

# Development Of Interactive Quiz Learning Media Using Powerpoint On The Struggle Of Class Iv Students' Heroes

<sup>1st</sup> Gigih Winandika  
PGSD  
FKIP

(Universitas Nahdlatul Ulama Al Ghazali)  
Cilacap, Indonesia  
gigihwinandika12@gmail.com

<sup>2nd</sup> Wahyu Nuning Budiarti  
PGSD  
FKIP

(Universitas Nahdlatul Ulama Al Ghazali)  
Cilacap, Indonesia  
wahyu.nuning.b@unugha.id

<sup>3rd</sup> Mawan Akhir Riwanto  
PGSD  
FKIP

(Universitas Nahdlatul Ulama Al Ghazali)  
Cilacap, Indonesia  
mawan.pgsd@unugha.id

<sup>4th</sup> Aris Naeni Dwiyantri  
PGSD  
FKIP

(Universitas Nahdlatul Ulama Al Ghazali)  
Cilacap, Indonesia  
ariblessing@gmail.com

<sup>5th</sup> usuf Hasan Baharudin  
BK  
FKIP

(Universitas Nahdlatul Ulama Al Ghazali)  
Cilacap, Indonesia  
bjhasan.bk@unugha.id

<sup>6th</sup> Bahrur Rohmah  
Teacher 4<sup>th</sup> Grade  
Classroom Teacher  
(SD Islam Plus Al Kayyis)  
Cilacap, Indonesia  
bahruroh@gmail.com

\*Corresponding Author

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**Abstract:** Based on the results of the study, it can be seen that the results of media expert validation with an average percentage of 90.78% with criteria very suitable for use, material expert validation results with an average percentage of 75% with appropriate criteria for use, validation results of linguists with an average percentage 77.77% with very suitable criteria for use. The results of the product feasibility assessment by the teacher have an average percentage of 97.58% with very suitable criteria for use, the results of the product feasibility assessment by students have an average percentage of 89.84% with very suitable criteria for use. The results of this study indicate that the interactive quiz learning media using powerpoint on the material for the struggle of the heroes of the fourth grade students is appropriate for teachers to use in teaching the material based on expert validation and feasibility assessment by teachers and students.

**Keywords:** development, media, learning, powerpoint, interactive, social studies, class IV.

## 1. Introduction

Education in Indonesia is currently implementing the 2013 curriculum. In the context of the 2013 curriculum, competencies at the elementary school level are

developed through an integrative thematic approach in all subjects. Integrative thematic learning applied to primary school education is presented in a learning process based on themes combined with other subjects.

Each curriculum that is applied has a specific purpose, as well as the current 2013 curriculum. The implementation of the 2013 curriculum in Indonesia produces the next generation of the nation that is productive, creative, and has character (Mulyasa, 2016, p. 39). Teacher creativity is one of the keys to success in realizing the goals of national education and the formation of that generation. This is because the teacher has a major influence in determining the success or failure of students in learning. The use of varied learning media in teaching is one thing that a teacher needs to have in supporting the implementation of the 2013 curriculum. Learning media is a tool that makes it easier for teachers to deliver learning materials to students. Learning media is needed to achieve the effectiveness of the desired learning objectives, therefore learning media have an important role in teaching and learning activities (Darimi, 2017, p. 111).

The progress of current technological developments can be used as a learning medium that has its own charm in the world of education. The teaching and learning process in elementary schools requires teachers to be able to use technology as an interactive learning medium in delivering learning materials. Teaching materials used by teachers in delivering material must be interactive so that they have their own charm (Warkitin & Mulyadi, 2019, p. 83).

Through the use of interactive learning media, students play an active role so that the teaching and learning process is not only centered on the teacher. Students have the opportunity to develop their abilities or potential optimally.

Technology at this time made progress with the creation of computers. Computers are a form of technological progress that is used in all lines of life, including education. The software in the computer that can be used as a learning medium is Microsoft Powerpoint. Software that can combine all media elements such as text, images, sound, video and animation so that it can create interesting learning media (Warkitin & Mulyadi, 2019, p. 83).

