



The development of a digital-based learning evaluation tool using wordwall media for persuasive text material in elementary school

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Article info	Abstract
Keywords development, evaluation tool, wordwall	Evaluation is essential to the learning process to assess students' understanding. One of the innovations in learning evaluation is using digital media, such as the Wordwall platform. This study aims to describe the development process of the learning evaluation tool, analyze its effectiveness, and assess its practicality. The research used a development research approach using the ADDIE model, which consisted of five stages: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. The research subjects included fifth-grade students at SDN Pamulian 01 and experts (subject matter experts, media experts, and language experts). The validation results show that the content validity percentage is 93%, while the media validity percentage is 93.75%, meeting the "highly valid" criteria or feasible for testing. Additionally, the students' response questionnaire shows a percentage of 89.4%, while the teachers' response questionnaire results in a percentage of 95.8%, which meets the criteria of "highly effective" and shows the practicality of the evaluation tool. Teachers also expressed that using this learning evaluation tool was considered practical. Therefore, it can be concluded that the Wordwall-based learning evaluation tool for persuasive text material in fifth grade is feasible, valid, practical, and effective for students in fifth grade at SDN Pamulian 01, Larangan District, Brebes Regency.

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1. Introduction

Education development continues to evolve yearly in response to the challenge of preparing high-quality human resources capable of competing in the Industrial Revolution 4.0. Whether willingly or not, individuals must adapt to modern technology's sophistication. The advancement of

technology is driven by rapid and significant progress in Science, Technology, and Information during the Industrial Revolution 4.0, which has also influenced the field of education, particularly in learning methods.

Communication and information technology can be accessed and utilized by anyone, anywhere, as long as they are connected to the internet. Technology is used as an evaluation tool in learning, with the growing development of online assessments supported by computers, laptops, and even smartphones. Technological advancements have significantly influenced the learning process, particularly in implementing learning evaluation. Learning evaluation is an essential competency that a professional teacher must possess. Conducting learning evaluation means assessing students' learning outcomes engagingly and enjoyably.

According to Ratnawulan (2015, p. 22), evaluation in learning is a process or activity used to measure and assess students' abilities regarding knowledge, attitudes, and skills to make decisions regarding their competency status. Evaluation serves as a measurement tool to determine the extent to which students understand the material taught by the teacher. The student's mastery of the learning material can be identified through evaluation.

Evaluation can be implemented using technology, especially since modern life is inseparable from technological advancements. One approach is using digital-based evaluation tools supported by the internet, including applications, websites, or web platforms that offer features to facilitate learning evaluation, such as Google Forms, Liveworksheets, Kahoot, Quizizz, and the Wordwall website. Wordwall is a digital-based technology that can serve as a tool to assist teachers in conducting interactive learning evaluations more engagingly through the use of built-in templates. Idzi'Layyinnati (2021, p. 5) states that Wordwall is a web-based platform designed to create enjoyable quiz-based games, making it a suitable tool for designing and reviewing learning assessments.

Auliya (2021, p. 29) states that Wordwall is a platform that provides educational quiz templates and is an interactive game that can be used in learning. In line with this, Fanny (2020, pp. 18-22) also mentions that Wordwall is an engaging web-based platform accessible via a browser, specifically designed as a learning resource, a medium, and an assessment tool for students, making it adaptable to various needs. This study aims to describe the development of a learning evaluation tool using Wordwall for persuasive text material, analyze the effectiveness of the Wordwall-based learning evaluation tool for persuasive text material, and assess its practicality for fifth-grade students at SD Negeri Pamulian 01.

Several crucial aspects need to be considered based on the analysis of the use of Wordwall in learning evaluation—first, the effectiveness and practicality of using Wordwall as a learning evaluation tool. Using Wordwall as an evaluation tool has positively impacted teachers in conducting learning evaluations, offering a level of practicality and effectiveness that can be used. The study by Fanny Mestyana Putri (2020) revealed that using the Wordwall application in online learning evaluation can be observed in students' academic performance, which has been effectively implemented, with a mastery level of 80.35% in assessments. This finding is consistent with the study by Latifah and Damayanti (2022), which suggests that this evaluation tool can serve as a practical and effective solution for teachers in conducting offline and online assessments.

Second, the development of the Wordwall-based learning evaluation tool has shown optimal results in terms of validity and effectiveness. A study conducted by Latifah and Isnaeni (2020) on second-grade students at SD Negeri 220 Gresik used data analysis techniques, including validity tests, practicality tests, and effectiveness tests. The results showed that the media validity met the "highly valid" criteria, with an average percentage score of 89% from media experts and 85% from subject matter experts. The practicality of the media met the criteria of "highly practical" based on a 92% response rate from students and 100% from teachers. Meanwhile, the effectiveness of the

media was classified as "high" or "highly effective," as indicated by the mastery learning results calculated using the N-Gain method, which resulted in a score of 0.76. Based on these findings, it can be concluded that the evaluation tool using the Wordwall.net platform for second-grade elementary school students is valid, practical, and effective.

