



Practicality Analysis of QR Code-Based Digital Literacy Wall Media to Strengthen Literacy Culture Students of Elementary School

Rosy Ratna Puri¹, Wahyu Sukartiningsih², M. Bambang Edi Siswanto³

^{1,2,3} Elementary Education, State University of Surabaya, East Java

Article Info	Abstract
Received: 2026-04-07 Revised: 2026-05-19 Accepted: 2026-09-18 Keywords: <i>Digital Literacy Media, QR Code, Media Practicality, Literacy Culture, Elementary School.</i> DOI: 10.24256/ideas.v14i2.11897 Corresponding Author: Rosy Ratna Puri wahyusukartiningsih@unesa.ac.id Elementary Education, State University of Surabaya, East Java	<i>The literacy culture in elementary schools needs to be strengthened through the use of media that is not only attractive but also able to integrate literacy activities with the development of digital technology. However, the use of literacy media that connects physical reading sources with digital resources is still not optimal, so that media innovations are needed that are easily accessible and appropriate to the characteristics of elementary school students. This study aims to analyze the practicality of QR Code-Based Digital Literacy Wall Media as a medium that integrates literacy displays in the school environment with various digital literacy sources. The study used the Research and Development (R&D) method with the ADDIE model and involved one teacher and 20 students of SDN Cerme 2. The practicality of the media was measured through a questionnaire using a five-level Likert scale and analyzed descriptively quantitatively. The results showed that the teacher's assessment obtained a score of 48 out of a maximum score of 50 with a percentage of 96%, while the student's assessment obtained a score of 895 out of a maximum score of 1,000 with a percentage of 89.5%. Both are included in the very practical category. All practicality indicators ranged from 87% to 92%, indicating that the media is easy to use and access, has an attractive appearance, supports literacy activities, and increases students' reading motivation. Thus, the QR Code-Based Digital Literacy Wall Media is not only practical to implement but also contributes to connecting conventional literacy culture with digital literacy through the use of QR Code technology. This media has the potential to be an innovative</i>

alternative in the development of educational technology to support the strengthening of elementary school students' literacy culture.

1. Introduction

The development of digital technology has transformed nearly every aspect of life, including education. Elementary schools, as the foundation of education, are responsible not only for developing reading and writing skills but also for fostering a culture of literacy that meets the demands of the 21st century. Today, a culture of literacy is no longer limited to the ability to read printed books, but also encompasses the ability to critically and responsibly access, understand, evaluate, and utilize information from various digital media. Therefore, strengthening digital literacy is a crucial part of implementing learning in elementary schools. A systematic study by Farias-Gaytan, Aguaded, and Ramirez-Montoya (2023) shows that digital transportation within education is closely related to the need to develop students' digital literacy competencies so they can adapt to changes in the learning environment and technology.

However, digital literacy needs to be distinguished from literacy culture. Digital literacy refers to an individual's ability to interact with digital information and technology effectively, critically, and responsibly. Meanwhile, literacy culture has a broader scope because it relates to the habits, values, environment, and practices that encourage a person to read, understand, evaluate, and use information sustainably. Thus, digital literacy can be part of literacy practices in a school environment, while literacy culture is the conditions that enable literacy activities to occur consistently.

The Indonesian government, through the School Literacy Movement (GLS), has encouraged schools to create environments rich in learning resources and foster reading habits in students. However, the implementation of this movement still faces various obstacles. Many schools still rely on conventional literacy media such as reading corners, bulletin boards, or libraries that have not been integrated with digital technology. As a result, students' reading interests have not developed optimally because the media used are less engaging, less interactive, and not suited to the characteristics of the digital generation, which is accustomed to using technological devices in everyday life.

The development of digital technology has brought significant changes to the learning paradigm in elementary schools. Today's students are a digital generation accustomed to quickly accessing information through electronic devices. This situation requires schools to not only improve students' reading skills but also develop a literacy culture that aligns with the development of information technology. Most school walls still function as a one-way means of conveying information. The information displayed is static, difficult to update, and has limited space, resulting in relatively limited material. However, technological

developments allow simple media such as literacy walls to be developed into interactive media through the integration of Quick Response (QR) Codes that can connect students with various digital learning resources, such as learning videos, e-books, picture stories, educational podcasts, literacy games, and interactive quizzes. Therefore, the implementation of school literacy is no longer sufficient through the provision of conventional reading materials; it needs to be integrated with digital media that can increase student engagement in literacy activities.

One innovation that can be implemented is the QR Code-based Digital Literacy Wall. This media is a development of the school wall magazine that integrates various digital learning resources through Quick Response (QR) Codes. Students simply scan the code using a smartphone or tablet to access digital stories, learning videos, e-books, educational comics, infographics, literacy games, and links to other reading activities. Thus, the media serves not only as a means of conveying information but also as a gateway to a broader digital literacy ecosystem. Mayer (2022), explains that presenting information multimodally can increase student attention, motivation, and engagement in the learning process. Wall media is often used in elementary school learning to display content such as images, posters, concept maps, and student work (Arsyad, 2020). Similarly, Tafonao, (2018) it states that visual media such as walls can help students understand topics more clearly.

