

Integration of Google site-based Teaching Materials as Pre Case Based Learning

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Abstract

Case Based Learning is defined as case-based learning where students are considered to have prior knowledge in solving related cases. As a form of prior knowledge, technology-based teaching materials integrated with Google Site are developed. Through this teaching material, students can use it as initial knowledge before case-based learning is implemented or improved. The development of teaching materials is carried out through the ADDIE model (analysis, Design, Development, Implementation, and Evaluation). Followed by data collection through questionnaires and interviews conducted with respondents, namely students of class 2022 who took basic social and cultural science courses, which in this case amounted to 24 people. qualitative descriptive analysis techniques. Teaching materials developed with integration into the google site system in socio-cultural science courses from material expert evaluations with a percentage of 82% and 84% media expert evaluations, this means that the material and media are suitable for use. Furthermore, the feasibility of google site-based teaching material products from the trial obtained a feasibility percentage of 86%. The use of google site-based teaching materials can be used as an alternative in supporting the effectiveness of case-based learning. This is supported by the accompanying impact in the form of understanding technology-based learning, learning independence, and critical thinking skills.

Keywords: Teaching Materials, Google Site, Case Based Learning

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1. Introduction

The Indonesian government continues to improve the quality of higher education through various policies and programs, including increasing accessibility, improving the quality of teaching, and research. Good quality education will reflect the quality of human resources (Sinambela, 2017). The policies and programs rolled out by the government are not far from the influence of the Covid 19 pandemic. Based on the results of the 2022 PISA study released by the Ministry of Education, Culture, Research and Technology (Kemdikbudristek), Indonesia's literacy learning outcomes have increased by 5 to 6

positions compared to Indonesia's position in PISA 2018 (A, 2023). The increase in literacy learning outcomes in Indonesia from the results of the 2022 PISA study shows the resilience of the education system in Indonesia in facing the possibility of learning loss, which is interpreted as a decrease in students' competence in knowledge and skills due to the pandemic (Sinambela, 2017).

The quality of the education system has always been an integral part that must receive continuous attention. Determining the quality of resources through education with the intention of the sustainability of civilization in the future (Arifa & Prayitno, 2019). As mentioned in the previous paragraph, one of the efforts made in order to improve the quality of education is through improving the quality of teaching. However, it is not enough to increase the quality of education, its efficiency is more about learning. learning in this case is the contribution and involvement of each of the learning resources in achieving the learning objectives themselves (D. Asep et al., 2023). In this regard, universities as institutions that carry out education must of course guarantee the quality in the implementation of education. Quality or quality assurance of education in higher education institutions has the aim of ensuring that institutions in the context of their implementation must focus and always be oriented towards improving the quality of learning. meaning that quality assurance is carried out with the aim of producing quality outcomes and being able to develop potential and be competitive.

Experience in the learning process that is carried out is one that needs to be prioritized. Prioritizing the experience is a step in quality assurance and becomes an explicit evaluation of the quality of learning. Learning or the learning process is central and improves the quality of effective learning (Setyosari, 2017). As mentioned earlier, education in Indonesia has been marginalized by the Covid 19 pandemic. In these conditions at various levels of education, including the government, in this case as the authority, must turn the direction of the education system so that it does not lose its direction. The impact of pandemic conditions on the quality of education is the decline in the low category in international reading literacy scores based on the 2022 PISA study (A, 2023). Therefore, there is a need for continuous follow-up in improving the quality of education.

