

## Advancing Elementary Vocabulary Education with Wordwall-Based Digital Media

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### A B S T R A C T

In Indonesia, the education curriculum underwent numerous changes, with the most recent being the Merdeka curriculum. Vocabulary was a crucial component in English language learning. This study aimed to develop Wordwall-based learning media for vocabulary using the "My Next Words" book at SD Negeri 1 Baktiseraga for fourth-grade students in the second semester. The research involved classroom observations, interviews with English teachers, and analysis of the curriculum and students' needs. In the planning stage, the design of Wordwall games focused on vocabulary learning objectives aligned with the "My Next Words" curriculum. Development included creating Wordwall games, selecting templates, types of games, and integrating interactive features. After development, Wordwall products were evaluated and approved by education and technology experts, then integrated into the learning process for fourth-grade students at SD Negeri 1 Baktiseraga. Evaluation assessed the effectiveness of Wordwall in enhancing students' vocabulary comprehension, with experts reviewing the quality of learning materials, user experience, and its impact on students' learning motivation. The results indicated that Wordwall was effective in improving English vocabulary acquisition and making learning more engaging and motivating for students.

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## Introduction

In Indonesia, technology-based learning is becoming increasingly important in education today. This technology not only changes the way students learn in the classroom, but also increases their motivation to learn. In Merdeka Curriculum, technology integration supports the creation of innovative and adaptive learning, preparing students to face global demands with relevant and up-to date skills. Wordwall is a tool that allows teachers to create a variety of interactive learning activities, such as word games, puzzles or quizzes, that can improve understanding and retention of subject matter. The use of this media helps students learn English more enjoyably and effectively, as they can engage in the learning process actively through direct interaction with the material presented. By utilizing technology such as Wordwall, teachers can create a more engaging and relevant learning experience for 21st century students.

The Merdeka curriculum also emphasizes the importance of learning English as an international language in education, with a focus on developing communication skills and mastering new vocabulary in a variety of contexts, both oral and written. Vocabulary is crucial in language teaching and important for language learners as it forms the basis of

acquiring a foreign language, integrating the four language skills: speaking, listening, reading and writing. English language learning starts from primary school to capitalize on children's critical period (2-13 years old), where they can absorb knowledge quickly through various methods, such as educational games and active social interaction. Apart from that, according to Mardali & Siyyari (2019), the vocabulary teaching method used by the teacher is also important. According to Liyana & Kurniawan (2019) The use of media in the learning process can increase students' learning motivation and make it easier for them to understand learning material. According to Yulita & Hertiki (2023) These days, technology plays a crucial role in schooling. The way that children learn in the classroom is greatly impacted by technology. Technology utilization has a potential to make instruction and learning easier. Therefore, it is important for teachers to create innovative and interesting learning media for 21st century students. This media not only motivates students to learn, but also prepares them to face future challenges with critical, creative and collaborative thinking skills.

According to Harmer (1991:18), there are several aspects that must be considered by teachers and students in learning vocabulary, namely (1) meaning, (2) word use, (3) word formation, and (4) grammar. The meaning aspect refers to students' understanding of the meaning of words in relevant contexts and the way they are used in various situations. Second, the aspect of word use emphasizes students' ability to apply these words appropriately and effectively in their conversations or writing. Third, word formation highlights the process in which students learn to form new words through affixation, changes in form, or the formation of compound words. Fourth, grammar plays an important role in ensuring that students use words grammatically correctly in their sentences, including proper structure and word order. By understanding these aspects well, teachers can design varied and interesting learning, thereby helping students develop language skills in a comprehensive and integrated manner. Therefore, teachers need to have creativity in creating effective learning strategies to facilitate students' deep understanding of vocabulary and its use in different contexts.

