ENTITA: *Jurnal Pendidikan Ilmu Pengetahuan Sosial dan Ilmu-Ilmu Sosial*
Special Edition: Renaisans 1st International Conference of Social Studies
Available online: https://ejournal.iainmadura.ac.id/index.php/entita/index

ENTITA: *Jurnal Pendidikan Ilmu Pengetahuan Sosial dan Ilmu-Ilmu Sosial*
http://ejournal.iainmadura.ac.id/index.php/entita
P-ISSN:2715-7555 E-ISSN:2716-1226

Development of Wordwall Educational Game-Based Learning Media for Social Studies Learning Materials

Harirah[(1)], Ahmad Imam Khairi[(2)],
[(1)]Institut Agama Islam Negeri Madura, Indonesia, [(2)]Universitas Negeri Surabaya, Indonesia
[1]harirahkuddah09@gmail.com, [2]ahmad.2300@mhs.unesa.ac.id

Abstract

Learning media plays a crucial role in enhancing student interest, understanding, and engagement in the learning process. At SMP Negeri 1 Pamekasan, social studies learning is still dominated by conventional media, leading to student boredom, particularly among Generation Z and Alpha, who are more accustomed to technology. This study aims to develop and evaluate the validity of Wordwall educational games in social studies learning at SMP Negeri 1 Pamekasan. The research employs the Research and Development (R&D) method with the 4D development model by Thiagarajan, consisting of four stages: Define, Design, Develop, and Disseminate. Data collection was conducted using observation, interviews, questionnaires, and research instruments. Qualitative data analysis follows the Miles and Huberman framework, while quantitative data were processed to determine product feasibility using Eko Putro Widoyo's theory. The results indicate that the development of Wordwall-based educational game media for social studies subjects at SMP Negeri 1 Pamekasan, following the 4D model, is feasible, with a media feasibility score of 4.4 and a material feasibility score of 4.81, both categorized as "very good."
Keywords: Media Development, Wordwall, Social Studies Learning

Abstrak

Media pembelajaran penting untuk meningkatkan minat, pemahaman, dan keterlibatan siswa dalam proses belajar. Pembelajaran IPS di SMP Negeri 1 Pamekasan masih didominasi oleh media konvensional, yang menyebabkan kebosanan bagi siswa, terutama Generasi Z dan Alfa yang lebih akrab dengan teknologi. Tujuan dari penelitian ini mengembangkan dan mengevaluasi kevalidan game edukatif Wordwall dalam pembelajaran IPS di SMP Negeri 1 Pamekasan. Penelitian ini menggunakan metode R&D (Research and development) dengan model pengembangan 4D oleh Thiagarajan yang terdiri dari 4 tahapan. Pengumpulan data dilakukan dengan menggunakan teknik observasi, wawancara, angket, dan instrumen penelitian. Pada penelitian ini analisis data kualitatif menggunakan teori Miles dan Huberman sedangkan untuk data kuantitatif akan diolah dan ditetapkan nilai kelayakan produk menggunakan teori yang dikemukakan Eko Putro Widoyo. Hasil penelitian menunjukkan bahwa pengembangan media pembelajaran berbasis game edukatif Wordwall pada mata pelajaran IPS di SMP Negeri 1 Pamekasan dilakukan menggunakan model 4D dari Thiagarajan, yang meliputi tahap Define, Design, Develop, dan Disseminate. Media ini dinilai layak digunakan dengan skor kelayakan 4,4 untuk media dan 4,81 untuk materi dengan kategori kelayakan sangat baik..
Kata Kunci: Pengembangan Media, *Wordwall,* Pembelajaran IPS

Received : 07-04-2025 ; Revised: 30-04-2025 ; Accepted: 05-05-2025

http://doi.org/10.19105/ejpis.v1i.19189

Introduction

Understanding social phenomena is essential for teaching individuals to comprehend the complexities of an increasingly interconnected society, especially in the era of globalization (Wuryan Andayani, 2024). Social studies encourage students to respond wisely to social phenomena and events, both past and present.(Siti Anisah & Maratusholihah, 2023). Students with a comprehensive understanding of their communities and global contexts are better equipped to address future issues and contribute meaningfully to society (Kurniawan, 2022) Therefore, teaching social studies holds significant importance. Selecting media that aligns with students' learning needs is a critical element in social studies education (Annainawa, 2021).

Preliminary observations conducted by researchers at SMP Negeri 1 Pamekasan on June 7, 2024, revealed a lack of engaging learning media for students, particularly Generation Z and Alpha, who are inclined toward technology in all aspects of life (Pujiono, 2021). The survey results on the boredom level of social studies (IPS) learning media, distributed to 25 students at SMP Negeri 1 Pamekasan on December 2, 2024, reveal that the primary learning media currently used by educators include textbooks, student worksheets, and PowerPoint presentations, which often lead to a rapid decline in student engagement during the learning process. The data show that out of 25 students, 40% reported feeling "moderately bored," 4% chose "bored," and 8% selected "very bored" with the learning media used. This level of disengagement can be mitigated through the development of more creative educational materials (Firmadani, 2020).