The positive impact of Indonesia's condition where technology is a necessity is the demand for educators and students to be innovative and creative in developing learning. the same thing was also conveyed by (Yantoro et al., 2021) the demand for educators to be creative and innovative in abnormal educational conditions. one of the things that is significantly developing is learning models and methods. this is a form of adaptation of learning implementation that must continue to run effectively by using the appropriate model or method. The use of appropriate methods is a form of extrinsic support, motivation, strategy, and tools in achieving goals, Djamarah and Zain in (Nasution, 2017). One of the learning innovations through learning models or methods is through case-based learning. Case based learning is a contrivist-oriented learning approach where knowledge is formed independently by students through participatory activities (Sudzina, 1997; Syarafina et al., n.d.). Case-based learning or case method in higher education is a recommended method in order to implement active and participatory learning. In higher education, one of the main performance indicators (KPI) based on the Decree of the Ministry of Education and Culture No. 3 / M / 2021 related to classroom learning is the percentage of S1 / D4 / D3 / D2 courses using Case-based or Project-Based learning methods (A. Asep, 2023; Farikah et al., 2022). Case-based learning is the same as problem-based learning (Weber et al., 2021), but what makes the difference between the

two is that case-based learning requires prior knowledge in solving related cases. Case-based learning is applied with the following steps; 1) bring up the case, 2) study statement, 3) work in groups, 4) discussion in groups, and continued with 5) follow-up activities. Among the studies mentioned that, there is a straight comparison when viewed from the level of critical thinking with the use of case method in learning (Fauzi et al., 2023). textbooks developed as teaching materials or as active cases improve students' critical thinking skills (Alfiandra et al., 2022).

From the results of previous studies, researchers developed learning with the case method and this was positively able to increase learning activities and learner participation. The case method provides stimulation for students to actively think actively and independently and build collaboration between students in learning (A. Asep et al., 2023). However, in its implementation, learning activities are still not optimal because of the habits of students, in this case students who are accustomed to receiving material intake first before independent learning activities or discussions in groups. Such conditions are certainly not optimal with the demands in the case-based learning implementation steps which in this case require independent understanding or knowledge before the case is resolved. In order to maximize the case-based learning process, of course, a teaching material must be developed as a form of initial knowledge that can be used by students in the implementation of case-based learning. Implementation of case method in learning where students are considered to have prior knowledge before learning (Syarafina et al., n.d.). to answer this challenge, it is necessary to consider the form of prior knowledge that is tailored to the learning characteristics of students.

Teaching materials developed in learning must be in accordance with the characteristics of students. The characteristics of learners in the renewable era are very close to the use of technology. Motivation arises with learning by using technology (Zubaidah, 2019). The availability of technology-based teaching materials makes it easy for students to learn and access independently. Therefore, in the development of technology-based teaching materials, researchers provide solutions in developing teaching materials that are integrated with google sites. google site is a step that provides convenience in creating and distributing information that can be accessed quickly with various information such as learning materials to the implementation of learning evaluations. google site is considered to be the right choice in addition to the ease for students to access it is also supported by services that are not paid. Because on this occasion the researcher developed a teaching material that was integrated into the google site as initial knowledge before case base learning was implemented.

2. Method

This research aims to develop teaching materials integrated with google site media. The teaching materials developed are interpreted as initial knowledge before the implementation of case base learning in learning. based on the objectives, this research was designed using the type of development research (Research and Development/R&D) with the ADDIE Model. The model, developed by Reiser and Mollenda, is a basic stage design that is simple and easy to learn (Hidayanto et al., 2017). Development research with the ADDIE model consists of 5 stages of activities, namely, 1) Analysis stage; 2) Design stage; 3) Development; 4) Implementation Stages; 5) Evaluation Stages (Aryanti et al., 2017). Further clarification can be understood based on the research framework, as shown in Figure 1 below