Using the Wordwall platform as a learning evaluation tool can enhance students' enthusiasm through its engaging, game-based features. The study by Ar-Rahman et al. (2021) revealed that the use of the Wordwall platform among fifth-grade students at SDIT Al-Mishbah Sumobito Jombang aimed to measure the validity of game-based educational learning evaluation using the Wordwall platform. Among fifth-grade students at SDIT Al-Mishbah Sumobito Jombang, the study also aimed to assess the improvement in learning outcomes before and after using the game-based educational learning evaluation tool and evaluate students' responses to its attractiveness. The research findings indicated that the average validity results were 97% for lesson plans (RPP), 95% for the pre-test, and 98.5% for the post-test. The N-Gain test results showed that 18.6% of students were classified in the low category, 33.3% in the moderate category, and 48.1% in the high category. Additionally, the student response to the attractiveness of the evaluation tool during the trial phase yielded an average score of 90%.

The development, feasibility, and practicality of learning evaluation instruments are also crucial in the learning evaluation process. A study by Auliya (2021) revealed that the feasibility test results from subject matter, media, and language experts were 80.4%, 98.6%, and 96%, all classified as highly feasible. Meanwhile, based on the average student response questionnaire, the practicality test results reached 87.9%, which was categorized as highly practical.

In learning evaluation activities, it is essential to have valid assessment questions. The study by Putra, Mahanani, and Khotimah (2022) found that the subject matter expert assessment resulted in a validity score of 88%, categorized as highly valid and usable without revisions. The item validity test, conducted using SPSS version 26, indicated that 25 questions were valid, while five questions were not, with a reliability score of 0.929, classified as very high reliability. Therefore, the Wordwall-assisted evaluation questions can be used with 25 valid questions.

The discussion above highlights that learning evaluation is essential for measuring students' abilities. In learning evaluation activities, educators need tools that engage students while being effective and practical, offline or online, and contain valid assessment questions. Learning evaluation requires a comprehensive, systematic, and continuous approach. The integration of technology, the involvement of various stakeholders, and measurable evaluation are key to the program's success. These findings provide a strong empirical foundation for the future development of practical, effective, and valid learning evaluation tools.

2. Literature Review

Learning evaluation is a process used to assess students' understanding of the material delivered by the teacher. Evaluating students' learning outcomes and the teaching-learning process involves assessing both aspects to determine how effectively they meet satisfactory standards (Zhu et al., 2018). According to Law of the Republic of Indonesia Number 20 of 2003 on the National Education System, Article 57, Paragraph (1), evaluation is conducted as part of national education quality control, serving as a form of accountability for educational institutions to relevant stakeholders, including students, institutions, and educational programs. The administration of tests can be carried out by utilizing technology, especially since modern life is inseparable from it. One approach is using digital-based evaluation tools supported by the internet, whether through applications, websites, or web-based platforms that offer features to facilitate learning evaluation, such as Google Forms, Liveworksheets, Kahoot, Quizizz, and Wordwall.

Auliya (2021, p. 29) states that Wordwall is a platform that provides educational quiz templates and is an interactive game that can be used in learning. Similarly, Fanny (2020, pp. 18-22) also mentions that Wordwall is an engaging web-based platform accessible via a browser, specifically designed as a learning resource, a medium, and an assessment tool for students. This allows it to be adapted to various needs in learning evaluation activities, including evaluating persuasive text material.

A persuasive text is a type of composition aimed at convincing an audience, whether readers or listeners, to become interested in and take action according to the writer's wants. A persuasive text contains appeals or encouragements, and as a form of writing intended to persuade, the statements within it are designed to influence readers to align with the writer's desires (Kosasih, 2017). According to Hermawati (2020, p. 71), a valid instrument can accurately measure the intended subject, specifically the data used to test the consistency of questions, which consists of 25 test items. This is further reinforced by Khaerudin (2017, p. 108), who emphasizes that question analysis should be conducted based on measurement principles and question formatting, considering aspects such as content, construction, and language to ensure alignment with the test blueprint.

Teachers must be able to utilize current technological advancements, including developing digital-based tools for learning evaluation, particularly in Indonesian language subjects. This enables teachers to provide immediate feedback to students, allowing them to reflect on their performance. As a result, students are expected to be motivated to improve their study methods and achieve better learning outcomes.

In the context of implementation, the success of technology-based learning evaluation tools depends on a supportive ecological system, including teachers' readiness, proficiency in using technology, and the involvement of multiple stakeholders in creating a sustainable digital learning environment.

3. Method

This study used a Research and Development (R&D) approach. According to Sugiyono (2016, p. 407), Research and Development (R&D) is a method used to develop a specific product and test its effectiveness. The study follows the design model developed by Borg and Gall, which provides a systematic sequence of steps to ensure that the developed product meets feasibility standards. This design originally consisted of ten stages; however, this study adopted six stages: identifying potential problems, data collection, product design, design validation, design revision, and product testing. This research was conducted at SD Negeri Pamulian 01 with fifth-grade class B during the 2024/2025 academic year. The research subjects comprised 23 students and three experts (subject matter expert, language expert, and media expert).

