

## Development of Dart Game Media for Indonesian Ethnic Cultural Diversity in Elementary Schools

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### ABSTRACT

Learning media innovation is crucial in the elementary school environment because teachers need concrete objects to facilitate the transfer of knowledge during elementary school. This research aims to determine the development of dart game media on the subject of ethnic and cultural diversity in Indonesia, the development process and the feasibility of dart game media. The research method used is development (Research and Development) borg n gall, modified by Sugiyono. The research subjects were fifth-grade elementary school students in the city of Batu. The data collection used is observation, questionnaires, learning results tests and documentation. The results of this research concluded that the dart game media was feasible and could be used in learning based on achievement indicators, with results of 80% where students experienced an increase from the results of the pretest and post-test comparison.

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## INTRODUCTION

Education is crucial for a nation. The progress of a nation is also determined by quality education to educate the nation's life. Education that humanizes humans that liberates humans. (Heath & Gamson, 1985) states that education liberates humans from oppression. According to (Dr. Fauzan, 2017) the best change starts from the realm of education. Change is needed for an advanced society, where this society always uses knowledge as a resource in living life.

Learning is a process of regulating, guiding, directing, and organizing the environment around students so that it can grow and arouse students' desires to carry out the learning process (Pane & Darwis Dasopang, 2017). Through learning, it is hoped that there will be a change in the behavior or attitude of the students so that the ultimate goal of learning is achieved, namely, changes in students' behavior (Kiron, 2017). Success in the learning process does not only depend on educators but also involves many factors. These factors include the activeness of students, the availability of learning facilities, the comfort and safety of classrooms, and other factors (Wibowo, 2016). Success in increasing the effectiveness of the learning process in classroom management,

namely a teacher must be active (often reading) in order to be able to master the material thoroughly, master information so that it is not out of date, work commitment (sincere, diligent and not easy to complain), and exemplary for students (Mahmudah, 2018).

The existence of educators is a determining factor that is no less important in creating effective learning conditions because educators, besides educating, are also good role models for their students (Fakhrurrazi, 2018). The most common problems found in learning activities include educators who have not maximized the learning process or, in other words, educators who have not been able to maximize the use of appropriate learning media according to students' characteristics, which can lead to boredom (Wibowo, 2016). (Suparlan, 2020) argues that the selection of media should be by the stated instructional objectives in general, referring to three domains: cognitive, affective, psychomotor; support learning content; practical, flexible, and enduring; a teacher can use it.

The characteristics of students that should be considered in the learning process are abilities, learning experiences, activeness, and motivation of students in the learning process (Fitriani et al., 2019). According to (Asnawati, 2019), learning media is essential to implementing education in schools. However, the provision of learning media has remained an obstacle or problem. Learning media are tools that are used or exploited so that teaching can take place well, bringing the path towards the planned goals closer or smoother. Educators use media as intermediaries in providing subject matter to students. Using learning media can arouse the interest and desire of students to learn. It can also affect the psychological aspects of students and can facilitate teaching and learning activities (Karo-Karo & Rohani, 2018).

IPS is a simplification of social science and is an interdisciplinary science, so IPS teaching examines an issue from various social science perspectives in an integrated way. The purpose of social studies teaching is to make good citizens in the sense of understanding differences and solving problems appropriately because they are supported by information and facts. In addition, social studies education output is expected to have sensitivity to social problems and social participation in society (Hilmi, 2017). Social studies teaching is very important for the basic education level because students from school come from different environments—their introduction to the diversity of ethnic groups in Indonesia. The provision of IPS learning to elementary school-age children is generally emphasized on knowledge that is quite broad and deep because the material in IPS subjects tends to be related to social problems in society from ancient times to the present.