The selection of appropriate and effective learning media plays a crucial role in enhancing student comprehension and engagement within the educational framework (Sofia et al., 2023). Utilizing diverse learning media enables educators to create a dynamic and interactive learning environment, thereby improving students' learning experiences (Mulyadi et al., 2020). The digital era necessitates innovative educational media designs to optimize student engagement and knowledge retention. As Utami (2017) emphasizes, the evolution of learning media directly influences learners’ ability to internalize and apply curricular concepts (Utami, 2017). Among contemporary strategies, leveraging game-based learning has proven particularly effective in sustaining active participation (Rahma & Nurhayati, 2021).

Game-based learning media in educational settings are engineered to bolster cognitive development, concentration, and problem-solving competencies among students (Andini et al., 2023). Such media enhance learners' grasp of curricular content while

empowering educators to craft more dynamic and interactive teaching methodologies (Widyastuti & Puspita, 2020). Beyond delivering engaging instructional material, educational games foster advanced logical thinking and subject-matter comprehension (Vitianingsih, 2017). *Platforms like Wordwall further support this endeavor by providing customizable game templates, facilitating the creation of tailored interactive learning resources* (Arimbawa, 2021).

Wordwall serves as an interactive learning tool particularly well-suited for Generation Z and Generation Alpha, who are recognized as digital natives (Prismanata & Sari, 2022). With its innovative features and user-friendly interface, Wordwall provides an optimal solution for addressing the learning needs of young learners raised in the technological era (Arimbawa, 2021). *Pacman, originally an arcade game, maintains popularity across all age groups.*

Generation Z and Generation Alpha are digital-native cohorts who demonstrate high technological familiarity (Prismanata & Sari, 2022). Digital devices and internet connectivity have become fundamental components of their daily lived experiences throughout their developmental years. Consequently, Wordwall - with its diverse array of interactive games and activities - presents an ideal platform for engaging these learners (Pradani, 2022). The platform enhances educational processes by incorporating elements of enjoyment and interactivity, thereby increasing student motivation and willingness to engage with learning materials (Pradani, 2022).

Several previous studies have investigated the development of instructional media. Nurul Isma Azizah (2023) examined this through the development of Wordwall-based learning media designed to enhance fifth-grade students' academic performance in classroom construction materials (Azizah, 2023). A similar study was conducted by Zam Zam Fauziyah (2017), which resulted in booklet-based learning media for eleventh-grade Biology students (Fauziyah, 2017). Parallel research by Lara Julizawati (2023) yielded digital comic media products aimed at improving reading skills (Julizawati, 2023).

Previous research studies have not yet developed educational game-based media, particularly in the field of Social Studies utilizing the newly implemented autonomous curriculum. Recognizing this gap, the present study emphasizes the importance of investigating the development of Wordwall-based educational games within the Social Studies framework under the autonomous curriculum. Accordingly, this research proposes an innovative intervention entitled: "Development of Wordwall-Based Educational Game Media for Eighth-Grade Social Studies Instruction at SMP Negeri 1 Pamekasan."

Method

This study employs a Research and Development (R&D) approach, which focuses on product creation in educational contexts (Rabi'ah, 2023). The development research utilizes the 4-D model originally established by Thiagarajan et al. (1974). This model serves to systematically develop educational products, particularly learning tools designed to enhance student engagement (Ismail, 2022). As the nomenclature suggests, the 4-D model comprises four distinct phases: (1) Define, (2) Design, (3) Develop, and (4) Disseminate.

Result and Discussion

Penyajian data meliputi hasil validasi dari para ahli dan uji coba lapangan yang dilakukan kepada siswa SMP Negeri 1 Pamekasan yang mewakili demografi pengguna produk. Analisis data mencakup penilaian validitas produk yang dihasilkan dan tanggapan siswa SMP Negeri 1 Pamekasan terhadap produk tersebut. Versi produk yang dihasilkan telah dilengkapi dengan perbaikan-perbaikan yang dinilai oleh para ahli untuk mengembangkan media pembelajaran berbasis *game* edukatif *Wordwall* untuk mata pelajaran IPS yang sesuai dengan kurikulum kelas VIII pada materi "Kondisi Geografis dan Pelestariann Sumber Daya Alam"

Prototype Product Description

This study describes the product development process using Thiagarajan's 4-D model to create an educational game-based learning medium using Wordwall. The development model consists of the following stages:

1. *Define Stage*

   The first phase of Thiagarajan's four-dimensional framework is the Define stage. The objective of this stage is to systematically examine and collect information regarding the requirements for developing a Wordwall-based educational game in Social Studies (IPS), particularly focusing on the topic "Geographical Conditions and Natural Resource Conservation." This stage assesses the necessary criteria for media development and involves five distinct steps, as outlined below:

   a) *Front-end Analysis (Preliminary Analysis)*

      This stage was conducted through interviews with Social Studies (IPS) teachers and the distribution of a questionnaire on learning media boredom levels

among eighth-grade students to identify fundamental challenges in the learning process.

