

Development of Video Based on Pop Up Questions Integrated Religious Character Human Digestive System Materials

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Abstract: This study aims to test the validity, practicality, and effectiveness of pop-up questions-based learning videos integrated with religious characters of the human digestive system. The subjects of this study were students of class VIII A and VIII C of MTs Mazro'illah, Lubuklinggau City. This research is a type of research and development (R&D) that uses the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. The data collection instruments in this study consisted of interview guides, expert validation questionnaires, practicality questionnaires, and test sheets. The results of the research data analysis showed that the experts stated that the three learning videos developed were very valid with an average score of 89.70% for the first video, 91.40% for the second video, and 90.80% for the third video. The learning videos that have been declared valid are then tested on students to find out the practicality of the learning videos developed. The results of the practicality questionnaire showed good responses by students and teachers with an average score of 85 and 84, respectively. The learning videos developed were then implemented for students to determine the effectiveness in aspects of knowledge and attitudes. The test results show that the ability of the students' knowledge aspect is still in the poor category with an average score of 55.20%, while the attitude aspect of students shows different things with an average score of 92.50% which is included in the very good criteria. Based on the results of this study, the pop-up question-based learning video integrated with the religious character of the human digestive system material was declared to be very valid, practical, and effective in the aspect of religious attitudes to be used in learning.

Keywords: Video; religious characters; pop up questions.

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Introduction

Video learning in the world of education is always innovating following technological developments to improve both access to learning and the quality of education. Learning video media is one of the teaching aids that contains learning messages. Video as an audio-visual medium and has an element of motion so that it can attract the attention and motivation of students in carrying out learning activities.

One of the tools to increase the effectiveness of learning videos is the introduction of questions that

appear in the video (Szpunar et al., 2013). Research (Haagsman et al., 2020), the effect of pop-up questions increases student engagement and understanding during classroom activities. In this study, the questions that will be included are integrated with religious character.

The development of religious character is instilled with students from an early age so that they become a strong generation and hold fast to their religion. The integrated religious character is the religious character of the Islamic religion. Based on the results of the study (Indraningrum, et al., 2017) showed that the

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effectiveness of the Iqra-based module with the theme of the coastal environment to empower students' religious characters obtained an N-gain score of 0.58 for learning outcomes, and the achievement of Minimum completeness criteria obtained results of 96.70%. While the results of student questionnaires and observation sheets on the empowerment of religious characters obtained an average overall score of 85.3% which is categorized as "very good" so that religious characters can be empowered. Supported by the results of research (Darissalamah, et al., 2016), showing that the contextual module with religious integration has a significant effect on students' critical thinking skills and student responsibilities.

Learning the human digestive system associated with religious character attitudes will foster the value of eating etiquette in students. This religious character education also have positive influence, it can avoid moral degradation and multidimensional crises (Emmons & Paloutzian, 2003; Dingemans & van Ingen, 2015). There is a lot of religious character in the etiquette of eating food. For example, it is forbidden to blow on food, because it can spread microorganism from mouth to food, spread viruses, and also can increase the acidity of food (Supardi, 2019). Start by praying before eating, eating with your right hand, and eating before you are hungry and stop eating before you are full. Here's QS. Al Baqarah verse 168 which explains about food.

يَا أَيُّهَا النَّاسُ كُلُوا مِمَّا فِي الْأَرْضِ حَلْالًا طَيِّبًا وَلَا تَتَّبِعُوا خُطُوَاتِ الشَّيْطَانِ ۚ إِنَّهُ لَكُمْ عَدُوٌّ مُبِينٌ

Meaning: "Humans, eat from (food) that is lawful and good from what is on earth, and do not follow the steps of the devil; because verily the devil is a real enemy to you." (Q.S Al-Baqarah: 168).

Based on the description above, it is necessary to develop a learning video in the form of a pop-up question-based learning video that is valid, practical and effective. It is hoped that students can further increase their involvement and understanding of natural science concepts that are integrated into religious character attitudes. The purpose of this development research is to produce a pop-up question-based learning video that integrates the religious character of the human digestive system material that will meet the valid, practical and effective criteria.

Method

This research is a type of research and development (R&D) research with reference to the ADDIE development research Includes Analysis, Design, Development, Implementation And Evaluation. The subjects of this study were students of class VIII A

and VIII C of MTs Mazro'illah Lubuklinggau City and the object was a pop up question-based learning video integrated with religious characters taht would be developed.

The first stage in this ADDIE development research is analysis. In the analysis phase, there are 2 phases, namely field studies (the process of defining and analyzing the condition of facilities and infrastructure, learning models and analyzing the needs of MTs) and literature studies (relevant previous research studies that support this research). The second stage is design, which is compiling the concept of a pop-up questoins-based learning video model that integrates religious characters.

The third stage is development, producing learning videos based on pop up questions which are then tested for feasibility by media experts and material experts. The fourth stage is implementation, applying the product, namely learning videos based on pop up questions. The last stage is evaluation, which is divided into two forms, namely formative evaluation (conducted at the end of each stage) and summative evaluation (conducted after the activity has ended in its entirety).

Data collection techniques used in this study include interviews, expert validation, questionnaires, and tests. Data analysis is divided into three types, namely validity data analysis, practicality data analysis of learning videos and effectiveness data analysis (student knowledge aspect learning outcomes analysis and student attitude aspect learning outcomes analysis). Analysis of data validity, video practicality, and student learning outcomes using percentages and category description techniques with the criteria in Table 1. Analysis of student knowledge learning outcomes data using the results of pretest, posttest and N-gain which was then determined the average score of the three the data and their standard deviation.