By displaying various texts, images, and information visually, wall media can encourage students to be more active in reading and observing the material presented (Kurniawan et al., 2023). The use of technology-based learning media can increase student engagement in the learning process (Tafonao, 2018). The use of technology-based learning media can improve students' understanding of the learning material (Nurrita, 2018). Furthermore, Mulyono & Hidayati (2020), it is stated that the use of technology in the learning process can improve the effectiveness and learning outcomes of students.

The use of QR Codes in learning has shown various advantages. QR Code-based media can increase learning interactivity, facilitate access to learning resources, accelerate the distribution of materials, and increase student motivation and involvement in the learning process. Various studies on the development of QR Code media in elementary schools also show that the media has a very high level of validity and practicality and provides a more interesting learning experience than conventional media. However, most previous studies still focus on the development of learning media for certain subjects such as Social Studies, Science, and Indonesian. Research on school literacy media that functions as a strengthening of literacy culture outside of formal learning activities is still relatively limited. Based on research Nurini (2024) entitled the implementation of the school literacy movement through the use of digital wall magazines which resulted in research that the use of digital wall magazines (via Google Sites) in the school literacy movement was able to significantly increase the interest in reading and writing of elementary school students. Research by Hidayatillah et al.,

(2022)entitled Efforts to Increase Science Literacy Through Contextual-Based Wall Magazine Media in Science Learning for Grade VII Junior High School Students resulted in research in the form of the application of digital or technology-based learning activities or media in community service or learning was able to increase student literacy (especially science literacy) as well as student involvement in the learning process. Research by entitled Analysis of the Effectiveness of Using QR Codes in Mathematics LKS on Students' Learning Understanding at Sdn Serang 3 resulted in the use of Google Classroom-based learning media in online learning being able to significantly improve student learning outcomes, as indicated by increased learning completeness and student activity in completing assignments.

Furthermore, previous research has focused more on measuring the effectiveness of learning outcomes, while the practicality of media use as part of the implementation of a school literacy culture has not been widely explored. This research gap is the important basis for conducting this study. Practicality is one of the main indicators in media development research. The purpose of this study is to describe the practicality of valid QR Code-based media to strengthen the literacy culture of elementary school students. Media practicality is analyzed through user experiences and responses, specifically related to ease of use, ease of access, media clarity, efficiency, attractiveness, and implementation in student literacy activities. This focus is important because learning media innovation is not enough to only produce theoretically feasible products, but must also be able to be used in real life by teachers and students in a school context. Therefore, practicality testing is needed to determine ease of use, time efficiency, ease of access, attractiveness of the display, media benefits, and the level of user acceptance of the developed media.

2. Method

This research uses a research and development (R&D) method. This research is part of the product testing phase that focuses on analyzing the practicality of QR Code-Based Digital Literacy Wall Media for Strengthening the Literacy Culture of Students at SDN Cerme 2. The product analyzed is a literacy wall media that integrates printed reading materials with digital content through QR Codes so that students can access literacy materials using digital devices. Media development uses the ADDIE model which consists of five stages, namely *Analysis* , *Design* , *Development* , *Implementation* , and *Evaluation* .

Analysis Stage: an analysis of learning needs, student characteristics, conditions of literacy activities at school, availability of supporting facilities, and the use of digital media in learning is carried out.

Design Stage: The design phase involved developing the concept for the QR Code-Based Digital Literacy Wall Media. Activities at this stage included determining the purpose of using the media, selecting literacy materials, developing the media layout, determining the type of digital content, creating QR Codes, and developing instructions for using the media. Research instruments,

including teacher and student response questionnaires, were also designed to measure the practicality of the media.

Development Stage: stage The activity of turning a media design into a usable product. Activities at this stage include collecting reading materials, creating digital content, designing wall media, creating and testing QR codes, and integrating QR codes with digital content. The developed media was then reviewed to ensure each QR Code could be scanned and linked to the appropriate content. Improvements were made to the product's appearance, user instructions, text readability, image quality, and ease of content access. Once the media was deemed ready, it was used in student literacy activities.

Implementation Stage: This stage includes large group trials.

The subjects of the practicality test consisted of one teacher and 20 students of SDN Cerme 2. The teacher played a role in assessing the ease of use of the media from the perspective of the learning implementer, while the students provided assessments based on their experiences using the media in literacy activities.

Evaluation Stage: carried out to determine the level of practicality of the media after being used in literacy activities. Formative evaluation aims to address media deficiencies, such as difficult-to-scan QR codes, unclear instructions, unattractive displays, or difficult-to-access digital content. Summative evaluation is conducted by analyzing teacher and student questionnaire responses to determine the overall practicality of the media.

Participants in this study consisted of teachers and fifth-grade students of SDN Cerme 2 selected because they have experience in implementing learning activities and school literacy selected as the main users of digital literacy wall media based on QR Code. The research sample was selected using a *purposive sampling technique*, namely selecting respondents who have used the media so they are able to provide an assessment of its practicality.