One of the content of lessons in elementary school is Social Sciences (IPS). The content of this lesson is a field of study in the school curriculum to study human life in society and human interaction with the environment. The implementation of social studies material emphasizes the knowledge aspect, teacher-centered information sources, and only forms a culture of memorization, not critical thinking. Learning media has a very important role in achieving learning objectives effectively. Media technology in the form of Microsoft Powerpoint is an alternative learning media that can be used by teachers in social studies learning. PowerPoint learning media can help make it easier for teachers to deliver material that contains many theories or explanations. Teachers still rarely use technology media in the form of powerpoints as a tool in the teaching and learning process in social studies learning which has a very wide range of material.

Looking at the explanation above, the researcher conducted interviews with fourth grade teachers at SDN 02 Bulaksari on August 13, 2021 and interviews with fourth grade teachers at SDN 03 Sarwadadi and SDN 01 Gandrungmangu on October 15, 2021. about the struggle of the heroes in the content of social studies lessons are considered quite difficult to teach to students. Efforts have been made by teachers to overcome these problems, namely by using learning media, but the use of learning media is still rarely used by teachers in every lesson. Teachers usually use conventional learning media such as pictures, or other media that have been provided by the school. The teacher also explains that the use of learning media can make it easier to convey abstract concepts and can meet the learning needs of students from a visual perspective so that students can understand learning more easily. In the opinion of the teacher, learning media using technology such as PowerPoint can be one of the most interesting and helpful learning media in the learning process. The use of learning media such as powerpoint has never been done by the three elementary school teachers. The school has provided facilities that can support the use of technology media in the form of powerpoint. According to the teacher's opinion, the use of learning media using powerpoint in social studies lesson content, especially the Struggle of the Heroes material is quite effective, because important points in the material can be conveyed. In addition, the use of these media can attract students' attention, increase learning motivation and students' understanding of the material.

## 2. Related Works/Literature Review

### Definition of learning

In an educational environment can not be separated from the existence of learning activities either intentionally or unintentionally. Learning is a communication between educators, students and teaching materials (Nurdyansyah, 2019, p. 45). Learning is essentially a process of organizing the learning environment of students so that the learning process occurs (Pane & Dasopang, 2017, pp. 333-352). Based on the explanation above, it can be concluded that learning is a process or communication between educators, students and teaching materials in the process of organizing the learning environment of students so that learning occurs

### Definition of learning media

According to Criticos in (Daryanto, 2016, p. 4) states that the media is one component of communication as a messenger from the communicator to the communicant which is used as a tool and material in a learning activity. Meanwhile, another opinion according to Gerlach and Ely in (Arsyad, 2013, p. 3) says that in general the media is about humans, materials, and events, so that students are able to acquire knowledge, skills and attitudes. From the opinion above, it can be written that learning media are tools in learning activities that are used by teachers to support the process of teaching and learning activities and can facilitate the delivery of material so that the previously set learning objectives can be achieved optimally.

### Definition of powerpoint

Powerpoint is a software specially designed to be able to display multimedia programs in an attractive manner, easy to manufacture, easy to use and relatively inexpensive. Powerpoint can present objects in the form of text, graphics, video, sound, and other objects on one or more individual pages called "slides" (Rusman, 2015, p. 301). PowerPoint also offers several types of motion properties, namely custom animations and transitions. Movement properties such as entrance, emphasis, and exit of objects on a slide can be set by custom animations, while transitions control the movement of slides and provide interesting visual effects with each slide change.

### Definition of Social Sciences

Social Sciences or Social Sciences has the aim of developing concepts of thought in accordance with the reality of the social conditions found in the environment of students, with the provision of social studies education is expected to give birth to good citizens and are responsible for their nation and country. (Susanto, 2013, p. 138)

## 3. Material & Methodology

### 3.1. Data

Instrument Validity and Reliability Test Techniques

#### 1. Validity test technique

The instrument in question in this case is the validation sheet of material experts, media experts, linguists, teachers and students. Testing the validity of the questionnaire of experts and teacher researchers using construct validity analysis. Construction validity is a validity test that is used to measure the extent to which the instrument items compiled can measure what you want to measure in accordance with the established concept or definition (Ananda & Fadhli, 2018, p. 111).