The scope of IPS is divided into several aspects: (a). Judging from the scope of the relationship includes social, economic, psychological, cultural, historical, geographical, and political relations. (b). The group can be a family, neighborhood unit, village, villagers, community organizations, and the nation. (c). Judging from the level includes the local, regional, and global levels. (d). In terms of the scope of interaction, it can be cultural, political, and economic (Tasrif, 2008: 4). Waterwroth (2007: 5) states that the purpose of social studies (IPS) is to prepare students to become good citizens in their lives in society, where he expressly says, "to prepare students to be well-functioning citizens in a democratic society." Nursid (2008, p.1, p.17) states that social studies education is a simplification of social science disciplines, state ideology, and other scientific disciplines, as well as related social issues that are organized and presented scientifically and psychologically for educational purposes in elementary and secondary education levels, providing an understanding of social studies materials to elementary students is not enough to be given only theoretically in school lessons. To fully understand and feel the essence of each material, students need to learn directly with fun learning media.

Based on observations in the field, it is known that learning at SDN Giripurno 02 Batu is still focused on teachers, especially in subjects that include social studies (Indonesian ethnic diversity). Students are still objects in learning. Students also often ignore ongoing learning and tend to joke with their peers. The teacher must provide media to attract students' attention to understand the material.

Another problem, from the results of interviews and observations conducted by history teachers at school, information was obtained that teachers rarely use media. Even if they use media, the media most often used by teachers is powerpoint media. So that it causes boredom for students because the enthusiasm given by students only applies at the beginning to the middle of learning, then students start to get bored. This results in many students doing other activities, such as chatting with their peers, and some even fall asleep in class, ignoring the teacher's explanation. The lack of variation in the use of media causes students to be less focused and less interested in participating in the learning process so as not to create a pleasant learning atmosphere. So using new learning media can convey the aims and objectives of learning and increase students' learning interest in learning history, Hamalik (2015). Darts game is a game of throwing darts that can train a person's focus; the level of concentration is measured when throwing particular objects at specific targets, such as free throws in basketball and darts games (Hiraishi, 2021).

In addition to the description above, The urgency of this dart media development research is that it can attract students' interest and attention in learning, make it easier for them to understand the material, and become a reference for teachers in using learning media. The researcher's interest in the learning media being developed is also what drives the researcher because, according to the researcher, the media to be developed is fun game media but still unfamiliar in the world of education, so an example of media that is suitable for social studies learning in elementary school is needed. The media that can be used is dartboard media. Darts is a sport that everyone loves regardless of age or gender. Although this game it seems simple, but the players' skill is influential and essential in collecting points (Dehghani et al., 2020).

This media is the adoption of interesting games involving all students actively, and try; as a complement to this media are some arrows and question-and-answer cards. The dartboard will be numbered 1-20, determining the number of points and serial number of students to take question cards. Student points are earned according to the arrows the student throws. This media can be used for one-day learning by modifying the question cards by including questions from other subjects.

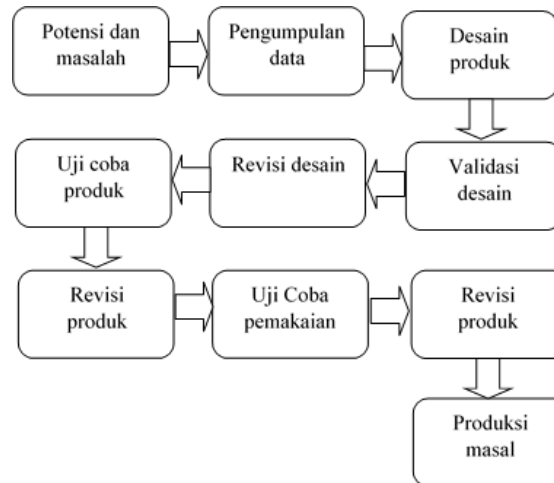
Relevant research in this study has been carried out by Defrilina Sri Eka Wulandari, Amrul Bahar, and Elvinawati, who took place at SMA Negeri 9 Bengkulu City in the 2016/2017 Academic Year. The resulting products are both in the form of dart media. From the results of this study, the chemistry learning process that applies the inquiry learning model using the dart board media is proven to increase students' activity and learning outcomes.

