



Bridging Science and Culture: A Learning Video on the Human Digestive System that is Responsive to the Local Wisdom of the Anak Dalam Tribe

Isnaini Safira*, Suratno, Bunga Ayu Wulandari

Master of Educational Technology, Universitas Jambi, Jambi, Indonesia

Received: January 14th, 2025 ▪ Revised: April 19th, 2025 ▪ Accepted: April 30th, 2025

ABSTRACT

The gap in access to technology-based learning media in indigenous communities such as the Suku Anak Dalam (SAD) is a challenge in achieving educational equality. The literature shows that a culturally responsive educational approach has an important role in increasing the effectiveness of learning in indigenous communities. This study aims to develop and test the feasibility of a human digestive system learning video adapted to the local cultural context of SAD, and to evaluate its impact on students' learning interests. The method used is Research and Development (R&D) referring to the Alessi and Trollip (2001) model, which includes the stages of planning, design, and development. The subjects of the study were SAD adolescents aged 15–18 years in Sukajadi Village, Bathin VIII District, Sarolangun Regency. The validation of material experts produced a score of 90.67% and media experts 84%, both in the very feasible category. Practical feasibility tests through individual, small group, and field trials showed results of 90.27%, 86.34%, and 90.7%, respectively. These results indicate that the media developed is very effective in increasing learning interest. Academically, this research confirms the importance of integrating a culturally responsive approach in the development of learning media, as well as contributing to the development of digital inclusion-based education for indigenous communities in Indonesia.

Keyword: Human Digestive System, Deep Child Tribe, Learning Video

INTRODUCTION

Education is a fundamental instrument in shaping the character, skills, and critical thinking abilities of the younger generation. In Law of the Republic of Indonesia Number 20 of 2003 Article 1 Paragraph 2, education is defined as a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals, and the skills needed by themselves, society, nation, and state. Therefore, education does not only function as a transfer of knowledge, but also as a means of strengthening cultural, social values, and collective identity of a community.

In practice, education always involves learning and teaching activities. Learning is an

***Correspondence:**

Isnaini Safira, Master of Educational Technology, Universitas Jambi, Jambi, Indonesia.

✉ email: safirasalman400@gmail.com

Copyright (c) 2025 Isnaini Safira, Suratno, Bunga Ayu Wulandari



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

individual's internal process in gaining knowledge and changing behavior, while teaching is an external activity carried out by educators to facilitate learning. Learning means an effort to change patterns or behavior from not knowing to knowing, and from not wanting to wanting. An effective learning process is greatly influenced by a number of factors such as teaching methods, learning environment, learning resources, and learning media (Sayed Munna & Kalam, 2021). One of the key components that is now increasingly being considered in educational development is the role of technology as a learning medium (Metekohy et al., 2022).

The advancement of information and communication technology has brought about major changes in various aspects of life, including in the education sector. Digital transformation in the world of education has become increasingly apparent since the COVID-19 pandemic hit the world in 2019. All levels of society, including children, adults, and the elderly, have been forced to adapt to technology, from implementing remote work (work from home) to online learning (Aisyah, 2021). This proves that technology can be a bridge in presenting education that is more inclusive, flexible, and adaptive to various social and geographical conditions.

However, amidst the euphoria of technological advances in education, there is still significant inequality in access, especially for indigenous peoples and remote communities. Based on the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 72 of 2013 Article 2, it is stated that "Special Service Education aims to provide access to education for students so that their right to obtain education is fulfilled." Special service education is intended for students who are in remote or underdeveloped areas, remote indigenous communities, and those affected by disasters or come from underprivileged families. Thus, the Suku Anak Dalam (SAD) which is one of the indigenous communities in Indonesia has the right to obtain access to quality and equal education.

SAD is an indigenous community group that is mostly spread across Jambi and South Sumatra. They have a unique social and cultural system, as well as a way of life that is highly dependent on nature. Although identical to traditional and semi-nomadic life, currently some SAD communities are starting to experience a process of integration with the outside community, including in terms of education and the use of technology. A preliminary study conducted in Sukajadi Village, Bathin VIII District, Sarolangun Regency showed that most SAD children already have and use smartphones for various purposes, such as listening to music, watching videos, and accessing social media. However, the use of this technology has not been directed to support the learning process optimally, due to limited resources, low educator capacity, and the unavailability of learning media that is appropriate to the SAD cultural context.