2. Reliability test technique

Reliability test is used to determine the consistency of a measuring instrument so that it can determine the measuring instrument used is reliable and remains consistent if repeated measurements are made. The reliability test in question is used to measure the student questionnaire validation sheet.

3. Data collection instruments

Data collection instruments are instruments used to obtain a number of data needed in research. The data collection instrument used in this study

reliability test referred to in this study was used to measure student questionnaire validation sheets.

3. Data analysis techniques for product feasibility assessment validation by experts, teachers and students. The data analysis technique used in this development research uses a Likert scale with 4 alternative answers as follows:

- a) Score 1, if it is considered not good/inappropriate/inappropriate
- b) Score 2, if it is considered less good/less appropriate/not appropriate
- c) Score 3, if considered good/decent/appropriate
- d) Score 4, if it is considered very good/very decent/very appropriate

In this analysis using a questionnaire or product feasibility assessment questionnaire from experts or validators, teachers and fourth grade students. After validation, it will be used as quantitative data using the percentage table of product feasibility.

$$\text{Persentase kelayakan produk} = \frac{\text{jumlah skor total}}{\text{jumlah maksimal skor}} \times 100$$

Table 3.8 Percentage of product eligibility

Percentage (%)	Validation Criteria/ Assessment
76-100	Valid (very feasible to use)
56-75	Sufficiently valid (worth using)
40-55	Less valid (less suitable for use)
0-39	Invalid (not worth using)

Source: Arikunto in (Priagung, 2020, p. 38)

### 3.2. Method

#### Data Analysis Techniques

1. Test the validity of the questionnaire

The questionnaire validity test was used to measure the level of validity of the questionnaire used in the study. The instrument in question in this case is the validation sheet of material experts, media experts, linguists, teachers and students. Testing the validity of the questionnaire of experts and research teachers using construct validity analysis. Construction validity is a validity test that is used to measure the extent to which the instrument items compiled can measure what you want to measure in accordance with the established concept or definition (Ananda & Fadhli, 2018, p. 111). The assessment in this case is carried out by experts and teachers, if there are comments or suggestions from the validator, the researcher will revise the assessment in question. If the assessment criteria have been declared valid, the assessment criteria are used by researchers in a validation questionnaire or product feasibility assessment.

2. Questionnaire reliability test

Reliability test is used to determine the consistency of a measuring instrument so that it can determine whether the measuring instrument used can remain consistent if repeated measurements are made. The

## 4. Results and Discussion

### 4.1. Result

1. Research and information gathering

Based on the results of interviews with fourth grade teachers at SDN 02 Bulaksari on August 13, 2021 and interviews with fourth grade teachers at SDN 03 Sarwadadi and SDN 01 Gandrungmangu on 15 October 2021. The content of social studies lessons is considered quite difficult to teach to students. Efforts have been made by teachers to overcome these problems, namely by using learning media, but the use of learning media is still rarely used by teachers in every lesson. Teachers usually use conventional learning media such as pictures, or other media that have been provided by the school. The teacher also explains that the use of learning media can make it easier to convey abstract concepts and can meet the learning needs of students from a visual perspective so that students can understand learning more

easily. In the opinion of the teacher, learning media using technology such as PowerPoint can be one of the most interesting and helpful learning media in the learning process. The use of learning media such as powerpoint has never been done by the three elementary school teachers. The school has provided facilities that can support the use of technology media in the form of powerpoint. According to the teacher's opinion, the use of learning media using powerpoint in social studies lesson content, especially the Struggle of the Heroes material is quite effective, because important points in the material can be conveyed. In addition, the use of these media can attract students' attention, increase learning motivation and students' understanding of the material.