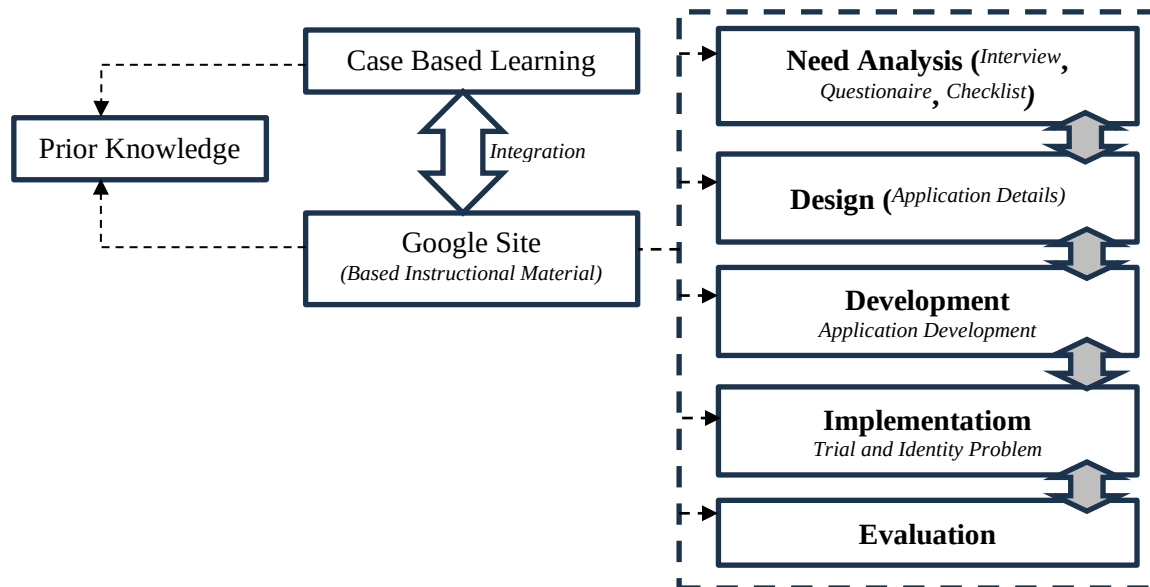


Figure 1. Research Framework

The trial of teaching materials designed in an integrated google site was carried out by several test subjects, namely, lecture material experts, learning design experts and learning media experts. Data were collected in 2 stages of implementation, namely, 1) Evaluation data on the results of trials by subject matter / content experts and learning media experts. 2) Evaluation data from individual trials and field trials. In the individual trial data and field tests carried out with the application of case-based learning in the Basic Social and Cultural Sciences course of the Geography Pendidikan Study Program, Faculty of Teacher Training and Education Pattimura University. Evaluation data were collected through instruments in the form of questionnaires, and guidelines for implementing casebased learning. Furthermore, the evaluation data is analyzed qualitatively with the aim of collecting information on the effectiveness of learning and as a guide in revising product improvements in the form of teaching materials.

Evaluation of the results of validation and trials is used to determine the feasibility of the products produced in this case teaching materials integrated into the Google site system. The assessment criteria are based on the following table:

Table 1. Interval Assesment Criteria

No	Interval	Criteria
1	81 % $\leq$ score $\geq$ 100%	Very Good or Strongly Agree
2	61 % $\leq$ score $\geq$ 80%	Good or Disagree
3	41 % $\leq$ score $\geq$ 60%	Enough
4	21 % $\leq$ score $\geq$ 40%	Less good or less Agree
5	0% $\leq$ score $\geq$ 20%	No Good or Disagree

Source: (Baharuddin, 2018)

3. Result and Discussion

Teaching materials for Basic Social and Cultural Sciences courses were developed by integrating teaching materials into the Google Site media system. Media development is carried out in stages in accordance with the stages of the ADDIE development model, namely analysis, design, development, implementation and evaluation. The result of this development is a product in the form of materials (Teaching Materials) that are integrated

into the Google Site design. The development of teaching materials integrated with Google Sites using the ADDIE Model is effective and suitable for use in the learning process (Aufa et al., 2021; Syahrani et al., 2016; Yulando et al., 2019). Teaching materials developed with this ADDIE model with the aim that they can be utilized as an effective knowledge that must be possessed by pre-case-based learning students. In the context of learning through case studies, the effectiveness of learning becomes more meaningful when students or participants have prior knowledge. According to (Susilo, 2016), prior knowledge is related to the investigation and resolution of a concept. In case-based learning, a concept is interpreted as a problem that needs to be solved by students or participants