Taking these challenges into consideration, the proposed solution is to create an interactive learning tool to teach vocabulary to children. This media will use educational games as a fun tool in classroom education, enriching their learning experience. According to Bakhsh (2016), educating younger students is more difficult than educating adults or teenagers because younger students are more easily distracted. Given that children are naturally inclined to have fun and play, teachers must choose teaching strategies that suit children's unique learning styles. Using games or media to avoid boredom in class is an important method in learning a foreign language. Wordwall is a type of media that can be developed for elementary school children's learning because its approach combines learning with interactive game elements. By using Wordwall, teachers can create engaging and interactive learning activities, such as word puzzles, word memory games, or interactive quizzes, that are not only interesting but also help students deepen their understanding of vocabulary and other language concepts. This approach not only increases students' learning motivation but also allows them to learn in a more engaged and enjoyable way. According to (Jantke & Hume, 2015) it's important to choose games that not only offer learning benefits but also maintain a fun aspect. Teachers need to prepare learning media to support the delivery of lesson material. With Wordwall, teachers can create innovative

learning media because Wordwall has several advantages, such as being free to choose from several templates. Moreover, the games created can be easily shared via platforms such as WhatsApp, Google Classroom, and others. Wordwall offers a range of game formats, such as crossword puzzles, quizzes, random cards, and more. Another advantage is that the produced games may be printed in PDF format, making them more accessible to students who do not have reliable internet connection.

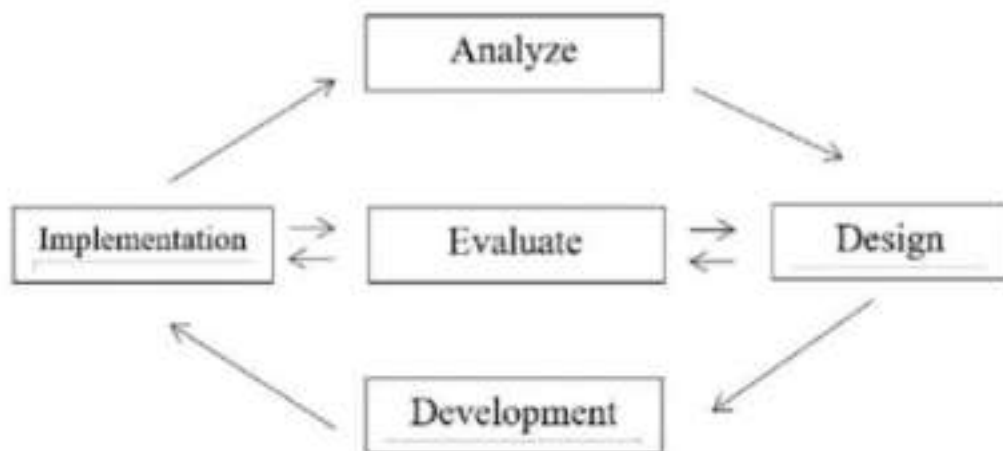
By using Wordwall, teachers will be more assisted in the learning process, as in the research conducted by Pradini and Adnyayanti (2022) they investigated the use of Wordwall application to teach English vocabulary to young learners. This research highlights the potential of Wordwall as an effective tool for educators to create fun and engaging language learning activities. The interactive exercises in the app increased students' enthusiasm for learning English vocabulary.

Previous research conducted by Purwitasari (2022) has highlighted various aspects of the use of Wordwall-based digital learning media, including improved language skills, vocabulary acquisition, reading, writing and speaking skills, and increased learning motivation of students from primary to secondary school levels. However, there are still few studies that focus on the development of Wordwall-based digital media for early childhood, especially in primary schools, as an addition to vocabulary learning using the Ministry of Education and Culture's "My Next Words" book.

This research aims to fill this gap by developing Wordwall-based media for vocabulary learning using the book "My Next Words" as a material guide. The research will be carried out at SD Negeri 1 Baktiseraga for grade 4 students in second semester, with the hope of meeting their needs in developing English language skills in an interesting and effective way. This research chose SD Negeri 1 Baktiseraga as the research location because this school has implemented the Independent Curriculum and uses the book "My Next Words" as a guide in learning vocabulary. Even though this school already has learning tools that support technology, the use of technology-based learning media such as Wordwall is still rarely implemented. This research aims to introduce and integrate Wordwall as an innovative and interactive additional learning media in the context of teaching English vocabulary for 4th grade students in second semester. It is hoped that the application of Wordwall can increase students' interest in learning and help them acquire and master vocabulary in a better way. interesting and effective in accordance with current developments in educational technology.