Based on interviews with IPS teachers at SMP Negeri 1 Pamekasan, it was found that educators predominantly rely on PowerPoint presentations, student worksheets, and textbooks for instruction. Additionally, teachers reported difficulties in maintaining student engagement due to frequent loss of focus. According to Ervana et al. (2022), one of the primary reasons students lose focus is extreme boredom or fatigue, which can be triggered by monotonous teaching methods, lack of activity variation, or unengaging learning media. (Yulistiorini et al., 2022)

Based on the questionnaire distributed to 25 students, it was found that 52% of respondents expressed boredom with Social Studies (IPS) learning media. Specifically, 8% reported feeling "very bored," 4% indicated "bored," and 40% felt "moderately bored." This issue stems from the predominant use of monotonous teaching materials, such as worksheets (LKS), PowerPoint presentations, and textbooks. Consequently, it can be concluded that there is a lack of engaging IPS learning materials for eighth-grade students at SMP Negeri 1 Pamekasan.

To address this challenge, the researcher will develop Wordwall-based learning media, a digital educational game designed to enhance both learning enjoyment and knowledge comprehension. This approach aligns with the findings of Pujiono (2021), who emphasized that digital media is highly relevant for modern education, particularly for Generation Z and Alpha students, who are deeply immersed in technology in all aspects of their lives. (Pujiono, 2021)

b) *Learner Analysis* (Analisa Peserta Didik)

To complete the Learner Analysis stage, it is crucial to identify the specific student population targeted for the learning media development process. This involves determining the average age of students to classify their age group, assessing their academic capabilities, and evaluating their willingness to engage with Social Studies (IPS) subjects.

Based on the researcher's survey results, the average student age was found to be 13 years old (born in 2011). According to McCrindle (2021), individuals born between 2011-2025 belong to Generation Alpha. Generation Alpha represents the first cohort to grow up entirely in the digital era, characterized by their strong attachment to digital devices such as smartphones and tablets (McCrindle, 2021). In the context of education, this suggests that digital-based learning resources are

most appropriate for this generation. Wordwall serves as one such example of this type of media.

The survey results also revealed that students' interest in IPS subjects was relatively high, with 44% of students expressing that they "like" the subject, 4% "strongly like" it, 40% are "moderately interested," and 12% "dislike" IPS. However, this stands in contrast to their academic performance, which was relatively low, with an average score of 65. This discrepancy may be attributed to students' boredom with monotonous IPS learning materials, as 52% reported feeling disengaged with the current instructional media. Wordwall functions as a digital-based learning resource that aligns with the characteristics of Generation Alpha. Therefore, it can be concluded that this type of media is highly necessary.

c) *Task Analysis*

The Task Analysis stage requires researchers to examine the specific competencies to be developed through skill acquisition. All exercises incorporated in the learning media are cognitively-oriented, featuring a series of fifteen multiple-choice questions related to the topic "Geographical Conditions and Natural Resource Conservation."

d) *Concept Analysis*

The concept analysis stage in this research aims to identify the key concepts that will be delivered through the Wordwall educational game-based learning media. At this stage, the researcher uses the Class VIII Social Sciences textbook as a learning resource. The Book Center of the National Education Standards Agency (BSNP), under the Ministry of Education, Culture, Research, and Technology, is responsible for compiling this book. This book aligns with the Merdeka Belajar curriculum.

e) *Specifying Instructional Objectives*

The concept analysis stage in this research aims to identify the key concepts to be delivered through Wordwall's educational game-based learning media, using the Class VIII Social Sciences textbook from Indonesia's National Education Standards Agency (BSNP) under the Ministry of Education as the primary reference. This textbook follows the Merdeka Belajar curriculum, ensuring alignment with national educational standards. The learning objectives were systematically developed into five key points: (1) analyzing correlations between geography, economic activities, and the arrival of Buddhism/Hinduism in Indonesia; (2)

demonstrating Indonesia's ecological diversity; (3) examining natural resource utilization; (4) evaluating social institutions' role in resource management; and (5) developing strategies to improve human resource quality - all of which will guide the content development for the Wordwall learning media.