The data collection techniques used in this study included (1) observation to identify students' needs; (2) interviews, conducted to understand classroom conditions during the learning process, with interviews carried out with the classroom teacher; (3) questionnaires, used to assess effectiveness through validation by three experts and to gather responses from teachers and students; and (4) documentation, to collect data in the form of photographic records during the study. A research instrument was required for data collection. The instruments used included a subject matter expert validation sheet, which assessed the quality of the test content; a media expert validation sheet, which evaluated the design, visual appearance, and ease of use of the learning evaluation tool; and a practicality instrument for teachers and students, which measured the practicality of the evaluation tool.

The expert validation sheet and the teacher and student response questionnaires were completed by marking (√) in the column that corresponds to the assessment criteria: (0) very poor,

(1) poor, (2) fair, (3) good, and (4) very good. The data analysis technique in this study was used to describe all opinions, suggestions, and feedback from validators obtained from the critique and suggestion sheets. The data from the questionnaire were qualitative and quantified using a Likert scale with four criteria levels. The analysis was conducted by calculating the percentage score of each item for every response in the questionnaire using the following formula:

$$P = \frac{\sum x}{N} \times 100\%$$

Description:

P = Percentage score

$\sum x$ = Total score obtained (actual score)

N = Maximum expected score

Next, the feasibility percentage or validity criteria were determined. The validation criteria used are presented in the following table:

Table 1. Validity level qualification based on percentage

Percentage (%)	Validity Level	Remarks
≥ 85 Score ≤ 100	Highly Valid	No Revision
≥ 65 Score ≤ 84	Valid	No Revision
≥ 45 Score ≤ 64	Fairly Valid	Partial Revision
≥ 0 Score ≤ 44	Less Valid	Total Revision
Percentage (P)	Validity Level	
80 < P ≤ 100	Highly Valid	
60 < P ≤ 80	Valid	
40 < P ≤ 60	Fairly Valid	
20 < P ≤ 40	Less Valid	
0 < P ≤ 20	Not Valid	

The assessment must meet valid criteria. If the criteria are invalid, revisions should be made until valid criteria are achieved. The student response questionnaire for the developed evaluation product contains four or five answer choices, depending on the statement's content.

4. Results and Discussion

Expert Validation of Learning Materials

The validation score data from subject matter experts on the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material in fifth-grade elementary school students were obtained through expert observations conducted by Prasetyo Yuli Kurniawan, S.Pd., M.Pd. (Lecturer at Universitas Muhadi Setiabudi) and Hany Uswatun Nisa, M.Pd. (Lecturer at Universitas Muhadi Setiabudi). A checklist was used to assign scores based on the expert's observations and evaluations of the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material. A complete tabulation of the calculated observation scores is presented in the table below.

Table 2. Recapitulation of subject matter expert validation results for the digital-based learning evaluation tool using wordwall for persuasive text material

No.	Assessed Aspects	Validator Score				Subtotal
		1	2	Average	%	
Content Feasibility						
1	Alignment of material with Core and Basic Competencies (KI & KD)	3	4	3.5	87.5	
2	Alignment of material with learning objectives	4	4	4	100	
3	Alignment of learning material substance within the evaluation tool	4	4	4	100	
4	Clarity and comprehensibility of the material in the evaluation tool	4	4	4	100	3.7
5	Suitability of illustrations (example images) within the evaluation tool with learning material	3	3	3	75	92.5
Linguistic Aspects						
6	Clarity of information readability in the evaluation tool	4	3	3.5	87.5	
7	Ease of understanding the language used	4	4	4	100	
8	Clarity of information delivery in the evaluation tool	4	4	4	100	
9	Sentence structure adherence to proper Indonesian language rules	4	4	4	100	
10	Avoidance of ambiguous interpretations in language use	4	4	4	100	3.9
11	Use of communicative language	4	4	4	100	97.9
Presentation						
12	Clarity of the evaluation tool's objectives	3	3	3	75	
13	Logical sequence of material throughout the evaluation tool	4	3	3.5	87.5	
14	The evaluation tool motivates students to learn	3	3	3	75	
15	The evaluation tool attracts students' interest in studying more actively	4	3	3.5	87.5	
16	Availability of preliminary information before students attempt evaluation questions	4	4	4	100	3.5
17	Student interactivity while using the evaluation tool	4	4	4	100	87.5
Wordwall Reorientation in the Evaluation Tool						
18	The presence of knowledge aspects in the evaluation tool	4	4	4	100	
19	The presence of technological innovation aspects in the evaluation tool	4	4	4	100	
20	Explicit integration of Wordwall quiz web features into the evaluation tool	3	4	3.5	87.5	

No.	Assessed Aspects	Validator Score				Subtotal
		1	2	Average	%	
21	Explicit integration of Wordwall "Gameshow" feature into the evaluation tool	4	3	3.5	87.5	
22	Explicit integration of Wordwall's "Open the Box" feature into the evaluation tool	4	3	3.5	87.5	
23	Explicit integration of Wordwall "Random Wheel" feature into the evaluation tool	3	4	3.5	87.5	
24	Wordwall's "Anagram" feature helps students understand questions more effectively	3	4	3.5	87.5	3.6
25	Additional quiz variations in Wordwall help students in answering quizzes	3	4	3.5	87.5	90.6
Total Score		92	92	3.68	92.00	

To fully understand the content of the table above, further interpretation is necessary. The accumulated data were analyzed based on their respective dimensions. Each dimension was then examined for its characteristics according to the tendencies of expert respondents. The following describes the characteristics of each aspect from the perspective of the subject matter experts.

