *Computer Assisted Language Learning*, 2019. doi:10.1080/09588221.2018.1485708.

Chen, Hao Jan Howard, and Hsiao Ling Hsu. "The Impact of a Serious Game on Vocabulary and Content Learning." *Computer Assisted Language Learning* 33, no. 7 (2020): 811–32. doi:10.1080/09588221.2019.1593197.

Chen, Hao Jan Howard, Hsiao Ling Hsu, Zhi Hong Chen, and Andrew G. Todd. "Investigating the Impact of Integrating Vocabulary Exercises Into an Adventure Video Game on Second Vocabulary Learning." *Journal of Educational Computing Research* 59, no. 2 (2021): 318–41. doi:10.1177/0735633120963750.

Dakhi, Saniago, and Tira Nur Fitria. "The Principles and the Teaching of English Vocabulary: A Review." *JET (Journal of English Teaching)* 5, no. 1 (2019): 15. doi:10.33541/jet.v5i1.956.

Damayanti, Ika Lestari, Yusnita Febrianti, Iyen Nurlaelawati, Pipit Prihartanti Suharto, Aji Jehan Fellani, and Raymon Rahmadhani. *English for Nusantara Untuk SMP/MTs Kelas VII*. Pertama. Jakarta Selatan: Pusat Perbukuan, 2022.

"Definition of Application Noun from the Oxford Advanced Learner's Dictionary." Accessed June 15, 2024. https://www.oxfordlearnersdictionaries.com/definition/english/application?q=application.

Fadli, Imam. *A Colorful Pictorial Vocabulary English Book for the First-Grade Students of SMP Datok Sulaiman Putri Palopo*. Palopo, 2022.

———. "Designing A Colorful Pictorial English Vocabulary Book For The First-Grade Students of SMP Datok Sulaiman Putri Palopo." Institut Agama Islam Negeri Palopo, 2022.

Farmana, Yuditra, and Muhammad Yasin. "Development Of Web-Based English Learning Media Using Content Management System (Word Press) And Elementor Plugin." *International Journal of Education Research & Social*

Sciences 2 (2022): 2256–64.

Fauzi, Iwan, Rudi Hartono, Widhiyanto Widhiyanto, and Hendi Pratama. "Mengatasi Anxiety Dalam Berbicara Bahasa Inggris Melalui Pembelajaran Berbasis Web." In *Prosiding Seminar Nasional Pascasarjana (PROSNAMPAS)*, 2022.

Hao, Tao, Zhe Wang, and Yuliya Ardasheva. "Technology-Assisted Vocabulary Learning for EFL Learners: A Meta-Analysis." *Journal of Research on Educational Effectiveness* 14, no. 3 (2021): 645–67. doi:10.1080/19345747.2021.1917028.

Hartanto, Sekreningsih Nita, and Eka Resty Novieta Sari. "E-Learning Bahasa Inggris Berbasis Website Pada Pondok Pesantren Miftahul Huda Kabupaten Madiun." *Prosiding Seminar Nasional Teknologi Informasi Dan Komunikasi (SENATIK)* 5, no. 1 (2022): 55–64.

Ilham, Dodi, Diah Asdiany, Andi Husni Zainuddin, Nurdin K, Muhammad Iksan, Rustan Santaria, and Wahyullah Alannasir. "Caring Values in Islamic Religious and Moral Education on Merdeka Belajar Curriculum: A Study of Fifth-Grade Student and Teacher Books." *AL-ISHLAH: Jurnal Pendidikan* 15, no. 4 (2023): 4626–39. doi:10.35445/alishlah.v15i4.3763.

Kabilan, Muhammad Kamarul, Norlida Ahmad, and Mohamad Jafre Zainol Abidin. "Facebook: An Online Environment for Learning of English in Institutions of Higher Education?" *Internet and Higher Education*, 2010. doi:10.1016/j.iheduc.2010.07.003.

Kepala Badan Standar Kurikulum dan Asesmen Pendidikan Kementerian Pendidikan Kebudayaan Riset dan Teknologi. Capaian Pembelajaran pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah pada Kurikulum Merdeka (2022).

Kieu, Van Lam, Dang Truc Anh, Pham D Bao Tran, Vo T Thanh Nga, and Pham V Phi Ho. "The Effectiveness of Using Technology in Learning English." *AsiaCALL Online Journal*, 2021.

Macancela, Jacquline Mariduena. "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles." *Journal of Science And Research*, 2019.

Malinee, V. V., and T Senthamarai. "The Use of Web 2.0 Tools in English for Specific Purpose: A Blended Learning Approach in English Language Teaching." *Article in Journal of Shanghai Jiaotong University*, 2020.

Marpaung, Marlin Steffi, and Hardi Jhon Pinondang Situmeang. "Enhancing Students' Vocabulary through Authentic Materials and Multimedia." *Acuity: Journal of English Language Pedagogy, Literature and Culture*, 2020. doi:10.35974/acuity.v5i2.2247.

Mayer, Richard E. *Multimedia Learning. Cambridge University Press*. 3rd ed. Cambridge, 2020. doi:10.1017/9781316941355.

Menteri Pendidikan Kebudayaan Riset dan Teknologi Republik Indonesia. Keputusan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia Nomor 262/M/2022, Pub. L. No. 262/M/2022 (2022).

———. Kurikulum pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah, Pub. L. No. 12 Article 9 Paragraph (2) Point e (2024).

Messenlehner, Brian, and Jason Coleman. *Building Web Apps with WordPress: WordPress as an Application Framework*. Second Edi. O'Reilly Media, 2019.

Mohamad, Maslawati, Fatin Kamilia Mohd Arif, Bity Salwana Alias, and Melor Md Yunus. "Online Game-Based Formative Assessment: Distant Learners Post Graduate Students' Challenges towards Quizizz." *International Journal of Scientific and Technology Research* 9, no. 4 (2020): 994–1000.

Mohamad, Maslawati, Fatin Kamilia Mohd Arif, and Noorhayati Mohd Noor. "Online Game-Based Formative Assessment: Distant Learners Post Graduate Students" Positive Perceptions towards Quizizz." *International Journal of Scientific and Technology Research*, 2020.

Moorhouse, Benjamin Luke, Lucas Kohnke, and Yuwei Wan. "A Systematic Review of Technology Reviews in Language Teaching and Learning Journals." *RELC Journal* 54, no. 2 (2023): 426–44. doi:10.1177/00336882221150810.

Morgan, Hani. "Conducting a Qualitative Document Analysis." *Qualitative Report*, 2022. doi:10.46743/2160-3715/2022.5044.

Mufliharsi, Risa, and Eva Nurul Candra. "Improving Students' of Non-English Department Perspective In Learning Vocabulary Through Website." *Getsempena English Education Journal (GEEJ)* 4, no. 2 (2017): 78–83.

Muhaemin, Muhaemin. "Kontribusi Pesantren Dalam Merespon Dinamika Sosial Keagamaan." *Palita: Journal of Social-Religion Research* 4, no. 1 (2019). doi:10.24256/pal.v4i1.596.

Müller, Amanda, Jeong Bae Son, Kazunori Nozawa, and Reza Dashtestani. "Learning English Idioms With a Web-Based Educational Game." *Journal of Educational Computing Research* 56, no. 6 (2018): 848–65. doi:10.1177/0735633117729292.

Presiden, Peraturan. Peraturan Presiden (PERPRES) Nomor 8 Tahun 2012 tentang Kerangka Kualifikasi Nasional Indonesia, Pub. L. No. 8 (2012).

"Qur'an Kemenag." Accessed October 1, 2023. https://quran.kemenag.go.id/quran/per-ayat/surah/10?from=101&to=101.

Rintaningrum, Ratna. "Technology Integration in English Language Teaching and Learning: Benefits and Challenges." *Cogent Education* 10, no. 1 (2023). doi:10.1080/2331186X.2022.2164690.

———. "Technology Integration in English Language Teaching and Learning: Benefits and Challenges." *Cogent Education*, 2023. doi:10.1080/2331186X.2022.2164690.

Royce, Winston W. "Managing the Development of Large Software Systems (1970)." In *Ideas That Created the Future*, 2021. doi:10.7551/mitpress/12274.003.0035.

Sahraini, Annisatul Miftahul Jannah, and Edwal Robhy. *English for Islamic Education*. Palopo: Aksara Timur, 2021.

Shofiyyah, Nilna Azizatus, Haidir Ali, and Nurhayati Sastraatmadja. "Model Pondok Pesantren Di Era Milenial." *BELAJEA: Jurnal Pendidikan Islam*, 2019. doi:10.29240/belajea.v4i1.585.

"SIBI - Sistem Informasi Perbukuan Indonesia." Accessed June 21, 2024. https://buku.kemdikbud.go.id/katalog/buku-audio-english-for-nusantara-untuk-smp-mts-kelas-viii.

Sugiyono. *Metode Penelitian Dan Pengembangan (Research and Development/ R&D)*. Cetakan ke. Bandung: Alfabeta, 2015.

———. *Metode Penelitian Dan Pengembangan (Research and Development/ R&D)*. 2nd ed. Bandung: ALFABETA, 2016. www.cvalfabeta.com.

Sukirman, and Muhammad Kamarul Kabilan. "Indonesian Researchers' Scholarly Publishing: An Activity Theory Perspective." *Higher Education Research and Development* 42, no. 8 (2023): 2030–2047. doi:10.1080/07294360.2023.2209522.

Suriaman, Aminah, Asfah Rahman, and Nurdin Noni. "Developing Web-Based English Instructional Material Oriented to Promote Independent Learning at Indonesian University Context." *Journal of Language Teaching and Research* 9, no. 2 (2018): 336. doi:10.17507/jltr.0902.15.

Teng, Feng. "Retention of New Words Learned Incidentally from Reading: Word Exposure Frequency, L1 Marginal Glosses, and Their Combination." *Language Teaching Research*, 2020. doi:10.1177/1362168819829026.

Teng, Mark Feng. "Incidental L2 Vocabulary Learning from Viewing Captioned Videos: Effects of Learner-Related Factors." *System*, 2022. doi:10.1016/j.system.2022.102736.

———. "The Effectiveness of Multimedia Input on Vocabulary Learning and Retention." *Innovation in Language Learning and Teaching* Vol. 17, no. 3 (2023): 738–54. doi:https://doi.org/10.1080/17501229.2022.2131791.

Teng, Mark Feng, and Danyang Zhang. "The Associations between Working Memory and the Effects of Multimedia Input on L2 Vocabulary Learning." *IRAL - International Review of Applied Linguistics in Language Teaching*, 2023. doi:10.1515/iral-2021-0130.

Thornbury, Scott. "How to Teach Grammar." In *England: Pearson Education Limited*, 189, 2002.

Ulum, Miftachul, and Abdul Mun'im. "DIGITALISASI PENDIDIKAN PESANTREN (Paradigma Dan Tantangan Dalam Menjaga Kultur Pesantren)." *AnCoMS (Annual Conference for Muslim Scholars)*, 2019.

Widi, Shilvia. "Pengguna Media Sosial Di Indonesia Sebanyak 167 Juta Pada 2023." *DataIndonesia.Id*, 2023. https://dataindonesia.id/internet/detail/pengguna-media-sosial-di-indonesia-sebanyak-167-juta-pada-2023.

Wijaya, Titis Wisnu, Dwijoko Purbohadi, David Sulistiawan Aditya, and Muhammad Miftah. "Utilizing the Website Integrated with Social Media as an English Teaching Platform." *Kontribusia : Research Dissemination for Community Development*, 2023. doi:10.30587/kontribusia.v6i1.4654.

Wijayanto, Pikir Wisnu, and Elis Hernawati. "Designing Android-Based Mobile Application for Language Learning (MALL) for the National Exam Simulation." *Jurnal Edukasi Dan Penelitian Informatika (JEPIN)*, 2019. doi:10.26418/jp.v5i2.31226.

Yu, Zhonggen. "Learning Outcomes, Motivation, and Satisfaction in Gamified

English Vocabulary Learning." *SAGE Open* 13, no. 2 (2023): 1–14. doi:10.1177/21582440231158332.

Zarkasyi, Hamid Fahmy. "Modern Pondok Pesantren: Maintaining Tradition in Modern System." *TSAQAFAH*, 2015. doi:10.21111/tsaqafah.v11i2.267.

Zou, Di, and Mark Feng Teng. "Effects of Tasks and Multimedia Annotations on Vocabulary Learning." *System*, 2023. doi:10.1016/j.system.2023.103050.

Zuhairati, Ulya, Asnawi Muslem, and Dohra Fitrisia. "An Analysis of English Language Used in Daily Communication by Students of Dayah or Islamic Boarding Schools." *English Education Journal* 13, no. 1 (2022). doi:10.24815/eej.v13i1.23112.