Based on the description above, this study aims to develop learning media for dart games in historical learning that are appropriate and practical to hone students' causal thinking analysis skills in history learning. Furthermore, Kurniawati and Bekti's research (2020) which developed learning media as a dart board on flat shapes, resulted in an average expert validation of 3.83. Based on several previous studies, it is hoped that the dartboard game learning media will be able to arouse enthusiasm for learning and encourage students to be active in class to create effective learning. Based on the background above, the problem can be formulated as follows: 1) What is the design and development process for dartboard media?; 2) What is the process of developing dartboard media based on Indonesian ethnic and cultural diversity?; 3) What is the feasibility of developing dart game media based on ethnic and cultural diversity in Indonesia?

## METHOD

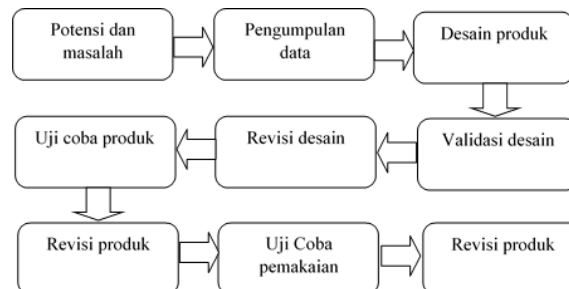
The research method used is borg n gall development (Research and Development) with the following ten stages of steps.

Chart 1. Stages of Borg and Gall Media Development in Sugiyono



ten steps without including the mass production stage, so the table above will be modified as follows:

Chart 2. Modification of the Stages of Media Development from Sugiyono



This research is development research using the Research and Development (R&D) model (Anarli et al., 2023; Fitra et al., 2023; Nurzayyana et al., 2021) by using a research design, namely: (1) potential problems, (2) data collection, (3) product design, (4) design validation, (5) design revisions, (6) product trials, (7) product revisions, ( 8) usage trials, (9) product revisions (Sugiyono, 2016: 134). This research uses a different step, mass production, because this research is limited only to determining the feasibility of Dartboard media.

The subjects of the Dart Board media trial were class V students at SDN Giripurno 02 Batu registered in the 2022/2023 school year with a total of 28 students consisting of 5 class VB students as limited trial subjects and 28 class VA students as trial subjects.

The type of data used as a reference in this development research is quantitative data. The data the researcher wants will be obtained from the results of trials by material experts, media experts, student responses, development trials I, and product development trials.

The observation instrument used in this study was a closed questionnaire as a checklist. The validation sheet is used in collecting data from the assessment results of a team of media experts

and material experts on the developed dartboard media. Furthermore, it will be used as material for product revision or product improvement. The validation sheet used in the study was a closed questionnaire in the form of a checklist. Data analysis techniques using experimental research used is the One-Group Pretest-Posttest Design. The treatment can be known more accurately; the pre-test and post-test that will be used have previously been carried out by expert judgment by material experts.

$$\boxed{O_1 \quad X \quad O_2}$$

Information:

O1: is the pretest value

O2: is the posttest value

(Sugiyono, 2010:75)

In this development research, the data obtained will be analyzed using inferential statistical analysis methods. Inferential statistics are used because, in this development research, the data comes from random samples from a clear population.

### 1. Validation Result Data

Data from dartboard media validation results are processed using percentages. The presentation was obtained by comparing the total scores from data collection from all validators consisting of two experts. Analysis of the results uses a Likert scale reference. The formula used is as follows:

$$P (\%) = \frac{\text{total score resulting from data collection}}{\text{maximum score}} \times 100\%$$

Based on the criteria above, dartboard media can be valid if it meets the average percentage of  $\geq 61\%$ .