2. *Design Stage*

In this design process stage, the objective is to develop a Wordwall game-based learning media focusing on the topic "Geographical Conditions and Natural Resource Conservation." The following activities were conducted by researchers during this phase:

a) *Constructing Criterion-Referenced Test*

At this stage, the researcher compiled a set of questions to be incorporated into the Wordwall game-based learning media. This activity was carried out on November 1, 2024. Below are the questions developed by the researcher:

Table 1. Question Design

Question	Answer Options
Indonesia has many different types of plants and animals on each island. One example is...	a. Komodo b. Panda c. Polar Bear d. Giraffe
Indonesia's natural diversity is influenced by...	a. Indonesia's location on the equator b. Indonesia having only one season c. All regions in Indonesia being mountainous d. Few rivers existing in Indonesia
Natural resource utilization must be done wisely. An example of good utilization is...	a. Mass deforestation without replanting b. Using solar power as an electricity source c. Opening mines without environmental consideration d. Fishing with explosives
One negative effect of unsustainable natural resource use is...	a. Increased tourism b. Environmental damage c. More job opportunities d. Higher export quantities
To improve Indonesia's human resources, the government should...	a. Provide skills training to communities b. Open more coal mines in remote areas c. Clear forests for settlements d. Reduce schools in rural areas
An educational program that can improve human resource quality in Indonesia is...	a. Closing small village schools b. Providing scholarships to high-achieving students c. Removing difficult subjects d. Reducing education budgets
Social institutions can help preserve natural resources by...	a. Providing environmental conservation training b. Opening new mines in remote areas c. Cutting trees for construction d. Increasing urban populations

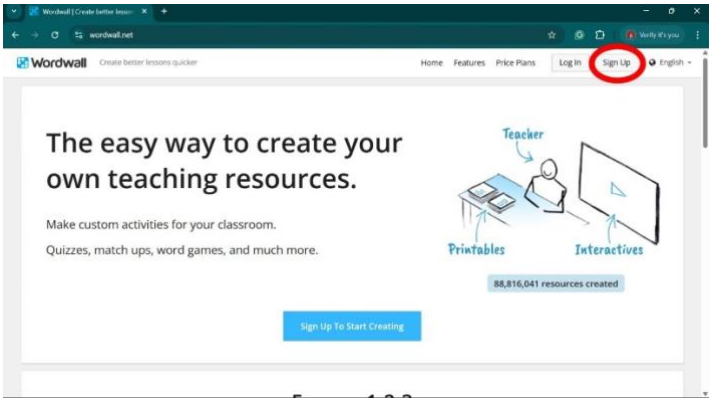
An example of educational institutions' role in human resource development is...	a. Closing small rural schools b. Limiting class sizes c. Teaching new mining techniques d. Teaching farming methods to students
Indonesia's location on global trade routes means...	a. Many Indonesian ethnic groups became farmers b. Indonesians don't know foreign cultures c. Many new religions entered Indonesia d. Indonesia is only known as a remote area
Hinduism-Buddhism came to Indonesia through...	a. Territorial expansion b. Government-led religious spread c. Inter-country wars d. International trade
A plant species unique to Indonesia is...	a. Mango Tree b. Pine Tree c. Rafflesia Arnoldii Flower d. Cherry Blossom Tree
A suitable renewable energy source for Indonesia is...	a. Coal b. Natural Gas c. Petroleum d. Solar Power
Schools can improve student quality by...	a. Providing computer training to students b. Limiting student admissions c. Adding difficult subjects d. Reducing study hours
Social institutions can help protect the environment by...	a. Mass deforestation b. Educating about forest importance c. Opening mines in forest areas d. Reducing green spaces
Strategic trade routes made Indonesia...	a. Receive Hindu-Buddhist influences from traders b. Become a single-religion country c. Isolate from other nations d. Unfamiliar with foreign cultures

b) *Media Selection*

At this stage, the researcher created an account and selected a template to develop an educational game-based learning media using Wordwall. This activity was carried out on November 2, 2024. The following are the steps:

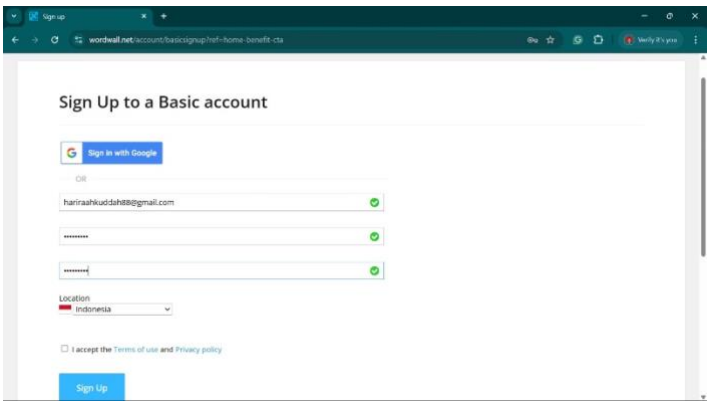
1) Open the website *Wordwall* in www.*wordwall* .net

2) click "*Sign Up*"



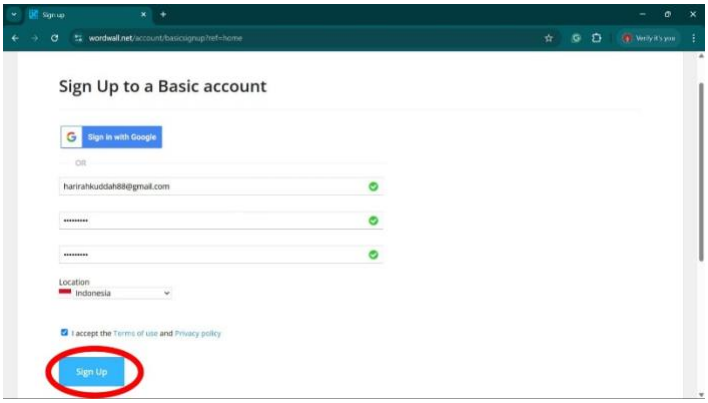
Picture 1. Sign Up

3) Fill in the data by entering your name, email, and password.