In fact, according to Sloum and Al-Ghafri (2018) learning will be more effective if it is developed according to the social and cultural characteristics of students. This is in line with Lev Vygotsky's sociocultural theory which states that individual cognitive development is greatly influenced by the socio-cultural environment in which they grow up. Vygotsky emphasized that teachers act as facilitators who bridge students with knowledge through social assistance provided in the zone of proximal development (ZPD). Thus, a learning approach that links material to real life and the cultural environment of students will provide more meaningful results.

In the context of indigenous communities such as SAD, the use of learning media that

is not only technology-based but also sensitive to local culture is a must. Unfortunately, until now academic studies on the development of video-based learning media developed specifically for indigenous communities in Indonesia are still very limited. The majority of previous studies have focused more on public schools in urban areas or on the use of media in the context of online learning in general (Metekohy et al., 2022). This means that there is a knowledge gap in the literature regarding how technology-based learning media can be developed contextually to support the education of indigenous communities such as SAD.

In addition, learning media that are in accordance with the characteristics of indigenous communities must consider a contextual learning approach. An education volunteer from the SAD care community in Jambi Province stated that SAD children find it easier to understand learning materials if they are related to their daily lives and environment. This opinion is also supported by the results of initial observations in the field, which show that learning methods involving concrete objects from the surrounding environment (such as fruits for counting) are more effective than abstract methods commonly used in formal schools. In this case, the learning approach developed must consider the integration between cultural context, technological potential, and inclusive pedagogical principles.

On the other hand, media selection is also an important factor in supporting successful learning. One form of media that is easily accessible, effective, and in accordance with current technological developments is video media. Learning videos can present material in an interesting audio-visual form, and allow students to repeat the material as needed. The InShot application, for example, is a simple video editing application that can be accessed for free via Android or iOS devices. This application is very suitable for use by educators in remote areas who have limited digital skills, because of its simple interface and fairly complete features (Muslimah, 2024).

The use of learning videos in the context of SAD is also supported by the advantages of videos in bridging the limitations of face-to-face time. Based on field observations, learning in the SAD community generally only takes place 1-2 times per week due to limited teaching staff and geographical conditions. Therefore, the presence of videos as a learning medium that can be accessed anytime and anywhere is the right solution to extend and deepen students' learning experiences.

In addition to the technical side, the selection of material topics also plays an important role in attracting interest in learning. The topic of the human digestive system in science subjects was chosen because it is relevant to everyday life and is not widely understood by some SAD communities. The low awareness of the importance of a healthy diet, food hygiene, and symptoms of digestive disorders are the reasons why this topic is considered important. Good learning media must be able to provide new insights while encouraging behavioral changes towards a healthier direction. With this background, it can be concluded that there is an urgent need to develop video-based learning media that is contextual and responsive to local culture, especially for the SAD community.

METHOD

Research Design

This research is a type of research and development (R&D) which aims to produce learning media in the form of human digestive system learning videos that are suitable for use and effective in increasing the learning interest of students from the Suku Anak Dalam (SAD)

indigenous community. The research and development approach was chosen because it allows a systematic process to design, develop, and evaluate educational products that are contextual and based on user needs.

The data collection technique is carried out through triangulation, which is a combination of several techniques and data sources to obtain more comprehensive and valid data. Triangulation is carried out through observation, interviews, and distributing questionnaires to content experts, media experts, educators, and students. According to Pasanea et al. (2022), the application of triangulation techniques in data collection can increase the accuracy, consistency, and certainty of information obtained from various perspectives.

The development model used in this study is the multimedia learning development model proposed by Alessi and Trollip. This model consists of three main stages, namely: (1) Planning, (2) Design, and (3) Development. These three stages are equipped with three main attributes that support media development, namely: Standards, Ongoing Evaluation, and Project Management (Arfa et al., 2023).

The selection of the Trollip and Alessi model in this study is based on several theoretical and contextual considerations. Theoretically, this model was developed specifically for the development of computer-based learning and interactive multimedia, so it is very suitable to be applied in the development of video-based media. Unlike the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model which is more generic and often used in the development of a comprehensive instructional system, the Trollip and Alessi model emphasizes a flexible and iterative design approach, with a strong emphasis on the continuous formative evaluation process at each stage (Alessi. SM & Trollip. RS, 2001).

