

**ANALYSIS OF STUDENT RESPONSES TO USE
MEDIA CARD MAGIC TOUR AND AREA OF BUILD FLAT
(CLASS ROUND) FOR LEARNING MATHEMATICS SD**

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ABSTRACT

Based on observations and interviews conducted by the researchers, the school is still limited in the use of instructional media. Fourth grade students are still difficulties in determining the circumference and area Flat. This study aims to develop learning media Magic Card Round classes that can be used as a learning medium varied in math in elementary school. With the learning media is making the students more interested and active in the learning of mathematics in the classroom. Research conducted by the author, using the methods of research and development (R & D) model of the modified Borg and Gali. Learning media form the Magic Card Round classes that have been developed have been tested through a questionnaire validation with an average rating of 87.34% categorized as very feasible. The assessment questionnaire validation of subject matter experts with an average rating of 93.33%, amounting to 86.05% of media experts and linguists for 82.66% categorized as very feasible. Pursuant to the results of student questionnaire responses obtained by the average value of 12.76 with a maximum score of 13 with an average percentage of 98.19%. This shows the media the Magic Card Round classes eligible for use in the process of learning mathematics in fourth grade.

Keywords: *Analysis repon, Media Education, Classroom Magic Card Round*

1. INTRODUCTION

SD Negeri 3 Ringinkembar located in the village Ringinkembar, District Sumbermanjing Wetan, Malang regency is one of the elementary schools already implementing the revised curriculum 2013 2018 and have an output or expenditure learners who have a variety of learning outcomes. Results varied learning is one of them is the role of the teacher in the learning process. Based on fourth grade teacher interviewed Negeri 3 Ringinkembar, obtained information that the school is still limited in the procurement and use of mathematical learning media, he said that the students are still experiencing difficulties in calculating the circumference and area of material flat wake. Researchers observe the learning process that occurs in the fourth grade of SD Negeri 3 Ringinkembar. Based on these observations, data showed that the teacher did not use the media in conveying the material math so that students no trouble imagining the material being studied. Based on interviews and observations showed that fourth graders in material hardship Flat circumference and area, as well as the school is still lacking in the availability and use of media in the learning process. This resulted in students' difficulties in understanding the material taught by the teacher. To overcome this, researchers developed a media that can support the material needs and the needs of students, namely Developing Media Magic Card Perimeter and Area Build Flat (Class Round) for fourth grade Mathematics Learning. Based on interviews and observations showed that fourth graders in material hardship Flat circumference and area, as well as the school is still lacking in the availability and use of media in the learning process. This resulted in

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This research was conducted in the fourth grade of SD Negeri 3 Ringinkembar district. Sumbermanjing Wetan District. Malang academic year 2018/2019 the number of students 17 children consisted of 13 boys and 4 girls with material Bangun Datar Perimeter and Area. Media used in the form of the Magic Card Round Classes are made of plywood coated with setiker paper, contains questions Working students contextual and words of motivation.

The purpose of this study is to determine the feasibility of developing a Media Card Magic Round Classes for learning math and fourth grade students to determine students' responses to simulated instructional use Magic Media Card Round classes for math learning fourth grade students.

Learning media the tools or materials used in the teaching and learning process. Gagne learning media according to Briggs (in Arsyad, 2002: 4), found learning media is something that physically tool is used to convey the contents of the learning material. The learning media can be a book, a tape recorder, video tapes, films, slides, photographs, pictures, television, and computers. Learning media is anything that can be used to deliver a message from the sender to the receiver so that it can stimulate the mind, feelings, concerns, and interests of students such that learning occurs in order to achieve the learning objectives effectively, (Sukiman, 2012: 29). Messages or information conveyed through the media in the form of content or teaching materials that must be accepted by the recipient of the message by using one of a combination of several tools of their senses, (Sadiman, 2003: 6). According Miarso (2009: 458), instructional media can mean everything that used to deliver the message and to stimulate thoughts, feelings, concerns, and volition of the study so as to encourage the process of learning a deliberate aim and control.