APPENDICES

Appendix 1 The research instruments

Research's Title: Designing PondokEnglish Web App: A Supplementary English Material for Islamic Boarding School Students in Palopo

	CALL in learning English vocabulary	Multimedia input on vocabulary learning	Web-based vocabulary learning	English vocabulary in IBS students
Expert definition	The current English learning vocabulary trends are learning blended with technology that enhances learners' long-term vocabulary retention.[1]	Multimedia is the tools (channels, gadgets, and machines) that transmit texts, graphics, audio, videos, and pictures to students.[2]	In English learning, website facilitates independent learning,[3] uses as a literacy media information technology,[4] and as a dynamic strategy that help reinforce cognitive approach.[5]	Foreign languages mastery and ICT abilities by IBS students are needed in the millennial era to produce human resources that can compete amid current market needs.[7]

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[1] Hao, Wang, and Ardasheva, "Technology-Assisted Vocabulary Learning for EFL Learners: A Meta-Analysis."

[2] Al-Ajmi and Aljazzaf, "Factors Influencing the Use of Multimedia Technologies in Teaching English Language in Kuwait."

[3] Suriaman, Rahman, and Noni, "Developing Web-Based English Instructional Material Oriented to Promote Independent Learning at Indonesian University Context."

[4] Fauzi et al., "Mengatasi Anxiety dalam Berbicara Bahasa Inggris Melalui Pembelajaran Berbasis Web."

[5] Macancela, "Websites As Support Tools For Learning The English Language: Sitios Web Como Herramientas De Apoyo Para El Aprendizaje Del Idioma Ingles."

[7] Nilna Azizatus Shofiyyah, Haidir Ali, and Nurhayati Sastraatmadja, "Model Pondok Pesantren di Era Milenial," *BELAJEA: Jurnal Pendidikan Islam*, 2019, https://doi.org/10.29240/belajea.v4i1.585.

			Website and social media have become innovative learning that creates an efficient and exciting atmosphere for learning English.[6]	
Indicators	**CALL in learning English vocabulary** 1. Involving LCD projector to display materials. 2. Utilizing speaker to listen to audio. 3. Using PowerPoint in learning process. 4. Integrating laptop or desktop in learning process. 5. Implementing a mobile application in vocabulary learning. **Multimedia input on vocabulary learning (authentic material)** 1. Text visualization. 2. Picture transmission. 3. Video. 4. Audio. 5. Graphic. **Web-based vocabulary learning** 1. Facilitating independent English vocabulary learning. 2. Utilizing website as a literacy media information technology. 3. Involving dynamic strategy which help students to reinforce cognitive approach. 4. Integrating website and social media to innovative learning.			

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[6] Wijayanto and Hernawati, "Designing Android-Based Mobile Application for Language Learning (MALL) for the National Exam Simulation."

	English vocabulary in IBS students
	1. IBS students' foreign language ability.
	2. Using website as an educative learning.
	3. IBS students should memorize number of vocabularies.
	4. IBS students learn greetings, idioms, permissions, nouns, verbs, adjectives, and pronouns.
	Potentials to develop English vocabulary learning websites for IBS students
	1. Support from English teachers and students.
	2. High learning motivation of students.
	3. Internet connection is available.
	4. Computer is available.
	5. Students like to learn using computers.
	Problems to develop English vocabulary learning websites for IBS students
	1. Students are prohibited to bring handphone or smartphone.
	2. Unavailability of a website for English learning.
	3. Students need more practices to apply English vocabulary in a sentence.

THE BLUEPRINT OF THE NEED ANALYSIS INTERVIEW

Developing Web App to Assist English Vocabulary Learning Materials		
Theories	**Indicators**	**Questions**
Web-based vocabulary learning	1. Facilitating independent English vocabulary learning (Q1) 2. Utilizing website as a literacy media information technology (Q2 and Q3). 3. Involving dynamic strategy which help students to reinforce cognitive approach (Q4). 4. Integrating website and social media to innovative learning (Q5).	1. Apa saja fitur-fitur yang Anda inginkan dalam *website* pembelajaran kosakata bahasa Inggris? 2. Bagaimana Anda menggunakan *website* sebagai media literasi dan teknologi informasi untuk belajar kosakata bahasa Inggris? 3. Apa saja jenis konten yang menurut Anda menarik dan informatif untuk membantu Anda belajar kosakata bahasa Inggris? 4. Bagaimana *website* dapat membantu Anda dalam meningkatkan kemampuan kosakata bahasa Inggris Anda? 5. Bagaimana Anda mengaplikasikan penggunaan media sosial dalam *website* pembelajaran kosakata bahasa Inggris?
CALL in learning English vocabulary	1. Involving LCD projector to display materials (Q6). 2. Utilizing speaker to listen to audio (Q7). 3. Using PowerPoint in learning process (Q8). 4. Integrating laptop or desktop in learning process (Q9). 5. Implementing a mobile application in vocabulary learning (Q10).	6. Apa saja kelebihan dan kekurangan yang Anda alami ketika belajar menggunakan LCD proyektor? 7. Bagaimana pengalaman belajar bahasa Inggris Anda ketika menggunakan media *speaker*? 8. Bagaimana pengalaman Anda ketika belajar bahasa Inggris menggunakan PowerPoint? 9. Bagaimana pengalaman Anda ketika belajar bahasa Inggris menggunakan laptop atau komputer? 10. Bagaimana Anda mengaplikasikan *smartphone* untuk meningkatkan kosakata bahasa Inggris?
Multimedia input on vocabulary learning	1. Text visualization (Q11). 2. Picture transmission (Q12). 3. Video (Q13). 4. Audio (Q14).	11. Bagaimana bentuk model teks yang menarik menurut dan membantu Anda dalam mempelajari kosakata bahasa Inggris? 12. Manakah yang lebih lama Anda ingat, kosakata bahasa Inggris yang divisualisasikan dengan teks atau gambar? Mengapa?

	5. Graphic (Q15).	13. Apa saja kelebihan dan kekurangan yang Anda alami ketika belajar bahasa Inggris menggunakan video? 14. Apa saja kelebihan dan kekurangan yang Anda alami ketika belajar bahasa Inggris menggunakan audio rekaman? 15. Bagaimana Anda memastikan bahwa informasi yang Anda dapatkan dari grafik tersebut sudah benar?

English Vocabulary Mastery in IBS Students		
Theories	**Indicators**	**Questions**
English vocabulary in IBS students	1. IBS students' foreign language ability (Q16 and 17). 2. Using website as an educative learning (Q18). 3. IBS students should memorize number of vocabularies (Q19). 4. IBS students learn greetings, idioms, permissions, nouns, verbs, adjectives, and pronouns (Q20).	16. Bagaimana tingkat kemampuan bahasa Inggris Anda? 17. Apa saja kendala yang Anda hadapi dalam mempelajari bahasa Inggris? 18. Sebagai santri, model *website* seperti apa yang menurut Anda menarik dan bermanfaat untuk meningkatkan kosakata bahasa Inggris Anda? 19. Bagaimana Anda membuat hafalan kosakata menjadi lebih efektif dan menyenangkan bagi Anda? 20. Bagaimana Anda memilih kosakata yang sesuai dengan tingkat kemampuan dan kebutuhan Anda? 21. Berapakah persentase perbandingan antara jumlah kosakata bahasa Inggris yang memuat aspek keislaman, dan kosakata umum yang Anda inginkan untuk dimuat dalam *website*?

QUESTIONNAIRE OF STUDENTS' EXPERIENCE TO PRODUCT

A. Data Responden

Nama:

Kelas:

B. Petunjuk

Berikut ini merupakan beberapa pernyataan terkait dengan *website* English Vocabulary Learning Material with Islamic Content yang telah diberikan sebelumnya. Kuesioner berikut untuk mengetahui tingkat kepuasan Anda selama menggunakan *website* ini. Berilah tanda centang (✓) pada salah satu jawaban saja.

Keterangan:

SS : Sangat Setuju

S : Setuju

R : Ragu-ragu

TS : Tidak Setuju

STS: Sangat Tidak Setuju

No.	Pernyataan	SS	S	R	TS	STS
1.	Fitur-fitur yang terdapat pada *website* sesuai dengan kebutuhan Anda.					
2.	Penggunaan *website* meningkatkan kemampuan Anda dalam media literasi dan teknologi informasi.					
3.	Konten yang terdapat dalam *website* menarik dan informatif.					
4.	Penggunaan *website* tersebut membantu Anda dalam meningkatkan kemampuan kosakata bahasa Inggris.					
5.	Penggunaan media sosial dalam *website* efektif.					
6.	Penggunaan *website* efektif untuk pembelajaran kosakata bahasa Inggris daripada melalui layar LCD proyektor.					
7.	Penggunaan *speaker* dalam *website* efektif.					
8.	Penggunaan *website* lebih efektif daripada pembelajaran menggunakan PowerPoint.					
9.	Penggunaan komputer efektif dalam pembelajaran kosakata bahasa Inggris Anda.					
10.	Penggunaan *smartphone* membantu dalam meningkatkan kosakata bahasa Inggris Anda.					
11.	Penggunaan jenis teks pada *website* menarik dan membantu Anda dalam mempelajari kosakata bahasa Inggris.					
12.	Penggunaan gambar pada *website* menarik dan membantu Anda dalam mempelajari kosakata bahasa Inggris.					
13.	Penggunaan video efektif dalam pembelajaran kosakata bahasa Inggris Anda.					
14.	Audio yang digunakan pada *website* jelas.					

No.	Pernyataan					
15.	Penggunaan grafik membantu Anda dalam memahami informasi lebih efektif.					
16.	Penggunaan *website* meningkatkan kemampuan bahasa Inggris Anda.					
17.	Penggunaan *website* mengatasi kendala Anda dalam mempelajari kosakata bahasa Inggris.					
18.	Model *website* bermanfaat dan menarik untuk pembelajaran kosakata bahasa Inggris.					
19.	*Website* membantu Anda dalam menghafal kosakata bahasa Inggris.					
20.	Pemilihan kosakata bahasa Inggris pada *website* sesuai dengan tingkat kemampuan dan kebutuhan Anda.					

LEMBAR VALIDASI INSTRUMEN

A. Petunjuk Pengisian
1. Lembar penilaian kelayakan ini meliputi aspek pendahuluan, isi, dan bahasa.
2. Berilah tanda (✓) pada kolom angka yang sesuai dengan penilaian yang Anda berikan.
3. Interval skala yang digunakan sebagai berikut:
   1: Tidak layak
   2: Kurang layak
   3: Cukup layak
   4: Layak
   5: Sangat layak
4. Mohon kesediaannya untuk memberikan saran perbaikan di akhir lembaran ini.

B. Penilaian Kelayakan

I	Aspek Tujuan (*objectives*)	1	2	3	4	5
a	Tujuan penelitian dinyatakan jelas					
b	Tujuan kuesioner dinyatakan dengan jelas.					
c	Petunjuk pengisian kuesioner mudah dipahami					
II	**Aspek Cakupan (scope of content)**	**1**	**2**	**3**	**4**	**5**
a	Butir-butir kuesioner mencakup data yang berhubungan dengan cakupan isi materi memadai.					
b	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang baik dan benar.					
c	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang efisien.					
d	Butir-butir kuesioner dirumuskan dalam bahasa yang mudah dipahami sesuai tingkat kemampuan berbahasa responden.					
III	**Aspek Bahasa (language)**	**1**	**2**	**3**	**4**	**5**
a	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang baik dan benar.					
b	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang efektif.					
c	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang efisien.					
d	Butir-butir kuesioner dirumuskan dalam bahasa yang mudah dipahami sesuai tingkat kemampuan berbahasa responden					

C. Komentar

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D. Saran

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E. Kesimpulan

Instrumen kuesioner ini... (lingkari salah satu pilihan)

1. Tidak dapat digunakan
2. Dapat digunakan
3. Dapat digunakan dengan perbaikan sebagai berikut.

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Palopo, ...

Penilai Kelayakan

....

Appendix 2 Participants' basic identity

Research participants' basic identity

Code	Participants' name (pseudonym)	Gender	Academic position	Grade
P1	Mr. Ali	M	English teacher	-
P2	Mrs. Aisyah	F	English teacher	-
P3	Balqis	F	Student	VIII
P4	Fauzia	F	Student	VIII
P5	Daneen	F	Student	VIII
P6	Izzati	F	Student	VIII
P7	Alina	F	Student	VII
P8	Zaakiyah	F	Student	VII
P9	Qistina	F	Student	VII
P10	Laila	F	Student	VII
P11	Khansa	F	Student	VII
P12	Chafia	F	Student	VII
P13	Ghina	F	Student	VIII
P14	Hanifah	F	Student	VIII
P15	Inayah	F	Student	VIII
P16	Azalia	F	Student	VIII
P17	Nuha	F	Student	VIII

Appendix 3 Interview transcript

Mrs. Aisyah (P2) "... kalau di kelas tujuh itu di setiap kelasnya itu cuma ada beberapa yang unggul, maksudnya yang cepat menangkap (dan) cepat mengerti (walaupun) tidak semua tapi ada juga yang tingkatnya, ada yang sedang, ada yang paling ini paling lambat, ada juga yang cepat menangkap begitu. Kondisinya seperti itu sekarang." (Diwawancarai pada tanggal 25 Mei 2023).