Research data were collected through observation, interviews, and questionnaires. Observations were conducted during the analysis stage to obtain in-depth information regarding the conditions of literacy activities and media use in schools. Interviews were conducted with teachers to identify needs, problems, and characteristics of the required media. A questionnaire was used as the primary instrument to obtain data on the practicality of the media after implementation. The questionnaire was given to teachers and students as media users. Aspects assessed included ease of use, clarity of instructions, ease of QR Code access, attractiveness of the display, readability, content suitability, efficiency, and the media's benefits in supporting literacy activities.

The research instrument in the form of a practicality questionnaire was validated by 2 expert validators who assessed the aspects of content suitability, language clarity, and the relationship of each item to the media practicality indicators. The validation results showed an Aiken's V value of 0.85, so the instrument was declared to have good content validity and was suitable for use

after being revised based on the validator's suggestions. Furthermore, a reliability test of 20 statement items was conducted using Cronbach's Alpha and obtained a value of 0.91, which indicates that the instrument has a very high level of internal consistency. Based on these results, the instrument was declared valid and reliable so that it can be used to measure the practicality of QR Code-based digital literacy wall media. The research instrument from teachers has indicators that can be presented as follows.

No	Assessment Aspects	Indicator
1	Ease of Use of Media	Media is easy to use in the literacy learning process
2		Instructions for using the media are clear and easy to understand.
3		The media does not take long to prepare.
4	Appropriateness to Learning	Media in accordance with literacy learning objectives
5		Media supports effective delivery of material
6	Time Efficiency	The use of media helps save time in literacy learning.
7		Media helps teachers in conditioning and directing student learning activities in the environment outside the classroom.
8	Utilization of Technology Benefits of Media	QR Code -based media is easily accessible in literacy learning
9		Media can be used with tools owned by students
10	Eligibility for Use	Media is suitable for sustainable use in literacy learning

Meanwhile, the student questionnaire covered aspects of ease of use of the media, interestingness, involvement, benefits of the media, and feasibility of use.

No	Assessment Aspects	Indicator
1	Ease of Use of Media	Media is easy for students to use
2		Instructions for using the media are easy to understand.
3		Students can use QR Code without any difficulty
4	Attraction	The media has an attractive appearance
5		Media makes students interested in reading
6	Involvement	Media encourages students to be active in literacy activities
7		Students feel happy when using media
8	Benefits of Media	Media helps students understand the material
9		Media helps increase students' interest in reading

No	Assessment Aspects	Indicator
10	Eligibility for Use	Media is easy to reuse in subsequent literacy activities.

The instrument uses a five-level Likert scale, namely strongly disagree (1), disagree (2), somewhat agree (3), agree (4), and strongly agree (5). The percentage of practicality is calculated using the formula:

Formula:

$$Persentase = \frac{Skor\ yang\ diperoleh}{Skor\ maksimal} \times 100\%$$

Step:

1. Adding up the questionnaire scores
2. Determining the maximum score
3. Convert to percentage

The percentage results are then interpreted based on the following criteria:

Percentage	Category
81% – 100%	Very practical
61% – 80%	Practical
41% – 60%	Quite practical
21% – 40%	Less practical
0% – 20%	Not practical

The analysis results were used to determine the practicality of the QR Code-Based Digital Literacy Wall Media based on teacher and student perceptions. The media was declared practical if it obtained a minimum score in the practical category ($\geq 61\%$), making it suitable for use as a supporting medium for strengthening literacy culture at SDN Cerme 2.

3. Result

A. Data presentation of questions from teachers

The data presentation of the results of questions from teachers starting from the media is easy to use in learning activities, instructions for using the media are easy to understand, QR Code is easy to scan using digital devices, the digital content displayed is easy to access, the media display attracts students' attention, the media helps teachers carry out literacy activities, the media saves time in delivering material, the media is easy to manage and update, the media increases students' motivation in reading, the media is suitable for continuous use in schools.

No	Assessment Indicators	Score
1	Media is easy to use in learning activities.	5
2	Instructions for using the media are easy to understand.	5
3	QR Codes are easy to scan using digital devices.	4
4	The digital content displayed is easily accessible.	5
5	The media display attracts students' attention.	5
6	Media helps teachers carry out literacy activities.	5
7	Media saves time in delivering material.	4
8	Media is easy to manage and update.	5
9	Media increases students' motivation in reading.	5
10	Media is suitable for sustainable use in schools.	5
Total Score		48

Based on the results of teacher assessments of practical aspects QR Code Based Digital Literacy Wall Media , obtained total score of 48 out of a maximum score of 50 , with average score of 4.8 . These results indicate that the media has very high level of practicality and suitable for use in learning activities in elementary schools. In detail, there are eight indicators who obtained maximum score (5) , namely: (1) media is easy to use in learning activities, (2) instructions for using the media are easy to understand, (3) digital content is easy to access, (4) media displays attract students' attention, (5) media helps teachers carry out literacy activities, (6) media is easy to manage and update, (7) media increases students' motivation to read, and (8) media is suitable for continuous use in schools. These results indicate that teachers consider the media very practical in terms of ease of use, ease of access, attractive appearance, and its benefits in supporting the implementation of school literacy programs. Meanwhile , there are two indicators who obtained score 4 , namely QR Code is easy to scan using digital devices And media saves time in delivering material .

