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Development of ESD - Oriented Google Sites Learning Media to Improve Critical Thinking Skills of Elementary School Students

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Abstract

This study aims to develop a product in the form of ESD-oriented Google Sites learning media to improve critical thinking skills of grade IV students of SDN 05 Indralaya. The type of research used in this study is development with the ADDIE model. The subjects used in this study were class IV A of SDN 05 Indralaya. Data collection techniques used were interviews, questionnaires, tests, observations and documentation. The results of the validation of material experts obtained a percentage of 98.21% with a very feasible category. The validation of media experts obtained a percentage of 90.38% with a very feasible category. The validation of practitioner experts obtained a percentage of 99.07% with a very feasible category. The results of student responses at the individual stage obtained a percentage of 96.53% with a very practical category and at the small group stage obtained a percentage of 97.22% with a very practical category. The N-Gain score obtained was 0.855 with a very high category, thus it can be concluded that the resulting product is feasible to use in learning activities.

Keywords: Climate Changes, Critical Thinking, ESD, Google Sites, Learning Media.

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INTRODUCTION

Critical Thinking can be interpreted as a more detailed thinking process that requires students to improve their ability to present innovative ideas that contribute new perspectives to problem solving, analyze a problem, and find solutions (Ariani, 2020). The critical thinking skills of students in Indonesia are still relatively low. The 2018 Program for International Student Assessment (PISA) showed that Indonesia's literacy scored 382 with a ranking of 64 out of 65 countries in the world. PISA questions include six levels, with level 6 as the highest, but of the six levels, Indonesian students only managed to answer at levels 1 and 2 (Marudut et al., 2020). One of the important 21st century skills is critical thinking skills, where students are required to be able to provide innovative ideas, analyze problems and find solutions to a problem. This makes critical thinking skills very necessary for students, one of which is in elementary school.

Critical thinking can be instilled as early as possible by utilizing learning media, because appropriate learning media can help teachers channel information to students properly in accordance with current developments and curriculum demands. The curriculum in the education system plays an important role, because the education process is directed through guidance from a curriculum. The development of the digital era has an impact on changes in the curriculum as a form of adjustment to the times (Uslan et al., 2021). Education for sustainable development (ESD) or Education for Sustainability is a concept developed to systematically understand and transform education systems that promote and instil sustainability in the minds, hearts and actions of the future generation (Suratmi, et al., 2022) An important aspect in the independent curriculum is the integration of the Education for Sustainable Development (ESD) approach which provides opportunities for students to understand and apply sustainable development concepts from an early age. The implementation of ESD at the elementary school level, especially in Indonesia, still faces various challenges, including the lack of learning media that support critical thinking skills in students, so it is vital to develop ESD-oriented learning media to improve these skills, especially among elementary school students (Azzahra, et al., 2023). Education for sustainable development (ESD) is essential as a global education paradigm to help develop attitudes, skills and knowledge (Suratmi, et al., 2022).

Learning media that is appropriate to the century and curriculum demands is very much needed, such as Google Sites learning media. Google Sites is one of the many products presented and developed by Google to create a website (Tambunan & Siagian, 2022). Research on the development of Google Sites learning media has been widely conducted, including by Fadillah Salsabila & Aslam in 2022, in 2023 by Yulia Darniati et al., Hana Lestari, et al. in 2021, one of which was conducted by Wahfidin et al., (2023) with the title "Development of Google Sites-Assisted Learning Media in Thematic Learning Theme 4 Subtheme 1 Class V SDN 11 Pontianak City", with the conclusion that based on the score from the validator, it was decided that Google Sites media was suitable for application during the teaching and learning process in thematic subjects in class V because it was included in the valid and practical category (Wahfidin et al., 2023). The novelty of the research studied by the researcher lies in the Google Sites learning media which is oriented towards ESD (Education for Sustainable Development) and is applied to the Merdeka curriculum.