Balqis (P3) "Kalau tentang komunikasi itu masih bisa mengartikan tapi tidak bisa berbicara langsung kak, kayak masih gugup kak." (Diwawancarai pada tanggal 19 Mei 2023).

Zaakiyah (P8) "Masih dasar-dasarnya. Kalau tidak terlalu rumit ji kosakata bahasa inggrisnya, ku tahu ji kak." (Diwawancarai pada tanggal 25 Mei 2023).

Daneen (P5) "Vocabulary. Karena kalau tidak tahu vocabulary susah untuk belajar bahasa Inggris." (Diwawancarai pada tanggal 19 Mei 2023).

Balqis (P3) "Tiap minggu kak. Kalau kita dikasi kalimat harus dihafal. Contohnya kalimat sehari-hari yang biasa dipakai di sini biar bisa diaplikasikan dalam kehidupan sehari-hari di sini kak." (Diwawancarai pada tanggal 19 Mei 2023).

Ghina (P13) "Itu kalau jam enam pagi (ada) pengumuman kalau hari ini hari bahasa Inggris, tidak boleh (menggunakan) Bahasa Indonesia" (Diwawancarai pada tanggal 29 April 2024).

Mr. Ali (P1) "Kalau saya yang itu pertama adalah bagaimana anak-anak bisa speaking-nya itu kan ada empat skill saya sebagai guru menginginkan bagaimana anak-anak bisa speaking, bagaimana anak-anak bisa berbicara dalam perkembangan bahasanya, karena kenapa, kita tahu bahwa santri dituntut bahwa bagaimana anak-anak bisa berbahasa Inggris dan bahasa arab. Itu yang kita tuntut sebagai guru bagaimana anak-anak bisa berbicara." (Diwawancarai pada tanggal 19 Mei 2023).

Mrs. Aisyah (P2) "Sebenarnya semuanya penting ya tapi kalau untuk yang di awal ini saya lebih ke grammar. Speakingnya juga tapi untuk yang sekarang lagi saya ini grammarnya. Vocabulary juga sih." (Diwawancarai pada tanggal 25 Mei 2023).

Alina (P7) "Bisa dibilang sih kurang, kak, tapi pasti kalau sudah pulang ke rumah bakalan tahu kan. Jadi tidak terlalu ketinggalan." (Diwawancarai pada tanggal 19 Mei 2023).

Mrs. Aisyah (P2) "Kalau di sini insya Allah tidak juga sih karena kan di sini ada disediakan di lab komputer itu kurang lebih ada 20 komputer itu bisa digunakan bergantian. Selain itu juga ada disediakan warnet kampus, nah itu juga biasa. Itu dibuka setiap hari setelah sekolah, itu biasa di situ bisa digunakan (dan) dimanfaatkan sama siswa untuk cari atau kerja tugasnya. Meskipun kurang memadai kurang cukup banyak tapi insya Allah masih bisa dikendalikan." (Diwawancarai pada tanggal 25 Mei 2023).

Inayah (P15) "Kalau ada tugas. Bikin ini, bikin itu, disuruh ki bikin poster terus disuruh ki ambil dari Canva atau edit sendiri di Canva, kak. Kan pakai komputer jadi masuk lab ki biasa, kak." (Diwawancarai pada tanggal 29 April 2024).

Mr. Ali (P1) "Saya kira lebih bagus juga kalau ada website seperti ini. Nanti umpamanya saya, umpamanya saya ngajar di sini tinggal kita arahkan (siswa) ke lab, ayo kita ke lab semua, kemudian ada web-nya kalau kita buka ada media pembelajaran bisa seperti itu juga karena saya biasa ngajar dengan menggunakan di lab komputer jadi ketika ada materi-materi yang mau disampaikan melalui internet saya sarankan ke lab komputer coba buka videonya ini dan juga amati bisa dengan menggunakan media kalau menggunakan handphone tidak bisa kalau kita diarahkan ke lab komputer." (Diwawancarai pada tanggal 19 Mei 2023).

Fauzia (P4) "Karena mungkin beberapa siswa yang tidak tertarik belajar bahasa inggris itu, karena kan masih menggunakan buku ya, masih secara manual, tapi mungkin kalau sudah menggunakan teknologi seperti website yang kakak sebutkan tadi, mungkin itu bisa membuat beberapa siswa atau semakin banyak siswa tertarik." (Diwawancarai pada tanggal 19 Mei 2023).

Inayah (P15) "Bagus kalau kita ada buku. Buku elektroniknya. Latihan soalnya juga kak. Kalau ada lebih bagus kak." (Diwawancarai pada tanggal 29 April 2024).

Azalia (P16) "Kalau cari kata bisa muncul verb dua (dan) verb tiganya kak." (Diwawancarai pada tanggal 29 April 2024).

Validator Materi "Isi buku ini memberikan kemudahan bagi santri untuk belajar secara digital" (Divalidasi pada tanggal 3 Juni 2024).

Validator Materi "input buku ini sesuai dengan kebutuhan santri dan dapat memberikan manfaat dan kemudahan bagi santri" (Divalidasi pada tanggal 3 Juni 2024).

Appendix 4 Validators' judgement of the research instruments

I	Aspek Tujuan (*objectives*)	1	2	3	4	5
a	Tujuan penelitian dinyatakan jelas					✓
b	Tujuan kuesioner dinyatakan dengan jelas.					✓
c	Petunjuk pengisian kuesioner mudah dipahami					✓
II	**Aspek Cakupan (scope of content)**	**1**	**2**	**3**	**4**	**5**
a	Butir-butir kuesioner mencakup data yang berhubungan dengan cakupan isi materi memadai.					✓
b	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang baik dan benar.				✓	
c	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang efisien.				✓	
d	Butir-butir kuesioner dirumuskan dalam bahasa yang mudah dipahami sesuai tingkat kemampuan berbahasa responden.				✓	
III	**Aspek Bahasa (language)**	**1**	**2**	**3**	**4**	**5**
a	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang baik dan benar.					✓
b	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang efektif.				✓	
c	Butir-butir kuesioner dirumuskan dalam Bahasa Indonesia yang efisien.					✓
d	Butir-butir kuesioner dirumuskan dalam bahasa yang mudah dipahami sesuai tingkat kemampuan berbahasa responden				✓	

A. Komentar

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B. Saran

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C. Kesimpulan

Instrumen kuesioner ini... (lingkari salah satu pilihan)

1. Tidak dapat digunakan
2. Dapat digunakan
3. Dapat digunakan dengan perbaikan sebagai berikut.

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Palopo, 24/4/2024

Penilai Kelayakan

Dewi Furwana, M.Pd.

Appendix 5 Experts' judgement of the web app

KUESIONER EVALUASI UNTUK AHLI MATERI

A. Data Responden

Nama : Dr. Masruddin, S.S., M.Hum.

Umur :

Jenis Kelamin : Laki-laki

Pendidikan : ☐ S1 ☐ S2 ☑ S3 ☐ Professor

Pengalaman Mengajar : ☐ 0-2 tahun ☐ 2-4 tahun ☐ 4-6 tahun
☑ ≥ 6 tahun

B. Tabel Evaluasi

Isilah tabel berikut dengan memberikan tanda centang (✓) pada kolom yang disediakan.

Keterangan Poin Validitas:

5 : Sangat Baik

4 : Baik

3 : Cukup Baik

2 : Kurang Baik

1 : Tidak Baik

No.	Pernyataan	1	2	3	4	5
A. Desain Bahan *PondokEnglish*						
1.	Muatan materi pada laman PondokEnglish sesuai dengan tujuan pembelajaran yang termuat pada Kurikulum Merdeka di tingkat SMP.					✓
2.	Pemilihan kosakata pada laman PondokEnglish sesuai dengan tingkat kemampuan bahasa Inggris siswa SMP PMDS Putri Palopo.					✓
3.	Kosakata yang disajikan pada laman PondokEnglish relevan dengan kehidupan sehari-hari dan aktivitas siswa di SMP PMDS Putri Palopo.					✓
4.	Konten pada laman PondokEnglish memuat nilai-nilai Islami yang relevan bagi siswa SMP PMDS Putri Palopo.				✓	
5.	Laman PondokEnglish menyediakan latihan yang cukup untuk mengasah kemampuan kosakata bahasa Inggris siswa.				✓	

No.	Pernyataan	1	2	3	4	5
6.	Materi pada laman PondokEnglish disusun dengan alur yang logis dan mudah diikuti oleh siswa.					✓
7.	Pemilihan gambar pada laman PondokEnglish sesuai untuk siswa SMP PMDS Putri Palopo.				✓	
8.	Pemilihan video pada laman PondokEnglish sesuai untuk siswa SMP PMDS Putri Palopo.				✓	
9.	Pemilihan audio pada laman PondokEnglish sesuai untuk siswa SMP PMDS Putri Palopo.				✓	
10.	Terdapat fitur evaluasi yang efektif pada laman PondokEnglish untuk mengukur kemampuan kosakata siswa.					✓
	Rangkuman Kualitatif: Sangat membantu santri dalam belajar kosakata					
B. Kebahasaan						
11.	Kosakata yang digunakan dalam laman PondokEnglish sesuai dengan benar.					✓
12.	Istilah Bahasa Indonesia yang baku digunakan pada laman PondokEnglish sudah tepat.					✓
13.	Penjelasan konteks kosakata pada laman PondokEnglish menggunakan istilah yang mudah dipahami oleh siswa.					✓
14.	Instruksi yang digunakan pada laman PondokEnglish mudah dipahami.					✓
15.	Penggunaan tanda baca pada laman PondokEnglish tepat.					✓
16.	Penggunaan istilah asing pada laman PondokEnglish sesuai.					✓
	Rangkuman Kualitatif: Cukup sesuai dengan bahasa standar					

C. Kesimpulan

Secara umum, pendapat Bapak/Ibu terhadap laman *PondokEnglish* yang dikembangkan:

a. Layak

b. Layak dengan perbaikan

c. Tidak layak

Palopo, 22 Juli 2024

Penilai Kelayakan

Dr. Masruddin, S.S., M.Hum.

KUESIONER EVALUASI UNTUK AHLI MATERI

A. Data Responden

Nama   : Dr. Magfirah Thayyib, S.S., M.Hum.

Umur   : 39 tahun

Jenis Kelamin   : Perempuan

Pendidikan   : ☐ S1 ☐ S2 ☐ S3 ☐ Professor

Pengalaman Mengajar : ☐ 0-2 tahun ☐ 2-4 tahun ☐ 4-6 tahun
☑ ≥ 6 tahun

B. Tabel Evaluasi

Isilah tabel berikut dengan memberikan tanda centang (✓) pada kolom yang disediakan.

Keterangan Poin Validitas:

5 : Sangat Baik

4 : Baik

3 : Cukup Baik

2 : Kurang Baik

1 : Tidak Baik

No.	Pernyataan	1	2	3	4	5
A. Desain Bahan *PondokEnglish*						
1.	Muatan materi pada laman *PondokEnglish* sesuai dengan tujuan pembelajaran yang termuat pada Kurikulum Merdeka di tingkat SMP.					✓
2.	Pemilihan kosakata pada laman *PondokEnglish* sesuai dengan tingkat kemampuan bahasa Inggris siswa SMP PMDS Putri Palopo.					✓
3.	Kosakata yang disajikan pada laman *PondokEnglish* relevan dengan kehidupan sehari-hari dan aktivitas siswa di SMP PMDS Putri Palopo.					✓
4.	Konten pada laman *PondokEnglish* memuat nilai-nilai Islami yang relevan bagi siswa SMP PMDS Putri Palopo.					✓
5.	Laman *PondokEnglish* menyediakan latihan yang cukup untuk mengasah kemampuan kosakata bahasa Inggris siswa.					✓

6.	Materi pada laman *PondokEnglish* disusun dengan alur yang logis dan mudah diikuti oleh siswa.					✓
7.	Pemilihan gambar pada laman *PondokEnglish* sesuai untuk siswa SMP PMDS Putri Palopo.					✓
8.	Pemilihan video pada laman *PondokEnglish* sesuai untuk siswa SMP PMDS Putri Palopo.					✓
9.	Pemilihan audio pada laman *PondokEnglish* sesuai untuk siswa SMP PMDS Putri Palopo.					✓
10.	Terdapat fitur evaluasi yang efektif pada laman *PondokEnglish* untuk mengukur kemampuan kosakata siswa.					✓
	Rangkuman Kualitatif:					
B. Kebahasaan						
11.	Kosakata yang digunakan dalam laman *PondokEnglish* sesuai dengan benar.					✓
12.	Istilah Bahasa Indonesia yang baku digunakan pada laman *PondokEnglish* sudah tepat.					✓
13.	Penjelasan konteks kosakata pada laman *PondokEnglish* menggunakan istilah yang mudah dipahami oleh siswa.					✓
14.	Instruksi yang digunakan pada laman *PondokEnglish* mudah dipahami.					✓
15.	Penggunaan tanda baca pada laman *PondokEnglish* tepat.				✓	
16.	Penggunaan istilah asing pada laman *PondokEnglish* sesuai.					✓
	Rangkuman Kualitatif: Masih ada judul bagian yang menggunakan titik, seharusnya tidak pakai titik.					