- 1) Regarding content feasibility, the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material achieved an average score of 3.7 or 92.5%, categorized as highly valid.
- 2) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of linguistic aspects, achieved an average score of 3.9 or 97.9%, categorized as highly valid.
- 3) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Presentation, achieved an average score of 3.5 or 87.5%, categorized as highly valid.
- 4) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Wordwall reorientation within the evaluation tool, achieved an average score of 3.7 or 92.5%, categorized as highly valid.
- 5) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Indonesian language usage, achieved an average score of 3.6 or 90.6%, categorized as highly valid.

Based on the table above, the overall validation by subject matter experts for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material for fifth-grade elementary school students achieved an average score of 3.68 or 92.00%, categorized as highly valid, and can be used without revision.

Media Expert Validation

The validation score data from media experts on the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material in fifth-grade elementary school students were obtained through expert observations conducted by Nur Ariesanto Ramdhan, S. Kom., M.Kom. (Lecturer at the Faculty of Engineering, Muhadi Setiabudi University) and Bambang Irawan, M.Kom. (Lecturer at the Faculty of Engineering, Muhadi Setiabudi University). A checklist was used to assign scores based on the expert's observations and evaluations of the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material. A complete tabulation of the calculated observation scores is presented in the table below.

Table 3. Recapitulation of media expert validation results for the digital-based learning evaluation tool using wordwall for persuasive text material

No.	Assessed Aspects	Validator Score				Subtotal
		1	2	Average	Percentage	
User Interface						
1	Presence of a leaderboard for Wordwall quiz participants	3	4	3.5	87.5	
2	Inclusion of developer identity	4	4	4	100	
3	Display of material title: "Varieties of Sentences in Persuasive Text"	4	3	3.5	87.5	3.75
4	Visual style options in Wordwall are engaging	4	4	4	100	93.75
Presentation						
5.	Layout consistency across all components	4	4	4	100	
6.	Use of appealing colors	4	4	4	100	
7.	Readability of the selected font	3	4	3.5	87.5	
8.	Quality of images used	3	4	3.5	87.5	3.7
9.	Clarity and comprehensibility of the content within the evaluation tool	4	3	3.5	87.5	92.50
Linguistic Aspects						
10.	Sentence structure in the evaluation tool is easy to understand	3	3	3	75	
11.	Sentences in the evaluation tool are effective and unambiguous	4	4	4	100	
12.	Language in the evaluation tool is communicative	4	4	4	100	
13.	Spelling in the evaluation tool aligns with the Enhanced Spelling System (EYD)	4	4	4	100	
14.	Punctuation usage adheres to proper Indonesian language rules	4	3	3.5	87.5	3.75
15.	The terminology used has precise meanings	4	4	4	100	93.75
Total Score		56	56	3.73	93.33	

The accumulated data were analyzed based on their respective dimensions. Each dimension was then examined for its characteristics according to the tendencies of expert respondents. The following describes the characteristics of each aspect from the perspective of media experts.

- 1) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of user interface, achieved an average score of 3.75 or 93.75%, categorized as highly valid.
- 2) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Presentation, achieved an average score of 3.7 or 92.50%, categorized as highly valid.

- 3) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of linguistic aspects, achieved an average score of 3.75 or 93.75%, categorized as highly valid.

Based on the table above, the overall validation by media experts for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material for fifth-grade elementary school students achieved an average score of 3.75 or 93.75%, categorized as highly valid, meaning it can be used without revision.

Validation of Indonesian Language Questions

The validation score data for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material in fifth-grade elementary school students, specifically for the Indonesian Language Question Aspect, were obtained through expert observations conducted by Prasetyo Yuli Kurniawan, S.Pd., M.Pd. (Lecturer at Muhadi Setiabudi University) and Hany Uswatun Nisa, M.Pd. (Lecturer at Muhadi Setiabudi University). A checklist was used to assign scores based on the expert's observations and evaluations of the Indonesian Language Questions within the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material. A complete tabulation of the calculated observation scores is presented in the table below.