### **Research methods**

This research is development research or Design and Development (D&D) using the ADDIE development model. In this way, the product developed can be a useful product to support student learning. In this case, additional media was developed and implemented for fourth grade students in the second semester at SD Negeri 1 Baktiseraga. This research aims to develop and determine the quality of additional media in English learning that can improve students' vocabulary skills.



The ADDIE model, developed by Richey and Klein (2014), is used systematically in this research to overcome challenges in teaching English, especially in the use of Wordwall media which can increase students' vocabulary. The ADDIE method consists of five detailed steps:

1. **Analysis** : Researchers conducted an in-depth investigation into problems in teaching English in elementary schools. This includes classroom observations, interviews with English teachers, and analysis of the curriculum and students' needs regarding vocabulary development.
2. **Design** : This stage involves planning and designing learning media using Wordwall. Researchers designed the structure and content of the Wordwall game to be developed, focusing on vocabulary learning objectives and supporting the "My Next Words" curriculum.
3. **Development** : The researcher implemented the design that had been planned in the previous stage. This includes creating a Wordwall game based on a pre-arranged design, including template selection, game type (such as word puzzles, quizzes, and random cards), as well as integration of features that support interactive learning.
4. **Implementation** : After development is completed, Wordwall products are evaluated and approved by education and technology experts. Following permission, Wordwall was integrated into the learning process at SD Negeri 1 Baktiseraga's grade 4 in second semester.
5. **Evaluation** : The evaluation stage was carried out to evaluate the effectiveness of Wordwall media in improving students' understanding and mastery of vocabulary. Judges or educational experts will assess the quality of learning materials, user experience, and their impact on student learning motivation.

Using this approach, this research aims to develop and test the effectiveness of Wordwall as an innovative learning tool in improving elementary school students' English vocabulary.

### Research Results and Discussion

In this research, the ADDIE model was used as the main framework to guide the systematic development and evaluation of a digital Wordwall-based learning tool. Each step of the ADDIE model will be explained as follows:

### 1. Analysis

Researchers conducted observations and interviews with fourth semester English teachers at SD Negeri 1 Baktiseraga Singaraja to identify problems in teaching vocabulary using the book "My Next Word" and additional Wordwall-based media. Questionnaires and interview guides are prepared for teachers and students, focusing on user needs and learning objectives. Analysis of independent school curricula to ensure suitability of the final product as well as proper integration with the content of the "My Next Word" book.

### 2. Design

Researchers designed each chapter in the book "My Next Word" into a game media called Wordwall Web-Based Digital Media. Blueprints are created based on data from learning module analysis, and the content is adjusted. Two experts provide feedback on the blueprint that has been created before the researcher continues to perfect it.



### 3. Development

After getting feedback from experts, researchers continued by developing Wordwall-based digital media. The initial design was changed to a web-based game that can be accessed online via mobile phone or laptop. Several steps are taken in this stage, including developing the content of the book "My Next Word", collecting assets such as formulating questions that are appropriate to the topic and learning objectives, as well as adding image and audio elements. After the game is developed, input and feedback from experts is used to refine and develop the final version of the blueprint. Researchers continue to collect product effectiveness data by conducting expert assessments

Expert	Percentage	Criteria
Expert 1	$\text{Percentage} = \frac{\text{actual score}}{\text{SMI}} \times 100\%$ $= \frac{49}{55} \times 100\%$ $= 89\%$	Very Good
Expert 2	$\text{Percentage} = \frac{\text{actual score}}{\text{SMI}} \times 100\%$ $= \frac{42}{55} \times 100\%$ $= 94\%$	Very Good