## 2. Planning

After conducting research and gathering information, the next step is the planning stage. In this planning stage, the researcher made a storyboard, a questionnaire validation instrument (material experts, media experts, linguists, teachers and students), and also a product feasibility questionnaire for 3 experts and a product feasibility assessment for teachers and students. The questionnaire validation instrument for material experts, media experts, and linguists was validated by the 3 validators of each expert. In addition, the researcher made a questionnaire validation instrument for teacher and student assessment whose assessment was carried out by 3 elementary school teachers, namely SDN 02 Bulaksari, SDN 03 Bulaksari and SDN 01 Gandrungmangu on February 8, 2022. While the student validation instrument was assessed by 19 students. SDN 02 Bulaksari, 14 students from SDN 03 Sarwadadi, and 22 students at SDN 01 Gandrungmangu on February 10, 2022. This validation instrument will later be included as the assessment criteria in the validation questionnaire if it is declared valid. After the expert, teacher, and student questionnaires are declared valid, then the assessment criteria are included in the validation questionnaire for the purposes of validating the developed media product.

## 3. Product design

The interactive quiz learning media using powerpoint on the material for the Struggle of the Heroes for grade IV students consists of the following components:

### a. Title page

The title page aims to introduce interactive quiz learning media using powerpoint on the Struggle of the Heroes material before entering the main menu. This page consists of media title, start button, close button, image and animation



## 4. Product validation

Validation of interactive quiz learning media products using powerpoint on the material for the struggle of the heroes of class IV students was carried out to determine the feasibility of the product developed by the researcher. Product validation is carried out by 3 validators, namely media experts, media experts, and language experts.

### a. Media expert validation

Product validation by media experts is carried out to determine the feasibility level of the media or design aspects contained in the learning media being developed by researchers. The product validation assessment was carried out by Mrs. Galuh Rahayuni, M.Pd. as a lecturer who has competence in the field. Product assessment by media experts consists of 4 aspects of assessment, namely aspects of suitability, aspects of appearance, aspects of usage and aspects of excellence as well as 10 assessment criteria. The following are the results of product validation by media experts:

Table 4.2 Results of product feasibility validation by media experts

No	Aspek	Indikator	Jumlah Skor	Skor Maksimal	Presentase (%)	Kategori/ Kriteria
1	Aspek kesesuaian	Media sesuai dengan topik pembelajaran	8	8	100	Sangat layak digunakan
Rata-Rata Presentase Aspek Kesesuaian			8	8	100	Sangat layak digunakan
2	Aspek tampilan	Desain tampilan visual yang menarik	8	8	100	Sangat layak digunakan
		Kualitas tampilan media	7	8	87,5	Sangat layak digunakan
Rata-Rata Presentase Aspek Tampilan			15	16	93,75	Sangat layak digunakan
3	Aspek pemakaian	Media mudah digunakan oleh guru	10	12	83	Sangat layak digunakan
Rata-Rata Presentase Aspek Pemakaian			10	12	83	Sangat layak digunakan
4	Aspek keunggulan	Media komunikatif dengan pengguna	3	4	75	Layak digunakan
Analisis Keseluruhan Data			69	76	90,78	Sangat layak digunakan

Product assessment by media experts consists of 4 aspects of assessment, namely the suitability aspect getting an average percentage of 100% with a suitable category for use, the display aspect getting an average percentage of 93.75%

with a suitable category for use, the usage aspect getting an average percentage of 83% with categories suitable for use and aspects of excellence get an average percentage of 75% with categories suitable for use. The overall analysis of the data reached 90.78% and was included in the category or criteria that was very feasible to use. This means that the learning media developed by the researcher is suitable for use in learning.

b. Material expert validation

Product validation by material experts is carried out to determine the feasibility level of the media or design aspects contained in the learning media being developed by researchers. Product validation assessment was carried out by Aris Naeni Dwiyantri, M.Pd. as a lecturer who has competence in the field. There are 5 aspects of assessment by material experts, namely competency aspects, suitability aspects, language aspects, material accuracy aspects, and methodological aspects.

Assessment by material experts there are 5 aspects of assessment, namely the competency aspect gets an average percentage of 75% with a suitable category for use, the suitability aspect gets an average percentage of 75% with a suitable category for use, the language aspect gets an average percentage of 75% with a suitable category for use. , the aspect of material accuracy gets an average percentage of 75% with a suitable category for use, and the methodological aspect gets an average percentage of 75% with a suitable category for use. Overall data analysis reached 75%. This means that the learning media developed by the researcher is suitable for use in learning.

c. Linguist validation

Product validation by linguists is carried out to determine the feasibility level of the media or design aspects contained in the learning media being developed by researchers. Product validation assessment was carried out by Mrs. Urip Umayah, M.Pd. as a lecturer who has competence in the field. There are 3 aspects of product assessment by linguists, namely aspects of the function of language use, aspects of clarity in language use, aspects of the media presented using easy-to-understand language.