Table 4. Recapitulation of expert validation results for Indonesian language

Table 1: Presentation of Expert Validation Results for Indonesian Language						
No.	Assessed Aspects	Validator Score				Subtotal
		1	2	Average	(%)	
Content						
1	Alignment of question content with	4	4	4	100	
2	Accuracy of persuasive text concepts in	4	4	4	100	
3	Alignment of statements with persuasive	4	4	4	100	
4	Suitability of question material with	4	3	3.5	87.5	
5	Support for understanding persuasive text	4	3	3.5	87.5	3.8
6	Depth of material in persuasive text	4	3	3.5	87.5	93.75
Persuasive Text						
7	Alignment of questions with call-to-action	4	4	4	100	
8	Alignment of statements with factual	4	3	3.5	87.5	
9	Alignment of questions with opinion	3	3	3	75	
10	Alignment of questions with argument	4	4	4	100	3.6
11	Relevance of questions to content	3	4	3.5	87.5	90
Construction						
12	Completeness of the instrument	4	4	4	100	
13	Clarity of core question content	4	4	4	100	
14	Functionality of distractor options	4	3	3.5	87.5	3.8
15	Homogeneity of answer choices	4	3	3.5	87.5	93.75
Grammar						
16	Communicativeness of sentences used	4	3	3.5	87.5	
17	Coherence between the main question and	4	3	3.5	87.5	
18	Effectiveness of the sentences used	3	3	3	75	
19	Adherence of sentences to EYD (Enhanced	4	3	3.5	87.5	3.4
20	Functionality of the presented persuasive	4	3	3.5	87.5	85
Total Score		77	68	72.5	90.63	
Average		3.85	3.40	3.63		

The accumulated data were analyzed based on their respective dimensions. Each dimension was then examined for its characteristics according to the tendencies of expert respondents. The following describes the characteristics of each aspect from the perspective of subject matter experts.

- 1) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of content, achieved an average score of 3.8 or 93.75%, categorized as highly valid.
- 2) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Indonesian language, achieved an average score of 3.6 or 90.0%, categorized as highly valid.
- 3) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of construction, achieved an average score of 3.8 or 93.75%, categorized as highly valid.
- 4) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of grammar, achieved an average score of 3.4 or 85.0%, categorized as highly valid.

Based on the table above, the overall validation by experts for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material for fifth-grade elementary school students achieved an average score of 3.63 or 90.63%, categorized as highly valid, meaning it can be used without revision.

Practicality Based on Teacher Responses

The practicality score data for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material in fifth-grade elementary school students were obtained from observations by ten fifth-grade teachers from KKG Sekbin V Kamboja, Larangan District, Brebes Regency. A checklist was used to assign scores based on the teachers' observations and evaluations as Indonesian language education practitioners regarding the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material. A complete tabulation of the calculated observation scores is presented in the table below.

Table 5. Recapitulation of teacher practicality observations on the digital-based learning evaluation tool using wordwall

No.	Assessed Aspects	Average	Percentage	Subtotal
User Interface				
1	Alignment of the evaluation tool with learning material	38	95	
2	The appearance of the evaluation tool on Wordwall is engaging	40	100	
Evaluation Tool				97.5
3.	Alignment of the evaluation tool with the Merdeka Curriculum	37	92.5	
4.	Alignment of the evaluation tool with learning objectives	39	97.5	
5.	Systematic and logical Presentation of the evaluation tool according to students' comprehension levels	35	87.5	
6.	The ability of the evaluation tool to encourage students' interest and motivation in learning	39	97.5	
7.	Alignment of the evaluation tool's questions/quizzes with learning assessments	38	95	

Language			94.0
8.	Appropriateness of language level according to students' thinking abilities	36	90
9.	Accuracy of sentence structure in the evaluation tool	37	92.5
10.	Clarity of terms used in the evaluation tool	35	87.5
11.	Accuracy of punctuation, symbols, and icons in the evaluation tool	37	92.5
12.	Clarity and readability of the font used	40	100
Presentation			92.5
13.	The attractiveness of images and other illustrations	38	95
14.	The sentence structure in Wordwall aligns with the evaluation tool	39	97.5
15.	Wordwall features facilitate students' understanding of persuasive text sentences	38	95
Total Score		55.5	94.33
Total Score		78	97.37

The accumulated data were analyzed based on their respective dimensions. Each dimension was then examined for its characteristics according to the tendencies of teacher respondents. The following describes the characteristics of each aspect from the perspective of teachers as education practitioners.

- 1) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material in terms of User Interface achieved an average score of 97.5%, categorized as highly practical.
- 2) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of content, achieved an average score of 94.0%, categorized as highly practical.
- 3) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of language, achieved an average score of 92.5%, categorized as highly practical.
- 4) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Presentation, achieved an average score of 95.8%, categorized as highly practical.

Based on the table above, according to teachers as Indonesian language education practitioners, the overall practicality validation for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material for fifth-grade elementary school students achieved an average score of 95.8%, categorized as highly practical, meaning it can be used without revision.

Practicality Based on Student Responses

The practicality score data for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material in fifth-grade elementary school students were obtained from observations of 23 students. A checklist was used to assign scores based on students' observations and evaluations as users of the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material. A complete tabulation of the calculated observation scores is presented in the table below.