### 2. Data on Student Response Results

Data from student responses is in the form of a closed questionnaire and is calculated by calculating the percentage of each answer item per question and then interpreting it. Analysis of the results uses the Guttman scale as a reference. The processing formula is as follows:

$$P = \frac{F}{N} \times 100\%$$

With description:

P = percentage of answers

F = frequency of respondents' answers

N = number of respondents

### 3. Success Indicators

To determine whether there is an influence of media, researchers are guided by the opinion of Sugiyono (2013) to make it easier to process data. Where  $O_1$  is the pre-test score and

$O_2$  is the post-test score. Whether or not there is an influence of the use of Dartboard media on learning outcomes can be determined by comparing the scores  $O_1$  and  $O_2$ . If value  $O_2$  greater than value  $O_1$  then, this media has a significant influence on student learning outcomes. This research is feasible if the class's results have achieved learning completeness  $\geq 80$  individually and classical completion is said to be successful if the percentage of students who complete it reaches  $\geq 80$  In the test results provided.

$$\text{Classical completion: } P = \frac{\Sigma x}{N} \times 100\%$$

Information:

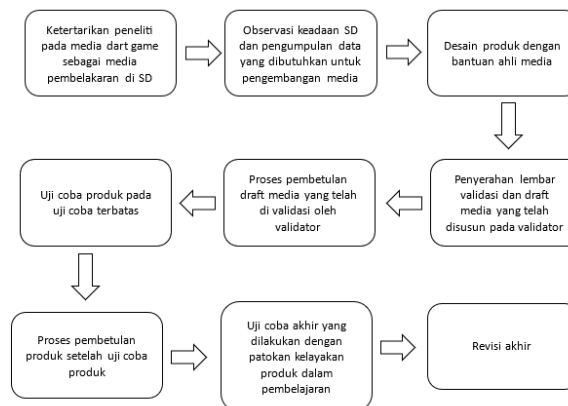
P = Percentage

$\Sigma x$  = Number of students who completed

N = Number of students

According to the modification of the Stages of Media Development from Sugiyono, researchers will conduct research with the flow as shown in the chart below:

Chart 3. Modification of Sugiyono's Media Development Stages by Researchers



## RESULTS AND DISCUSSION

The research has been carried out by modifying Research and Development (R&D), according to Sugiyono 2010. The results of this development research are in the form of the Dart Board Game media used.

### 1. Dartboard Product Design

This development uses the following product designs:

#### a. Material Product Design

Material product design is the initial design to start development. The initial design of this product is in the form of an idea that the researcher has in the form of choosing a material that matches the product to be produced, namely a dartboard. This initial design was consulted and discussed with the Research Team. After conducting the discussion, there were several suggestions that the researcher's ideas were also consulted with the material expert, namely Mrs In Idawati, M.Pd. After conducting consultations and discussions, the material product design was carried out according to the format and content suggested so that the material content fits the

needs of grade V students. The format used is the 2013 curriculum with RPP, LKPD, Learning Results Test and the time required. Then, the material was adapted to the research needs, coinciding with material on ethnic and cultural diversity in Indonesia. The selected material is also the result of consultation with the class teacher. The material is taken from the diversity of cultural and ethnic groups in Indonesia.

**b. Dartboard Media Pre-product**

This stage makes a Dartboard design as attractive as possible to increase student interest in learning. In addition, several supporting products (smart cards, namely in the form of media dart support cards that contain questions, answers, and user manuals) function as dart board media companions. This initial design was first consulted and discussed with the Research Team. Smart cards with the main program for making bright card designs, namely Canva. The result is an intelligent card measuring 12 cm x 8.5 cm in JPG format, printed on art paper with a thickness of 260 gr. Moreover, lamination is carried out to give a solid impression to the Smart Card. After joint discussions, the researchers also held discussions with media experts, namely Dr. Fajar Setiawan, M.Pd.

**c. Production**

The Dartboard is equipped with a Smart card and small darts with the subject matter of Social Studies and Ethnic Cultural Diversity in Indonesia. Meanwhile, Indonesian is only an introduction. The parts produced include design templates to complement the dartboard media, namely Smart cards. The IPS material taken is material on the Diversity of Ethnic Cultures in Indonesia, which includes tribes in Indonesia, folk songs, musical instruments, traditional clothing, traditional houses, special foods, legends, languages, and traditions in that environment according to the tribe. Making a dartboard begins by looking for dartboard material in the form of a black sponge which is cut into a circle with a diameter of 60cm; some parts are painted using white paint, after that, some parts of the circle are painted alternately using red and green acrylic paint. Then finishing by tidying up the colours and giving a number where this number will later become a score or points for students when demonstrating the dartboard media.