The product developed is a product in the form of teaching materials integrated into a valid google site system. Product validation is loaded into evaluations by material /content experts and media experts. The following is a description of the trial results from each trial subject:

A. Material Expert

The evaluation carried out by the test subject, in this case by a material expert, was carried out based on 5 aspects of assessment described in the introduction, content, learning, summary, and assignments. The five aspects of the assessment are reflected in a score with certain criteria. The results of the material validation scoring carried out by the subject matter expert, namely in Table. 2 as follows:

Table. 2 Scoring Results of Material Expert Evaluation

No	Indicator	Materials Expert	
		Question Number	Total Score
1	Introduction	1,2,3,4	4,25
2	Content	5,6,7,8,9,10	4
3	Learning	11,12,13,14,15,16,17,18,19,20,21,22,23	4
4	Summary	24,25,26	4,3
5	Task/Exercise	27,28,29,30,31,32,33	4
		Average Score	4,11
		Percentage	82,2%

Source: Data Processing, 2023

Table 2 above explains the presentation of material evaluation results by material experts. Of the five aspects of material assessment, namely the introduction indicator with a score of 4.25; content, learning and task or exercise each with a score of 4; then the summary indicator with a score of 4.3 so that based on the assessment indicator, the average score is 4.11 with a percentage of 82.2%, meaning that the google site developed for the integration of teaching materials is categorized as valid/suitable for implementation. Judging from each indicator of material/course content assessment, the knowledge indicator provides direction for learners (students) in the use of google sites. This means that the use of google sites in the introduction provides meaning to be used independently with the instructions available. The alignment between indicators related to identity, goals, and content facilitates ease of learning for students/participants (Purnamasari et al., 2020; Ray et al., 2022). Related to content and learning indicators are adjusted to the references and outcomes summarized in the semester learning plan (RPS). Systematically the summary criteria and exercises are arranged according to the material presented. The presentation of material described in the Electronic module, in this case, instructional material, is structured according to indicators and learning objectives,

thereby impacting the improvement of the quality of learning (McNamara et al., 2020; Tylka et al., 2020). Material organized with clear indicators will also enhance the quality of learning (Astra et al., 2020; Fisnani et al., 2020)

B. Media Expert

In order to utilize teaching materials that are effective and efficient for learning, teaching materials developed with google site integration before use are also evaluated by the test subject, namely media experts. There are 3 indicators of assessment of the developed teaching materials, namely appearance, use, and utilization. Because the media expert as an expert subject to determine the validity in terms of media. The results of the Media Expert Evaluation scoring are illustrated in Table.3 as follows;

Table. 3 Scoring Results of Media Expert Evaluation

No	Indicator	Media Expert	
		Question Number	Total Score
1	View	1,2,3,4, 5,6,7,8,9,10, 11,12,13,14,15,1,6,17,18	4,8
2	Usage	19,20,21,22,23, 24	4
3	Utilization	25,26,27,28,29,30	4
		Average	4,2
		Percentage	84%

Source: Data Processing, 2023

Evaluations carried out by media expert subjects on average fall into the valid category or criteria worth using. Media validation from the evaluation results is at a percentage of 84%. From the data analysis of the evaluation results conducted by media experts on display indicators with a score of 4.8 helping students to stay in the product provided. This means that a good display gives the impression of focus to explore further teaching materials. Furthermore, the use and utilization indicators with a score of 4 each, are related to how students are easier and more interested in presenting and utilizing the material provided on an ongoing basis With the support of images, videos, and other animations, the presentation of material is enhanced. Consistent with that, it is also stated that the presentation's use of images, animations, and other elements does not conflict with the reader's focus on the material, and the attractiveness of the illustrations used is in harmony with the presented content (Sari et al., 2019). Presenting material with the support of images, videos, and other illustrations also supports various learning styles and time constraints (Yusuf et al., 2019).