Researchers found facts in practice, that in SDN 05 Indralaya has never realized the development of Google Sites learning media and is not yet ESD-oriented, this is a driving force for researchers to carry out the development of learning media that can be applied and help in the teaching and learning process in the classroom not only that researchers focus on designing a learning media, namely ESD-oriented Google Sites media that has never been developed before. This media aims not only to improve critical thinking skills and student motivation, but also to instill sustainability values in students from an early age. Google sites are the easiest way for individuals who need information quickly and collaborate with other individuals in adding information that can support learning (Aditama, 2022). The purpose of writing this journal is to describe the procedure for developing Google Sites learning media, describe the feasibility, student responses and test the effectiveness of using Google Sites learning media.

RESEARCH METHOD

This research was conducted at SDN 05 Indralaya with 23 fourth grade students as research subjects. The research method used is research and development. Research and development are an activity that seeks to produce new goods or improve existing goods. This research was conducted in the odd semester of the 2024/2025 academic year. The research procedure refers to the ADDIE model which consists of five stages, namely Analysis, Design, Development, Implementation and the last is Evaluation. The researcher designed and developed an ESD-oriented Google Sites learning media product starting from the analysis, design, development, implementation and evaluation stages. The following is a schematic diagram of the stages of the ADDIE model.

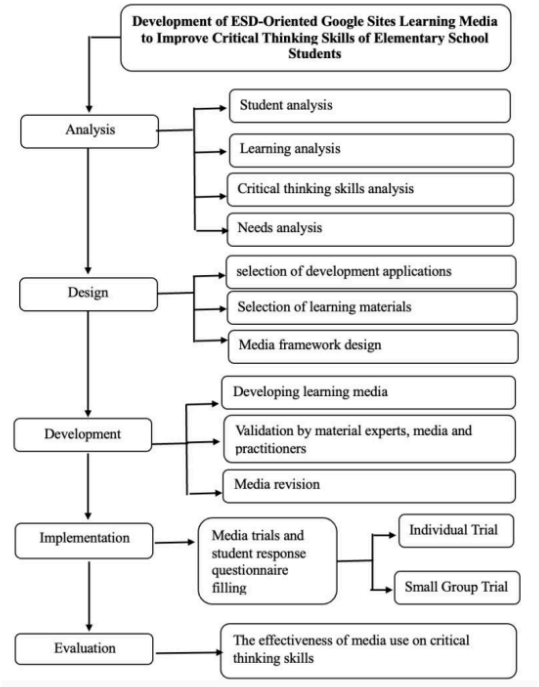

Figure 1. Modification Scheme of ADDIE Model

Data collection techniques used in this study are Observation, Interview, Documentation, Validation Sheet, Student Response Questionnaire and Test. Observation and interviews were conducted at the analysis stage, documentation was conducted at each stage, validation sheets and student response questionnaires were used at the development and implementation stages, tests were used at the evaluation stage. Data collection techniques by observation

include the following indicators, including student involvement in learning, use of learning methods, availability of learning media, application of ESD concepts, student involvement in group discussions, use of learning media and student responses to learning. Observations were conducted directly in class IV A SDN 05 Indralaya.

The next data collection technique is interviews. Interviews with teachers were conducted related to aspects of the curriculum, learning process, critical thinking, school facilities and student characteristics. These aspects consist of several questions that were submitted directly to the class IV A teacher.

Documentation in this study is used in the form of images (photos). This photo was taken using the researcher's smartphone camera. The purpose of documentation in this study is as evidence of supporting data and completeness in the research conducted. The next data collection technique is validation by material experts, media experts and practitioner experts. The grid for validation by material experts, validation by media experts and validation by practitioner experts can be seen in the following Table 1.

Table 1. Validation Sheet Grid for Experts

No.	Aspect	Indicator
1.	Curriculum	Compliance material with curriculum.
		Compliance material with achievement learning.
		Compliance material with objective learning.
2.	Think critically	Practice ability think critical participant educate.
		Give explanation simple.
		Build skills base.
		To conclude.
		Give explanation carry on.
		Setting strategy and tactics.
3.	Material	The material provides convenience in the learning process.
		Serving material.
4.	Language	Using communicative language.
		Grammatical correctness.
		Accuracy spelling.
5.	Appearance	Election background.
		Proportion layout.
		Election fonts.
		Size letter.
		Text color.
		Composition picture.
		Size picture.
		Quality picture.
		selection.
		quality.
6.	Use	Compliance with user.
		Can used independent and guided.
		Instruction uses.