Next, we made a complementary dartboard, namely the Smart card, with the main program in making smart card designs, namely Canva. The result is a 12 cm x 8.5 cm smart card in jpg format, printed on art paper with a thickness of 260gr. And do the lamination to give a strong impression on the Smart Card.

## **2. Dartboard Media Development Steps**

The following are the steps for developing Dart Board media:

**1. Potential and Problems:**

The initial stage of developing the Dartboard media was observing learning in class V at SDN Giripurno 02 Batu. In these observations, it can be seen that learning is still focused on the teacher using makeshift learning media and is felt insufficient. Students are only learning objects in the learning process, so their activity level is still low, For example, students are busy alone, talking with friends, and losing focus. Students also need to be more enthusiastic about ongoing learning in class.

Seeing the results of the observations that have been made, the researcher sees the potential of the SD as an object of development research that will be carried out by researchers because, judging from several events that occur in the scope of learning that occurs in the SD, the researcher determines media that can be used as alternative media which can be used in learning.

Thus an example of media suitable for learning in the 2013 curriculum is needed and can support the learning process and attract participants' interest in learning. The researcher determines the Dartboard as an alternative.

## 2. Data Collection

At this stage, it was carried out by distributing questionnaires to students in class V which aimed to collect information about how important learning media is for them. In addition to using questionnaires and observations are also carried out as data collection materials, for example: 1) Teachers use learning media in teaching. 2) Teachers use varied learning media. 3) Every time the teacher teaches, he uses learning media other than books. 4) In teaching, teachers use a variety of learning media. 5) The teacher uses learning media inappropriately to the lesson material. 6) It is easier for me to understand the lesson after the teacher uses learning media. 7) I feel bored if teaching and learning activities use something other than learning media. 8) Teachers use learning media only at certain times. 9) Every time the teacher teaches, he uses learning media. 10) Understanding the material after the teacher uses learning media is more helpful.

## 3. Product Design

The product design stage is done by media design, dartboard learning and smart cards as initial designs. At this stage, the researcher designed a dartboard shape using Adobe Illustrator. The smart card dartboard was also designed with Adobe Illustrator.

Figure 1. Initial Product Design in the Form of Media Draft I



The first product design is in the form of draft one media, namely the shape of a dartboard which is designed with a dartboard with a diameter of 60 cm and a circle size of 2.5 cm with yellow and black colours circular inside with a number pointer as an indication of the points obtained.

Figure 2. Initial Product Design in the Form of Media Draft II



The second product design is in the form of media draft II, namely in the form of a smart card with a size of 12 cm x 8.5 cm, which was designed using Adobe Illustrator with questions and answers as well as images related to the questions as concrete examples of the questions provided.

## 4. Design Validation

At this stage, the Dartboard media was validated by material and media experts. Mrs Iin Idawati, M.Pd, carried out validation as a material expert and Mr Dr Fajar Setiawan, M.Pd. as a



media expert. The validation process uses material validation sheets and media validation. Based on the validation results obtained from the material expert, a score or value is obtained according to the validation sheet. The total value obtained from material experts is 85%. According to the presentation table, the media > 61% is called very feasible, so Dartboard media is very feasible and can be used as an alternative media in class V SD. (Arthana, 2005:80).