Picture 1. Personal Data Tutorial

4) Agree & Sign Up by ticking the agreement, then cklik "*Sign Up*".

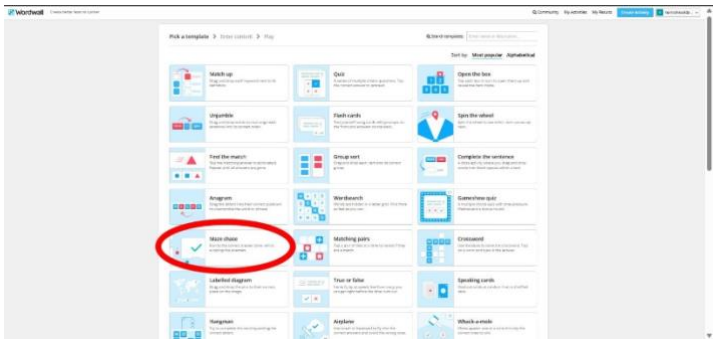


Picture 3. Sign Up Tutorial

5) Click "*Create Activity*"

Picture 4. Create Activity Tutorial

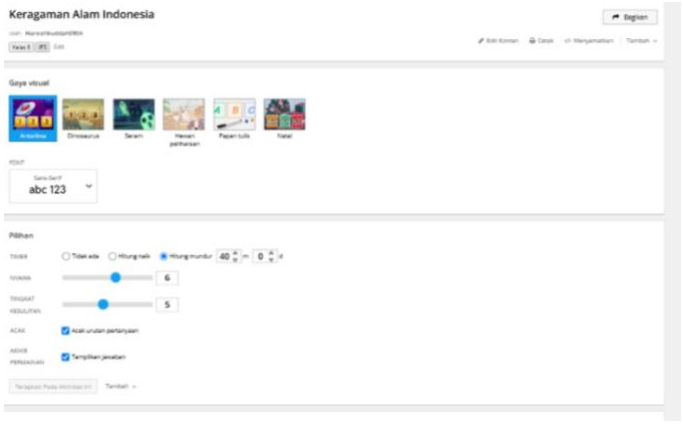
6) *Choose a template* "*Maze Chaze*"



Picture 5. Template Selection View

c) *Format Selection*

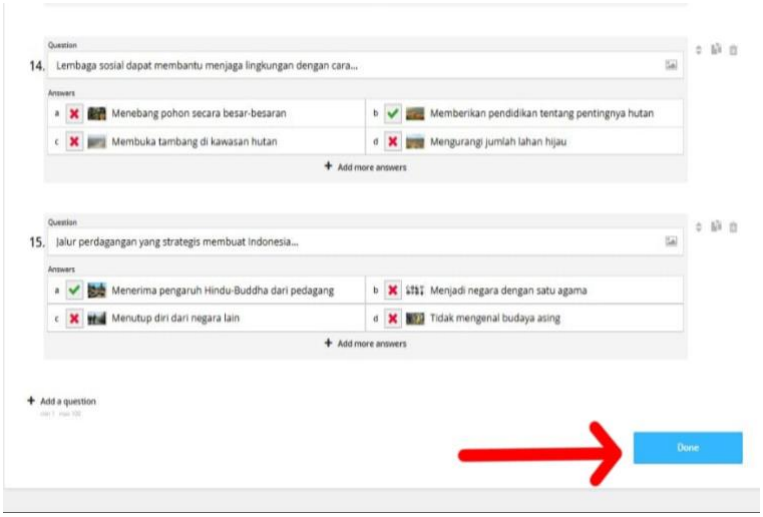
At this stage, researchers selected the visual style, font selection, time, difficulty level and number of avatar lives used. At this stage, the researcher only carried it out after the revision was made because the settings could be made after the account was upgraded. This activity was carried out on January 25, 2025



Picture 6. Format editing view

d) *Initial Design*

At this stage, the researcher enters the questions that have been made previously into the selected template and selects the image that represents the answer. After all the questions were inserted into the template, click “done” to save the content. This activity was carried out on November 2, 2024.