Referring to the grid in the table above, the validation of material experts includes aspects of curriculum, critical thinking, materials and language. Validation of media experts includes aspects of appearance and use. Validation of practitioner experts includes all existing aspects. Then the data collection technique is through student response questionnaires. The grid of student response questionnaires can be seen in the following Table 2.

Table 2. Student Response Questionnaire Grid

No.	Aspect	Indicator	Question No.
1.	Contents of the material	Compliance Contents materials and images.	1
		Convenience in understand material.	2
		Help in develop ability Study.	3
2.	Presentation	Convenience in use.	4
		Instructional Media easy accessed.	5
		Attractive media display.	6
		Clear writing.	7
3.	Linguistics	Language used easy understood.	8
		Sentences used arranged with Good.	9
4.	Reaction user	Feeling happy when using media.	10
		Feeling of enthusiasm when using media.	11
		Not bored when using media.	12

The student response questionnaire is used to see the practicality of the developed learning media. The next data collection technique is a test. The following is a test grid that can be seen in the following Table 3.

Table 3. Test Grid

	Aspect	Indicator	Indicator question
1.	Analyze factor reason change climate.	Give explanation simple.	Given six images, participants educate can analyze picture What only those included reason change climate.
2.	Analyze impact change climate.	Build skills base.	Given a number of statements, participants educate can analyze statement which one is not including impact change climate/ season
3.	Conclude related issues with change climate.	Conclude	Given text reading, participants educate can conclude Contents reading the.
		Conclude Give explanation carry on.	Given An image, participants educate can show correct statement based on picture the.
4.	Analyze role participant educate in prevent change climate.	Setting strategy and tactics.	Given example case about related issues with change climate/ season participant educate can decide What just efforts that can done for prevent related issues with change climate/ season.

Observation Data, Interviews, Documentation, Validation Sheets, Student Response Questionnaires and Tests that have been collected will be analyzed so that they become an answer in a table. This study uses two analysis techniques, namely qualitative and quantitative analysis. Qualitative data analysis techniques,

data are obtained from the results of observations, interviews, documentation and score interpretation. While in quantitative data analysis techniques, data are obtained from material expert validation questionnaires, media expert validation, practitioner expert validation, student response questionnaires and tests.

RESULTS AND DISCUSSION

Results

Analysis Stage

This stage is carried out by analyzing the characteristics of students, student needs and learning. The aim is to determine what products will be developed by researchers. Data collection techniques used at this stage consist of observation, interviews and documentation. Interviews were conducted with class IV A teachers to explore problems, student characteristics and school facilities.

a. Analysis Characteristics Learners
   Based on school documents and interviews with class IV A teachers, it was obtained that the number of class IV A students at SDN 05 Indralaya was 23 students with 9 female students and 14 male students. Class IV A students were aged 10-12 years, which means that students were at the concrete operational stage. The results of interviews with teachers obtained information that class IV A students had varying learning styles, namely 4 students with an audio learning style, 7 students with a kinesthetic and audio-visual learning style and 12 students with a visual learning style. The teacher obtained the results of the students' learning styles from the initial diagnostics at the beginning of the school year so that the interviews conducted by the researcher with the class teacher can be said to be valid.
b. Analysis skills think critically
   Study This measure skills think critical through a number of indicators, such as give explanation simple, build skills basis, conclude, give explanation carry on as well as set strategy and tactics. Each question being tested customized with indicator think critically, with focus on the material climate and its changes. Seasons and climate in Indonesia. There are ten multiple-choice questions given to students, with one indicator consisting of two test questions consisting of pretest and posttest given to students at the field trial stage, this test aims to see the comparison of student scores before and after using google sites learning media, previously the questions have been validated to expert lecturers or supervisors to see the quality of the questions. The following Table 4 presents the results of the initial test of the use of critical thinking skills of students.