C. Kesimpulan

Secara umum, pendapat Bapak/Ibu terhadap laman *PondokEnglish* yang dikembangkan:

a. Layak
b. Layak dengan perbaikan
c. Tidak layak

Palopo, 22 Juli 2024
Penilai Kelayakan

Dr. Magfirah Thayyib, S.S., M.Hum.

KUESIONER EVALUASI UNTUK AHLI DESAIN WEB

A. Data Responden

Nama   : Khaidir Mubarak Putrasyam, S.T.

Umur   : 31 tahun

Jenis Kelamin   : Perempuan

Pendidikan Terakhir : S1-Teknik Informatika

B. Tabel Evaluasi

Isilah tabel berikut dengan memberikan tanda centang (✓) pada kolom yang disediakan.

Keterangan Poin Validitas:

5 : Sangat Baik

4 : Baik

3 : Cukup Baik

2 : Kurang Baik

1 : Tidak Baik

No.	Pernyataan	1	2	3	4	5
A. Rekayasa Perangkat Lunak						
1.	Laman *PondokEnglish* yang dikembangkan efektif dan efisien (*website* merespons dengan baik)				✓	
2.	Struktur HTML pada Laman *PondokEnglish* telah reliabel (tidak mudah eror dan/atau heng)				✓	
3.	Elemen HTML digunakan dengan semantik yang benar untuk tujuan yang sesuai.				✓	
4.	Perawatan (*maintenance*) pada laman *PondokEnglish* mudah.					✓
5.	Laman *PondokEnglish* sederhana dan mudah dioperasikan.				✓	
6.	Laman *PondokEnglish* dapat diakses secara mudah dari berbagai aplikasi dan perangkat.			✓		
7.	Laman *PondokEnglish* dapat diakses tanpa memasang perangkat khusus.				✓	
8.	Laman *PondokEnglish* dapat digunakan kembali untuk pengembangan pembelajaran kosakata bahasa Inggris lain.				✓	

No.	Pernyataan					
9.	Penggunaan *JavaScript* pada tombol yang ada di laman *PondokEnglish* merespons dengan cepat tanpa heng.				✓	
10.	Media yang termuat pada laman *PondokEnglish* terkompresi tanpa mengurangi kualitas sehingga mempercepat pemuatan laman.				✓	
	Rangkuman Kualitatif:					

B. Komunikasi Visual

No.	Pernyataan					
11.	Laman *PondokEnglish* mengandung pesan yang sesuai dan sejalan dengan keinginan sasaran.				✓	
12.	Laman *PondokEnglish* dapat memotivasi peserta didik dalam pembelajaran kosakata bahasa Inggris.				✓	
13.	Laman *PondokEnglish* memiliki tata letak yang menarik.				✓	
14.	Laman *PondokEnglish* memiliki tipografi yang menarik dan mudah dipahami.			✓		
15.	Kombinasi warna pada laman *PondokEnglish* yang digunakan sesuai dan menarik.					✓
16.	Laman *PondokEnglish* dilengkapi dengan animasi atau video yang relevan dalam menjelaskan materi.				✓	
17.	Ikon pada laman *PondokEnglish* jelas.					✓
18.	Navigasi pada laman *PondokEnglish* mudah dipahami.				✓	
19.	Implementasi CSS pada laman *PondokEnglish* responsif sehingga tampilan tetap baik pada berbagai ukuran layar.			✓		
20.	Implementasi CSS pada laman *PondokEnglish* ditampilkan secara kreatif dan inovatif (luwes, baru, dan menarik).			✓		
	Rangkuman Kualitatif:					

C. Kesimpulan

Secara umum, pendapat Bapak/Ibu terhadap laman *PondokEnglish* yang dikembangkan:

a. Layak
b. Layak dengan perbaikan
c. Tidak layak

Palopo, 23 Juli 2024
Penilai Kelayakan

Khaidir Mubarak Putrasyam, S.T.

Instrumen ini diadaptasi dari Anggraeni[1]

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[1] Tania Anggraeni, "Pengembangan Media Website dalam Bimbingan Klasikal dengan Topik Pergaulan Teman Sebaya pada Siswa Kelas VIII di SMP Negeri 42 Medan T.A 2020/2021" (Universitas Negeri Medan, 2021).j

KUESIONER EVALUASI UNTUK AHLI DESAIN WEB

A. Data Responden

Nama   : Muh. Muharram, S.Pd., M.Pd.

Umur   : 25 Tahun

Jenis Kelamin   : Laki-Laki

Pendidikan Terakhir   : S2 Teknologi Komputer dan Informatika

B. Tabel Evaluasi

Isilah tabel berikut dengan memberikan tanda centang (✓) pada kolom yang disediakan.

Keterangan Poin Validitas:

5 : Sangat Baik

4 : Baik

3 : Cukup Baik

2 : Kurang Baik

1 : Tidak Baik

No.	Pernyataan	1	2	3	4	5
A. Rekayasa Perangkat Lunak						
1.	Laman *PondokEnglish* yang dikembangkan efektif dan efisien (*website* merespons dengan baik)					✓
2.	Struktur HTML pada Laman *PondokEnglish* telah reliabel (tidak mudah eror dan/atau heng)					✓
3.	Elemen HTML digunakan dengan semantik yang benar untuk tujuan yang sesuai.					✓
4.	Perawatan (*maintenance*) pada laman *PondokEnglish* mudah.					✓
5.	Laman *PondokEnglish* sederhana dan mudah dioperasikan.					✓
6.	Laman *PondokEnglish* dapat diakses secara mudah dari berbagai aplikasi dan perangkat.					✓
7.	Laman *PondokEnglish* dapat diakses tanpa memasang perangkat khusus.					✓
8.	Laman *PondokEnglish* dapat digunakan kembali untuk pengembangan pembelajaran kosakata bahasa Inggris lain.					✓

No.	Deskripsi				
9.	Penggunaan *JavaScript* pada tombol yang ada di laman *PondokEnglish* merespons dengan cepat tanpa heng.				✓
10.	Media yang termuat pada laman *PondokEnglish* terkompresi tanpa mengurangi kualitas sehingga mempercepat pemuatan laman.			✓	
	Rangkuman Kualitatif: Secara Umum website PondokEnglish efektif dan efisien dengan struktur HTML yang andal dan penggunaan elemen semantik yang tepat. Perawatannya mudah, dan desainnya yang sederhana serta operasional yang intuitif memastikan aksesibilitas dari berbagai perangkat tanpa memerlukan perangkat khusus. Platform ini mendukung penggunaan kembali dalam pengembangan kosakata bahasa Inggris dan merespons cepat berkat JavaScript yang optimal. Media yang terkompresi dengan baik mempercepat pemuatan laman tanpa mengorbankan kualitas.					
B. Komunikasi Visual					
11.	Laman *PondokEnglish* mengandung pesan yang sesuai dan sejalan dengan keinginan sasaran.			✓	
12.	Laman *PondokEnglish* dapat memotivasi peserta didik dalam pembelajaran kosakata bahasa Inggris.			✓	
13.	Laman *PondokEnglish* memiliki tata letak yang menarik.				✓
14.	Laman *PondokEnglish* memiliki tipografi yang menarik dan mudah dipahami.				✓
15.	Kombinasi warna pada laman *PondokEnglish* yang digunakan sesuai dan menarik.				✓
16.	Laman *PondokEnglish* dilengkapi dengan animasi atau video yang relevan dalam menjelaskan materi.			✓	
17.	Ikon pada laman *PondokEnglish* jelas.				✓
18.	Navigasi pada laman *PondokEnglish* mudah dipahami.				✓
19.	Implementasi CSS pada laman *PondokEnglish* responsif sehingga tampilan tetap baik pada berbagai ukuran layar.				✓
20.	Implementasi CSS pada laman *PondokEnglish* ditampilkan secara kreatif dan inovatif (luwes, baru, dan menarik).				✓
	Rangkuman Kualitatif: Laman PondokEnglish menawarkan pengalaman pembelajaran yang menarik dengan pesan yang sesuai dan memotivasi peserta didik. Tata letak, tipografi, dan warna yang digunakan memperkaya visual, sementara animasi dan video memperjelas materi. Ikon yang jelas, navigasi yang mudah, serta desain CSS yang responsif dan kreatif menjadikannya platform yang efektif dan menyenangkan.					

C. Kesimpulan

Secara umum, pendapat Bapak/Ibu terhadap laman *PondokEnglish* yang dikembangkan:

a. Layak
b. Layak dengan perbaikan
c. Tidak layak

Palopo, 23 Juli 2024
Penilai Kelayakan

Muh. Muharram, S.Pd., M.Pd.

Instrumen ini diadaptasi dari Anggraeni[1]

---

[1] Tania Anggraeni, "Pengembangan Media Website dalam Bimbingan Klasikal dengan Topik Pergaulan Teman Sebaya pada Siswa Kelas VIII di SMP Negeri 42 Medan T.A 2020/2021" (Universitas Negeri Medan, 2021).

Appendix 6 Practitioners' perspective to web app

IBS students' perspective

Fitur-fitur yang terdapat pada laman PondokEnglish sesuai dengan kebutuhan Anda.
15 responses
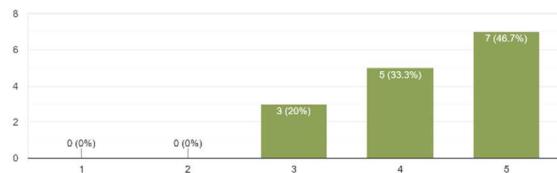
Penggunaan laman PondokEnglish meningkatkan kemampuan Anda dalam media literasi dan teknologi informasi.
15 responses
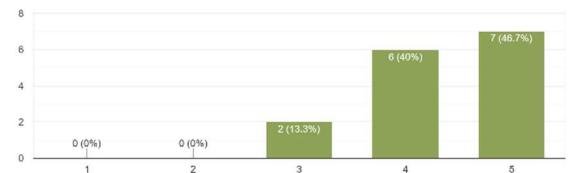
Konten yang terdapat dalam laman PondokEnglish menarik dan informatif.
15 responses
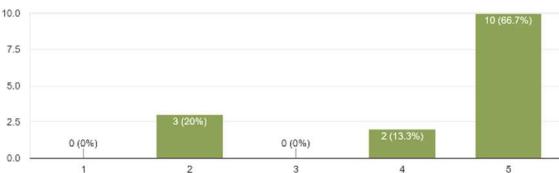
Penggunaan laman PondokEnglish tersebut membantu Anda dalam meningkatkan kemampuan kosakata bahasa Inggris.
15 responses
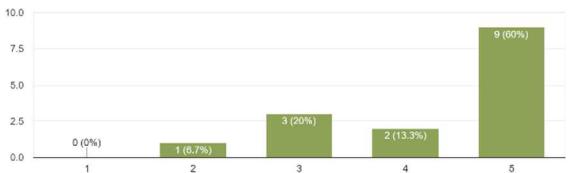
Penggunaan media sosial dalam laman PondokEnglish efektif.
15 responses
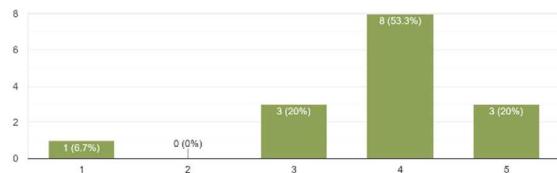
Penggunaan laman PondokEnglish dalam pembelajaran kosakata bahasa Inggris lebih menguntungkan Anda daripada pembelajaran dengan menggunakan LCD proyektor.
15 responses
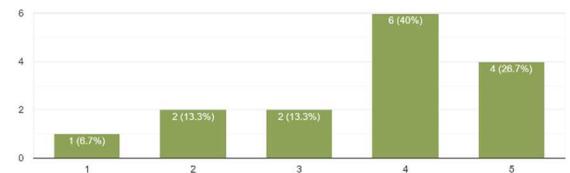
Penggunaan speaker dalam laman PondokEnglish efektif.
15 responses
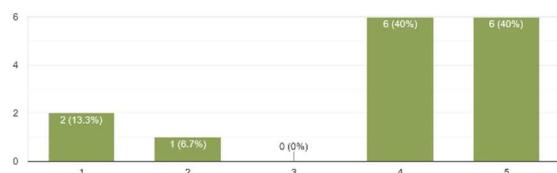
Penggunaan laman PondokEnglish lebih efektif daripada pembelajaran menggunakan PowerPoint.
15 responses
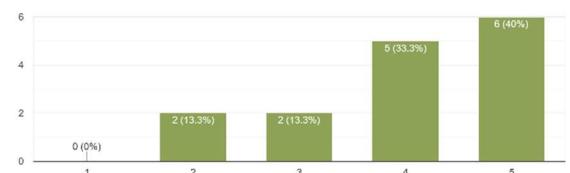
Penggunaan komputer efektif dalam pembelajaran kosakata bahasa Inggris Anda.
15 responses
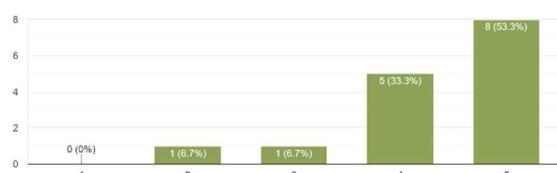
Penggunaan smartphone membantu dalam meningkatkan kosakata bahasa Inggris Anda.
15 responses
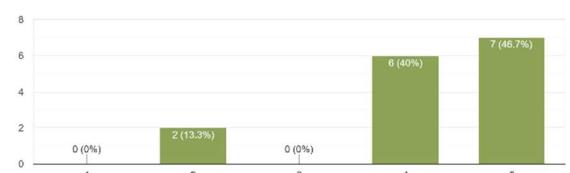
Visualisasi teks pada laman PondokEnglish menarik dan membantu Anda dalam mempelajari kosakata bahasa Inggris.
15 responses