Meanwhile, the Borg and Gall model, although comprehensive and often used in the development of large-scale curriculum and learning devices, is considered less efficient in the context of developing simple media such as learning videos, because of its long stages (10 steps) and is more suitable for institutional-based development research. In the context of limited time, resources, and practical and community-based development goals, the Trollip and Alessi model provides a more adaptive and efficient structure for the development of visual learning media.

In practice, the advantages of the Trollip and Alessi model also lie in its relevance to the development of smartphone-based learning videos, such as those used in this study through the InShot application. This model facilitates developers to focus on aspects of user experience, the effectiveness of delivering visual and audio information, and practicality in implementation in the field, especially in communities with limited access such as SAD. In the Planning stage, researchers can analyze the characteristics of SAD learning and the limitations of digital infrastructure; in the Design stage, videos are designed to be culturally relevant and communicative; and in the Development stage, media are tested and refined through formative evaluation before being widely used. Thus, the Trollip and Alessi development model was chosen because it best suits the characteristics of the product being developed, namely contextual, simple, technology-based learning video media that is easily accessible and can be used by educators with limited technological skills.

Participants

This research involved several groups of participants at various stages, with the aim of developing video-based learning media for the Suku Anak Dalam community. In expert validation, participants consisted of 1 material expert (lecturer of Mathematics and Natural Sciences and Educational Technology) and 1 media expert (lecturer of learning technology), who were tasked with evaluating the quality of content and learning media. In the one-on-one trial stage, 3 Suku Anak Dalam students, aged 13-16 years, were selected as respondents to test their understanding of the developed video. In the small group trial, the same 6 students were tested using the video. While in the field trial, all students at the Suku Anak Dalam school, around 13 students, will be involved to assess the video in a broader context. Respondents were selected based on age (13-16 years), education (active students at Suku Anak Dalam schools), and background (Sunyana Dalam indigenous community). All participants involved in this study were given a clear explanation of the purpose and procedures of the study to obtain participant consent (informed consent). The consent process was carried out by involving parents or guardians of students, as well as traditional leaders to ensure that participation was considered legitimate in their socio-cultural context. In maintaining research ethics, all data collected will be kept confidential, and videos and other materials will be used only for research purposes with the consent of the participants. The researcher also ensures that the materials developed do not conflict with the cultural values of the Suku Anak Dalam, and are carried out with an approach that is sensitive to local customs.

Instruments

In this study, all data collection instruments used, both in the form of questionnaires for media validation, material validation, and to measure the learning interests of Suku Anak Dalam students, have gone through a systematic validation and development process to ensure their validity and reliability (Lubis, 2022). The validation process begins with content validity which is carried out through expert judgment. The experts involved consist of academics in the field of learning technology, material experts, and teachers who are experienced in teaching in the Suku Anak Dalam community. They were asked to assess the relevance of the items in the questionnaire to the established indicators. This assessment was analyzed using Aiken's V, a statistical method commonly used to measure the level of expert agreement on the validity of items in an instrument. The results of the analysis showed that all items had an Aiken's V value above 0.80, indicating that the items were valid in terms of content. After that, a reliability test was also conducted on the instrument using the Cronbach Alpha coefficient. This test aims to determine the extent of the internal consistency of the items in the instrument. The test results show that all instruments have a Cronbach Alpha value above 0.70, which means that the instruments used are reliable. The procedure for compiling and developing the instrument is carried out through several stages. First, a needs analysis is carried out based on research objectives and theoretical studies to determine the aspects that need to be measured (Khajavy et al., 2021). Second, an instrument grid is prepared that includes aspects and indicators to be measured, such as self-instruction, self-contained, user-friendly aspects of learning media, as well as aspects of interest, attention, and involvement in measuring students' learning interests (Delita et al., 2022). Third, an initial draft of the questionnaire was prepared based on the grid in the form of a Likert quality scale (de Valle et al., 2021). Next, the draft was validated by experts and revised based on the suggestions and input provided. Finally, a limited trial (pilot test) was conducted on respondents who had similar characteristics to the research subjects to test the validity and reliability statistically (Limalo et al., 2023). By going through these stages,

the instruments used in this study have been proven to be valid and reliable for use in data collection.

Data Analyst

This study uses the Explanatory Sequential Mixed Method approach, which is a combination method carried out sequentially, starting with quantitative data analysis, then continued with qualitative data analysis which serves to explain more deeply the results obtained in the previous stage. This approach was chosen in order to provide a more comprehensive understanding of the feasibility and effectiveness of the developed learning media, as well as increasing student learning interest, especially from the Suku Anak Dalam community.