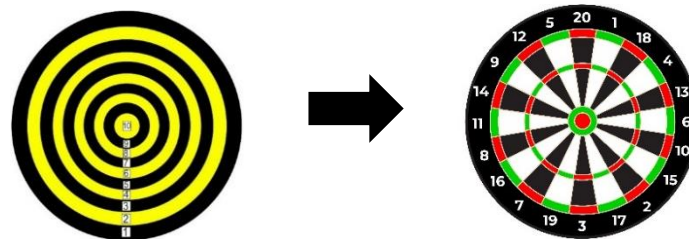
5. Improvements (revisions)

After the design validation step, revision or improvement before approval is made on the dartboard media until it is by what the validator intends. The improvement provided by the validator is the addition of the TGT learning model before giving the dartboard learning media as a form of media feasibility test. After validating the material, validation of the dartboard media was carried out. The validation process uses a media validation sheet. In testing the validity of this media, it was only recently approved. However, there were still several inputs related to the media, namely replacing the same image on several cards, colour combinations on the dart game media to make it more attractive and giving random numbers to the dart game media.

Figure 3. Initial Product Design in the Form of Media Draft II



Figure 4. Initial Product Design in the Form of Media Draft IV



No.	Smart Card			
1				
2				
3				



Based on the revised results of the media expert, a score can be obtained according to the validation sheet listed in the attachment. The total value obtained from material experts is 84%. According to the presentation table, the media > 61% is called very feasible, so it can be concluded that the quartet card media is very feasible and can be used for learning in class V SD. (Arthana, 2005:80).

6. Small Group Product Trials

The product trial (small group) was conducted on Thursday, 20 July 2023, for VB class students with five students at random SDN Giripurno 02 Batu. The following scores were obtained from the questionnaire on student responses to the Dartboard media.

Table 1. Small Group Trial Results

No.	Aspek Yang Dinilai	Responden		Persentase
		1	0	
1	Apakah penggunaan media dart game tadi sesuai dengan minatmu?	4	1	80%
2	Apakah kamu senang dengan penggunaan media dart game dalam pembelajaran?	5	0	100%
3	Apakah kamu bisa memainkan media dart game?	5	0	100%
4	Apakah kamu paham dengan materi yang ada dalam media dart game?	4	1	80%
5	Apakah bentuk tampilan dan permainan dart game menarik bagimu?	5	0	100%
Rata-rata				92%

The percentage of small group trials can be seen getting a percentage of 92% which shows that this dartboard game media is in the very good category and is suitable for use in learning; apart from the results of the students' opinions above, there are also the results of the pretest and posttest with the following results:

Table 2. Small Group Trial Pretest and Posttest Results

No.	Nilai
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	Nama Siswa	Pretest	Posttest
1	GIR	65	80
2	IM	70	85
3	KCK	60	70
4	KF	75	90
5	KMW	60	75
<b>Nilai terendah</b>		<b>60</b>	<b>70</b>
<b>Nilai tertinggi</b>		<b>75</b>	<b>90</b>
<b>Rata-rata</b>		<b>66</b>	<b>80</b>

From the table above, it can be seen that there was an increase in the results of the average pre-test score of 66 and the average post-test score of students, namely 80, which experienced an increase of 14 points. Dartboard media is feasible and can be used in learning. A Success Indicator calculation is carried out to strengthen the eligibility with the following formula further.

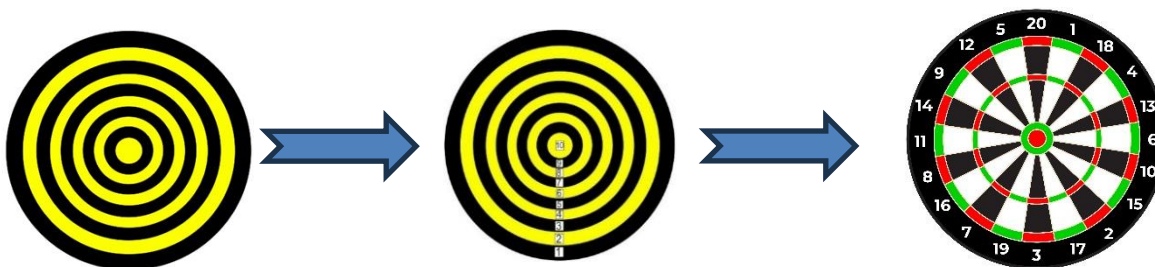
$$P = \frac{\sum x}{N} \times 100\%$$

$$P = \frac{4}{5} \times 100\% = 80\%$$

From the percentage results above, the calculation results get a percentage of 80%; it can be concluded that this dartboard game media is feasible to use.