C. Individual Trial and Group Trial

As a form of use and effectiveness of the product developed in this case in the form of teaching materials integrated into the google site system, further trials were carried out. Product trials of teaching materials are carried out in the stages of individual trials, group trials. The implementation of this product trial was carried out in accordance with the case learning steps. The trial steps integrated with casebased learning as illustrated in the figure as follows.

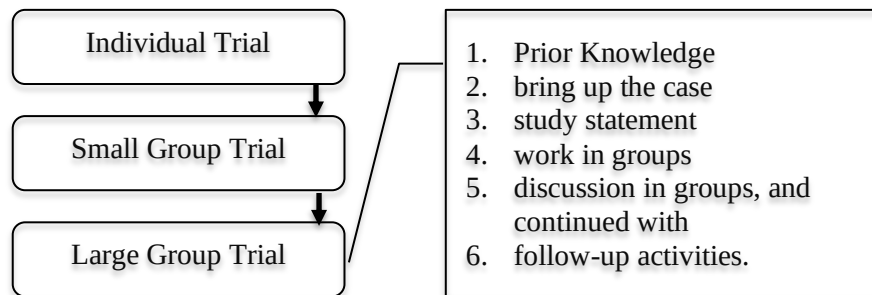


Figure 2. Integration Case Method in product testing

The percentage of product trial evaluation results can be seen based on the description in the individual trial diagram and group trials as follows

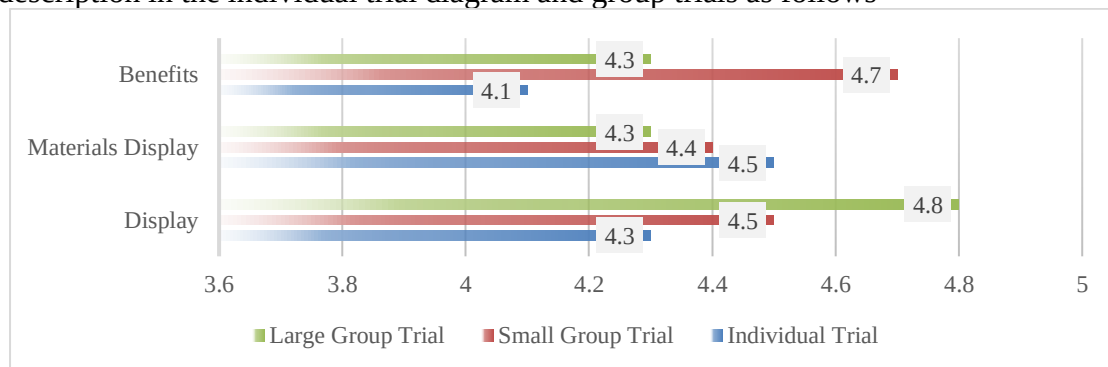


Figure 3. Individual, Small Group, and Large Group Trials

Figure 3 shows the score of product trial results in terms of teaching materials integrated into the Google site system. Evaluation of individual and group trials related to the appearance of the product, namely the use of fonts, images, and other initial displays has an average of 4.3. Furthermore, related to the appearance of the material has an average of 4.3 on the appearance of the indicator material assessed based on the presentation of the material, the use of sentences, examples, and stages of learning activities. then utilization in this case is assessed with indicators that provide convenience and motivation in understanding the material arranged in the developed teaching materials. The utilization of material after the trial obtained an average score of 4.3. This means that overall the product trial of teaching materials integrated in the Google site system is in a condition suitable for use or with a percentage of 86%.

The implementation of product trials in individuals and groups is seen from the assessment indicators, namely the general appearance, display of material and utilization related to motivation and habits in the learning process. In the aspect of appearance, it has supported the use of letters, images, and displays, this can be seen from the increase in the average score in individual trials to large groups. The score increase diagram can be seen in the following figure