Expert	Percentage	Criteria
Expert 1	$\text{Percentage} = \frac{\text{actual score}}{\text{SMI}} \times 100\%$ $= \frac{47}{50} \times 100\%$ $= 94\%$	Very Good
Expert 2	$\text{Percentage} = \frac{\text{actual score}}{\text{SMI}} \times 100\%$ $= \frac{49}{50} \times 100\%$ $= 98\%$	Very Good

According to Tegeh's (2010) level of completeness, the calculation of the total score for the Content Assessment Results above shows that the quality is very good. Meanwhile, the quality of the media is considered very good and only requires minor revisions. After the development and revision stages, a validity test was carried out to collect data regarding the quality of the game being developed. Based on the results of these steps, it can be concluded that web-based games are very suitable for development as learning media. Content evaluation sheets and media evaluation sheets are used as tools and have been validated using Gregory tables. And the results obtained show that the blueprint is categorized as very good based on analysis using the Gregory Formula. This shows the final product is ready to be implemented, here is the final game from this research:

No	Name Of The Game	Link Of The Game	Picture
1	Let's guess the time!	<a href="https://wordwall.net/resource/72402759/bahasa-inggris/lets-guess-the-time-word-use">https://wordwall.net/resource/72402759/bahasa-inggris/lets-guess-the-time-word-use</a>	
2	Let's make a sentence!	<a href="https://wordwall.net/resource/72400866/bahasa-inggris/lets-make-a-sentence-word-grammar">https://wordwall.net/resource/72400866/bahasa-inggris/lets-make-a-sentence-word-grammar</a>	



- 3 Let's spell the time! <https://wordwall.net/resource/72401135/bahasa-inggris/lets-spell-the-time-word-formation>
- 4 What time is it? <https://wordwall.net/resource/71001181/bahasa-inggris/what-time-is-it-word-meaning>
- 5 Let's match activities! <https://wordwall.net/resource/72409976/bahasa-inggris/lets-match-activities-word-grammar>
- 6 Let's answer this! <https://wordwall.net/resource/72411773/bahasa-inggris/lets-answer-this-word-meaning>
- 7 Let's spell this activity <https://wordwall.net/resource/72560328/bahasa-inggris/lets-spell-this-activity-word-formation>
- 8 I Go to School After Having Breakfast <https://wordwall.net/resource/71003655/bahasa-inggris/i-go-to-school-after-having-breakfast-word-use>
- 9 Let's spell the meaning <https://wordwall.net/resource/72636009/bahasa-inggris/lets-spell-the-meaning-word-formation>



- 10 Fill the blank <https://wordwall.net/resource/72642167/bahasa-inggris/fill-the-blank-word-grammar>
- 11 Let's understand the meaning <https://wordwall.net/resource/72635689/bahasa-inggris/lets-understand-the-meaning-word-meaning>
- 12 He Always Gets Up at 5 O'clock <https://wordwall.net/resource/71004931/bahasa-inggris/he-always-gets-up-at-5-o'clock-word-use>
- 13 Let's complete the sentences <https://wordwall.net/resource/72744161/bahasa-inggris/lets-complete-the-sentences-word-grammar>
- 14 Lets Spell It <https://wordwall.net/resource/72666057/bahasa-inggris/lets-spell-it-word-formation>
- 15 What am I? <https://wordwall.net/resource/72664705/bahasa-inggris/what-am-i-word-use>
- 16 How Do You Go to School? <https://wordwall.net/resource/71008279/bahasa-inggris/how-do-you-go-to-school-word-meaning>





- 17 He Goes to School by Bike <https://wordwall.net/resource/71010584/bahasa-Inggris/he-goes-to-school-by-bike-word-grammar>
- 18 Lets do the quiz <https://wordwall.net/resource/72685051/bahasa-Inggris/lets-do-the-quiz-word-use>
- 19 Lets speaking! <https://wordwall.net/resource/72685823/bahasa-Inggris/lets-speaking-word-formation>
- 20 Which one is in the water and on land? <https://wordwall.net/resource/72685287/bahasa-Inggris/which-one-is-in-the-water-and-on-land-word>



#### 4. Implementation

Implementation was carried out with fourth grade students at SD Negeri 1 Baktiseraga, who were divided into small groups. English teachers are also involved in testing as users.