There are 3 aspects of product assessment by linguists, namely aspects of language use functions get an average percentage of 80% with a very suitable category for use, aspects of language use clarity get an average percentage of 75% with appropriate categories for use, and aspects of the media presented using language. which is easy to understand gets an average percentage of 75% with a suitable category for use. The overall analysis of the data reached 77.77% with the category or criteria very suitable to be used. This means that the learning media developed by the researcher is suitable for use in learning.

5. Design revision

a. Media expert revision

Based on suggestions and comments from media experts, there are several areas that need to be improved, namely:

Table 4.5 Media expert comments and product revisions

No	Komentar	Revisi
1	Ditambahkan suara atau musik pengiring 	Menambahkan musik pengiring agar lebih menarik 

b. Material expert revision

Based on suggestions and comments from material experts, there are several parts that need to be improved, namely:

Table 4.6 Material expert comments and product revisions

Revised	Comments
Dibuat lebih menarik lagi	

c. Linguist revision

Based on suggestions and comments from linguists, there are several areas that need to be improved, namely:

Table 4.7 Comments of linguists and product revisions

Revised	Comments
Kekurangan penulisan huruf "e"	Menambahkan kekurangan huruf "e"

6. Product trial

Product trials were conducted to determine the feasibility level of the learning media developed in helping teachers teach the material for the Struggle of the Heroes to fourth grade students. The trial was conducted in 3 elementary schools, namely SDN 03 Sarwadadi, SDN 01 Gandrungmangu, SDN 02 Bulaksari. In the product trial, the researcher uses a product feasibility assessment instrument for teachers and students that has been validated so that the resulting data is valid. The following is an explanation of the interactive quiz product trial using powerpoint developed by the researcher

7. Dissemination and Implementation

At this stage, the product is distributed to the public for free so that it can be used properly. Interactive quiz learning media products using powerpoint on the material for the struggle of the heroes of class IV students that have been packaged in the form of learning CDs will then be given to 3 elementary school institutions, namely SDN 03 Sarwadadi, SDN 01 Gandrungmangu, SDN 02 Bulaksari with the hope that the learning media products developed can useful in supporting the learning process in schools.

5. Conclusion

1. The learning media product developed by the researcher is interactive quiz learning media using powerpoint on the material for the struggle of the heroes of class IV students. The product development steps are based on the development steps proposed by Borg & Gall which include 10

development steps such as Research and information collecting (research and data collection), Planning (planning), Develop preliminary from product (product draft development), Preliminary field testing (initial field trials), Main product revision (revising the results of trials), Main field testing (field trials), Operational product revisions (improvement of products resulting from field trials), Operational field testing (field implementation tests), Final product revisions (final product refinement), Dissemination and implementation (dissemination and implementation).

2. Assessment of the feasibility of interactive quiz learning media products using powerpoint on the material for the struggle of the heroes of class IV students based on the assessments of experts, teachers and fourth grade students in 3 elementary schools, namely SDN 03 Sarwadadi, SDN 01 Gandrungmangu, SDN 02 Bulaksari showing the level of media feasibility learning developed by researchers. The results of the assessment of the feasibility of learning media show that the developed learning media products have very suitable criteria for use, the results of media expert validation with an average percentage of 90.78% with very suitable criteria for use, the results of material expert validation with an average percentage of 75% with the criteria are feasible to use, the results of the validation of linguists with an average percentage of 77.77% with the criteria very suitable to be used. The results of the product feasibility assessment by the teacher have an average percentage of 97.58% with very suitable criteria for use, the results of the product feasibility assessment by students have an average percentage of 89.84% with very suitable criteria for use. The results of this study indicate that the interactive quiz learning media using powerpoint on the

material for the struggle of the heroes of the fourth grade students is appropriate for teachers to use in teaching the material based on expert validation and feasibility assessment by teachers and students.

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