The value remains in the category practical , although there are still some obstacles, such as differences in camera quality on the devices used or internet connection speeds that affect the QR Code scanning process and access to digital content. Furthermore, in the initial stages of use, teachers still need time to direct students in accessing materials via QR Codes, so time efficiency is not yet fully optimal. Overall, the results of this assessment indicate that The QR Code-based Digital Literacy Wall media boasts excellent practicality . It's easy for teachers to implement, doesn't require complicated procedures, is easy to maintain, and can effectively support literacy learning. With the achievement of 96% of the ideal score, the media can be categorized "very practical" and is worthy of being implemented sustainably as an innovation in digital literacy learning in elementary schools.

B. Data Presentation of Student Question Results

Student	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	Total
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S-01	5	5	4	5	5	4	5	4	5	4	46
S-02	5	4	4	5	4	5	4	5	4	5	45
S-03	4	5	4	4	5	4	5	4	5	4	44
S-04	5	5	5	4	5	5	4	5	4	5	47
S-05	4	4	4	5	4	4	5	4	5	4	43
S-06	5	4	5	4	5	4	4	5	4	5	45
S-07	4	4	4	4	4	5	4	4	5	4	42
S-08	5	5	4	5	4	5	5	4	5	4	46
S-09	4	4	5	4	5	4	4	5	4	5	44
S-10	5	4	4	5	4	5	4	5	5	4	45
S-11	4	5	4	4	4	4	5	4	5	4	43
S-12	5	5	5	4	5	5	4	5	5	4	47
S-13	5	4	5	5	4	5	4	5	4	5	46
S-14	4	5	4	4	5	4	5	4	4	5	44
S-15	5	4	5	4	5	4	5	4	5	4	45
S-16	4	4	4	5	4	4	4	5	4	4	42
S-17	5	5	4	5	5	4	5	4	5	4	46
S-18	4	4	5	4	4	5	4	5	4	5	44
S-19	5	4	4	5	4	5	5	4	5	4	45
S-20	5	5	4	5	5	4	5	4	4	5	46

Practicality assessment QR Code-Based Digital Literacy Wall Media carried out on 20 students by using a questionnaire consisting of **10** indicators . Each indicator is assessed using a Likert scale of 1–5, with a maximum score that each student can obtain of 50. Based **on** the results of the questionnaire, the total score for each student ranged between 42 to 47 . The highest score was obtained by S-04 and S-12 , namely 47 , while the lowest score was obtained by S-07 and S-16 , namely 42. Overall, the total score of all students **reached** 895 from the ideal score 1,000 , so that we get practicality percentage of 89.5% with average score 44.75 from a maximum score of 50. Based on the practicality criteria, this achievement is included in the category very practical .

When viewed from each indicator, most students gave a score 4 And 5 in all aspects of the assessment. This shows that the media is considered easy to use, interesting, and supports students' literacy activities. In the indicators ease of use of media (I1) And Instructions for use (I2) , the majority of students gave high scores indicating that they had no difficulty in understanding how to use the media or access information via QR Code. Likewise, for the indicators ease of access to digital content (I4) , students assessed that the material stored in the QR Code could be opened easily using a digital device.

Aspect media display (I5) also received excellent ratings. This shows that the media design is able to attract students' attention, thus encouraging them to read and explore the available material. In addition, the indicators media increases reading motivation (I9) received high scores from almost all respondents. This

finding indicates that integrating QR codes with literacy wall media can create a more engaging learning experience than conventional print media.

However, there are several indicators that still receive varying scores, especially in ease of scanning QR Code (I3) , ease of use in literacy activities (I6) , and ease of media management (I8) . Some students gave a score of 4 , indicating that there are still some technical challenges, such as the camera quality on the device being used or the internet speed when accessing digital content. However, the score remains in the category well, so as not to reduce the overall level of practicality of the media. In general, the research results show that The QR Code-based Digital Literacy Wall Media is very practical for elementary school students to use . It is easy to understand, easy to access, has an attractive appearance, and can increase student interest and motivation in literacy activities. The high average score obtained (44.75) and practicality percentage (89.5%) indicate that this media is suitable for use as a digital literacy learning innovation and has the potential for sustainable implementation in the school environment.

C. Overall Results of Teacher and Student Perceptions

Indicator	Total Score	Maximum Score	Percentage
I1	92	100	92%
I2	88	100	88%
I3	87	100	87%
I4	90	100	90%
I5	90	100	90%
I6	88	100	88%
I7	91	100	91%
I8	89	100	89%
I9	91	100	91%
I10	89	100	89%
Total	895	1000	89.5%

The results of the analysis, obtained from 20 students, showed a total score of 895 out of a maximum of 1,000, with a practicality percentage of 89.5%. This percentage indicates that the media is in the very practical category, making it suitable for use as a literacy learning medium in elementary schools.

Based on each indicator, indicator I1 obtained a total score of 92 out of a maximum score of 100, or 92%, the highest percentage among all indicators. This result indicates that students considered the media very easy to use in learning activities. Furthermore, indicators I7 and I9 each obtained 91%, indicating that the media was considered very helpful in the learning process and able to increase student motivation in literacy activities.