Skala	Jumlah
1	0 (0%)
2	1 (6.7%)
3	1 (6.7%)
4	6 (40%)
5	7 (46.7%)
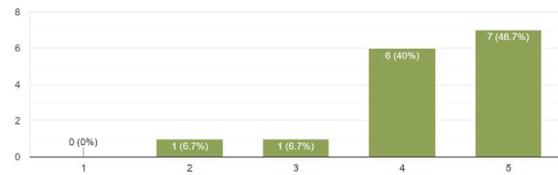
Visualisasi gambar pada laman PondokEnglish menarik dan membantu Anda dalam mempelajari kosakata bahasa Inggris.
15 responses

Skala	Jumlah
1	0 (0%)
2	1 (6.7%)
3	1 (6.7%)
4	5 (33.3%)
5	8 (53.3%)

Penggunaan video efektif dalam pembelajaran kosakata bahasa Inggris Anda.
15 responses

Skala	Jumlah
1	1 (6.7%)
2	1 (6.7%)
3	1 (6.7%)
4	4 (26.7%)
5	8 (53.3%)
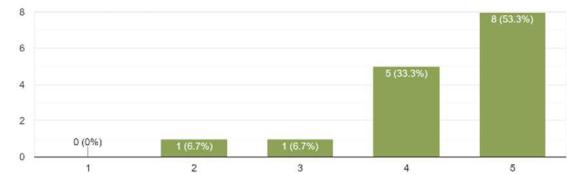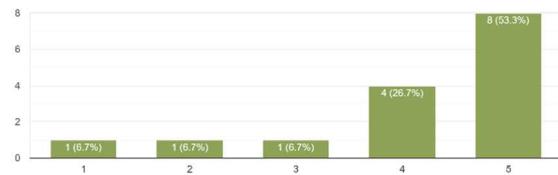
Audio yang digunakan pada laman PondokEnglish jelas.
15 responses

Skala	Jumlah
1	0 (0%)
2	2 (13.3%)
3	0 (0%)
4	7 (46.7%)
5	6 (40%)
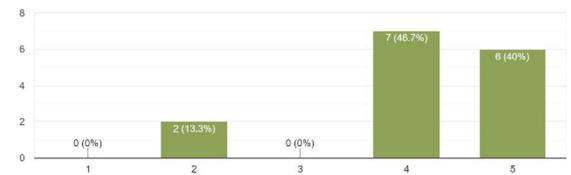
Penggunaan visualisasi grafik membantu Anda dalam memahami informasi lebih efektif.
15 responses
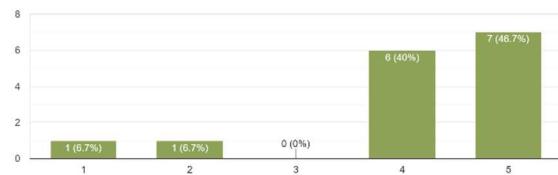
Skala	Jumlah
1	1 (6.7%)
2	1 (6.7%)
3	0 (0%)
4	6 (40%)
5	7 (46.7%)

Penggunaan laman PondokEnglish meningkatkan kemampuan bahasa Inggris Anda.
15 responses

Skala	Jumlah
1	0 (0%)
2	2 (13.3%)
3	2 (13.3%)
4	5 (33.3%)
5	6 (40%)
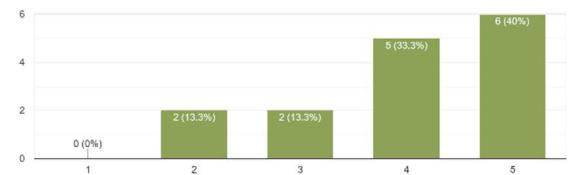
Penggunaan laman PondokEnglish mengatasi kendala Anda dalam mempelajari kosakata bahasa Inggris.
15 responses

Skala	Jumlah
1	0 (0%)
2	2 (13.3%)
3	3 (20%)
4	4 (26.7%)
5	6 (40%)
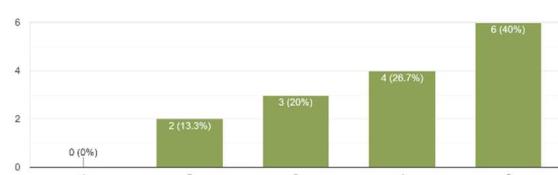
Model laman PondokEnglish bermanfaat dan menarik untuk pembelajaran kosakata bahasa Inggris.
15 responses

Skala	Jumlah
1	1 (6.7%)
2	1 (6.7%)
3	0 (0%)
4	3 (20%)
5	10 (66.7%)
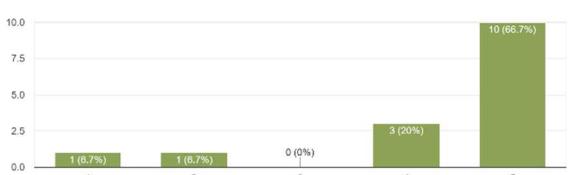
Laman PondokEnglish membantu Anda dalam menghafal kosakata bahasa Inggris.
15 responses

Skala	Jumlah
1	0 (0%)
2	2 (13.3%)
3	1 (6.7%)
4	5 (33.3%)
5	7 (46.7%)
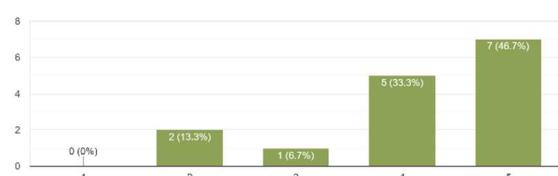
Pemilihan kosakata bahasa Inggris pada laman PondokEnglish sesuai dengan tingkat kemampuan dan kebutuhan Anda.
15 responses

Skala	Jumlah
1	1 (6.7%)
2	1 (6.7%)
3	2 (13.3%)
4	3 (20%)
5	8 (53.3%)
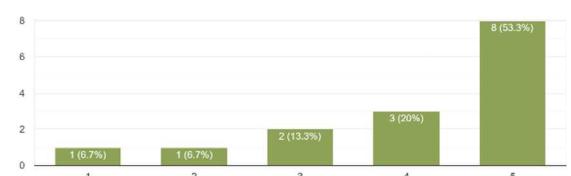
English teacher's perspective

Muatan materi pada laman PondokEnglish sesuai dengan tujuan pembelajaran yang termuat pada Kurikulum Merdeka di tingkat SMP.
1 response
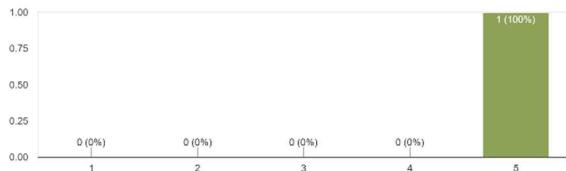
Pemilihan kosakata pada laman PondokEnglish sesuai dengan tingkat kemampuan bahasa Inggris siswa SMP PMDS Putri Palopo.
1 response
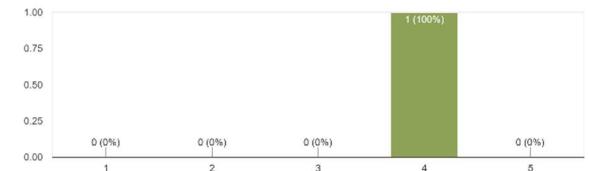
Kosakata yang disajikan pada laman PondokEnglish relevan dengan kehidupan sehari-hari dan aktivitas siswa di SMP PMDS Putri Palopo.
1 response
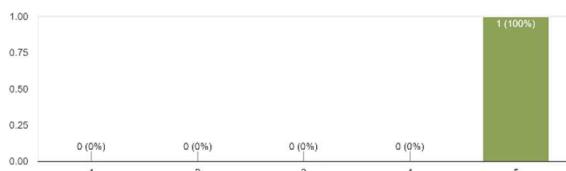
Konten pada laman PondokEnglish memuat nilai-nilai Islami yang relevan bagi siswa SMP PMDS Putri Palopo.
1 response
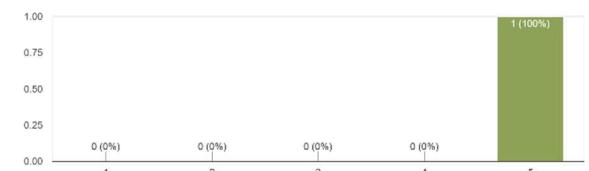
Laman PondokEnglish menyediakan latihan yang cukup untuk mengasah kemampuan kosakata bahasa Inggris siswa.
1 response
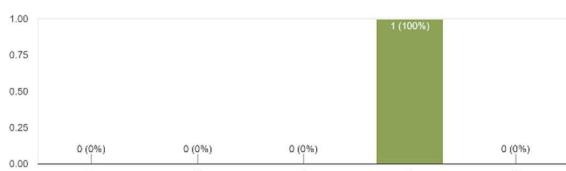
Materi pada laman PondokEnglish disusun dengan alur yang logis dan mudah diikuti oleh siswa.
1 response

Pemilihan gambar pada laman PondokEnglish sesuai untuk siswa SMP PMDS Putri Palopo.
1 response
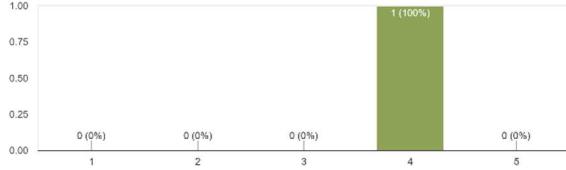
Pemilihan video pada laman PondokEnglish sesuai untuk siswa SMP PMDS Putri Palopo.
1 response
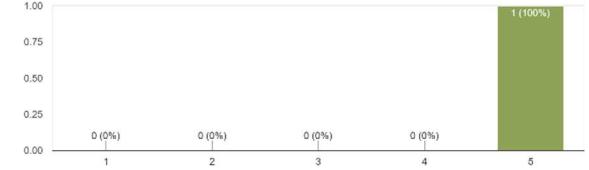
Pemilihan audio pada laman PondokEnglish sesuai untuk siswa SMP PMDS Putri Palopo.
1 response
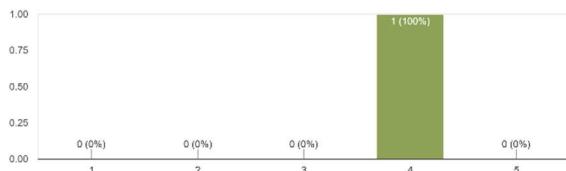
Terdapat fitur evaluasi yang efektif pada laman PondokEnglish untuk mengukur kemampuan kosakata siswa.
1 response
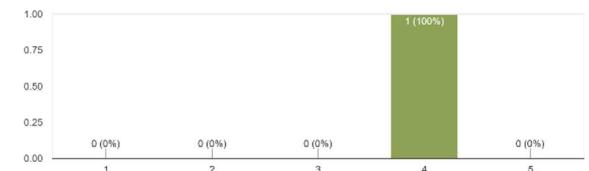
Fitur-fitur pada laman PondokEnglish mudah ditemukan.
1 response