Picture 7. Problem Filling

3. *Develop Stage*

This research project will concentrate on the development stage, namely the creation of learning media products using the Wordwall educational game. The researcher is now conducting two different projects. The actions included in each level are mentioned below:

a) *Expet Appraisal*

At this stage, it is done by getting an assessment from experts. Three experts participated in the first development assessment conducted by researchers. The panel consists of two learning media experts and one IPS learning media resource expert. The following are the results of the assessment of the validators:

1) Material expert validation

On December 2, 2024, Mrs. Ida Mastutiningsih, M. Pd. who served as the 8th grade social studies teacher at SMP Negeri 1 Pamekasan conducted an assessment of educational game-based learning media material in the Wordwall. The purpose of the assessment conducted at SMP Negeri 1 Pamekasan is to collect data and statistics. The data is then used to revise the learning materials developed so that the learning media materials are in accordance with the learning outcomes before conducting field tests.

The assessment was carried out by filling out a numerical rating scale learning media material assessment questionnaire. The following are the results of validation from material experts, namely:

Table 1. Material Expert Validation Sheet

No	Variable	Indicator	Score	Criteria
1	Content Appropriateness Aspect	Suitability of material with learning outcomes	5	**Very good**
		The depth of the material is in accordance with the cognitive development of students	5	
		The correctness of the concepts presented	4	
		The usefulness of learning media based on wordwall educational games	5	
2	Language Aspects	Conformity with the General Indonesian Spelling Guidelines	5	**Very good**
		Effectiveness and efficiency of language	5	
3	Presentation Aspect	Clarity of objectives and indicators on the media	5	**Very good**
		Completeness of information	4	
		Presentation of learning media motivates students	5	

2) Media expert validation

Assessment of learning media based on Wordwall educational games was carried out by two validators. The first validator was Mr. Muhammad Hadiatur Rahman, and the second validator was Mr. A. Fathikul Amin Abdullah as a media expert lecturer on January 14, 2025 and January 20, 2025. The assessment conducted at IAIN Madura has the aim of obtaining data. The data contains aspects that can show the quality of the learning media that has been made, so that it can be a reference for researchers to revise the learning media before conducting field tests. The assessment was carried out by filling out a questionnaire assessment of the learning media on a graded scale (numerical scale) The following is the acquisition of validation results from media experts, namely:

Table 3. Media Expert Validation Sheet

No	Variable	Indicator	Validator Score 1	Validator Score 2	Criteria
1	Display and Content	Attractiveness of animation effects	5	5	**Very good**
		Ease of operating system	5	5	
		Appropriateness of navigation button layout	4	5	
		Appropriateness of image selection	4	5	
		Appropriateness of authorship	4	5	
2	Illustration	Illustrations of media interaction help students understand the theme "Geographical Conditions for the Preservation of Natural Resources".	4	4	**Good**
3	Quality	Media durability	5	5	**Very good**
		Media attractiveness level	5	5	
		Clarity of media display	4	4	
		Effective and efficient	4	4	

The Wordwall educational game-based learning media requires many modifications before being tested on students, as shown by the assessment results given by material experts and media experts. This media revision was adjusted to the experts' suggestions. The revision was conducted on January 25, 2025 The following table illustrates the changes made according to the suggestions given by the material experts and media experts:

Table 2. Media Expert Suggestion

No	Advice	Revise
1	Question material is narrowed down to only one learning outcome indicator.	The question material was narrowed down to only one learning outcome indicator, which is to describe Indonesia's natural diversity.
2	*Upgrade wordwall account to pro account*	Wordwall account upgraded to pro account
3	Increase the difficulty of the game	Game difficulty level increased to .....
4	Increase the number of hearts 50% of the questions	Number of hearts increased to 6
5	Adjust the amount of work duration	The duration of the question is 40 minutes.

6	Increase the clarity of the images on the questions	Selecting HD images in the game so that they are not blurred

b) *Developmental Testing*

A large group trial consisting of thirty-two students was conducted to assess their perceptions of the educational game-based learning materials offered by Wordwall. This activity took place on February 24, 2025 in class VIII C. Students were introduced to the media before development, namely the pacman game and then taught about the material of Indonesia's natural diversity. After the activity, students were asked to work on questions using educational game-based learning media Wordwall.

The results of the large group trial were then compared with the daily test scores on the same material that had been carried out by educators. The following are the results of the comparison of learning values carried out using Wordwall and before using Wordwall. The information presented in the table above shows that the average score obtained by 32 students before using Wordwall was 43 percentage points. During that time period, the average score obtained by students using Wordwall learning materials increased to 84. This indicates that Wordwall media is suitable for use with these students.

4. *Dessimnate Stage*

At the dessiminate stage is done by disseminating learning media based on educational games Wordwall in a limited manner. Researchers conduct limited dessiminate to social studies teacher SMP Negeri 1 Pamekasan class VIII C, namely Mrs. Ida Mastutiningsih and conduct product trials located in SMP Negeri 1 Pamekasan.

Data Analysis

The assessments made by the expert validators assigned to evaluate the progress of the learning media created by the researcher, are included in the data analysis paper. The expert validation assessment had two outputs which are detailed as follows:

1. Material Validation Results

Data analysis of validation results from material experts evaluating the feasibility of content in Wordwall educational game-based learning media with the topic “Geographical Conditions and Natural Resources Conservation”. The following results are obtained after evaluation and validation by material experts.