Indicators I4 and I5 each achieved a 90% success rate. This indicates that

students assessed access to digital content as effective and that the media presentation was engaging and stimulated learning interest. Meanwhile, indicators I8 and I10 achieved a 89% success rate, indicating that the media was considered easy to use sustainably and practical to manage.

Furthermore, indicators I2 and I6 achieved 88% scores. These results indicate that the instructions for using the media are easy to understand and that the media is quite helpful for students in participating in learning activities. However, both indicators still have room for improvement, for example by simplifying the instructions or adding examples of media use.

The lowest percentage was achieved for indicator I3, at 87%. Although this is the lowest score compared to the other indicators, it still falls within the very good category. This finding suggests that a small number of students still experience difficulties scanning QR codes, possibly due to the quality of their device's camera, lighting conditions, or internet connection stability when accessing digital content.

Overall, all indicators achieved a percentage above 85%, thus demonstrating a very high level of practicality. These results indicate that the QR Code-Based Digital Literacy Wall Media is easy to use, easy to access, has an attractive appearance, can increase learning motivation, and is worthy of sustainable implementation as a supporting medium for strengthening literacy culture in elementary schools. The high achievement in each indicator also shows that the media has met the aspects of usability, accessibility, efficiency, and usefulness as an innovative learning medium.

Discussion of Teacher Practicality

A. Data presentation of questions from teachers



From the image, the results of the practicality test conducted by the class teacher of SDN Cerme 2 show that the QR Code-Based Digital Literacy Wall Media obtained a score of 48 from the maximum score 50, with a practicality percentage of 96%. Based on the practicality interpretation criteria, this value is included in the category Very practical. These results indicate that the media is easy to use, easy to manage, and suitable for use as a supporting medium for strengthening

literacy culture in elementary schools. In the indicators ease of use of media, the teacher gives a score 5 (strongly agree). This indicates that the media can be used without requiring complicated procedures. Teachers can utilize the media as part of the School Literacy Movement and classroom learning. The QR Code layout, user instructions, and media design are considered simple enough, making it easy for teachers to guide students when accessing digital reading materials.

Indicator clarity of instructions for use also got a score 5. The teacher assessed that the steps for using the media were systematically structured and easy for students to understand. Clarity of instructions is a crucial factor in the use of technology-based media, especially for elementary school students who still need guidance in using digital devices. With clear instructions, the teacher does not need to provide repeated explanations, making the learning process more effective. In the indicator QR scanning convenience Code, the teacher gives a score 4 (agree).

This assessment indicates that the QR Code can generally be scanned well, but there are still several conditions that need to be considered, such as the quality of the device's camera, room lighting, or internet network stability. These conditions do not reduce the primary function of the media, but provide important input so that the QR Code size, image resolution, and code placement position can be further optimized in subsequent development. Indicator ease of accessing digital content get a score 5. Teachers assessed that after scanning the QR Code, students could immediately access digital reading materials without experiencing significant difficulties. This ease of access allows teachers to provide a variety of learning resources in one medium, such as digital books, illustrated stories, educational videos, and interactive quizzes. Thus, the medium can expand learning resources without having to increase the school's collection of printed reading materials.

On the indicator attractive media display , teacher gives score 5. Media designs that combine color, illustrations, reading titles, and QR codes are considered effective in attracting students' attention. An engaging visual display is one factor that can increase students' interest in approaching the media and starting reading activities. Teachers also found the literacy wall media to be more lively than conventional media that only contain writing or static posters . the usefulness of media in literacy activities get a score 5. Teachers assess that media can support the implementation of the School Literacy Movement because it provides a more diverse range of alternative reading materials. Students not only read text posted on the wall but can also access various digital learning resources according to their needs and interests. This provides a more interactive literacy experience and aligns with the characteristics of 21st-century learning. In the indicator efficiency of learning time , teachers give scores 4. Although media is considered to be helpful in learning, teachers still see several conditions that can impact time efficiency, such as students who are not used to scanning QR codes or unstable internet connections. However, once students understand the procedures

for using media, the time required to access content is shorter, allowing for more effective learning. ease of media management get a score **5**. Teachers found the media easy to update because digital content can simply be replaced via a link or QR Code without having to recreate the entire wall. This flexibility is one of the advantages of QR Code-based media over conventional media. Teachers can regularly adapt the reading content to learning themes, school activities, and students' literacy needs.

On the indicator media's ability to increase students' reading motivation , teachers give scores **5**. According to teachers, the use of QR codes makes students more enthusiastic about participating in literacy activities. The curiosity to scan the codes and discover various digital reading materials encourages students to be more active in reading. This condition shows that integrating simple technology into learning media can create a more engaging learning atmosphere and increase student participation. The final indicator, namely media suitability for used continuously , also get a score **5**. Teachers assessed that the media was suitable for use as part of the school literacy program because it was easy to implement, did not require large operational costs, and allowed for regular content updates. Furthermore, the media could be utilized not only in the fifteen-minute reading activity before class, but also in thematic learning, library activities, literacy projects, and activities to strengthen the Pancasila Student Profile.