Based on the opinions of the learning media is inferred media pembelajaran are all tools that can be used in the learning process, with the intention to convey a message (information) from a source or a teacher to the recipient in this case the learners and enable communication between teachers and students can take place well. Messages or information conveyed through the media in the form of content or teaching materials that must be accepted by the recipient of the message by using one or a combination of several tools to their senses.

Mathematics examines abstract objects (objects thought) arranged in an axiomatic system using symbols and deductive reasoning (Sutawijaya, 1977: 176) in (Nyimas, Aisiyah et al. 2007: 1). Learning mathematics in elementary school is learning that must be given to elementary students. In the early learning teachers usually start with an understanding of the concept of using concrete objects first. According Heruman (2010: 1),

"elementary school students between the age of 6 or 7 years, until 12 or 13 years". According to Piaget (in Heruman, 2010: 1), "elementary students are in the concrete operational phase". Ability looked at this phase in the process of thinking is the ability to operate the rules of logic, although it is still bound by the object that is concrete. Based on the above it can be concluded that the study of mathematics in elementary school can be given to children aged about 6 or 7 years old to 12 or 13 years. Learning at ages are expected of teachers give a concrete example because at that age the ability to process thought to operationalize rules of logic are still associated with the object that is concrete that is adapted to the development of the child's learning process.

Media card magic class round are props to make it easier to distinguish Flat and determine the circumference and area Flat in math, media magic cards class round made of pieces of plywood covered with a sticker paper in which there are problems associated with the name, circumference, and broad flat wake. Media Magic Card round classes can be created and practiced by every teacher, every student and anyone who wants to do it.

Research related to instructional media Magic Card Class Round is the research conducted by Desi Erawati conduct action research on a paper in 2015 entitled "Efforts to Improve Learning Outcomes Through Media Card Denomination Denomination in Class III Elementary School Kyai Mojo". The results showed that the mathematics learning outcomes using the shards card media Elementary School third grade students Kyai Mojo increased in simple fractions material. The increase in the first cycle of 23.2% while in cycle II of 39.3%. The advantages of this research is very simple card media and students can learn contextual. Disadvantages of these fractions card media is less attractive because of the card consists of only one color.

Anis Lutfiani conduct research and development in 2017 with a thesis entitled "Development of Media Card Mystery To Achieve Mastery Learning Outcomes of Students In Fluid Dynamic Content". The results showed that the results of dynamic fluid physics learning material using the mystery card media in class XI student of MAN Yogyakarta 1 increased the dynamic fluid material. This increase was shown in limited testing by 67% with sufficient whereas implementation on extensive field trials to get a percentage of 79.21% with a good implementation. The advantages of this medium is easy to use media students because it is accompanied by guide, while the lack of media are less durable, because the material is used only on paper.

Darmaswari conduct action research on a thesis in 2014 with the title "Learning media use Domino Cards To Improve Independence and Learning Outcomes In social studies class IV SD Canisius Klepu". The results showed that the results of social studies using the media dominoes fourth grade students Kasinius Klepu increased in Learning IPS. The percentage reached KKM initial condition as much as 63%. The increase in the first cycle of 92%, while in the second cycle of 100%. The advantage of this study is very simple media and students easy to use, while the lack of these media are less attractive because haya in the form of white papers, and no words of motivation.

Based on the three relevant studies, the researchers concluded that the Round Class Magic Card media can be used in mathematics to facilitate the students understand the material around and broad flat wake. So these studies can be used as a reference in the study entitled "Development Round Class Media Magic Cards For Elementary Mathematics Learning Class IV"

2. METHODOLOGY

This research using the Research and Development (Research and Development). Research and development is research used to produce a particular product, and test the efficacy of such products (Sugiyono, 2010: 297). Research developed researchers in developing media Card Magic Perimeter and Area Bangun Datar (Class Round) The research design Research and Development model of Borg and Gall performed with seven stages, namely the potential and problems, data collection, product design, design validation, design revisions product, product trials and product revision. While the approach of the study is to combine qualitative and quantitative approaches. Framework and procedures exist padasekema following research:

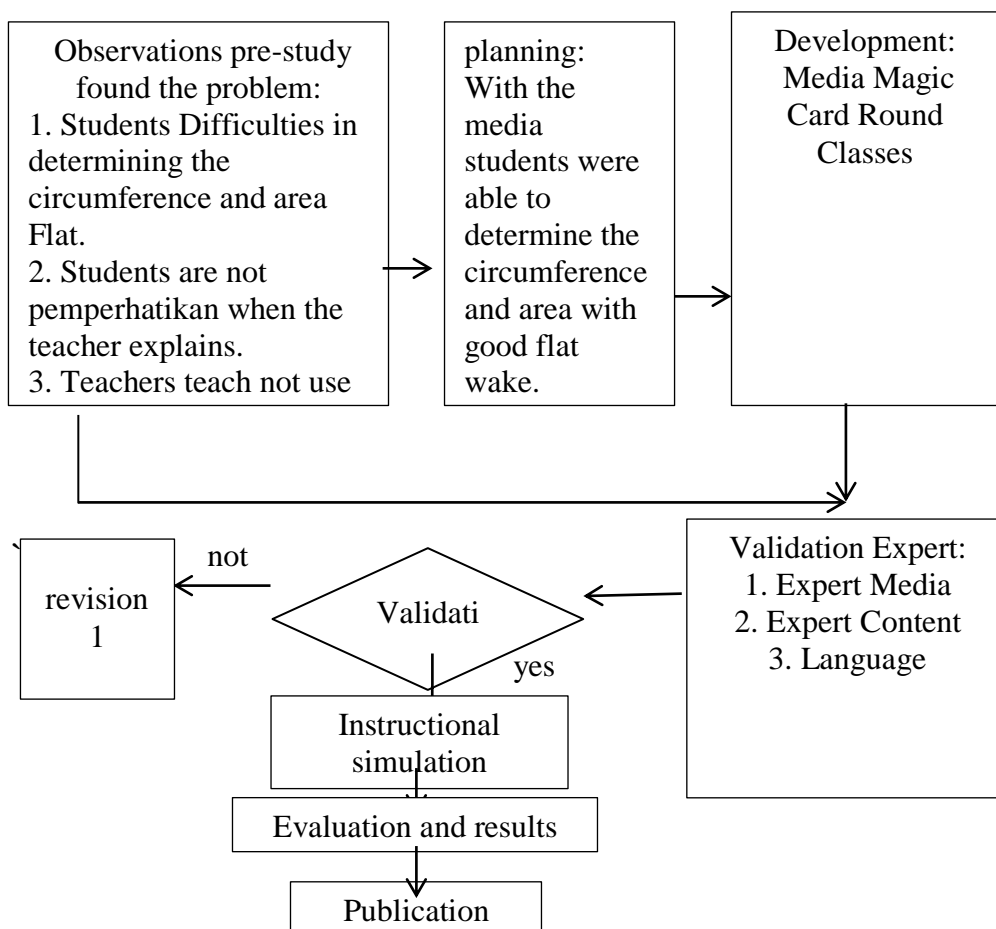


Chart 1 framework and research procedures

While the approach of the study is to combine qualitative and quantitative approaches. The research approach trying to combine both approaches these studies is the approach of research and development (research and development).

The qualitative data is the data analysis techniques to get it from interviews, observations, suggestions and comments from experts and then analyzed in the form of the word - the word verbally. Data or information obtained can be used as guidelines for improvement in the development of Class Round the Magic Card media. The quantitative

data analysis techniques of data collection analysis of data obtained from a questionnaire given to the experts as validator and students as users. The results of these data are used to determine the validity, effectiveness, and attractiveness of media Magic Card Round classes developed:

The validity of the data obtained from the results of the validation experts linguists, media specialists and subject matter experts. The results of these data in the form of a percentage of the results of instrument experts. The validity of the questionnaire using Likert scale. The research instrument used for this intensive search was made in the form of a checklist. Scores on a Likert scale used consists of the numbers 1 through 5. Category scores in a Likert scale according to Sugiyono (2015: 135) are presented in Table 1 below:

Table 1 Score Rating validity

No.	Score	Information
1	score 5	very good
2	score 4	well
3	score 3	pretty good
4	score 2	not good
5	score 1	very poor

Average Presetase validation experts - price of each component is calculated menggunakan following formula:

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

Information :

P = the percentage gain validator

$\sum x$ = Number of scores for each criterion selected

N = number of ideal score

The level of achievement or the criteria used in the percentage of validity can be seen in Table 2 below:

Table 2 Qualification Level of Achievement Validation

No.	level of Achievement	Qualification	Information
1.	81% - 100%	Very good	No need to be revised
2.	61% - 80%	Well	revised as necessary
3.	41% - 60%	Enough	Quite a lot of revisions
4.	21% - 40%	Less	many revisions
5.	0% - 20%	Very less	revised total

(Tegeh, 2014)

Analysis of the data obtained from the response of the fourth grade students of the Class Round the Magic Card media. Those results were analyzed to determine the attractiveness of Class Round the Magic Card media. Rating the attractiveness of data using Guttman scale. Guttman scale is a scale of measurement to form a firm answer as

"yes-no", "right-wrong" never-never ", and others - others. Forms of assessment using a checklist with a choice of "yes - no". Guttman scale measurement category are presented in the table this 3berikut:

Table 3 Evaluation of the attractiveness

No.	Score	Information
1	1	Yes
2	0	Not

(Modification of Sugiyono, 2015: 96)

Qualification level of achievement of student responses can be seen in Table 4 below:

Table 4 Response Qualification Level Student Achievement Results

No.	level of Achievement	Information
1	51% - 100%	Positive
2	0% - 55%	Negative

The subjects of this study is the fourth grade students of SDN 3 Ringinkembar tada year 2018/2019. The population in this study is the entirety of the fourth grade students were taken from the SD Negeri 3 Ringinkembar by the number of students 17 children. Sampling of this research is to use sampling techniques junuh by using all of the students for research is 17 students.

3. RESULTS AND DISCUSSION

There are several steps being taken by researchers in developing media Classroom Magic Card Round. Design and development stage early form on media classes Magic Card Round, that is to prepare the equipment and materials used in the manufacture of the media. The tools used in the manufacture of Class Round the Magic Card media is gergraji, sandpaper, scissors, rulers and bulpoin.sedangkan materials used in the manufacture of the Magic Card media round classes are plywood, stickers and glue.

The steps to create media Card Magic Class Round is the first to make the design Media Card Magic Class Round on plywood, designing Cards Magic Class Round sizes vary, cutting design Card Magic Class Round using saws, plywood that has been cut to fit the design, then sanded so smooth and the latter is put a sticker on the wake that has been sanded.

Steps media use Card Magic Class Round is called the children one by one to mengabil Card Magic Class Round, each child takes three Flat, namely a square, a rectangle and a triangle, the teacher gave an explanation of the Media Card Magic Class Round, students are asked to do the problems are in the back of the media card is Magic Class Round independently under the supervision of the teacher, then the students formed groups, one consisting of 4 to 5 students, flat earned by each student are gathered in one group, flat have been collected exchanged with another group, students were asked to work on the problems that are on the flat in groups, the students are required to connect the

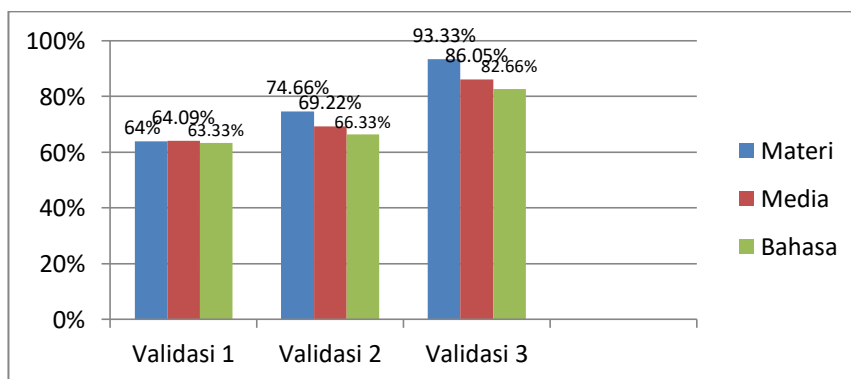
existing wake into the shapes of objects in groups, each group must connect wake there be two different objects.