#### 7. Revision of Small Group Trial Products

After conducting product trials (small group trials), it was found that there were deficiencies in the media because there were respondents who were not satisfied with the media that had been developed. After further investigation, it turned out that the respondent had problems with the material questions on the cards; the respondent said he was not clear about the questions because the color was a bit dim.



#### 8. Usage Trial

Operational product use trials were conducted on Monday, 24 July 2023, in the VA class at SDN Giripurno 02 Batu. 28 VA class students carried out the trial. From the results obtained from the questionnaire results of student responses to the Dartboard media as a whole, the following scores were obtained:

Table 3. Large Group Trial Results

No.	Aspek Yang Dinilai	Responden		Persentase
		1	0	
1	Apakah penggunaan media dart game tadi sesuai dengan minatmu?	25	3	89%
2	Apakah kamu senang dengan penggunaan media dart game dalam pembelajaran?	28	0	100%
3	Apakah kamu bisa memainkan media dart game?	28	0	100%
4	Apakah kamu paham dengan materi yang ada dalam media dart game?	23	5	82%
5	Apakah bentuk tampilan dan permainan dart game menarik bagimu?	23	5	82%
<b>Rata-rata</b>				<b>91%</b>

The percentage above shows that the dartboard media is in the very good category and suitable for learning. Besides the results of the students' opinions above, there are also the results of the pretest and posttest, which are shown with the following results:

Table 4. Pretest and Posttest Results of Large Group Trials

No	Nama Siswa	Jenis Kelamin	Nilai	
			Pretest	Posttest
1	AWS	L	70	80
2	ABCM	P	85	85
3	AMA	P	85	90
4	AZA	P	55	80
5	AAR	L	70	80
6	AYAN	L	70	80
7	ANA	P	60	80
8	AG	L	60	70
9	ADP	L	65	80
10	AAS	P	60	80
11	AGEA	P	50	80
12	AFI	L	85	90
13	AHW	L	50	65
14	AAP	L	80	80
15	AVZ	P	45	60
16	BAMD	L	80	90
17	CNA	P	65	80

18	DAA	L	55	75
19	DAB	P	70	80
20	DFS	L	85	100
21	DAP	L	50	65
22	ES	L	75	80
23	ERSP	P	75	100
24	FFA	P	60	85
25	FPS	L	45	60
26	ZM	P	75	85
27	ZM	P	65	90
28	HBB	L	70	90
Nilai terendah			45	60
Nilai tertinggi			85	100
Rata-rata/ Jumlah			66,4 (1860)	80,7 (2260)

The table above shows a significant increase in the results of the pre-test and post-test scores. The Dartboard media is feasible and can be used in learning because, from the table above, more than 80% of the subjects have increased.

Judging from the results that have been exposed, it can be concluded that there is a significant increase which shows the effect of using Dartboard media on student learning outcomes. Thus the Dartboard media developed meets the requirements as an alternative media that teachers can use to improve student learning outcomes. A Success Indicator calculation is carried out to strengthen the eligibility with the following formula further.

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

$$P = \frac{23}{28} \times 100\% = 82\%$$

From the percentages above, the Dartboard media is feasible and can be used as an alternative learning media. It has been tested with a percentage of 82% mastery of the material in students with a KKM of 75.

## 9. Product Revision

After the large group trial is complete, enter the product revision stage. Based on the results table above, there is an increase in student learning outcomes. However, there are still revisions to the product, namely again on the color combinations used by researchers in the questions and answers. Still, there is a little addition, namely, the composition of the colors on the back is out of sync, so the sides don't look good, so the researchers revamped the color combinations used on the Smart Card.