In the first stage, analysis was conducted on quantitative data obtained from media validation results by experts, as well as from product trials on both small and large scales. Data were collected through a Likert-based questionnaire and analyzed by converting scores into interval data. These scores were then used to determine product eligibility criteria, both in terms of content and media aspects such as appearance, ease of use, and learning strategies. The results of this quantitative analysis provide an initial picture of the extent to which the learning product meets the expected standards.

However, these quantitative results do not necessarily provide an in-depth understanding of the context behind the numbers obtained. Therefore, in the second stage, qualitative data analysis was carried out with the aim of explaining and strengthening the quantitative findings. Qualitative data were obtained through observation activities during the learning process and in-depth interviews with teachers and students. Through this method, researchers explore information about students' experiences, perceptions, and responses to the learning media used.

Qualitative analysis is carried out through several stages. First, data reduction is carried out, namely the process of selecting and filtering data that is relevant to the focus of the research, such as students' responses to media, their involvement during learning, and factors that influence learning interest. Second, the reduced data is then categorized based on certain themes or topics, for example the categories "learning motivation", "media appeal", or "usage constraints". Third, the categorized data is analyzed and interpreted to find patterns of meaning that can explain quantitative results. For example, if the questionnaire results show a high score on the media display aspect, then qualitative data can reveal the reasons behind it, such as the use of colors and images that are in accordance with local culture or the experience of students who feel more involved because the media is interactive.

RESULTS AND DISCUSSION

Results

The results of the development of this learning video can be seen on the YouTube account by scanning the following QR-Code (Figure 1).



Figure 1. QR Code Learning Video

Testing in this study was carried out according to the stages in the Trollip and Allesi development model, which consists of 2 (two) tests. Namely the Alpha Test and the Beta Test.

Alpha Test

Alpha Test is a test/validation by looking at procedural and conceptual feasibility assessed from the material and media aspects (Wikanta et al., 2023). Validating and testing products are activities that determine the quality of research (Lange & Schnor, 2023). The validation results by material experts can be seen in Table 1. The results of the learning media validation can be seen in Table 2.

Table 1. Instructional Material Validation Results

Self-Instruction Aspect	Score	%
The material presented is in accordance with Instructional Objectives, SK and KD	5	100
The material presented is in accordance with the learning needs of the Suku Anak Dalam Tribe	4	80
The material is presented sequentially	5	100
Sub material on the human digestive system according to the correct source	5	100
The material can increase insight into the human digestive system.	4	80
The language of the human digestive system is easy for the Anak Dalam Tribe to understand.	4	80
The material in the video presents appropriate illustrations.	4	80
Amount	31	88.57
Self-Contained Aspect	Score	%
Human digestive system material is in accordance with SAD learning	5	100
The information listed on each image and video is appropriate	4	80
Amount	9	90
Self Alone Aspect	Score	%
Materials can provide learning motivation	4	80
The material is easy to understand on your own without the help of a teacher or facilitator.	5	100
Amount	9	90
Adaptive Aspect	Score	%
Human digestive system material according to science and technology	4	80
Materials and images are in accordance with moral and social values	5	100
Amount	9	90

Table 1. Instructional Material Validation Results (continued)

User Friendly Aspect	Score	%
The material contained in the video is easy to understand	5	100
The material contained in the video can be studied	5	100
Amount	10	100
Total Score	68	90.67

Table 2. Media Validation Results

Linguistic Aspects	Score	%
Clear instructions for use	4	80
The language used is appropriate and easy to understand SAD	4	80
Videos can increase interest in learning SAD	5	100
The language used is in accordance with the customs and traditions of SAD	4	80
Amount	17	85
Presentation Aspects	Score	%
SAD was involved in making the video	4	80
Video content according to character	5	100
Videos are acceptable in the Suku Anak environment	4	80
Amount	13	86.7
Learning Strategy Aspects	Score	%
Easy to use video	4	80
Videos can increase SAD learning motivation	4	80
Videos can be replayed for self-study.	4	80
Videos can provide new knowledge on SAD	4	80
Amount	16	80
Overall View Aspect	Score	%
There are video instructions for use	4	80
Sound or Music on video as per	4	80
The model's voice in the video can be heard clearly	4	80
The writing can be read clearly	4	80
The type of letters used is appropriate	4	80
Videos according to the material to be taught	5	100
The text/infographics in the video are clear and not blurry.	4	80
The color display is contrasting and attractive	4	80
Videos can be used Offline and Online	5	100
Amount	38	84.4
Total Score	83	84.03