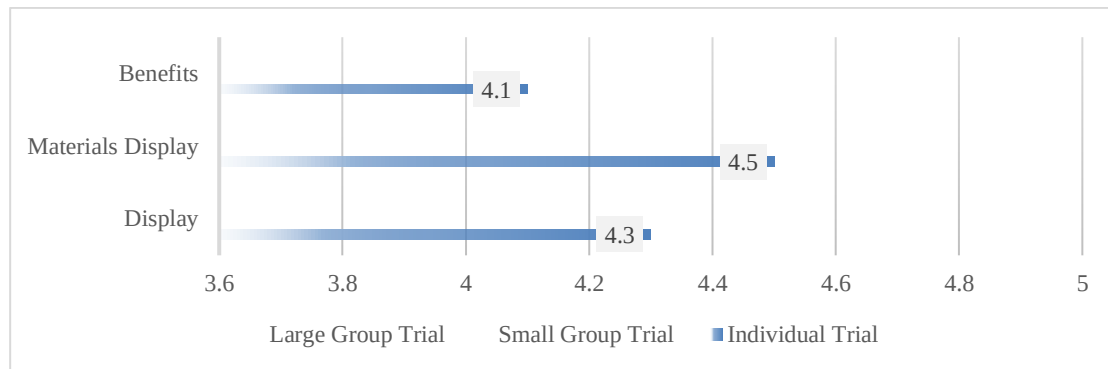


Figure 4 Increase in Average Test Score on Display Aspects with small group trials

The product trial conducted serves as a form of effectiveness and feasibility assessment for the developed product. The trial results, particularly related to display indicators, material presentation, and visual elements, have an impact on the learning process and quality. Consistent with this, it is asserted that the use of technology such as Google Site and electronic modules can enhance understanding and motivation in learning (Afriyanti et al., 2021; Asrial et al., 2020). The shift from students merely receiving information from educators to independently utilizing technology (Google Site) can significantly improve the quality of understanding. The use of technology in case-based learning will enhance interest and the desire to learn compared to conventional methods (Rahmadhani et al., 2023).

The display aspect of the material seen from the scoring results experienced a decrease from individual trials to large group trials. The material displayed in the google site system is feasible to use but from further observations, the habits of students are more towards the lack of habit to understand independently. This also results in the utilization of the material in the context of implementing learning with the casebased learning method. This means that students are accustomed to carrying out learning by receiving material directly in class by educators. The score distribution of the material display indicator trial results can be seen in the following diagram:

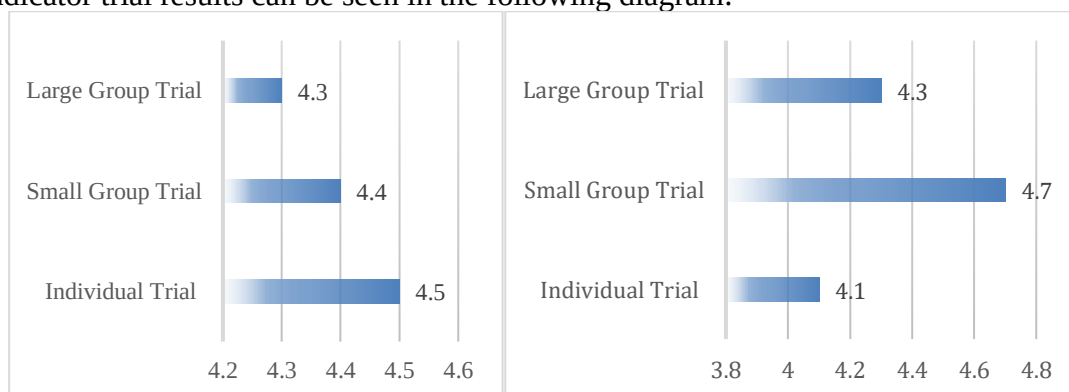


Figure 5. Average Test Score on Material Display Aspects (Left) and Benefits (Right)

One of the objectives of developing teaching materials integrated in the google site system is as initial knowledge for students before case base learning is applied. The implementation of case base learning in basic socio-cultural science courses has previously been developed, but has not yet received maximum implementation because the required knowledge has not been applied to each student in the implementation of

learning. therefore with the presence of this teaching material from the research results there are several positive accompanying impacts in the implementation of case learning in a sustainable manner.