Based on the results of the feasibility validation media Magic Card Round classes by subject matter experts, media specialists and linguists obtained average results with percentages as follows:

Table 5 Average Validation Results

Results Validation	Average Validation Expert			Criteria
	expert Content	hostage in order Media	Linguist	
1	64%	64.09%	63.33%	Well
2	74.66%	69.22%	66.33%	Well
3	93.33%	86.05%	82.66%	Very good

Based on the qualification achievement validation results in Table 1 it can be concluded that the Media Card Magic Class Round may be eligible for each phase of the validation increased scores and at the validation stage three get qualification extremely valid from each expert so media Card Magic Class Round fit for use for metematika teaching fourth grade. The following chart to determine the increase at each stage of validation:



Graph 1 Results Mean Validation

Based on the chart 1 media development Magic Card Round Class feasible for fourth grade math learning. The results of student responses on the instructional simulations can be seen in Table 6 of this,

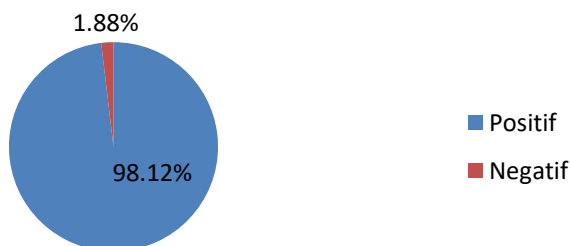
Table 6 Results of student response

Respondents	Score questionnaire	Percentage Scores	Category
1	13	100%	Positive
2	13	100%	Positive
3	13	100%	Positive
4	13	100%	Positive
5	13	100%	Positive
6	12	92.30%	Positive
7	13	100%	Positive
8	13	100%	Positive
9	13	100%	Positive

10	13	100%	Positive
11	13	100%	Positive
12	13	100%	Positive
13	13	100%	Positive
14	12	92.30%	Positive
15	12	92.30%	Positive
16	12	92.30%	Positive
17	13	100%	Positive
The average score	12.76	98.19%	Positive

From the results student questionnaire responses against the Magic Card Class Round media obtained an average score of 12.76 out of a maximum score of 13 with an average percentage of 98.19%. Based on these values, it can be concluded that the Round Class Magic Card media received a positive response from students. Below is a graph of the results of student responses:

Hasil Respon Siswa



Graph 2 Results Response Students

Simulations based instructional learning media grafik.2 Magic Card Round classes in mathematics teaching fourth grade students pose positive student responses.

4. CONCLUSION

Based on the results of research and development has been discussed in the previous chapter, it can be concluded that the research and development have resulted in media Card Magic Class Round for learning mathematics fourth grader declared valid by the validator matter experts, media experts and linguists to the media Card Magic Class Round the has developed a percentage score of 93.33% with a subject matter expert excellent qualifications, 82.66% of media experts with excellent qualifications and linguists 88.05% with excellent qualifications. Magic Card so that the instructional media Round Class intellectually and can be used as a source of learning mathematics for fourth grade students 2nd semester.

5. SUGGESTIONS

Results of instructional media such as the Magic Card Class of material Round Flat on the fourth grade students submitted suggestions from researchers as follows:

- a. To educators that learning media such as the Magic Card Class Round Flat material on fourth grade students can be used in the learning process.
- b. The learners to study media such as the Magic Card Class Round Flat material on fourth grade students to increase motivation to learn mathematics.
- c. To other researchers can develop learning products more varied and interesting for mathematical learning material flat wake.

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