Table 6. Recapitulation of student practicality observations

No.	Assessed Aspects				
		Average	%	Subtotal %	
Evaluation Tool Content					
1	The Wordwall-based evaluation tool for persuasive text provides clear and complete test material	83	3.6	90.2	
2	The quiz material presented in the Wordwall-based evaluation tool aligns with the learning objectives	83	3.6	90.2	
3	The quiz material on persuasive text using Wordwall is easy to understand	81	3.5	88.0	
4	Using Wordwall is practical as an innovative evaluation tool for persuasive text	83	3.6	90.2	
5	The Wordwall-based evaluation tool for persuasive text can be used independently	82	3.6	89.1	89.6
Appearance					
6	The appearance of the Wordwall-based evaluation tool for persuasive text is engaging	84	3.7	91.3	
7	The fonts and text in the Wordwall-based evaluation tool for persuasive text are appropriate	80	3.5	87.0	
8	The sentences in the Wordwall-based evaluation tool for persuasive text help me understand its content	83	3.6	90.2	
9	The language used in the Wordwall-based evaluation tool for persuasive text is easy to understand	78	3.4	84.8	
10	The images and illustrations in the Wordwall-based evaluation tool for persuasive text align with the technological innovation material	83	3.6	90.2	
11	The color composition in the Wordwall-based evaluation tool for persuasive text is attractive	79	3.4	85.9	88.2
Motivation to Learn					
12	The Wordwall-based evaluation tool for persuasive text makes me more interested in learning	85	3.7	92.4	
13	The Wordwall-based evaluation tool for persuasive text makes me more enthusiastic about learning	82	3.6	89.1	
14	The Wordwall-based evaluation tool for persuasive text can be used for independent learning on technological innovations	82	3.6	89.1	90.2
Understanding of Persuasive Text Material					
15	The Wordwall-based evaluation tool helps me understand the opinion-based persuasive text	78	3.4	84.8	
16	The Wordwall-based evaluation tool helps me understand the argument-based persuasive text	85	3.7	92.4	

17	The Wordwall-based evaluation tool helps me understand the call-to-action persuasive text	83	3.6	90.2	
18	The Wordwall-based evaluation tool helps me understand the fact-based persuasive text	86	3.7	93.5	90.2
Total Score			64.3	89.4	

The accumulated data were analyzed based on their respective dimensions. Each dimension was then examined for its characteristics according to the tendencies of the 23 student respondents. The following describes the characteristics of each aspect from the student's perspective.

- 1) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of content, achieved an average score of 89.6%, categorized as **practical**.
- 2) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of appearance, achieved an average score of 88.2%, categorized as **practical**.
- 3) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Motivation to Learn, achieved an average score of 90.2%, categorized as highly **practical**.
- 4) The Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material, in terms of Understanding Persuasive Text Material, achieved an average score of 90.2%, categorized as highly practical.

Based on the table above, according to students' responses, the overall practicality validation for the Digital-Based Learning Evaluation Tool Using Wordwall for Persuasive Text Material for fifth-grade elementary school students achieved an average score of 89.4%, categorized as practical.

Validity of the Learning Evaluation Tool

From the content aspect, based on the assessment of two subject matter experts, the validity of this evaluation tool covered content feasibility (93.5%), language (97.9%), Presentation (87.5%), and reorientation (90.6%), with an overall average of 92%, categorized as highly valid.

From the media aspect, validation by media experts indicated that user interface design (93.7%), Presentation (92.5%), and language (93.75%) fell into the highly valid category, with an overall average of 93.33%.

Meanwhile, from the Indonesian language question aspect, validation results for content (93.75%), language (90.0%), construction (93.75%), and grammar (85.0%) resulted in an overall average of 90.63%, also categorized as highly valid.

Previous studies have indicated that interactive media such as Wordwall can enhance students' motivation and learning outcomes. As a digital evaluation tool, Wordwall offers gamification features that make learning more engaging and easily accessible and effectively improve students' understanding of the material. Research by To'lqinova Khamidova (2022) found that non-traditional teaching media are more efficient than traditional methods.

Practicality of the Learning Evaluation Tool

From the teachers' perspective, based on the questionnaire responses from 10 teachers, this evaluation tool was rated highly practical, with an average score of 94.33%, covering user interface (97.5%), content (94.0%), language (92.5%), and Presentation (95.8%).

From the student's perspective, the questionnaire results from 10 students indicated that the tool was also rated practical, with an average score of 89.47%, covering content (89.6%), appearance (88.2%), learning motivation (90.2%), and understanding of the material (90.2%).

The practicality of this evaluation tool is based on the inquiry approach, which enables students to discover concepts independently rather than relying solely on memorization. Additionally, its design has been adapted to align with holistic learning principles, critical thinking, participatory decision-making, and relevance to local contexts. Wordwall serves as an interactive learning medium that is easy to use. Maghfiroh (2018) states that this medium fosters beneficial interaction for students.

Effectiveness of the Learning Evaluation Tool

The results of the N-Gain test analysis indicated that the average increase in Indonesian language scores after using the Wordwall-based evaluation tool was 0.54, which falls into the moderate category ($0.3 < g \leq 0.7$). The paired t-test (t-test Pair) using SPSS produced a t-value of 10.765, which is greater than the t-table value (2.0739). This result shows a significant difference between the pre-test and post-test scores, proving that using the Wordwall evaluation tool significantly impacts students' Indonesian language proficiency.