Betha Test

Betha Test is a test of learning media for students who have never received learning before (Sulistyanto et al., 2022). Beta Test is conducted in 3 stages. One-on-one trial, small group trial, and field trial. One-on-one trial is aimed at 3 students who represent the level of understanding, namely students with low, medium and high levels of understanding. The

results of the one-on-one trial can be seen in Table 3.

Table 3. One-on-One Results

Indicator	Statement	R1	R2	R3
Excitement	I am interested in science lessons	4	4	3
	I love it when teachers teach with videos in front of the class.	4	4	4
	Score	4	4	3.5
Initiative	I want to share a video with my friend	4	4	4
Responsive	I enjoy answering teacher's questions	4	4	4
Immediacy	I feel happy when homework is not submitted	3	3	3
Concentration	I was busy chatting while the teacher was explaining.	3	2	4
Accuracy	I often make mistakes in doing my homework	3	3	4
Will	I don't want to study with this video anymore	4	3	4
Tenacity	I try to get good grades so as not to lose to my other friends.	4	4	3
Hard Work	I am confident that I will succeed in this learning, therefore I study seriously.	4	4	4
Total Score		33	31	33.5
Percentage		91.67	86.11	93.05
Overall Average		90.27		
Classification		Very high		

Furthermore, a small group trial was conducted to see the initial understanding of the students, the respondents selected were 6 people and were selected randomly. The results of the small group trial can be seen in Table 4. Furthermore, field trials were conducted on all students who were the subjects of the study, namely the Suku Anak Dalam totaling 13 people. The results of the field trial can be seen in Table 5.

Table 4. Small Group Results

Indicator	Statement	R1	R2	R3	R4	R5	R6
Excitement	I am interested in science lessons	2	4	4	2	3	1
	I love it when teachers teach with videos in front of the class.	3	4	4	4	2	4
	SCORE	2.5	4	4	3	2.5	2.5
Initiative	I want to share a video with my friend	3	4	4	4	4	4
Responsive	I enjoy answering teacher's questions	4	4	4	4	4	1
Immediacy	I feel happy when homework is not submitted	4	3	1	1	4	1
Concentration	I was busy chatting while the teacher was explaining.	4	4	3	4	3	4
Accuracy	I often make mistakes in doing my homework	4	3	1	4	3	3

Will	I don't want to study with this video anymore	4	4	4	4	4	4
Tenacity	I try to get good grades so as not to lose to my other friends.	4	4	4	4	3	4
Hard Work	I am confident that I will succeed in this learning, therefore I study seriously.	4	4	3	4	4	4
Total Score		33.5	34	28	32	31.5	27.5
Percentage		93.1	94.4	77.8	88.9	87.5	76.4
Overall Average		86.34%					
Classification		Very high					

Table 5. Field Trial Results

Indicator	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
Excitement	4	3	1	4	4	2	4	4	2	3	4	4	3
	4	3	4	4	4	4	4	4	3	4	4	4	3
	4	3	2.5	4	4	3	4	4	2.5	3.5	4	4	3
Initiative	4	4	4	4	4	3	4	4	4	4	4	4	3
Responsive	4	4	2	4	4	2	4	4	3	4	4	4	3
Immediacy	4	4	3	3	1	3	4	4	4	3	3	4	4
Concentration	4	3	3	3	2	2	4	3	4	4	3	3	4
Accuracy	3	3	3	3	3	4	4	2	4	4	3	4	4
Will	4	4	4	3	3	4	4	4	4	4	4	4	4
Tenacity	4	4	4	4	4	4	4	4	4	4	4	4	4
Hard Work	4	4	4	4	3	4	4	4	4	4	4	4	4
												90.7%	
												Very high	

Discussion

In this study, data triangulation was conducted to strengthen the findings derived from various sources, namely quantitative questionnaires, field observations, and interviews with students and accompanying teachers. The discussion of the results focuses on three main aspects: materials, media, and student acceptance. In terms of material, the results of the validation by material experts showed that the learning video scored 90.67%, which is in the very good category. The material presented is in accordance with the curriculum and is delivered sequentially, with the concept of the human digestive system that is easy for students to understand. Field observations also showed that students were very interested when the video showed visualizations of the digestive organs. Interviews with accompanying teachers reinforced this finding, where they stated that students could identify the organs described in the video more easily. However, although the material was generally well received, there were suggestions to simplify the use of medical terms that were still confusing for some students,

such as "esophagus" and "small intestine".