This aligns with research by Yusron & Sunanto (2026), which found that digital media is highly valid and practical in improving student learning outcomes and reading interest, and provides interactive results when implemented. Furthermore, according to (Fitriani* et al., 2021), teachers need to incorporate media to encourage student learning to be more successful. This is in line with research

Overall, the results of (Hidayatillah et al., n.d.), the practicality research were categorized as very good. Teacher learning showed that the QR Code-Based Digital Literacy Wall Media had a very high level of practicality. The media was considered easy to use, easy to manage, attractive, and able to support the implementation of literacy activities in elementary schools. These findings indicate that the integration of QR Codes in literacy wall media is a relevant innovation to enrich learning resources, increase student engagement, and strengthen the implementation of the School Literacy Movement. However, several technical aspects such as internet network quality, digital device specifications, and optimization of QR Code size still need to be considered so that the use of the media can be more effective and sustainable.

B. Discussion of Student Practicality

The results of the practicality analysis of the QR Code-Based Digital Literacy Wall Media show that the media obtained a total score of 895 out of a maximum score of 1,000. Thus, the percentage of practicality of the media reached 89.5% and

is in the very practical category. These results indicate that the media can be easily used by students, has an attractive appearance, provides easy access to digital reading materials, and is able to support literacy activities at SDN Cerme 2.

The high level of practicality also demonstrates that the media is well-suited to the characteristics of elementary school students. Elementary school students are generally more easily attracted to media that is visual, interactive, and provides hands-on learning experiences. The digital literacy wall not only presents information in the form of text and images but also connects students to various digital content through QR codes. This combination of physical and digital media creates a more varied literacy experience than reading activities that rely solely on printed books.

1. Ease of Media Use

The first indicator, ease of use, scored 92 out of a maximum of 100, or 92%. This percentage falls into the very practical category. These results indicate that most students were able to understand how to use the QR Code-Based Digital Literacy Wall without experiencing significant difficulties. Ease of use is a crucial element in assessing the practicality of a learning medium. Good media must not only have accurate content and an attractive appearance, but also be easy to use. In this study, students simply selected reading material available on the literacy wall, pointed their digital device's camera at the QR Code, and then opened the resulting link. This procedure was relatively simple and suited to the abilities of elementary school students who are accustomed to using digital devices. The high score on this indicator indicates that the media design did not cause confusion for students. The position of the QR Code, reading title, supporting images, and instructions for use were clearly arranged. This ease of use has the potential to encourage students to use the media independently in school literacy activities.

2. Clarity of Instructions for Use

The second indicator, namely easy-to-understand instructions, scored 88%, or 88%. Although lower than the ease-of-use indicator, this percentage is still in the very practical category. This result indicates that the instructions contained in the media are generally understandable to students. Concise instructions, the use of simple sentences, and supporting symbols or images help students follow the steps of using the media. Students can understand that they must select a QR Code, scan it using their device's camera, and open the available digital content. However, the 88% percentage also indicates that some students may still need additional explanations from the teacher, especially during their first use. This can be influenced by differences in instruction reading ability, experience using digital devices, and level of student independence. Therefore, instructions should be supplemented with step-by-step illustrations, such as images of opening the camera, pointing the camera at the QR Code, clicking on a link, and accessing reading material.

3. Ease of QR Code Scanning

The third indicator, QR Codes being easy to scan using a device, scored 87%, or 87%. This indicator scored the lowest compared to the others, but still falls into the very practical category.

This score indicates that most students were able to scan the QR codes successfully. However, some students may still experience difficulties when scanning. These difficulties could be caused by the device's camera quality, scanning distance, QR code size, room lighting, media placement, or internet connection stability.

This finding is important because QR codes are a key component connecting the literacy wall to digital content. If the codes are difficult to scan, the literacy process can be disrupted and students' interest in using the media can be reduced. Therefore, QR codes need to be large enough, have good resolution, be placed on reflective surfaces, and allow for adequate spacing between codes.

Furthermore, each QR Code needs to be tested regularly to ensure the link remains active and accessible. Schools should also provide alternative access, such as a short link or numeric code, in case QR Code scanning experiences problems.

4. Ease of Accessing Digital Content

The fourth indicator scored 90%, or 90%. This result indicates that digital content connected via QR Code is easily accessible to students. Ease of access is a crucial factor in the use of digital media. After scanning the QR Code, students should be able to access the reading material directly without going through too many steps. Easily accessible content reduces technical time and provides more opportunities for students to read, listen, and understand the information. A score of 90% indicates that the links used in the media function properly and direct students to the appropriate material. Digital content can include short stories, e-books, literacy videos, informative texts, or simple quizzes. This diversity of content can meet students' varying interests and make literacy activities more flexible. However, ease of access still depends on the availability of internet connections and digital devices. Therefore, teachers need to ensure that content is not too large and can be accessed on various types of devices. Easily accessible content will be helpful for schools with limited internet connections.