Table 4. Skills Results Think Critical

No.	Indicator	Percentage (%)	Category
1.	Give explanation simple.	36	Low
2.	Build skills base.	32	Low
3.	To conclude.	41	Low
4.	Give explanation carry on.	45	Low
5.	Setting strategy and tactics.	48	Low

No.	Indicator	Percentage (%)	Category
	Average	43	Low

Analysis results in a way overall get the average participant educate own percentage by 43% with category low.

c. Analysis learning
The curriculum implemented by SDN 05 Indralaya is Merdeka curriculum. Materials used by researchers as material making learning media is Climate and Its Changes (Seasons and Climate in Indonesia) material.

Table 5. Learning Achievements and Objectives

Achievements Learning	Learning objectives
Related issues with preservation source Power natural as a mitigation effort change climate.	Through activity observing Google Sites learning media, Participants educate can analyze factor reason change climate with correct (C4). 1. Through activity observe material on Google Sites learning media, participants educate can analyze impact change climate with right (C4). 2. Through activity discussion, participants educate can conclude related issues with change climate (C5). 3. Through activity observe material on Google Sites learning media, participants educate can analyze role participant educate in prevent change climate with correct (C4).

d. Analysis learning media needs
Based on analysis that has been done implemented previously, then Can concluded that learning media is needed that utilizes technology such as Google Sites learning media. Based on matter said, researchers in the study This will developing ESD -oriented Google Sites learning media for increase skills think critical participant educate.

Design Phase

Stage design This researcher as developer need designing in accordance with what is being researched. Stage design This aiming use to design developed products researcher based on analysis that has been done implemented researcher. Activities carried out at this stage This namely researcher to design products that include various matter namely choose what type of media will be developed, select material the main thing that will made in media, designing media framework as well to design instrument data collection.

a. Election application
Election application must in accordance with analysis that has been done implemented at the stage analysis. Selected applications use develop learning media This namely Google Sites.

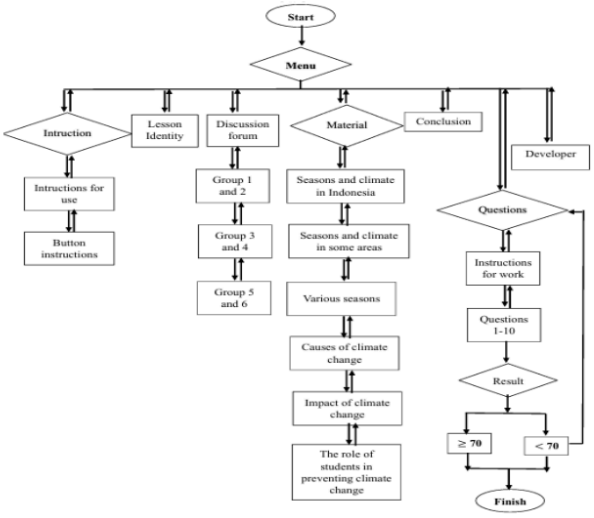

Figure 2. Google Sites Learning Media Flowchart

b. Election material
   Selected material is Climate and Its Changes (Seasons and Climate in Indonesia) material in grade IV. This material chosen Because relatedness with education sustainable or ESD which means material This can help participant educate in understand education sustainable. Participants educate class IV is also in the stage operational concrete which participants educate Still related with object concrete that must be caught by the five senses.
c. Designing media framework
   Developed learning media consists of from eight part, namely part the beginning contains the cover and main menu, the section instruction containing instruction Usage and instructions knob or existing features, parts Lesson identity contains information regarding Lessons such as materials, topics, CP and TP, discussion forum section contains instruction and 6 discussion forums for 6 groups discussion, section material consists of from the materials to be studied by participants educate, the Conclusion section contains the Conclusion regarding learning, part questions containing instruction workmanship question as well as question consists of out of 10 questions choice double and part developer consists of from identity developer.