In terms of media, the results of media expert validation showed a score of 84.03%, which is considered good. The visualization used in the video is quite attractive, with bright colors and graphic elements that are in accordance with the characteristics of student development. However, the audio aspect needs improvement, because some students feel that the narration in the video is too fast to understand. Field observations also revealed that students are more focused when there is animation or clearer images, but difficulties arise when the narration speaks too fast or too slow. Students also stated that they prefer the visual part, although some expressed difficulty understanding parts that were too fast.

Finally, in terms of student acceptance, the video obtained very positive results in three stages of the trial: alpha test (90.27%), beta test (86.34%), and field test (90.7%). All stages of the trial showed very high acceptance, with students showing great enthusiasm when watching the video. Field observations showed that students tended to be more engaged and wanted to re-watch the video after the session was over. Interviews with accompanying teachers confirmed that students were more interested and did not get bored quickly when using this video. However, even though student interest is high, understanding the material still needs to be accompanied by a question and answer session or further discussion so that the concepts presented can be understood more deeply.

Overall, the triangulation between quantitative and qualitative data shows that this learning video is effective, interesting, and relevant for Suku Anak Dalam students. The main advantages lie in the visual aspect and the approach that is appropriate to their local context. However, there needs to be improvement in technical aspects such as the speed of the narrative and the use of simpler terms to make it easier for students to understand.

This research development uses Triangulation Technique with data sources in the form of interviews, observations, validation and trials to students. According to Patton (1980) "Triangulation can build on the strengths of each type of data collection while minimizing the weaknesses in any single approach" (Shibly et al., 2022). Triangulation will further increase the strength of the data, when compared to a single approach (Nurfajriani et al., 2024). The first data collection was carried out by the researcher through interviews and direct observation, the observation was conducted at the SAD school located in Tanjung Village, Bathin VIII District, Sarolangun Regency.

The video is made in .mp4 format and can be opened offline without having to use an internet network, even though the internet network has reached the SAD settlement. This video can be played repeatedly so that it can provide stronger knowledge and understanding of the subject matter, namely the human digestive system. The production of this learning video was carried out in December 2022 in the Suku Anak Dalam settlement, namely in the middle of the forest of Sukajadi Village, Bathin VIII District, Sarolangun Regency, to get to the Suku Anak Dalam settlement, researchers need 10-15 minutes by motorized vehicle. In addition to the distance, the road conditions are no less challenging. When approaching Suku Anak Dalam students, they prefer to be silent and find it difficult to accept the presence of strangers, being present with the teacher and bringing some food and drinks is the most appropriate way to approach. Researchers and tutor teachers interact with Suku Anak Dalam to get good and natural images or videos, on the other hand other supporting resources carry out their respective tasks.

The edited learning videos are then validated by material experts and learning media experts to ensure that the videos are theoretically and procedurally feasible and are suitable

for testing on students (Colombo et al., 2023). For the validation of the material, the percentage produced was 90.67% with comments that it was conceptually and procedurally feasible and could be tested on students and was in the very good category. For the validation of media experts, the figure was 84.03%. The learning media expert stated that this learning video was appropriate and could be tested.

The learning video was then tested on students, the trial was carried out in 3 stages, namely one-on-one trials, small group trials, and field trials. The trial instrument for students has 9 indicators that can measure students' interest in learning. One-on-one trials were carried out on 3 students with different levels of ability, namely high, medium and low in February 2023. The tutor teacher provided data in the form of the names of SAD students who had high, medium and low abilities. This one-on-one trial was carried out with the aim of seeing the students' understanding and then it could be accepted at all levels of ability (Cortes et al., 2025). The percentage figure in the one-on-one trial was 90.27% with a very high category, this means that this human digestive system learning video can be used for all levels of ability. And continued with a small group trial, a small group test was conducted on 6 respondents selected randomly. Respondents for the small group trial were different from respondents in the small group trial, the aim was to see the initial assessment of students on the media developed (Anis et al., 2021). The results of the small group trial showed a percentage of 86.34% with a very high category, so that the developed learning video can be directly tested in the field. The number of students who became respondents in this field trial was 13 people by including all students as respondents, both respondents in the one-on-one trial and respondents in the small group trial.