Table 5. Learning Media Material Feasibility Score

No	Variable	Indicator	Score	Variable Averages	Criteria
1	Content Appropriateness Aspect	Suitability of material with learning outcomes	5	4.75	Very good
		The depth of the material is in accordance with the cognitive development of students	5		
		The correctness of the concepts presented	4		
		The usefulness of learning media based on wordwall educational games	5		
2	Language Aspects	Conformity with the General Indonesian Spelling Guidelines	5	5	Very good
		Effectiveness and efficiency of language	5		
3	Presentation Aspect	Clarity of objectives and indicators on the media	5	4.67	Very good
		Completeness of information	4		
		Presentation of learning media motivates students	5		
Learning Media Material Feasibility Score				4.81	Very good

To calculate the mean value of the feasibility of learning media = $\frac{Sum\ of\ the\ average\ scores\ of\ each\ variablel}{Number\ of\ Variable}$

The average value of the feasibility of learning media material = $\frac{14{,}42}{3}$

The average value of the feasibility of learning media material = $4{,}81$

Table 6. Numarical Rating Scale

Score	Criteria
5	Very Good
4	Good
3	Fairly Good
2	Poor
1	Very Poor

The assessment conducted by the material expert on the Wordwall educational game learning media product produces a feasibility value above 4.2 which is categorized as very good. Thus, it can be concluded that Wordwall educational games as learning media are suitable for use without requiring content adjustments.

2. Learning Media Validation Results

Evaluation of validation results from material experts includes analysis of learning media based on Wordwall educational games After obtaining validation from media experts, the next results are obtained:

Table 7. Learning Media Feasibility Score

Variable	Indicator	Validator Score 1	Validator Score 2	Variable Averages	Criteria
Display and Content	Attractiveness of animation effects	5	5	**4.7**	**Very good**
	Ease of operating system	5	5		
	Appropriateness of navigation button layout	4	5		
	Appropriateness of image selection	4	5		
	Appropriateness of authorship	4	5		
Illustration	Illustrations of media interaction help students understand the theme "Geographical Conditions for the Preservation of Natural Resources".	4	4	**4**	**Good**
Quality	Level of media durability	5	5	**4.5**	**Very good**
	Level of media attractiveness	5	5		
	Clarity of media display	4	4		
	Effective and efficient	4	4		
Learning Media Feasibility Score				**4.4**	**Very good**

To calculate the mean value of the feasibility of learning media =

$$\frac{JThe\ sum\ of\ the\ average\ scores\ of\ each\ variable}{Number\ of\ Variables}$$

Average learning media feasibility score = $\frac{13.2}{3}$

Average learning media feasibility score = $4{,}4$

Table 8. Numarical Rating Scale

Score	Criteria
5	Very Good
4	Good
3	Fairly Good
2	Poor
1	Very Poor

The eligibility value obtained exceeds 4.2, in accordance with the media expert's assessment of the Wordwall educational game learning media product. Therefore, it

can be concluded that the Wordwall educational game learning media is suitable for use as is, without the need for changes.

Conclusion

Based on the research findings, it can be concluded that the development of Wordwall-based educational game media for social studies at SMP Negeri 1 Pamekasan successfully followed Thiagarajan's 4D model (Define, Design, Develop, Disseminate), incorporating front-end analysis, expert validation, and online deployment via WhatsApp, with final feasibility scores of 4.4 (media) and 4.81 (content) indicating excellent suitability for classroom use.

Suggestion

Researchers hope that those who want to develop the product further, can develop it using learning materials, questions, and other wordwall templates so that the resulting product is more comprehensive.

References

Annainawa, F. N. (2021). *Pengembangan Media Pembelajaran Pop Up Book pada Pembelajaran Ilmu Pengetahuan Sosial di MTs Mambaul Ulum Kemiri Panti Jember Tahun Pelajaran 2020/2021*. UIN Kiai Haji Achmad Siddiq Jember.

Arimbawa, I. G. P. A. (2021). Penerapan Wordwall Game Quis berpadukan Classroom untuk Meningkatkan Motivasi dan Prestasi Belajar Biologi. *Indonesian Journal of Educational Development*, *2*(2), 324–332. https://doi.org/10.5281/zenodo.5244716

Azizah, N. I. (2023). *Pengembangan Media Pembelajaran Berbasis Wordwall Untuk Meningkatkan Prestasi Belajar Siswa Pada Materi Bangun Ruang Kelas V MI Raden Fatah Malang*. Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Fauziyah, Z. Z. (2017). Pengembangan Media Pembelajaran Berbasis Booklet pada Mata Pelajaran Bilogi untuk Siswa Kelas XI MIA 1 Madrah Aliyah Alauddin Pao Pao dan MAN 1 Makassar. In *UIN Alauddin Makassar*. UIN Alauddin Makassar Oleh:

Firmadani, F. (2020). Media Pembelajaran Berbasis Teknologi Sebagai Inovasi Pembelajaran Era Revolusi Industri 4.0. *Prosiding Konferensi Pendidikan Nasional*, *2*(1), 93–97. http://ejurnal.mercubuana-yogya.ac.id/index.php/Prosiding_KoPeN/article/view/1084/660

Ismail, J. R. (2022). *Pengembangan Lembar Kerja Berbasis Aplikasi WEB Google My Maps*

untuk Mencapai Kompetensi Dasar dalam Pembelajaran Geografi. Universitas Pendidikan Indonesia.