D. Understanding of Technology-based Teaching Media

The use of technology-based teaching materials through platforms such as Google Site has had a significant impact on the understanding of material for students. In this context, Google Site functions as a digital platform that facilitates the delivery of information in a structured and interactive manner. One of the positive impacts is the ease of accessibility, where students can access learning materials anytime and anywhere. This not only increases flexibility in learning, but also allows for independent learning. In addition, Google Site-based teaching materials are often equipped with various supporting media, such as images, videos and external links that enrich the learning experience. The use of multimedia can help students to understand difficult concepts more easily and interestingly. The interactivity in the teaching materials also provides opportunities for students to actively participate in the learning process, for example through online quizzes, discussion forums, or online assignments. In addition, the utilization of Google Site as a teaching material platform also allows educators to more easily manage and update learning materials. educators can quickly integrate curriculum updates or changes into digital teaching materials without having to replace physical printed versions. This ensures that students always have access to up-to-date learning materials.

E. Learning Independence

The use of Google Site-based teaching materials in the Case-Based Learning (CBL) approach has had a significant positive impact on the development of student learning independence. In the context of CBL, Google Site provides an ideal platform to present complex case studies in a structured manner. The students are not only given theory or information related to the case, but also encouraged to solve problems, analyze situations, and make decisions based on the knowledge they have gained. One of the main impacts is the improvement of students' ability to manage time and resources. With easy access to learning materials, case study guides, and additional resources on the Google Site, students can set their own learning schedule. They can study independently, follow their learning progress, and solve assignments given in the context of case studies.

In addition, the use of Google Site in CBL provides an opportunity for students to develop analytical and problem-solving skills. They are not just passive recipients of information, but actively involved in the learning process by formulating questions, searching for answers, and making decisions based on their understanding of the case studied. This helps improve students' critical ability and independence in facing complex learning challenges. However, it should be noted that to achieve optimal learning independence, the role of assistance from educators or facilitators is still necessary. educators can provide guidance, provide feedback, and facilitate discussions that deepen students' understanding of the case study content. Thus, the use of Google Site-based teaching materials in CBL can be an effective tool to enhance students' learning independence, provided that it is integrated with an appropriate pedagogical approach.

F. Critical Thinking Ability

The use of Google Site-based teaching materials in the Case-Based Learning (CBL) approach has had a major positive impact on the development of students' critical thinking skills. Through the presentation of complex and structured case studies, Google Site allows students to actively engage in in-depth analysis of the situations and problems faced in the case. One of the main impacts is the increased ability of students to apply their critical thinking to the learning content. In the context of a case study, students are not only given information, but are also faced with the task of exploring, assessing and constructing arguments or solutions based on their understanding of the given situation. This stimulates the development of their analytical skills, strengthens their ability to identify key issues, and enhances their capacity to evaluate alternatives.

In addition, the use of Google Sites in CBL provides easy access to additional resources such as articles, videos, or external links that support the understanding of the material. With this access, students can engage in independent research and develop their critical thinking. The process of discussion and collaboration with fellow students through this platform also provides additional perspectives, enriches the learning experience, and expands students' critical understanding of various viewpoints. However, it should be emphasized that the effectiveness in developing critical thinking skills also depends on the role of assistance and guidance provided by lecturers or facilitators. Thus, the use of Google Site-based teaching materials in CBL can be an important driver in improving students' critical thinking skills, provided that it is balanced with appropriate support and guidance from educators.

4. Conclusion

Teaching materials developed with integration into the google site system in the power culture social science course from the evaluation of material experts with a percentage of 82% and evaluation of media experts 84%, this means that material and media are suitable for use. Furthermore, the feasibility of google site-based teaching material products from the trial obtained a feasibility percentage of 86%. The use of google site-based teaching materials can be used as an alternative in supporting the effectiveness of case-based learning. This is supported by the accompanying impact in the form of understanding technology-based learning, learning independence, and critical thinking skills.

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