This field trial aims to see the feasibility of the learning video in practice (Haryanti & Suwerda, 2022). The results shown in the field trial were 90.7% with a very high category, this shows that the human digestive system learning video for the Suku Anak Dalam is feasible in practice and can be used in actual learning and is useful for the learning process and further research. The function of this media for the Suku Anak Dalam is as a media and learning resource that can help them get learning even with limited distance and time. Then this video can also explain and describe the eating process and important organs of the body that cannot be seen directly by the eye. This is in accordance with the theory expressed by (Dewi et al., 2023) namely learning video media is one of the developments of audiovisual media that can represent anything that teachers are less able to say through words or sentences or examples in a more concrete way so that it can improve the understanding and interest in learning of the Suku Anak Dalam in Sukajadi Village, Bathin VIII District, Sarolangun Regency. This is also in accordance with research conducted by (Frans et al., 2023) that the inshot application can influence students' interests and talents in understanding videos that contain clarification of learning materials made by educators and are very suitable for use in learning.

CONCLUSION

After conducting the research, it can be concluded that the development of a human digestive system learning video is very good if developed with the Trollip and Alessi development model, and this learning video is declared procedurally and theoretically feasible by learning material experts and learning media experts so that it can be tested on students. The results of the trial to students showed a percentage figure with a very high category so that this video was said to be practically feasible. And can increase the interest in learning of

SAD students. The increase in interest in learning of SAD students can be seen from the aspect of learning interest contained in the trial instrument to students and can be seen from the attitude of students during the learning process.

ACKNOWLEDGEMENTS

We would like to express our deepest gratitude to all parties who have supported the smooth running of this research. Especially to the Suku Anak Dalam of Sukajadi Village, Bathin VIII District, Sarolangun Regency who are important participants in the development of this learning video. To the SAD Companions. Thank you to the participants and respondents who have played an important role in providing data.

REFERENCES

- Aisyah, N. (2021). Dynamics Of Online Learning Through Learning from Home (BDR) at Paud Miftahul Ulum During The Covid 19 Pandemic. *Dar El-Ilmi: Journal of Religious Studies, Education and Humanities*, 8(1), 71–84. <https://doi.org/10.52166/dareililmi.v8i1.2422>
- Alessi, SM, & Trollip, RS (2001). *Multimedia for learning: Methods and development* (3rd ed.). Allyn and Bacon. <https://dl.acm.org/doi/abs/10.5555/557640>
- Anis, MZA, Susanto, H., Sriwati, & Mardiani, F. (2021). Analysis of the Effectiveness of MPBH: The Mains of Mandai as a Saving Food in Banjarmasin Community. <https://doi.org/10.2991/assehr.k.210222.012>
- Arfa, TNP, Jannah, M., & Arusman. (2023). Development of video learning based on blender software in high school. *Jurnal Geuthèë: Riset Multidisiplin [Multidiciplinary Research]*, 6(2), 147–157. <https://doi.org/10.52626/jg.v6i2.248>
- Colombo, A.E., Cattaneo, A., & Bétrancourt, M. (2023). Procedural knowledge acquisition in a second-year nursing course. Effectiveness of a digital video-based collaborative learning-by-design activity using hypervideo. *Journal of Computer Assisted Learning*, 39(2), 501–516. <https://doi.org/10.1111/jcal.12758>
- Cortes, K. E., Kortecamp, K., Loeb, S., & Robinson, C. D. (2025). A scalable approach to high-impact tutoring for young readers. *Learning and Instruction*, 95, 102021. <https://doi.org/10.1016/j.learninstruc.2024.102021>
- Delita, F., Berutu, N., & Nofrion, N. (2022). Online Learning: The Effects of Using E-Modules on Self-Efficacy, Motivation and Learning Outcomes. *Turkish Online Journal of Distance Education*, 23(4), 93–107. <https://doi.org/10.17718/tojde.1182760>
- de Valle, M. K., Gallego-García, M., Williamson, P., & Wade, T. D. (2021). Social media, body image, and the question of causation: Meta-analyses of experimental and longitudinal evidence. *Body Image*, 39, 276–292. <https://doi.org/10.1016/j.bodyim.2021.10.001>
- Dewi, NS, Hartiwi, J., Yani, NA, & Sutiwi, S. (2023). The Implementation Of Linguistic Intelligence In Teaching Speaking Through Audio-Visual. *Journal on Education*, 5(4), 11106–11115. <https://doi.org/10.31004/joe.v5i4.2035>
- Frans, FAW, Dwi Nur Wendha, D., & Wahyu Aji, T. (2023). Development of Inshot-based Raga Learning Media on Cultural Diversity Material for Grade III Elementary School Students. *Indonesian Elementary Education Journal*, 8(2), 275–287. <https://doi.org/10.29407/jpdn.v8i2.19068>
- Haryanti, S., & Suwerda, B. (2022). Development of Learning Media Based on Practical Video Tutorials in Occupational Safety and Health Courses. *Journal of Education*, 10(1), 79–88. <https://doi.org/10.36232/pendidikan.v10i1.806>

