

DEVELOPMENT OF MATIKLOPEDIA BASED CHARACTER BUILDING IN PRIMARY SCHOOLS

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ABSTRAK

This study aimed to develop the learning of mathematics with a medium term Matiklopedia which is based on character education for elementary school students. In accordance with these objectives, the type of study is a research development (educational research and development) by Plomp (1997) and modified Borg and Gall, which includes five phases: (1) initial research (preliminary phase investigation), (2) design (design phase), (3) realisaasi / construction (phase realization /construction), (4) testing, evaluation and revision, (phase test, evaluation & revition) and (5) implementation (implementation phase). In this first year has produced Matiklopedia the initial design has been validated by experts and media materials to the value of the matter experts with the percentage 90% are excellent and validation of media experts with a percentage score of 90% are excellent, but there was still construct validated by student SDN Tugurejo 01,02,03 Semarang.

Key Word: Development, Matiklopedia, Character Education

INTRODUCTION

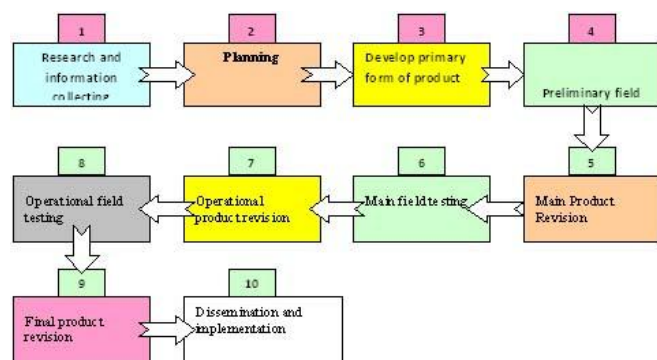
Developments in science and technology today, also affected the world of education, it brings a positive and negative impact on the behavior and character of students at school and at home. The challenge of improving the quality, relevance, and effectiveness of education as a national demands in line with the development and progress of society clearly has implications in education. Reform efforts can be done in terms of physical facilities and quality education of teachers as educators. The teacher is the gateway update that has a role as an agent of modernization in education. It is a daunting task for teachers to work to improve the quality of education by having innovations in learning that one of them by using instructional media. Because the media is a vital part of learning in the learning process, one of which can attract the attention of students so that foster student motivation and can improve the quality of learning outcomes.

character education in learning in 2013 Media is based classroom curriculum is one determinant of the success of student learning. In the case of learning activities and teaching and learning process, ie transferring the information

from the information resources to the recipient through a particular medium. With the media are attractive and equipped with hasanah national character, then students are more accepting of the learning information in order to reach the learning objectives. The teachers ought to develop their own media that attractive, economical, effective, and easy to make. As a teacher facilitator should be able to provide a facility that allows ease of teaching and learning activities, one of which mathematics instructional media such as matiklopedia the inside equipped with all mathematics attractively packaged online and print.

RESEARCH METHODE

In teaching methodologies there are two of the most prominent aspects of the teaching methods and teaching media as a teaching tool (Nana Sudjana and Rival Ahmad, 2010: 1). This teaching method is now required to enter each and gall



Picture 1: Model borg & gall

RESULTS ACHIEVED

In the development of this research has been adapted to the model development and gall borg consisting of 10 steps, based on the first year's target of this research is a preliminary study which includes 3 aspects of the study followed the development which includes 4 aspects are described as follows:

Preliminary studies include:

1. Library Studies

In doing library research endeavors have been made to increase the study of theory related to the depth of the material that will be made in the form of matiklopedia, books - literature books used are from various sources such as books and book the student teachers in the curriculum in 2013 to Grade 6 elementary school children, maths books erlangga 6th grade, 6th grade math book Yudhisthira, books on character education, computer books and articles on the internet which in essence is to produce matiklopedia that in terms of mathematics content, media content and character well integrated with each other online and offline.

1. Field Study

In a field study selected three (3) favorite school in the city of Semarang Semarang SDN 1,2,3 monument of a visit to the school gained much info as follows: (1) from teachers and students that the absence of 6th grade math teacher and student classroom 6 were able to make matiklopedia both online and offline, (2) the absence of a book of mathematics that includes the nation's 18 characters explicitly in any math book, (3) the absence of a teacher who is able to make the application of mathematics books online and offline. Of these issues teachers and students at SDN 1 and SDN 2 Tugu Semarang very enthusiastic if matiklopedia that will be developed can be used in schools

2. Design and Preparation of Matiklopedia

At this stage of product design, drafting design researchers to develop Matiklopedia Mathematics SD-based Character Building. The steps of making Matiklopedia are as follows:

1. Seeing the grade 6 mathematics syllabus appropriate curriculum 2013
2. Determine KI, KD and appropriate indicators
3. Select the odd semester mathematics grade 6
4. Choosing the model of Problem Based Learning (PBL), a model Project Based Learning (PPA) or Discovery Learning in the delivery of content
5. Determining the value of a character that would be achieved in a matter of education adapted to the character of the nation's 18
6. Develop materials with software corel draw, adobe photoshop dilengkapi with contextual problems with the images corresponding to the material
7. Save the file in the form of PNG/ JPG
8. Converting a PNG or JPG file in PDF format
9. Choosing the appropriate level of instrumental music junior child development
10. Incorporating mathematics in PDF form to FlipBookMaker

11. Insert the appropriate level of instrumental music students thinking SMP
12. Creating a hyperlink in the table of contents
13. publish in the form of SWF
14. Create a blog with the name matiklopediasd.blogspot.com
15. linked SWF files into the blog
16. line material can be opened like a book open display.
17. colors print material in the form of a PDF file with 150 CTS paper that look good and strong



Picture 4: give a matiklopedia in SDN Tugurejo 01



Picture 2: give tutorial a matiklopedia in SDN Tugurejo 01



Picture 3: give a matiklopedia in SDN Tugurejo 03

Study of the development include:

assessment Design

Assessment matiklopedia design both online and offline matiklopediasd.blogspot.com address printed form as a book done by 1) Prof.Dr.Sunandar, M.Pd. validators of the material, whereas 2) Hidalgo Murti Morrow, M. Kom. Media validators with the results of the evaluation as follows:

A. Product Design Assessment

Product design is a process of assessment activities to assess whether the product is cultivated Matiklopedia rationally be effective or not. Previous draft designs discussed with the research team Dra. Sri Surtini, M.Pd. and Drs. Paridjo, M.Pd.

Then at the validation stage is done by asking the opinion of the expert or experts who are experienced to assess desain products produced, so that then can be known advantages and disadvantages. The technique used is to use the questionnaire method (sheet validation). The results of the assessment as follows:

1 Expert Learning Materials

a. Presentation of Data

The following table presents the results of an expert assessment of exposure deskriptif learning materials for the development of these materials are submitted through the questionnaire method validation sheet instruments.

Table 1: Results Through Matter Expert assessment instrument validation sheet

From the table above it can be seen to the general aspects of the material gets 90%, 90% to aspects of material substance, and 90% for instructional design aspects. The results of expert evaluation of learning materials for the development of this Matiklopedia submitted through questionnaires with validity sheet instruments described in the following table:

Table 2 Results of assessment matter experts per-aspect

No	Assessment aspect	score				
		1	2	3	4	5
1	generally	0%	0%	0%	50%	50%
2	substance of Matter	0%	0%	0%	50%	50%
3	Design learning	0%	0%	0%	50%	50%
average		0%	0%	0%	50%	50%

From the table it can be seen that 50% of the experts stated strongly agree, 50% agree, 0% undecided, disagree 0% and 0% expressed strongly disagree. The qualitative data collected from the input, suggestions, and comments instructional media experts in open-ended questions pertaining to Matiklopedia elementary mathematics using character education model presented table 3

Table 3 an overview of Data Assessment and Review Material Expert

component	comment
The material is less clear set of examples and their contextual character	Need concrete examples to facilitate students in understanding the material

All the data from the review, assessment, and discussions with experts learning materials to be considered in the context of the revision of refinement components Matiklopedia elementary mathematics by using a model of character education conducted further research procedures that test the learner matiklopedia users elementary mathematics by using a model *character building*

No	Aspek Penilaian	Validator		Kelayakan
		1	2	
1	generally	90%	90%	90%
2	substance of Matter	80%	100%	90%
3	Design learning	90%	90%	90%
average		80%	100%	90%

1. Revision desain

1) Revision I of Material Product Development

Based on the results of the assessment or expert responses matter, then basically matiklopedia elementary mathematics by using character education does not need to have revisions or improvements, but input, open-ended questions, trying to be realized as well as possible so that the resulting development the better.

2) Revision I of Media Product Development

Based on the results of the expert responses pembelajaran media, the media basically learning does not need to get improvements, but feedback, suggestions and comments made by the media in the validation sheet of open questions, trying to be realized as well as possible so that the resulting product development the better.

Conclusion:

1) It has been produced products both online and offline matiklopedia good material according to experts and media experts

2) It has produced a prototype matiklopedia which will be ready in a limited test in 1,2,3 SDN Tugurejo Semarang

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