1.00				1 (100%)
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
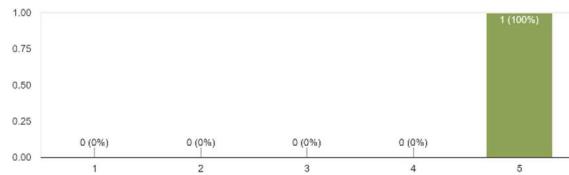
Fitur-fitur pada laman PondokEnglish sesuai untuk kebutuhan pembelajaran kosakata bahasa Inggris.
1 response

1.00			1 (100%)	
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
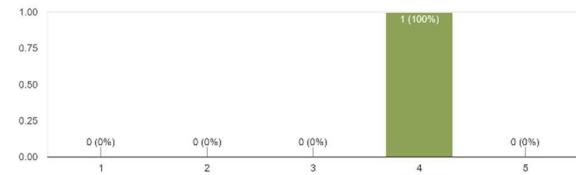
Penggunaan laman PondokEnglish efektif dalam membantu Anda mengajar kosakata bahasa Inggris.
1 response

1.00			1 (100%)	
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
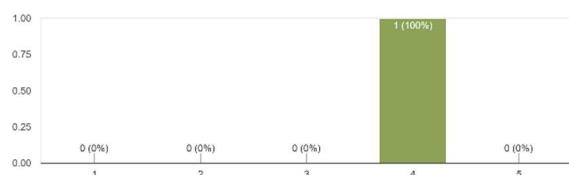
Laman PondokEnglish membantu meningkatkan keterlibatan siswa dalam pembelajaran kosakata bahasa Inggris.
1 response

1.00				1 (100%)
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
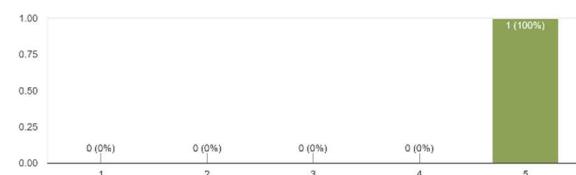
Penggunaan laman PondokEnglish memiliki akses yang cepat.
1 response

1.00				1 (100%)
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5

Navigasi pada laman PondokEnglish mudah dipahami.
1 response

1.00			1 (100%)	
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
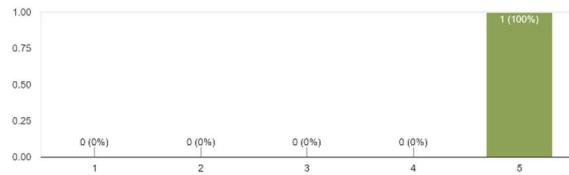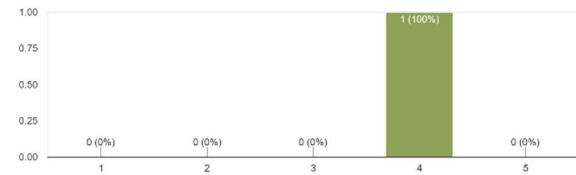
Penggunaan sumber daya (seperti data internet dan perangkat keras) pada laman PondokEnglish efisien.
1 response

1.00			1 (100%)	
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
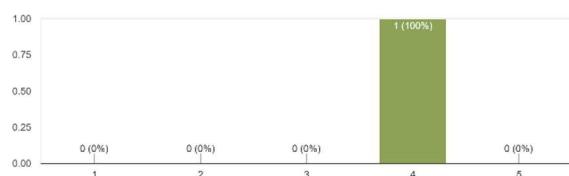
Penggunaan laman PondokEnglish dalam pembelajaran kosakata bahasa Inggris memungkinkan Anda untuk merekomendasikannya kepada rekan guru.
1 response
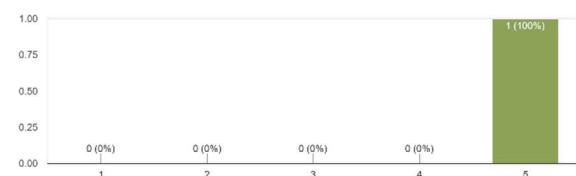
1.00				1 (100%)
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5

Laman PondokEnglish mengandung pesan yang sesuai dan sejalan dengan keinginan sasaran.
1 response
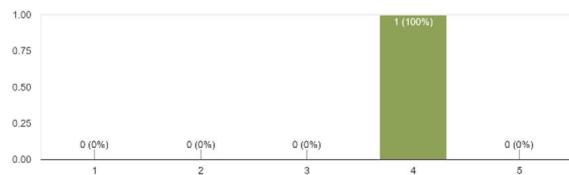
1.00			1 (100%)	
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5

Laman PondokEnglish dapat memotivasi peserta didik dalam pembelajaran kosakata bahasa Inggris.
1 response

1.00				1 (100%)
0.75				
0.50				
0.25				
0.00	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	1	2	3	4	5
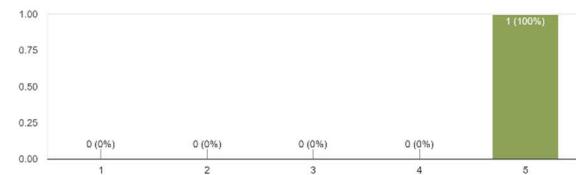
Laman PondokEnglish memiliki tata letak yang menarik.
1 response
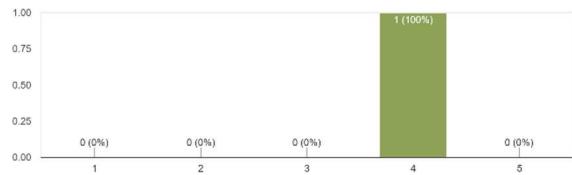
Laman PondokEnglish memiliki tipografi yang menarik dan mudah dipahami.
1 response
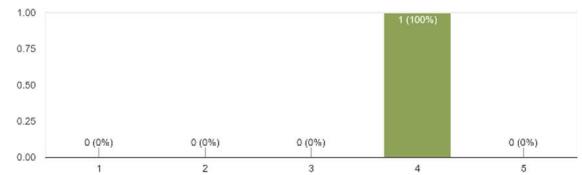
Kombinasi warna pada laman PondokEnglish yang digunakan sesuai dan menarik.
1 response
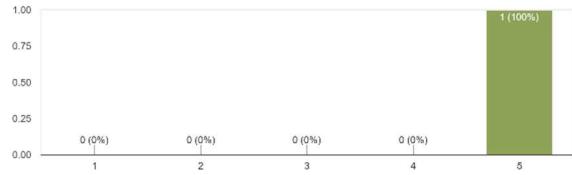
Laman PondokEnglish dilengkapi dengan animasi atau video yang relevan dalam menjelaskan materi.
1 response
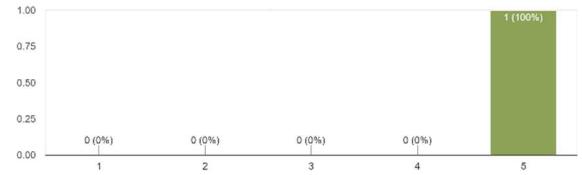
Ikon pada laman PondokEnglish jelas.
1 response
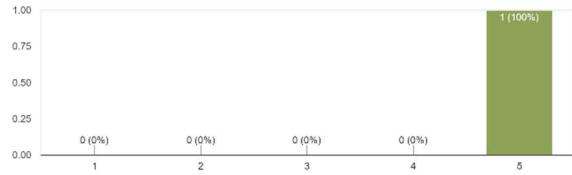
Secara umum, pendapat Bapak/Ibu terhadap laman PondokEnglish yang dikembangkan:
1 response
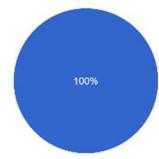
- Layak
- Layak dengan perbaikan
- Tidak layak

100%

SURAT KETERANGAN
No. 160/UJI-PLAGIASI/VIII/2024

Yang bertanda tangan di bawah ini:

Nama	:	Dewi Furwana, S.Pd.I., M.Pd.
NIP	:	198708312015032006
Jabatan	:	Sekretaris Prodi Tadris Bahasa Inggris

Menerangkan bahwa naskah tesis berikut ini:

Nama	:	Imam Fadli
NIM	:	2205040014
Program Studi	:	Tadris Bahasa Inggris
Judul	:	**"Designing PondokEnglish Web App: A Supplementary English Material for Uslamic Boarding School Students in Palopo"**

Telah melalui pemeriksaan cek plagiasi (turnitin) dengan hasil 16% dan dinyatakan memenuhi ketentuan batas minimal plagiasi ($\leq$ 25%). Adapun hasil cek plagiasi terlampir.

Demikian surat pernyataan ini dibuat untuk dipergunakan sebagaimana mestinya.

Palopo, 07 Agustus 2024
Hormat Kami,

Dewi Furwana, S.Pd.I., M.Pd.
NIP 198708312015032006

<u>**SURAT KETERANGAN PENELITIAN**</u>
NOMOR : 239/SMP-DS/PLP/VII/2024

Yang bertanda tangan di bawah ini Kepala SMP Datok Sulaiman Palopo menerangkan bahwa:

Nama	:	**IMAM FADLI**
Pekerjaan	:	Mahasiswa IAIN Palopo
Prodi/Fakultas	:	Pendidikan Bahasa Inggris/ Pascasarjana
Alamat	:	Dusun Batusitanduk, Kab. Luwu

Yang bersangkutan telah melakukan penelitian di SMP Datok Sulaiman Palopo sejak tanggal 23 April 2024 s/d 20 Mei 2024. Dengan judul Tesis **"DESIGNING WEB APP TO ASSIST ENGLISH VOCABULARY LEARNING MATERIALS FOR ISLAMIC BOARDING SCHOOL STUDENTS IN PALOPO"**.

Demikian Surat Keterangan ini diberikan kepada yang bersangkutan untuk dipergunakan sebagaimana mestinya.

Atas perhatian dan kerjasama yang baik kami ucapkan terima kasih.

Palopo, 10 Juli 2024
Kepala Sekolah,

MUHTARUL HADI, S.Ag., M.Pd.I.
NIP. 19730403 200701 1 029

PondokEnglish Guidebook

User manual for hosting admin, web app admin, and students

A. Hosting Admin

There are several features that hosting admin can access in the PondokEnglish, such as:

1. Extending web app hosting lifetime
2. Managing web app database
3. Extending web app domain lifetime

Extending web app hosting lifetime

- Login to the hosting account in (https://auth.niagahoster.co.id/login)
- Next, it will be directed to the hosting dashboard page.

- After that, click on "**Tagihan**" menu to extend the hosting lifetime.

- Click "**Perpanjang sekarang**" to extend the hosting lifetime. There will be a new window appear automatically and click on "**Pilih metode pembayaran**"
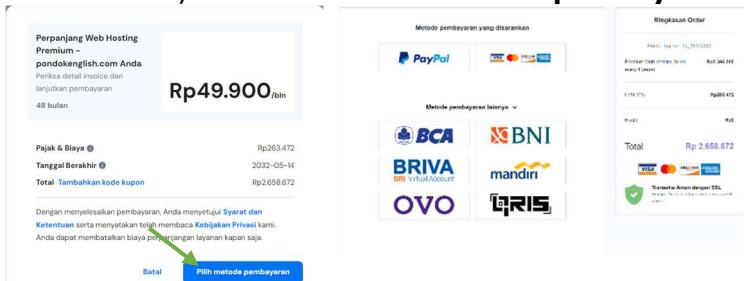
- After that, select the desired payment method and proceed with the checkout.