5. Media Display Appeal

The fifth indicator, namely attractive media displays, scored 90%, indicating a positive response from students to the media's visual design. Media displays play a crucial role in attracting the attention of elementary school students. The use of color, images, icons, font size, titles, and QR Code layouts can influence students' desire to approach and use the media. An attractively designed literacy wall can transform the school environment into a more vibrant learning space. A high score on this indicator indicates that the media design is able to arouse students'

curiosity. Students see the wall not only as a place to display information but also as a gateway to various digital reading materials. This visual appeal is the first step in building literacy habits, as students need to first develop an interest before engaging in reading activities. However, media displays need to be updated regularly to avoid boredom. Themes, images, and types of reading materials can be changed according to learning materials, national holidays, environmental issues, local culture, or character themes. Content updates will keep the media relevant and engaging. The results of this practicality include good readability and attractiveness (Af'idah et al., 2023; Budi Astuti et al., 2024).

6. Enjoyment in Literacy Activities

The sixth indicator achieved a score of 88%, or 88%. This result indicates that the use of QR Code-based Digital Literacy Wall Media can make literacy activities more enjoyable for students. Enjoyable literacy activities can encourage more active student engagement. In conventional learning, reading is sometimes seen as a monotonous task. However, the use of QR Codes provides a new experience because students can select content, scan codes, open reading materials, and explore information independently. The enjoyment of using media can also arise due to the technological element. Students are not only faced with long texts, but can also access images, sounds, videos, animations, and quizzes. This multimodal content form helps create a literacy experience that is more in line with students' learning habits in the digital age. Although the percentage is considered very practical, the score of 88% indicates that not all students have the same level of enjoyment. This difference can be influenced by the type of content, reading interests, reading comprehension skills, and access to devices. Teachers need to provide content with varying levels of difficulty so that each student can find reading material that suits their abilities and interests.

7. Ease of Understanding Reading

The seventh indicator, namely media helps students understand reading, achieved a score of 91%, or 91%. This result indicates that media is not only practical to use but also supports students' comprehension of the reading content. Digital content supplemented with images, audio, or video can help students understand concepts that are difficult to explain through text alone. For example, a text about the environment can be supplemented with a video about recycling, while a folktale can be accompanied by illustrations or audio recordings. This presentation helps students build connections between words, images, sounds, and real-life experiences. A score of 91% indicates that students found the information presented helpful. This is an important value of digital literacy wall media because the goal of literacy is not only to enable students to read but also to understand, interpret, and use information. However, teachers still need to select content appropriate to students' age, cognitive development level, and reading ability. Content that is too long or uses vocabulary that is too difficult can reduce

student comprehension. Therefore, reading content needs to be structured concisely, clearly, and contextually, and supplemented with simple questions to measure comprehension.

8. Independence in Using Media

The eighth indicator scored 89%, indicating that students can generally use media without much teacher assistance.

Independence is one of the important benefits of using QR codes. Students can choose reading materials according to their interests, access the material directly, and engage in literacy activities at their own pace. This allows students to take responsibility for their own learning activities. A percentage of 89% indicates that the media is quite successful in reducing students' dependence on teachers. Teachers do not need to explain every piece of content directly but can act as facilitators, helping students when they encounter difficulties. This allows literacy activities to take place more flexibly, whether before class, during breaks, or during special literacy activities.

However, student independence still requires guidance. Students should be guided to use digital devices responsibly, not to access content outside of learning activities, and to maintain the devices they use. Teachers also need to provide guidance in the early stages before students are truly able to use media independently.

9. Increased Reading Motivation

The ninth indicator achieved a score of 91, or 91%. This result indicates that the QR Code-based Digital Literacy Wall Media can increase students' motivation to read. Reading motivation is a key element in developing a literacy culture. Students with high motivation are more encouraged to read voluntarily, seek information, and develop their knowledge. The use of QR Codes provides a different reading experience because students can interact with the media and choose their preferred reading materials. A high score on this indicator shows that the use of technology can stimulate students to engage in literacy activities. The literacy wall is no longer passive, but becomes a medium that invites students to explore. When students successfully scan a QR Code and find interesting content, curiosity arises to try other codes. This increased motivation needs to be maintained through a variety of content and activities. Teachers can develop weekly reading programs, literacy challenges, reading journals, digital quizzes, or simple awards. Thus, the motivation that initially arises from the novelty of the technology can develop into a more sustainable reading habit.

10. Desire to Use Media Again

The tenth indicator scored 89%, or 89%. These results indicate that the majority of students expressed a desire to reuse the media in subsequent literacy

activities. This desire to reuse indicates that the media is acceptable to users. Students were not only able to use the media during the trial but also showed interest in accessing it in subsequent activities. This demonstrates the media's potential for continued use in the school environment.

The 89% score also indicates that students' experiences with the media tended to be positive. Ease of use, an attractive interface, a choice of content, and the QR Code scanning experience were factors that encouraged students to want to use the media again. To maintain this desire, the media should not be left with the same content for an extended period. Schools need to have a schedule for updating reading materials. Teachers can involve students in suggesting themes, selecting reading materials, or creating simple works that are then uploaded and linked via QR Code.