- Khajavy, G. H., MacIntyre, P. D., & Hariri, J. (2021). A Closer Look at Grit and Language Mindset as Predictors of Foreign Language Achievement. *Studies in Second Language Acquisition*, 43(2), 379–402. <https://doi.org/10.1017/S0272263120000480>
- Lange, R., & Schnor, T. (2023). Product Quality, Quality Control and Validation. In *Practical Pharmaceutics* (pp. 767–783). Springer International Publishing. https://doi.org/10.1007/978-3-031-20298-8_32
- Limalo, SA, Abbas, N., & Panigoro, HS (2023). Practicality of E-Module Flip Circle Material Based on Problem Based Learning. *Jambura Journal of Mathematics Education*, 4(2), 131–138. <https://doi.org/10.37905/jmathedu.v4i2.18204>
- Lubis, SK (2022). Evaluation of the Performance of Arts And Culture Teachers Reviewed From The Suitability of The Teacher's Educational Background With The Aspects Of The Arts Taught. *Gorga: Jurnal Seni Rupa*, 11(2), 394. <https://doi.org/10.24114/gr.v11i2.35083>
- Metekohy, L.M., Daliman, M., Metekohy, B., & Ming, D. (2022). The impact of teaching and learning quality processes to school and university education for a sustainable future. *JPPI (Indonesian Educational Research Journal)*, 8(1), 143. <https://doi.org/10.29210/020221203>
- Muslimah, H. (2024). Hyperreality of Foreign Tourist Attraction Visitors on Instagram. *Iapa Proceedings Conference*, 146. <https://doi.org/10.30589/proceedings.2024.1048>
- Nurfajriani, WV, Ilhami, MW, Mahendra, A., Sirodj, RA, & Afgani, MW (2024). Data Triangulation in Qualitative Data Analysis. *Scientific Journal of Wahana Pendidikan*, 10(17), 826–833. <https://doi.org/10.5281/zenodo.13929272>
- Sayed Munna, A., & Kalam, A. (2021). Teaching and learning process to enhance teaching effectiveness: a literature review. In *International Journal of Humanities and Innovation (IJHI)* (Vol. 4, Issue 1).
- Shibly, H.R., Abdullah, A., & Murad, M.W. (2022). Research Framework for Technology Adoption. In *ERP Adoption in Organizations* [pp. 103–148]. Springer International Publishing. https://doi.org/10.1007/978-3-031-11934-7_5
- Sloum, M., & Al-Ghafri, R. (2018). Exploring the factors that influence students' participation in English classrooms at Ibri College of Applied Sciences in Oman. https://etheses.whiterose.ac.uk/id/oai_id/oai:etheses.whiterose.ac.uk:20300
- Sulistyanto, H., Anif, S., Sutama, S., Narimo, S., Sutopo, A., Haq, MI, & Nasir, GA (2022). Education Application Testing Perspective to Empower Students' Higher Order Thinking Skills Related to The Concept of Adaptive Learning Media. *Indonesian Journal on Learning and Advanced Education [IJOLAE]*, 4(3), 257–271. <https://doi.org/10.23917/ijolae.v4i3.19432>
- Wikanta, W., Suharti, P., & Asy'ari, A. (2023). Development of practice-based mobile augmented reality through the group investigation model to improve students' creative thinking. *JPBI [Indonesian Journal of Biology Education]*, 9(2), 145–166. <https://doi.org/10.22219/jpbi.v9i2.26316>