#### 5. Evaluation

After implementation, researchers evaluated the use of the online game Wordwall English by collecting data from students and teachers through questionnaires. Evaluation results show that this game is very effective in the teaching and learning process, as proven by student and teacher feedback.

The ADDIE model is highly regarded in the field of instructional design because of its role as an established framework that facilitates the development of effective instructional design Widyastuti & Susiana (2019) therefore this research uses this model, based on the steps that have been taken and feedback from experts and English teachers can also say that Wordwall can help students learn vocabulary by developing the material in the book "My Next Word" into an interactive game. There are 20 types of games that have been created using Harmer's (1991) theory, namely Word Meaning, Word Grammar, Word Formation, Word Use, showing that with the large selection of game types in Wordwall it can cover all students' needs starting from Reading, Speaking, Writing and Listening. .

Previous studies from Marhamah and Mulyadi (2020) show that using Wordwall images as a teaching tool to introduce English vocabulary to beginners is an interactive and effective learning method. The presence of images in Wordwall actively engages students in understanding and remembering new words, increasing their interest in learning English. So the large choice of backgrounds and attractive colors is also a positive value that can make students interested in learning to use Wordwall.

The focus on developing material based on the book "My Next Word" is expected to help teachers at SD Negeri 1 Baktiseraga, especially second semester fourth grade, to further optimize the material in the textbook so that learning is effective. Because obey Novianti & Ambarwati (2023) Textbooks make a diverse contribution to the learning process, providing the materials, exercises, instructions, texts, and understanding needed by teachers to achieve educational goals. So it really needs to be developed

However, it is important to acknowledge the limitations of this study. The sample size is relatively small, and the focus of material development is only one book "My Next Word". So future research can utilize a larger sample size and develop materials more fully so as to explore the ongoing impact of Wordwall learning over time. In conclusion, this research shows the potential of technology in improving language learning outcomes among elementary school students. By leveraging platforms like Wordwall, educators can create dynamic learning experiences that not only stimulate students' interest but also prepare them with important skills for their academic and professional future. Going forward, continued research and implementation of innovative technological tools will be crucial in shaping effective language education strategies in the 21st century.

### Conclusion and Suggestion

In the context of English language learning in Indonesia, there are several barriers that need to be overcome, such as the lack of use of technology and boredom in traditional learning. To improve the learning process, technology-based applications such as Wordwall can be an effective solution. Wordwall as an interactive learning media has been proven to increase students' interest and motivation, especially in vocabulary learning.

This research aims to create a web-based English game as a learning medium for grade 4 primary school students, with a focus on improving vocabulary comprehension. The game content is based on the curriculum outlined in "My Next Word," a publication from the Ministry of Education and Culture designed specifically for grade 4 semester 2 students.

Utilizing the Wordwall platform as its processing media, this research is limited to the content found in the book "My Next Word" in its implementation. The results of this study are expected to be a benchmark for educators in developing similar interactive learning media for teaching vocabulary to grade 4 semester 2 elementary school students.

Based on the needs and curriculum analysis, the researcher created 20 games based on five topics using the Wordwall platform. Feedback from teachers and students indicated that the online games in English were very effective in increasing students' motivation and engagement. It is recommended to develop more games to match the variety of students' needs. Technologies such as Wordwall can be scaled up and adopted more widely by schools to enhance English learning at the primary level, providing an interactive and fun learning experience for students.

### Reference

Abidin, D., Retnaningrum, E., Parinussa, J. D., Kuning, D. S., Manoppo, Y., & Kartika, I. M. (2023). Curriculum development in Indonesia from a historical perspective. *Journal of Education Research*, 4(2), 443-451.