Stage Development

Stage This involving making as well as validation products that have been developed previously. Researchers at the stage This will create Google Sites learning media that utilizes Google Sites *platform* for explain Climate and Its

Changes (Seasons and Climate in Indonesia) material. after product has finished created, Next steps is evaluating validation through evaluation by experts' materials, media and practitioner.

a. Creating Google Sites Learning Media
   In this Step researcher implement the plan that has been designed previously. This Google Sites Media made through Google Sites platform, Canva and Google Groups.

Table 6. Storyboard Prototypes

Description	Draft Layout
Slide 1. Cover Media Material section Is the cover or home page of the Google Sites learning media containing a background with a rainy atmosphere and two children playing in the rain using raincoats or jackets, the text Climate and its changes. Seasons and climate in Indonesia, the start button to start. When the start button is clicked, it will go to the menu display.	
Slide 2. Menu This is the Menu section that contains the instructions menu, Lesson identity menu, discussion forum menu, material menu, Conclusion menu, questions menu and developer menu, with a background of bright sky and beautiful highway. In the menu, students can go to the desired page or slide.	

b. Google sites learning media validation results
   Result of expert validator assessment materials, media and practitioner has obtained as following.

Table 7. Results of Validation Questionnaire Recapitulation

No.	Component Evaluation	Score obtained	Max score	Percentage (%)	Category
1.	Subject Matter Expert	55	56	98.21	Excellent
2.	Media Expert	47	52	90.38	Excellent
3.	Practitioner Expert	107	108	99.07	Excellent
	Total	209	216	96.76	Excellent

source: processed from results validation materials, media and practitioners

Based on results recapitulation questionnaire validation expert regarding ESD -oriented Google Sites learning media, it was found percentage by 96.76%.

Percentage interpreted in category eligibility so percentage the enter in "Excellent" category.

Implementation Stage

At this implementation stage, a concrete process occurs to apply the learning tools that have been prepared by the researcher. This means that the learning tools that have been designed and validated by experts will be tested on class IV A students of SDN 05 Indralaya. This testing is carried out in two stages, namely individual trials and small group trials. Individual trials are carried out individually in class IV A at SDN 05 Indralaya, this trial involves 3 students. The selection of students is carried out by considering different levels of cognitive ability. The purpose of this individual trial is to find out the shortcomings that may exist in the ESD-oriented Google Sites learning media, the product is implemented by students using the product individually. The second trial stage involves small group trials. At this stage, the researcher selects 6 students, who have diverse cognitive abilities. This small group trial aims to identify shortcomings that may exist in the ESD-oriented Google Sites learning media. The product is implemented by students using the product in groups. After the trial was conducted, students were asked to fill out a student response questionnaire on the ESD-oriented Google Sites learning media. This step was taken to evaluate student responses to the products that had been developed by the researcher. After obtaining the assessment results from students during individual and small group trials, the researcher then compiled a recapitulation of the assessment in the form of a table. The results of this recapitulation can be seen in the Table 7 below.

Table 8. Results recapitulation questionnaire response participant educate

No.	Component Evaluation	Score obtained	Maximum score	Percentage (%)	Category
1.	Individual Trial	139	144	96.53	Excellent
2.	Small Group Trial	280	288	97.22	Excellent
	Total	419	432	96.99	Excellent

source: processed from results questionnaire response participant educate

Based on the results of the recapitulation of student responses to the ESD-oriented Google Sites learning media, a percentage of 96.99% was obtained. This percentage, if interpreted into the practicality category, is included in the "Excellent" category.

Evaluation Stage

This evaluation stage aims to assess the extent to which the developed learning media is able to improve students' critical thinking skills. This evaluation process can occur at each stage described previously, where it is called the formative evaluation stage. The goal is for improvement needs, at the development stage the assessment results from expert validators, including material experts, media and practitioners stated that ESD-oriented Google Sites learning media are suitable for application in learning activities, but with the note that improvements are needed in several aspects so that the resulting product can be better. field trials involving 13 students in class IV A SDN 05 Indralaya who were not included in individual or small group tests with the aim of avoiding material bias that might occur due to

previous trials. at this stage, researchers carry out learning activities in full according to the learning plan that has been prepared in the learning module. The following are categories of completion of the objectives of the IPAS learning in the Table 9 below.