Managing web app data base

- Click on "**Website**" menu and click "**Dashboard**"
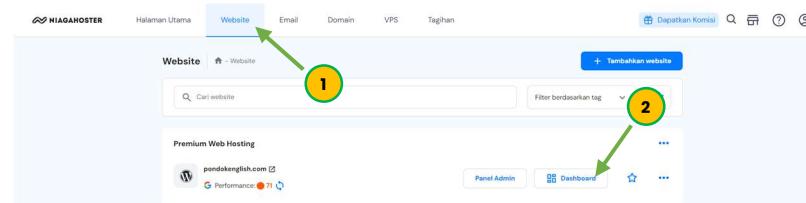
- The page will show website dashboard and click on "**Database**" and click on "**Pengelolaan**"
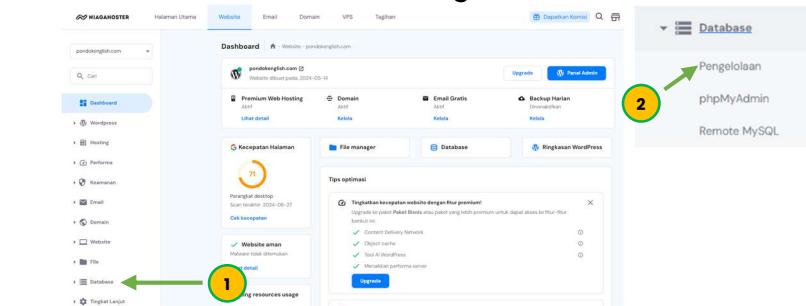
- After that, click on "**Masuk phpMyAdmin**" on the top option.
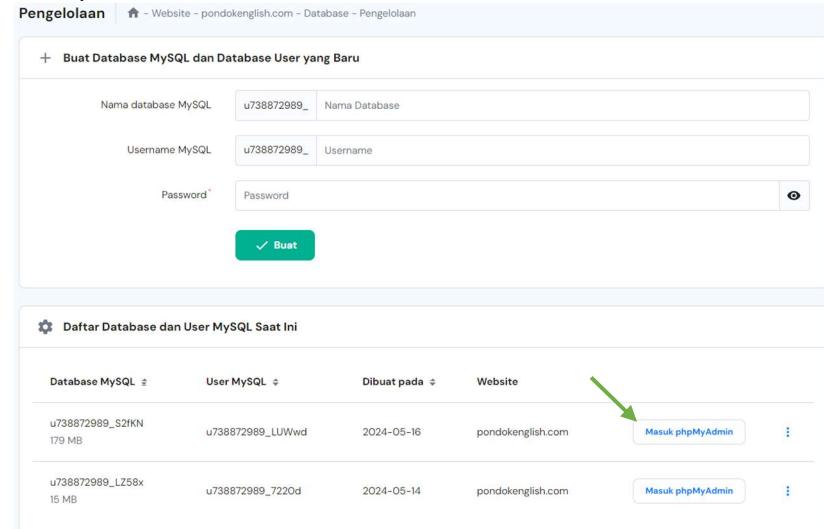
- Now, it will directly to phpMyAdmin that contains every website's data including students' answer, comments, and so on. In this page, the admin can backup and erase the particular data.
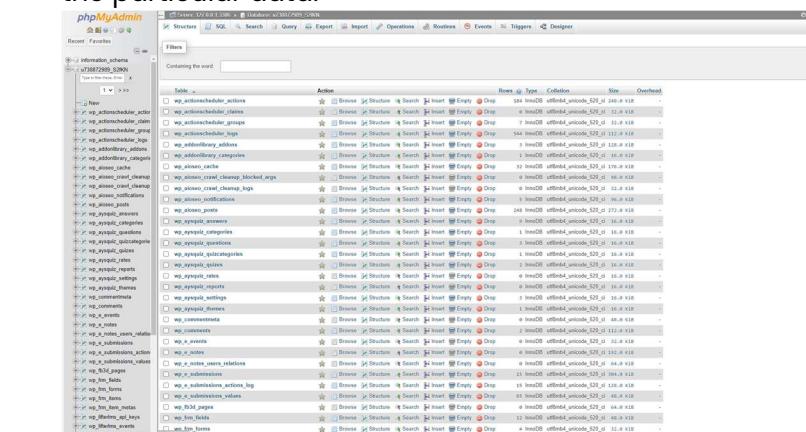
Extending web app domain lifetime

- Login to the hosting account in (https://auth.niagahoster.co.id/login)
- After that, click on "**Tagihan**" menu to extend the domain lifetime.

- Select the lifetime duration and click "**Pilih metode pembayaran**".

- After that, select the desired payment method and proceed with the checkout.

B. Web App Admin

There are several features that web app admin can access in the PondokEnglish, such as:

1. Creating a worksheet
2. Adding learning material contents
3. Updating the web app setting

Creating a worksheet

- Login to the Live Worksheet and click "**Add Worksheet**"
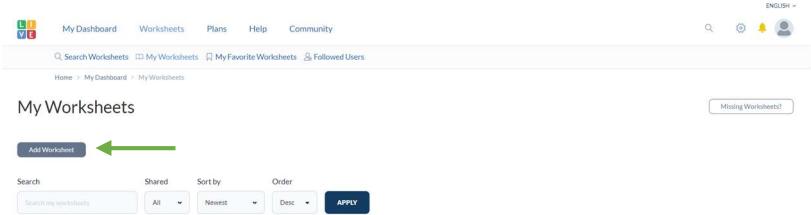
- Add a picture by click on "**Add media**"
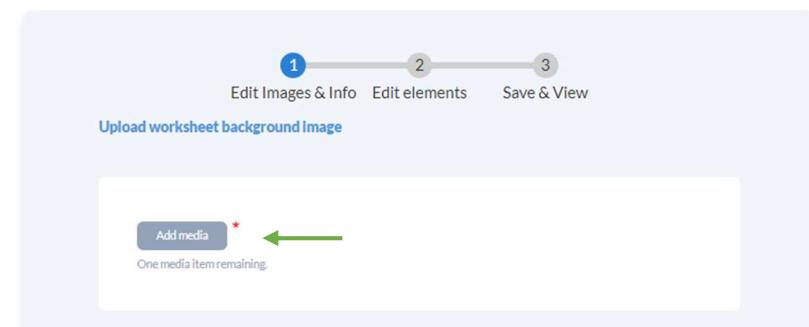
- The new window will appear, click "**Choose file**" to upload the media.
- Find the media and click "**Open**"
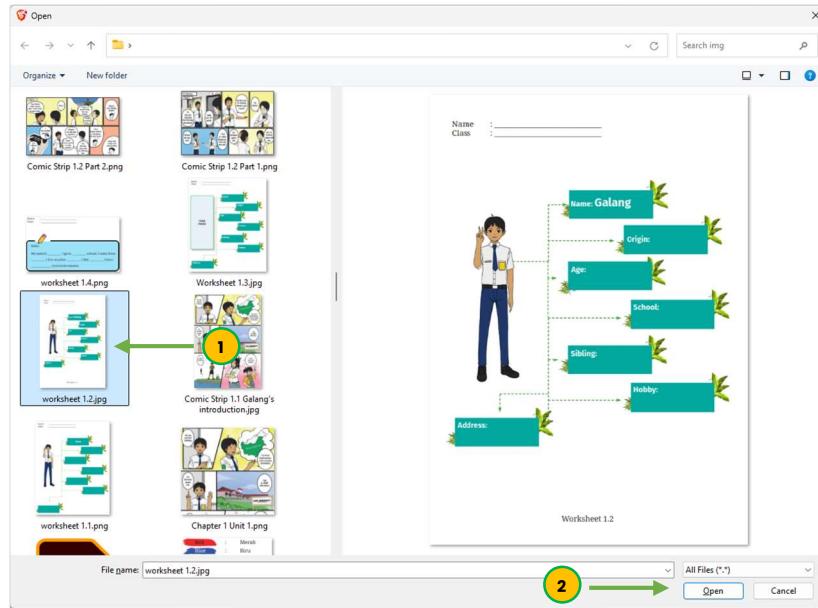
- Once the media has been selected, then, click "**Save**" and there will be a new window appear. After that, click "**Insert Selected**"
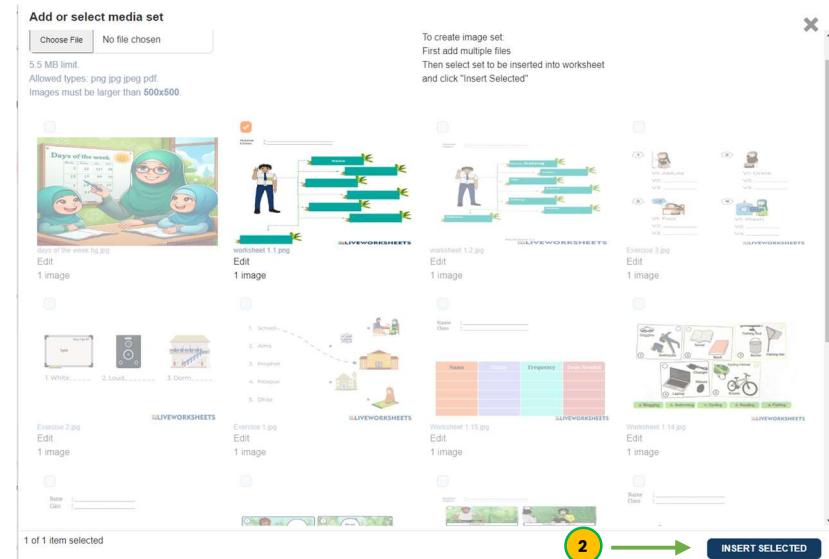
- Next, fill the "**Describe Worksheet Content**" based on the teachers' necessity.
- Click "**Save and Edit Elements"** when finish.

- Add several features based on teachers' need by click on the element.
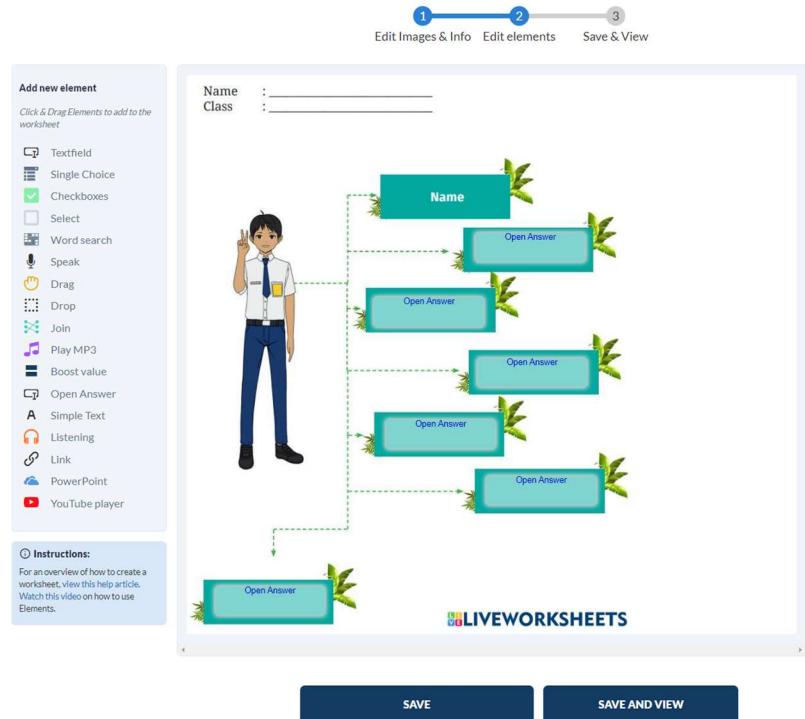
- Click "**Save and View**" when finish.
- Next, click on "**Embed in my website**" and copy the HTML code
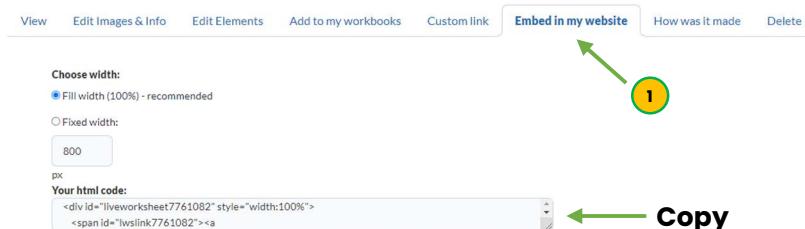
- After that, access the PondokEnglish web app by login into the admin page.
- When the login is successful, go to the "**Posts**" menu and select the post where the worksheet will be added. After that, click "**Edit with Elementor**"
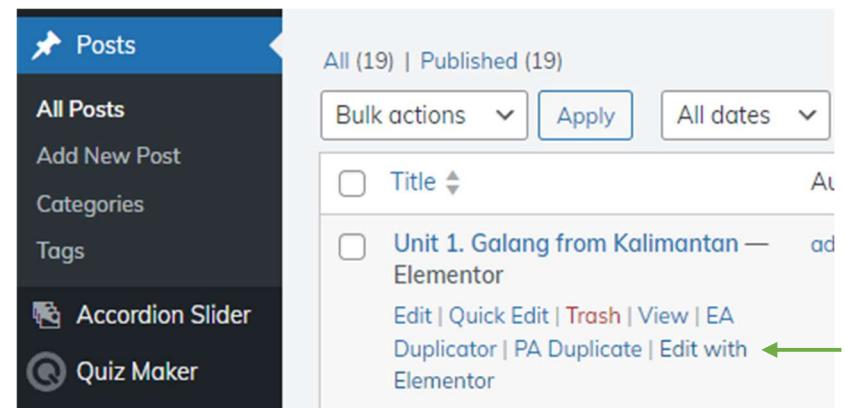
- Select the location on the post and create a HTML widget paste the HTML code. After that, the worksheet will appear automatically. Lastly, click "**Publish**" to finish.
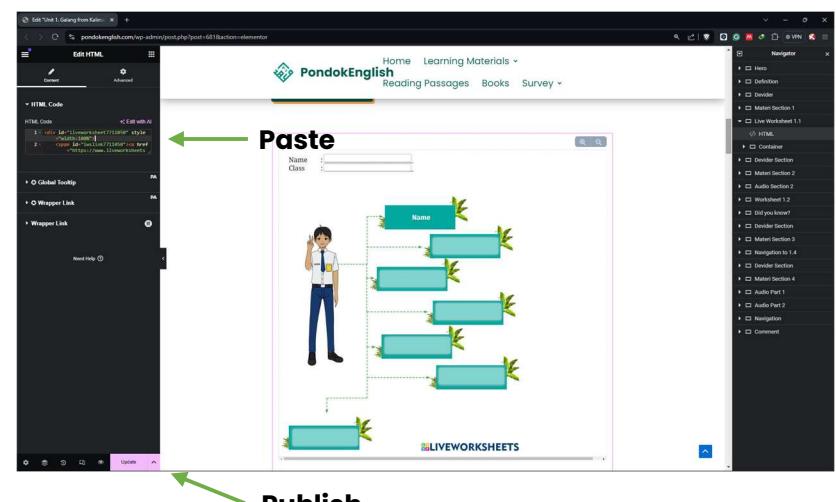
Adding learning material contents