- Andriani, R., & Rasto, R. (2019). Motivasi belajar sebagai determinan hasil belajar siswa. *Jurnal pendidikan manajemen perkantoran*, 4(1), 80-86.
- Arimbawa, I. G. P. A. (2021). Penerapan word wall game quis berpadukan classroom untuk meningkatkan motivasi dan prestasi belajar biologi. *Indonesian Journal of Educational Development (IJED)*, 2(2), 324-332.
- Bakhsh, S. A. (2016). Using Games as a Tool in Teaching Vocabulary to Young Learners. *English language teaching*, 9(7), 120-128.
- Findawati, Y. (2014). Suprianto, “Bahan Ajar Multimedia Interaktif Kewirausahaan SMK Menggunakan model Pembelajaran Problem Based Learning”. *JNTETI*, ISSN, 2301-4156.
- Gregory, R. J. (2004). *Psychological testing: History, principles, and applications*. Pearson Education India.
- Hamers, J. F., & Blanc, M. (2000). *Bilinguality and bilingualism*. Cambridge University Press.
- Harmer, J. (2007). The practice of English language teaching 4th edition. *Harlow: England Pearson Education*.
- Jantke, K. P., & Hume, T. (2015, January). Effective learning through meaning construction in digital role playing games. In *2015 IEEE International Conference on Consumer Electronics (ICCE)* (pp. 653-656). IEEE.
- Liyana, A., & Kurniawan, M. (2019). Speaking pyramid sebagai media pembelajaran kosa kata bahasa inggris anak usia 5-6 tahun. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 3(1), 225-232.
- Mardali, J., & Siyyari, M. (2019). English teachers’ beliefs and practices in teaching vocabulary: The case of teaching experience. *Cogent Education*, 6(1), 1686812.
- Marhamah, M., & Mulyadi, M. (2020). The effect of using word wall picture media and linguistic intelligence to enhance learning outcomes of English vocabularies. *Journal of Educational and Social Research*, 10(2), 134-142.
- Mubar, M. K. N. A. (2015). Developing English learning materials for young learners based on needs analysis at MTSN model Makassar. *ETERNAL (English, Teaching, Learning, and Research Journal)*, 1(2), 313-330.
- Novianti, P., & Ambarwati, E. K. (2023). A Textbook Analysis of “My Next Words” for the Fifth Grade Elementary School. *Jo-ELT (Journal of English Language Teaching) Fakultas Pendidikan Bahasa & Seni Prodi Pendidikan Bahasa Inggris IKIP*, 10(1), 12-25.
- Pradini, P. C., & Adnyayanti, N. L. P. E. (2022). Teaching english vocabulary to young learners with wordwall application: An experimental study. *Journal of Educational Study*, 2(2), 187-196.
- Retnawati, H. (2016). Proving content validity of self-regulated learning scale (The comparison of Aiken index and expanded Gregory index). *REiD (Research and Evaluation in Education)*, 2(2), 155-164.
- Richey, R. C., & Klein, J. D. (2005). Developmental research methods: Creating knowledge from instructional design and development practice. *Journal of Computing in higher Education*, 16, 23-38.

- Richey, R. C., & Klein, J. D. (2014). Design and development research. *Handbook of research on educational communications and technology*, 141-150.
- Tegeh, I. M. (2022). The Impact Of Social Skills Training On The Ability To Cooperate In Early Childhood. *Indonesian Values and Character Education Journal*, 5(1), 32-41.
- Tegeh, I. M., & Kirna, I. M. (2013). Pengembangan Bahan ajar metode penelitian pendidikan dengan addie model. *Jurnal Ika*, 11(1).
- Widyastuti, E. (2019, March). Using the ADDIE model to develop learning material for actuarial mathematics. In *Journal of Physics: Conference Series* (Vol. 1188, No. 1, p. 012052). IOP Publishing.
- Yulita, F. R., & Hertiki, H. (2023). Tiktok as a Learning Media in Teaching Speaking Skill: EFL Students' Perception. *Journey: Journal of English Language and Pedagogy*, 6(2), 349-355.