These findings align with several previous studies. Fauqannuri (2022) found that implementing Wordwall-based media increased students' motivation and learning outcomes in Islamic Education (PAI). Similarly, Putri (2020) indicated the effectiveness of Wordwall as an evaluation tool in online mathematics learning at MIN 2 South Tangerang City.

5. Conclusion and Implications

Based on the research results, it can be concluded that the Digital-Based Learning Evaluation Tool Using Wordwall Media for Persuasive Text Material in Elementary Schools has a high level of validity, with an average score of 91.98%. Regarding practicality, the tool was rated highly practical by teachers (94.33%) and practical by students (89.4%), with an overall average of 91.86%. Regarding effectiveness, the tool indicated a 54% improvement in learning scores, which were classified as moderately effective, and a significant difference was observed between pre-test and post-test results. Therefore, this evaluation tool is feasible for use in the learning process.

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References

- A. D. Yasa, 2020. "Pengembangan E-Evaluation Berbasis Aplikasi Hot Potatoes Untuk Siswa Kelas V Sekolah Dasar," *J. Ilm. Sekol. Dasar*, 4(1) pp. 26–32, 2020.
- Arikunto. S. (2012). *Dasar-Dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara.
- Auliya, A., Suhirman, S., & Latipah, N. (2021). *The Development of Based Evaluation Instruments Wordwall for Science Courses of Junior High School Class VII*. Tarbiyah: Jurnal Ilmiah Kependidikan, 10(2), 73-83. Balitbangnas, 2010
- D. D. Sari, 2021. "Permasalahan Guru Sekolah Dasar Selama Pembelajaran Daring," *J. Ilm. Kontekst.*, 2(2) pp. 27–35, 2021.

- Fanny, M.P., (2020) “Efektivitas Penggunaan Aplikasi Wordwall dalam Pembelajaran Daring (Online) Matematika pada Materi Bilangan Cacah Kelas 1 Di MIN 2 Kota Tangerang Selatan” (UIN Syarif Hidayatullah Jakarta), 18–22.
- Gandasari, P., & Pramudiani, P. (2021). EDUKATIF: JURNAL ILMU PENDIDIKAN Pengaruh Aplikasi Wordwall terhadap Motivasi Belajar IPA Siswa di Sekolah Dasar. *Edukatif : Jurnal Ilmu Pendidikan*, 3(6), 3689–3696. <https://doi.org/10.31004/edukatif.v3i6.1079>
- H. Mahfud, F. P. Adi, I. R. W. Atmojo, and R. Ardiansyah. 2019. “A. Peningkatan Kompetensi Evaluasi Pembelajaran Berbasis Teknologi Pada Guru SD Di Kota Surakarta,” *J. Pendidik. Dasar*, 7(2) pp. 146–150, 2019.
- Haryati, S., (2012). *Research and Development (R&D) Sebagai Salah Satu Model Peneitian dalam Bidang Pendidikan*. Majalah Ilmiah Dinamika. Vol.37 No. (1), 15 : (11-26).
- Hasram, S., Nasir, M. K. M., Mohamad, M., Daud, M. Y., Rahman, M. J. A., & Mohammad, W. M. R. W. (2021). The effects of wordwall online games (Wow) on english language vocabulary learning among year 5 pupils. *Theory and Practice in Language Studies*, 11(9), 1059–1066. <https://doi.org/10.17507/tpls.1109.11>
- Hermawati, S., (2020). *Upaya Meningkatkan Aktivitas Dan Hasil Belajar Biologi Menggunakan Model Cooperative Learning Tipe Stad Pada Siswa Kelas VII Mts Negeri1 Lampung Timur Tahun Pelajaran 2018/2019*. Bioedukasi (Jurnal Pendidikan Biologi), 11(1), 69-82.
- I. P. Suardipa, 2020. “Kajian Creative Thinking Matematis Dalam Inovasi Pembelajaran,” *Purwadita J. Agama dan Budaya*, 3(2) pp. 15–22, 2020.
- Idzi'Layyinnati, M. F. (2021). *Pengaruh Media Pembelajaran Berbasis Website (Wordwall) Terhadap Hasil Belajar Peserta Didik Pada Mata Pelajaran Fiqih Kelas VII Di SMP Muhammadiyah 07 Paciran*. Jurnal Mahasiswa Pendidikan, 1(1), 1-32.
- Khaerudin. (2017). *Administrasi Analisis Butir dan Kaidah Penulisan Tes*. Jurnal Madaniyah, 7(1), 97-128.
- Kosasih. 2017. *Buku Guru Bahasa Indonesia SMP/MTs Kelas VIII*. Jakarta: Kementrian pendidikan dan kebudayaan republik Indonesia.
- L. T. Prawanti and W. Sumarni. 2020. “Kendala Pembelajaran Daring Selama Pandemic Covid-19,” *Pros. Semin. Nas. Pascasarj. UNNES*, pp. 286–291, 2020.
- Maghfiroh, K. (2018). Penggunaan Media Word Wall untuk Meningkatkan Hasil Belajar Matematika Pada Siswa Kelas IV MI Roudlotul Huda. *Jurnal Profesi Keguruan*, 4(1), 64–70.
- Muhaya, Siti. Dkk. *Jurnal Pendidikan Bahasa dan Sastra Indonesia: Analisis Penggunaan Kata Ajakan Dalam Menulis Teks Persuasi Pada Siswa Kelas SMP*. Vol 2, No 3. 2019.
- Nurzannah and H. R. Setiawan. 2020. “Program Kemitraan Masyarakat Di Tengah Pandemi Covid-19 Bagi Guru Sd (Pembuatan Media Evaluasi Pembelajaran Online),” *J. Character Educ. Soc.*, 3(2) pp. 299–310, 2020.
- One, O. (2017). Efektivitas Penggunaan Media Pembelajaran Audiovisual Powtoon Dalam Meningkatkan Motivasi Belajar Siswa Di Madrasah Aliyah. *Jurnal Pendidikan Dan Pembelajaran Untan*, 6(3), 210239.
- Pendidikan Guru Sekolah Dasar, Universitas Sebelas Maret
- Penggunaan *Wordwall* sebagai media evaluasi pembelajaran tematik pada peserta didik kelas IV di sekolah dasar
- Pranata, I. P. W., Agung, A. A. G., & Jampel, I. N. (2021). Pengembangan Media Pembelajaran Interaktif Berbasis Articulate Storyline Pada Mata Pelajaran IPA Siswa Kelas VII. *Mimbar Ilmu*, 4(1), 122–130. <https://ejournal.undiksha.ac.id/index.php/MI/Article/View/31555>
- Priyatiningrum, Dina., dkk. *Mari Belajar Bahasa Indonesia*. Bandung: Pen Fighters, Cetakan Pertama, 2022
- Purwanto., (2013). *Evaluasi Hasil Belajar*. Yogyakarta: Penerbit Pustaka Belajar. Cetak Ke-VI.
- Putri, M. (2020). Efektivitas Penggunaan Aplikasi Wordwall Dalam Pembelajaran Daring (Online) Matematika Pada Materi Bilangan Cacah. *UIN Syarif Hidayatullah Jakarta*, 1(1), 145–165.