11. Overall Media Practicality

Overall, the percentage of 89.5% indicates that the QR Code-Based Digital Literacy Wall Media is categorized as very practical. This result indicates that the media has a high level of ease of use, is accessible to students, is visually appealing, and is useful in supporting literacy activities. The media's practicality is not only seen from the technical aspect, but also from the pedagogical aspect. Technically, students can scan the QR Code and access the content relatively easily. Pedagogically, the media can help reading comprehension, increase motivation, build independence, and make literacy activities more enjoyable. The presence of the media can also enrich the implementation of the School Literacy Movement. Wall media that previously only contained posters or static information can be developed into dynamic media that connects the physical school environment with digital learning resources. This allows schools to provide more reading materials without having to fill the entire wall space with long text.

12. Contribution to Strengthening Literacy Culture

QR Code-based digital literacy wall media contributes to strengthening a culture of literacy by creating a school environment that supports reading activities. A culture of literacy cannot be built simply through occasional reading activities, but requires an environment that provides access, opportunities, motivation, and repeated reading experiences. This media provides access to a variety of literacy materials that can be easily updated. Teachers do not need to replace the entire physical media when they want to add new content. Teachers simply update links or replace QR codes as needed. This flexibility allows literacy programs to be tailored to learning themes and student developmental needs. Furthermore, the media can be used to integrate reading and writing literacy with digital literacy. Students not only read information but also learn to use technology to acquire knowledge. In this process, students need to be guided to select information, understand the content, and use digital devices responsibly.

13. Supporting Factors and Constraints in Media Use

The high level of practicality of the media is supported by several factors, namely simple design, clear instructions, an attractive display, ease of QR Code scanning, and content suitability to student characteristics. Teacher support and the availability of digital devices also play a role in the smooth use of the media. However, the use of the media still faces several potential obstacles. First, not all students have the same level of technological proficiency. Second, internet network quality can affect access speed. Third, differences in device specifications can affect the success of QR Code scanning. Fourth, digital links can change or become inactive if not checked regularly. These obstacles can be overcome by providing school devices, using lightweight content, regularly checking links, and teacher support. Schools can also download some content for offline use when the internet connection is unstable.

The results of the study provide implications that the QR Code-Based Digital Literacy Wall Media is suitable for use as a supporting medium for literacy activities at SDN Cerme 2. In line with the research (Fajar Anshori, 2025), the results of the QR Code-based schoolscape design attract students' interest in being actively involved in literacy activities and reflecting on the knowledge they have gained in literacy learning. In line with the research (Irawan et al., 2021), it is very practical in comic learning media which has a very practical category, namely with a percentage of individual trials (teachers) of 91.4% and small group trials (students) of 93.8%.

Media can be implemented in 15-minute pre-class reading activities, thematic learning, library activities, literacy projects, and enrichment activities. Teachers can utilize media to provide differentiated reading materials according to grade level. For lower grades, content can include picture stories, audio stories, or short videos. For higher grades, content can include informative texts, simple articles, e-books, and comprehension quizzes.

Schools need to develop sustainable media management. This includes establishing a literacy team, selecting content, reviewing links, updating displays, and evaluating media use. With proper management, media can become part of the school's literacy program, not just used for research.

This practicality analysis focused on 20 students' responses to the use of the media. Therefore, the results illustrate the level of ease and acceptance of the media, but do not directly indicate an increase in students' literacy skills. To determine the effectiveness of the media, further research is needed comparing students' literacy skills before and after use. Future research could also involve a larger number of respondents, several grade levels, teachers, principals, and parents to obtain a more comprehensive picture. Furthermore, the results may be influenced by the media's novelty. Students may have responded strongly because it was their first time using QR codes in literacy activities. Therefore, long-term evaluation is needed to determine whether the media remains engaging and consistently used after

several weeks or months.

Based on the overall analysis, it is clear that the QR Code-based Digital Literacy Wall Media has excellent practicality. It is easy to use, engaging, helps students understand reading material, increases motivation, and encourages independence in literacy activities. With the support of devices, an internet network, content management, and teacher guidance, this media has the potential to be an effective tool for strengthening students' literacy culture at SDN Cerme 2.

5. Conclusion

Based on the research results, the QR Code-based digital literacy wall media has a very high level of practicality so it is suitable for use as a learning medium to strengthen literacy culture in elementary schools. The results of the study showed that teachers showed a score of 48 out of 50 or 96 % which is in the very practical category. Teachers considered the media easy to use, clear instructions for use, easy to access digital content, attractive appearance, easy to manage, and effective in helping the implementation of literacy activities in the classroom.

Assessments from students also showed very positive results. Of the 20 students who became respondents, the media obtained a total score of 895 out of a maximum score of 1,000 with a practicality percentage of 89.5% so it is included in the very practical category.

This obtained a percentage above 87% with the highest indicator being the ease of media 92%, followed by the ability of the media to assist learning activities and increase reading motivation each 91%. These results indicate that the media is not only easy to use but also able to attract students' attention, facilitate access to digital learning resources, and increase student involvement in literacy activities. Therefore, this media is worthy of being implemented sustainably as a learning innovation that supports strengthening the culture of literacy and digital literacy in elementary schools.

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