Table 9. Categories of criteria for completion of science learning objectives

Mark	Category
90-100	Very Good
80-89	Good
70-79	Enough
0-69	Need Guidance

Data source: SDN 05 Indralaya documents

Based on the table above, researchers can group the pretest and posttest scores obtained by students based on the categories in Table 9. The results of the students' pretest and posttest are based on the learning objective completion criteria which can be seen in the following Table 10.

Table 10. Pretest and Posttest Results

No.	Name	Pretest	Category	Posttest	Category
1.	AAG	70	Enough	100	Very Good
2.	ASR	20	Need Guidance	80	Good
3.	DTS	50	Need Guidance	90	Very Good
4.	FR	40	Need Guidance	90	Very Good
5.	HA	50	Need Guidance	90	Very Good
6.	LSA	40	Need Guidance	100	Very Good
7.	MAB	40	Need Guidance	100	Very Good
8.	MAS	50	Need Guidance	90	Very Good
9.	MRR	40	Need Guidance	100	Very Good
10.	AM	50	Need Guidance	90	Very Good
11.	KA	60	Need Guidance	90	Very Good
12.	MRAW	60	Need Guidance	90	Very Good
13.	MDAH	40	Need Guidance	90	Very Good
Amount		610		1200	
Average		46.92		92.31	
Lowest Value		20		80	
highest score		70		100	
Value ≥70		8%		100%	
Value <70		92%		0%	

Data source: processed from pretest and posttest results

It can be seen in the table above that the average pretest score was 46.92 with 8% of students achieving a score of ≥70. The average posttest score of students was 92.31, reflecting an increase from the pretest score with 100% of students achieving a score of ≥70. Based on this, overall, it shows that the use of ESD-oriented Google Sites learning media is effective in helping students achieve a score of ≥70 in the posttest activity.

After analyzing the pretest and posttest scores, the researcher then analyzed the effectiveness of ESD-oriented Google Sites learning media on students' critical thinking skills. The assessment was measured using N-Gain based on students' pretest and posttest scores, as shown in Table 11.

Table 11. N-Gain Score Calculation

No.	Name	Results		N-Gain	Information
		Pretest	Posttest		
1.	AAG	70	100	1	High
2.	ASR	20	80	1	High
3.	DTS	50	90	0,800	High
4.	FR	40	90	0.833	High
5.	HA	50	90	1	High
6.	LSA	40	100	1	High
7.	MAB	40	100	1	High
8.	MAS	50	90	0.800	High
9.	MRR	40	100	1	High
10.	AM	50	90	1	High
11.	KA	60	90	0.750	High
12.	MRAW	60	90	1	High
13.	MDAH	40	90	0.833	High
Average		46.92	92.31	0.855	High

Data source: processed from pretest and posttest scores

Table 10 shows that the N-Gain score from the pretest and posttest activities of students is 0.855 which is included in the high category. Based on this, it can be concluded that ESD-oriented Google Sites learning media is effective to be applied during learning activities, this is because this media can help students understand the concept of Climate and Its Changes (Seasons and Climate in Indonesia) material.

Discussion

Researchers developed a product in the form of learning media called ESD-oriented Google Sites learning media, which aims to improve critical thinking skills of students in elementary schools. The development of this learning media is based on the needs of students and teachers. The trial of this learning media was carried out on grade IV A students of SDN 05 Indralaya. The process of developing Google Sites learning media uses the ADDIE model which includes five stages, namely analysis, design, development, implementation and evaluation. The stages in the ADDIE model play an important role in ensuring the quality and effectiveness of ESD-oriented Google Sites learning media.

This research starts from the analysis stage with the aim of finding what products will be developed by the researcher. At this stage, the researcher conducts an analysis of the characteristics of students, analyzes learning that includes learning achievements and learning objectives, analyzes critical thinking skills which also include indicators of critical thinking and the need for learning media. This activity was carried out through interviews and observations with teachers at SDN 05 Indralaya in September 2024.