- Ratnawulan, E., & Rusdiana, H.A., (2015). *Evaluasi Pembelajaran*. Bandung: CV Pustaka Setia. Cetakan ke-1.
- Rodearni Sri, Sudarti Nila. Jurnal Komunitas Bahasa: *Pengaruh Model Pembelajaran Cycle Learning Terhadap Kemampuan Menulis Karangan Persuasi*. Vol 6, No 2. 2018
- S. Alfira and J. I. S. Poerwanti. 2021. "Pelaksanaan evaluasi pembelajaran melalui e-learning pada pembelajaran jarak jauh di sekolah dasar," *JPI (Jurnal Pendidik. Indonesia. J. Ilm. Pendidik.*, 8(1) 2021
- S. L. Sun'iyah, "Media Pembelajaran Daring Berorientasi Evaluasi," *J. Stud. Keagamaan, Pendidik. Dan Hum.*, 7(1) pp. 1–18, 2020.
- S. L. Sun'iyah, 2020. "Media Pembelajaran Daring Berorientasi Evaluasi," *J. Stud. Keagamaan, Pendidik. Dan Hum.*, 7(1) pp. 1–18, 2020.
- S.U. Husna 1, Sukarno2, and S. Yulisetiani2
- Sari, P. M., & Yarza, H. N. (2021). *Pelatihan Penggunaan Aplikasi Quizizz Dan Wordwall Pada Pembelajaran Ipa Bagi Guru-Guru Sdit Al-Kahfi*. 4(April), 195–199.
- Slamet Riyadi No.449, Surakarta 57146, Indonesia
- Sugiyono. 2015. *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif dan R&D)*. Penerbit CV. Alfabeta: Bandung.
- Teni Nurrita. (2018). Kata Kunci :Pengembangan media pembelajaran untuk meningkatkan hasil belajar siswa. *Jurnal Misykat*, 03(01), 171. <https://media.neliti.com/media/publications/271164-pengembangan-media-pembelajaran-untuk-me-b2104bd7.pdf>
- To'lqinova, D., & Khamidova, M. (2022). Effective Ways Of Using Word Walls in Primary Education. *Web Of Scientist: International Scientific Research Journal*, 3(5), 153–158.
- Wafiqni, Nafia dan Fanny Mestyana Putri, "Efektifitas Penggunaan Aplikasi Wordwall dalam Pembelajaran Daring (Online) Matematika pada Materi Bilangan Cacah Kelas 1" *Elementer: Jurnal Pendidikan Dasar*. Vol 1, 2021
- Y. Khairunisa, 2021. "Pemanfaatan Fitur Gamifikasi Daring Maze chase–Wordwall sebagai Media Pembelajaran Digital Mata Kuliah Statistika dan Probabilitas," *J. Kaji. Dan Terap. Media, Bahasa, Komun.*, 2(1) pp. 41–47, 202