- Login to PondokEnglish admin account.
- Select the post to which content will be added via the "**Posts**" panel. Then, click "**Edit with Elementor**"
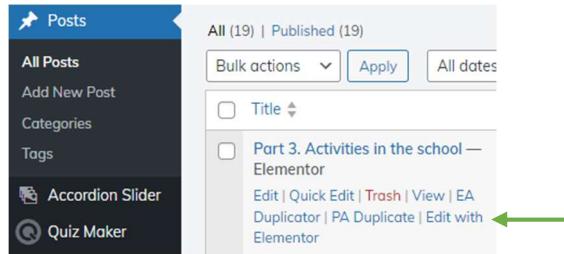
- Find a suitable position to add content and click one of the boxes.
- Next, select the boxes' "**Container**" in the **Navigator**.
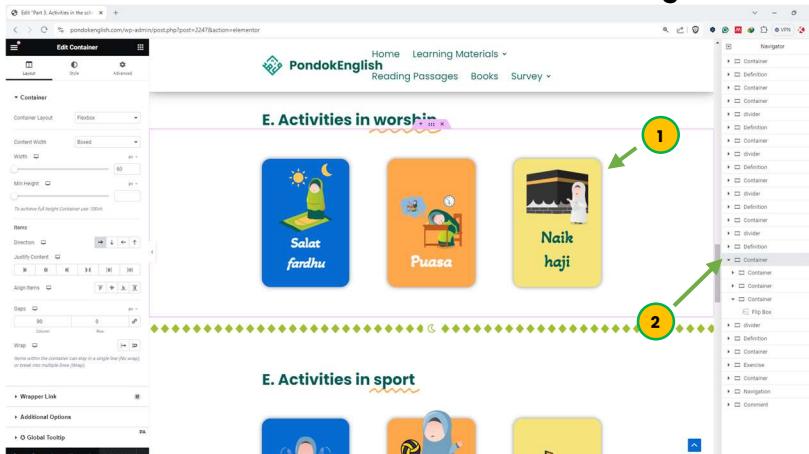
- Right click on the "**Container**" and select "**Duplicate**" or press the shortcut button "**CTRL + D**". After that, the selected container will be duplicated.
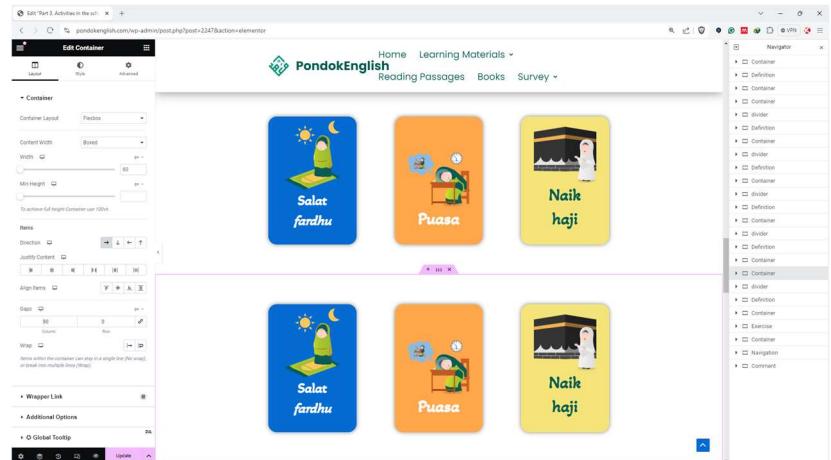
- Make sure the original container is not selected. After that, edit the duplicated container.
- Select the first box and the right panel will change automatically.
- To change the text and image, edit the box into "**Content**" setting.
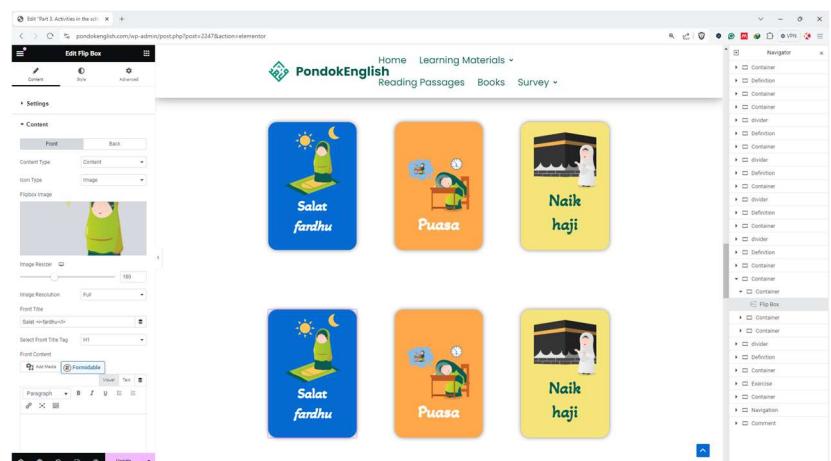
- To change the image, click the "**Flipbox image**" and select the image by clicking on "**Select Files**". After that, click "**Select**"
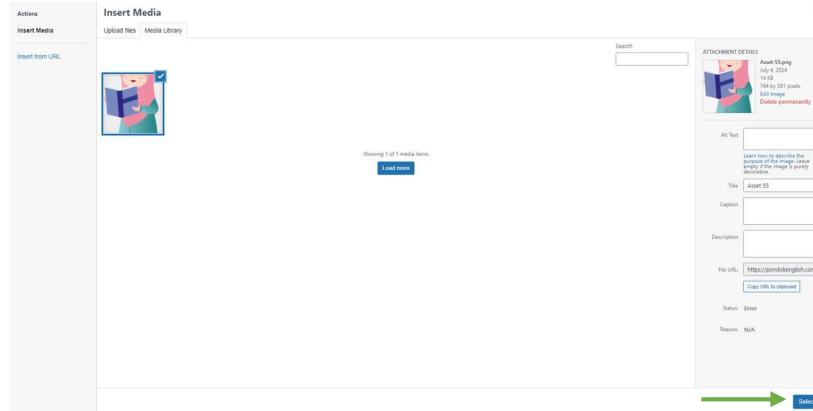
- Usually, the image appearance is not appropriate. To adjust the image size, use the slider in the "**Image Resizer**" section and adjust it as needed.

- To change the text, select "**Front Title**" and type the desired text.
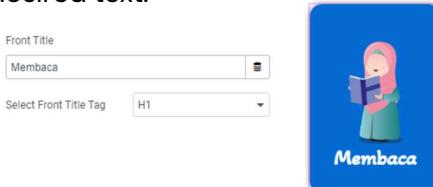
- To change text behind the box, click on "**Back**" content. Next, type the desired text in the "**Back Content**" section.
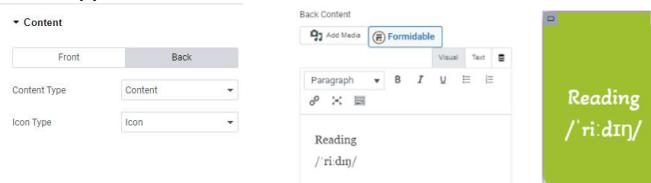
- You can also change the background color in the "**Style**" section.
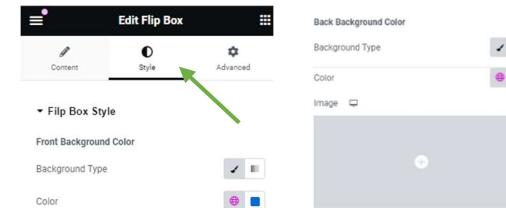
- Click on "**Publish**" once the editing complete.

Updating the web app setting

- First, login to admin account.
- Second, scroll down and find "**Setting**" on the left panel.
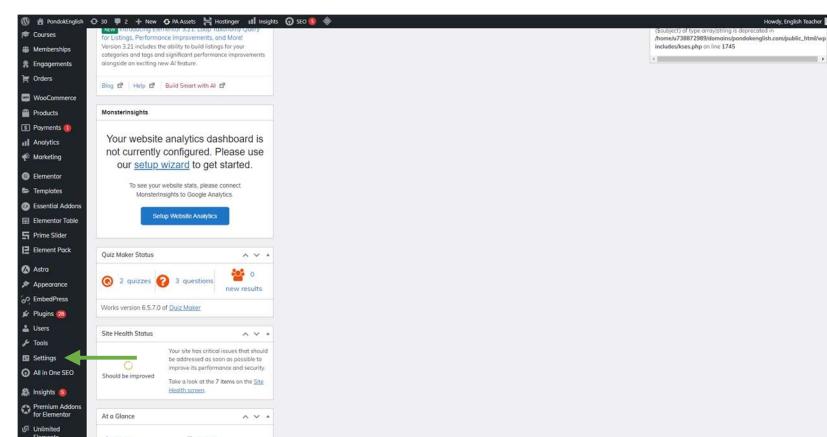
- After that, the General Setting window will appear. There, the admin can set the web app title, tagline, and URL.
- Click "**Save Changes**" when finished.

C. Students

- Open the PondokEnglish web app on https://pondokenglish.com
- Click "**Mulai Belajar**" button to start the learning


- Select the Chapter

- Select the desired Unit

- To complete the worksheet, click on "**Buka Worksheet 1.1**" and new section will appear. There, the students can answer the worksheet and send it to the teacher's email.
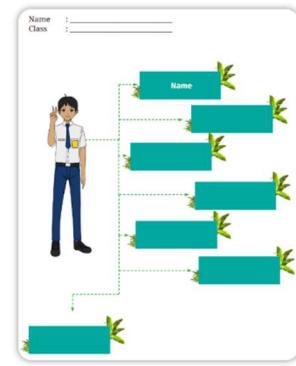

Contoh Worksheet 1.1

- Click on "**Finish**" button to send it to the teacher.

Open the additional explanation

- In the Part 3. Activities in the school, flip the certain box and click the box to open the additional explanation.

- To flip the box, put the cursor on the box's range. For instance, on the "Naik haji" box.

- After the box has been flipped, you can click on the box to open the pop up.
- Click on (Selengkapnya) for more explanation.

Curriculum Vitae

Imam Fadli, lahir di Lampung pada tanggal 3 Februari 2001. Penulis merupakan anak ketiga dari tiga bersaudara dari pasangan seorang ayah bernama Haidir dan ibu Rahmawati. Saat ini, penulis bertempat tinggal di desa Batusitanduk, kecamatan Walenrang, Kabupaten Luwu. Penulis memulai perjalanan pendidikannya pada TK Dharma Wanita di desa Batusitanduk pada tahun 2005 dan melanjutkan pada Sekolah Dasar (SD) di tahun 2006. Penulis menyelesaikan pendidikan dasar di SDN 256 Pabuntang pada tahun 2012. Kemudian, penulis melanjutkan pada sekolah menengah pertama di SMPN 1 Palopo yang diselesaikan pada tahun 2015. Selanjutnya, penulis meneruskan perjalanan pendidikannya di SMAN 1 Palopo hingga tahun 2018. Di tahun yang sama, penulis melanjutkan pendidikannya ke jenjang perguruan tinggi pada program studi Pendidikan Bahasa Inggris (S-1) di Institut Agama Islam Negeri Palopo yang selesai pada tahun 2022 dengan IPK 3,85 predikat Dengan Pujian dan menjadi wisudawan terbaik pada program studi Pendidikan Bahasa Inggris. Hingga pada saat ini, penulis tidak berhenti untuk mendapatkan ilmu yang ditekuni dan melanjutkan pendidikannya di program studi Tadris Bahasa Inggris pada Program Magister Pascasarjana IAIN Palopo.