The second stage carried out by the researcher is design (design stage). In this stage, the researcher designs a product that contains various things, namely choosing what type of media will be developed, choosing the main material to be included in the media and designing the media framework. The researcher decided to use the platform, namely Google Sites, as a means of developing media. Google sites were chosen because they are easy to use and can be used without limitations of space and time. It can create enthusiasm in students in the learning process, because the media is interesting and not boring.

The material chosen by the researcher is the Climate and Its Changes material in the Science subject. The selection of this material aims to instill the value of sustainability in education today and in the future. Based on this, learning media is needed that can form awareness of sustainable education for students. After selecting the application or platform and material, the researcher then designed the framework of ESD-oriented Google Sites learning media in the form of a flowchart and storyboard layout.

The third stage carried out by researchers is development. At this stage, researchers make products and validate products that have been developed. The context of Google Sites learning media is made according to the design that has been determined in the previous stage. After the product is complete, the next step is validation by material experts, media and practitioners. The results obtained by researchers after carrying out validation with material expert validators were 98.21%. Selsabila and Pramudiani (2022) stated that the percentage value between 98.21% is included in the feasible category. The results of the media expert validation were 90.38% with a very feasible category.

Reflecting that every aspect of the Google Sites learning media has received a positive assessment, both in terms of appearance and use. Indicating that the media format, fonts, images and videos are appropriate and do not interfere with other components and provide an attraction to students. The last validation from the practitioner validator got 99.07% with a very feasible category. Reflecting that all aspects of the Google Sites learning media have met the standards, both in terms of material and design. Based on this, it can be concluded that the ESD-oriented Google Sites learning media is very appropriate or feasible to be used in the learning process.

The fourth stage carried out by researchers is implementation. At this stage, researchers tested the Google Sites learning media that had been validated and revised based on input from expert validators. The trial was carried out involving class IV A students of SDN 05 Indralaya. The trial was divided into two stages, namely individual and small group trials. The results of student assessments in the individual trial were 96.53%, which according to Warahmah et al., (2022), is included in the very practical category. The next trial, namely the small group trial, the percentage was 97.22%, also included in the very practical category. This finding is relevant to a study conducted by Fadillah Salsabila & Aslam (2022) entitled "development of Google Sites web-based learning media in elementary school science learning". The percentage of student responses obtained was 92% in the very practical category.

This research ends with an evaluation (evaluation stage). This stage can occur in every stage that has been explained previously, this is called the formative evaluation stage. The goal is for improvement needs. The development stage, the

results of the assessment from expert validators including material experts, media and practitioners, concluded that the ESD-oriented Google Sites learning media is feasible to be applied in learning activities with the note that improvements are needed in several aspects so that the resulting product can be better.

This field trial stage is included in the evaluation stage because at this stage the researcher can see whether the learning media developed by the researcher is effective in improving students' critical thinking skills. In this field trial, it was found that the N-Gain score was 0.855. According to Darniati et al., (2023) the N-Gain score is included in the high category. This means that the ESD-oriented Google Sites learning media developed by the researcher is effective in improving students' critical thinking skills. This finding is in line with the views of Ma'rifah and Mawardi (2022) and Azizah et al., (2021) who stated that the use of learning media can improve students' critical thinking skills. Based on this, it can be concluded that the ESD-oriented Google Sites learning media is effective in improving students' critical thinking skills.

CONCLUSION

ESD -oriented Google Sites learning media developed with the ADDIE model for increase skills think critical participant educate Grade IV SD on the topic of Climate and Its Changes. The development process covering analysis characteristics and needs participant education, media design, development products validated by experts material (98.21%), media experts (90.38%), and practitioners (99.07%). All of them in very worthy category. Implementation done through trial individuals (96.53%) and groups small (97.22%), which shows that this media is very practical for used in learning. Evaluation effectiveness done through trial field against 13 participants educate, produce N-Gain score of 0.855 in category high. This result proves that Google Sites ESD -oriented learning media is effective in increase skills think critical participant educate as well as feasible and practical for applied in activity learning.

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