Julizawati, L. (2023). Pengembangan Media Komik Digital Untuk Meningkatkan Keterampilan Membaca Siswa Smpn 40 Pekanbaru. In *Skripsi Thesis, UIN Suka Riau* (Vol. 1, Issue 1). Universitas Islam Negeri Sultan Syarif Kasim Riau.

Kurniawan, G. F. (2022). Hakikat Ilmu Pengetahuan Sosial: Strategi Memahami dan Perbaikan Kesalahan Konsep. *Jipsindo*, *9*(1), 64–78. https://doi.org/10.21831/jipsindo.v9i1.130617

McCrindle, M. (2021). *Generation Alpha*. Hachette UK.

Mulyadi, Syahrul, R., Atmazaki, & Agustina. (2020). The Development of E-Modules Based on Adobe Flash for Indonesian Subjects at IAIN Bukittinggi. *Journal of Physics: Conference Series*, *1471*(1). https://doi.org/10.1088/1742-6596/1471/1/012002

Pradani, T. G. (2022). Penggunaan media pembelajaran wordwall untuk meningkatkan minat dan motivasi belajar siswa pada pembelajaran IPA di Sekolah Dasar. *Educenter : Jurnal Ilmiah Pendidikan*, *1*(5), 452–457. https://doi.org/10.55904/educenter.v1i5.162

Prismanata, Y., & Sari, D. T. (2022). Formulasi Media Pembelajaran untuk Peserta Didik Generasi Z dan Generasi Alfapada Era Society 5.0. *Proceeding of Integrative Science Education Seminar*, *2*(April 2011), 44–58. https://prosiding.iainponorogo.ac.id/index.php/pisces/article/view/697/427

Pujiono, A. (2021). Media Sosial Sebagai Media Pembelajaran Bagi Generasi Z. *Didache: Journal of Christian Education*, *2*(1), 1. https://doi.org/10.46445/djce.v2i1.396

Rabi'ah. (2023). *Pengembangan Media Pembelajaran Interaktif Berbasis Augmented Reality (Ar) Menggunakan Assembler Edu*. Universitas Islam Negeri Ar-Raniry.

Rahma, & Nurhayati. (2021). Pengembangan Media Interaktif Berbasis Game Edukasi pada Pembelajaran Matematika. *Jurnal Edukasi Matematika Dan Sains*, *8*(1), 38–41. https://doi.org/10.24815/jpsi.v8i1.16062

Siti Anisah, A., & Maratusholihah, M. (2023). Meningkatkan Pemahaman Konsep IPS Melalui Penerapan Model CORE (Connecting, Organizing, Reflecting, and Extending). *Jurnal Pendidikan UNIGA*, *17*(1), 761. https://doi.org/10.52434/jpu.v17i1.2675

Sofia, N., Ritonga, M., Arita, S., Syahrul, S., Shalihah, M. A., Dewi, I. P., & Sofya, R. (2023). Peningkatan Keterampilan Berpikir Kritis Melalui Pengembangan E-Modul Perpajakan Berbasis Case Method. *Jurnal Ecogen*, *6*(1), 54. https://doi.org/10.24036/jmpe.v6i1.14185

Utami, R. P. (2017). Pentingnya Pengembangan Media Pembelajaran Dalam Kegiatan

Proses Belajar Mengajar. *Jurnal Dharma Pendidikan*, *12*(2), 62–81.

Vitianingsih, A. V. (2017). Game Edukasi Sebagai Media Pembelajaran Pendidikan Anak Usia Dini. *Inform : Jurnal Ilmiah Bidang Teknologi Informasi Dan Komunikasi*, *1*(1). https://doi.org/10.25139/inform.v1i1.220

Widyastuti, R., & Puspita, L. S. (2020). Pengembangan Media Pembelajaran Berbasis Game Edukasi Pada MatPel IPA Tematik Kebersihan Lingkungan. *Paradigma - Jurnal Komputer Dan Informatika*, *22*(1), 95–100. https://doi.org/10.31294/p.v22i1.7084

Wuryan Andayani, et al. (2024). *Studi Literatur Aspek Ekonomi, Sosial dan Lingkungan Tanggung Jawab Sosial Perusahaan PT Bukit Asam TBK*. 175–192.

Yulistiorini, C. E., Wardani, S. Y., & Kadafi, A. (2022). Identifikasi Faktor Penyebab Burnout Belajar Pada. *Prosiding Seminar Nasional Bimbingan Dan Konseling*, *6*(1), 10–15