The specifications for the dartboard media are as follows: a dartboard made of a black-based sponge formed in a circle with a diameter of 60cm and a circular shape, then painted with a combination of white, green and red. Complementary in the form of a smart card made of art paper with a size of 12 x 8.5 cm, which was made with the Adobe Illustrator application with an image format as a stimulus as well as questions and answers so that students become independent and motivated to explore the abilities of their respective friends.

The dartboard media has the goal of developing students' skills and broadening students' knowledge, namely: 1) inviting students to try the media that was developed; 2) interesting media

games so that students are interested; 3) activities that are arranged competitively so that they can increase the competitiveness of students. By what was stated by Briggs (Sadiman et al. 2010: 6) states that media is a tool used to provide stimulation for students so that the learning process can occur. It can be concluded that learning media is anything that can help teachers convey learning.

The test subjects of this study were media users, namely teachers and fifth-grade students at SDN Giripurno 02 Batu. For a limited trial, five students were randomly selected from class VB. And for the media feasibility trial, 28 students from class VA. From the results of limited trials, the student responses were very good at 91%. And the average pre-test and post-test results increased significantly by 15 points. In line with Sudjana's (2011: 22) opinion, learning outcomes are students' abilities after receiving experience or treatment from the teacher and the surrounding environment. The Dart Board media is suitable for use in the teaching and learning process because there is an influence on student learning outcomes but with several revisions regarding the colour used on the Smart Card.

From the media feasibility test, the student's responses got very good results, namely 90%; thus, it can be concluded that all respondents agree that the Dartboard media is suitable for use in the learning process. And this is reinforced by the average results of the pre-test and post-test, which have quite an impressive difference in numbers, and also by achievement indicators, which prove that 80% of students experience an increase in post-test results. The opinion put forward (Aqib et al., 2011: 41) states that if the respondent achieves  $\geq 80\%$ , it is stated that the media is feasible or affects learning. (Martin & Chun Wang, 2022) playing strategically results in an increase in winning probability of just 0.2%–0.6% over a single leg but as much as 2.2% over a best-of-31-legs match. (Cahyani et al., 2017) research at SMP Negeri 2 Tegal, after the treatment was carried out, there was an increase in learning motivation in the high category, meaning that the simulation game technique used in this research using dartboard media effectively increased learning motivation. From several studies, game media can be an alternative to improve learning outcomes and motivation in the learning process.

## **CONCLUSION**

Based on the research results and data obtained, it can be concluded that the Dartboard media is suitable and can be used in learning material about Indonesian ethnic and cultural diversity for class V students at SDN Giripurno 02 Batu. Based on the results of the pre-test and post-test analysis carried out with achievement indicators with the result that 80% of students experienced an increase from the results of pre-test and post-test comparison that was carried out, it can be seen that there is an influence of the Dart Board media which shows a significant increase in student learning outcomes. The results of the student response questionnaire to the Dartboard media show that the Dartboard media is suitable for use for social studies learning. Most students in the student response questionnaire stated they were very interested in learning using Dartboard media. In addition, all students stated that they enjoyed learning and being able to play the Dartboard, and the appearance of the Dartboard was beautiful. So, it can be interpreted that the media is suitable for learning material about Indonesia's ethnic diversity.

The products resulting from this development are (1) Dart Game Board and (2) Smart Card. This media is straightforward to store and is not easily damaged. The way of playing is also very well mastered by children. It contains fascinating and authentic images, so students do not need to imagine the material. That way, students will be more interested in playing and trying to answer questions to win the game. By answering the questions correctly, they subconsciously understand the material. Based on the results of the pre-test and post-test analysis carried out with achievement

indicators with the result that 80% of students experienced an increase from the results of pre-test and post-test comparison that was carried out, it can be seen that there is an influence of the Dart Board media which shows a significant increase in student learning outcomes. The results of the student response questionnaire to the Dartboard media show that the Dartboard media is suitable for use for social studies learning. Most students in the student response questionnaire stated they were very interested in learning using Dartboard media. In addition, all students stated that they enjoyed learning and being able to play the Dartboard, and the appearance of the Dartboard was beautiful.

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