Table 1. Categories of Data Validity, Practicality, N-gain, and Attidute Criteria

Data	Score Percentage (%)	Categori
Validity	76-100	Very Valid
	56-75	Valid
	40-55	Less Valid
	0-39	Invalid
Practicality	76-100	Very Good
	56-75	Good
	40-55	Fair
	0-39	Poor
N-gain aspects of student knowledge	g > 0.70	High
	0.30 < g < 0.70	Moderate
	g < 0.30	Low
Aspects of Students Attitude	81.26 < x ≤ 100	Very Good
	62.51 < x ≤ 81.25	Good
	43.76 < x ≤ 62.57	Fair
	25 < x ≤ 43.75	Poor

Result and Discussion

Based on Addie’s method, the stages carried out in this research are design, development, implementation and evaluation. At the design stage, the result obtained are the determination of story boards, instruments, and makin of religious-based learning videi designs.

Development stage generates feedback from material, media and religious experts (Figure 1), so that learning videos can be developed and able to the criteria for learning based on religious characters.

Implementation stage is assessed by validity, practicality, and effectiveness resulting from Pop-up queations-based learning video integrated with religious characters (Table 2, 3, and 4). And evaluation stage is obtained from the calculation of N-gain percentage (Figure 2). Implementation stage is assessed by validity, practicality, and effectiveness resulting from Pop-up queations-based learning video integrated with religious characters (Table 2, 3, and 4). And evaluation stage is obtained from the calculation of N-gain percentage (Figure 2).

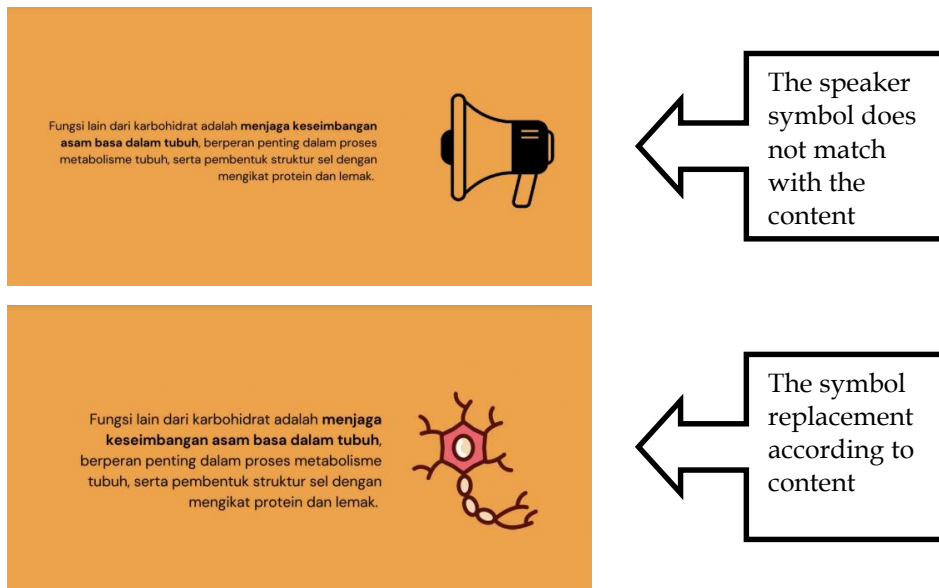


Figure 1. Development stage generates feedback from material, media and religious experts

Learning Video Validation

Pop-up questions-based learning videos integrated with religious characters of digestive system materials in humans were developed through a

validation process by media experts, material experts and religious experts.

Table 2. Results of Learning Video Validation by Material, Media, and Religious Experts

Types of Product	1 st Video			2 nd Video			3 rd Video		
	JS	P (%)	K	JS	P (%)	K	JS	P (%)	K
Learning Videos (material expert)	64.50	89.50	Very valid	65.50	90.90	Very valid	64.50	89.50	Very valid
Learning Videos (media expert)	38	95	Very valid	38	95	Very valid	38	95	Very valid
Learning Videos (religious expert)	33	91	Very valid	33	91	Very valid	33	91	Very valid
Questionnaire of students responses to the use of learning videos	33.40	83.50	Very valid	35.50	88.75	Very valid	35.20	88	Very valid
Average		89.70	Very valid		91.40	Very valid		90.80	Very valid

Information: JS = Total Score P(%) = Percentage K = Criteria

Based on Table 2. the results of the validation of the first learning video on food nutrition material

obtained an average percentage of 89.70%, which means it is very valid so that it is suitable for use in learning.

The validation of the two learning videos of the food digestive system material obtained an average of 91.40%, which means it is very valid so it is feasible to use in learning. The validation of the learning videos of the three materials for disorders and diseases of the digestive system obtained an average of 90.80%, which means that it is very valid so that it is suitable for use in learning. According to (Matondang, 2009) the validation carried out aims to determine whether a product developed can be said to be feasible or not. A product that has been developed has high validity and can perform the measurement function correctly and provide the appropriate measurement results. This means that the measurement results from high product validation measurements are quantities that accurately reflect the actual facts or feelings of what is being measured.

The learning video development process needs to be revised, even though it has obtained very valid criteria. Revision of learning videos is done to produce better products from the media, material and religious aspects. Revisions were made based on input and suggestions obtained by media expert validators, material expert validators, and religious expert validators. Components that need to be revised in the design of images, sound, animation and proportional text and images.

The variety of presentation is very important so that the learning video is more interesting to use. The selection of colors on the video display, fonts, and background colors must have criteria that are easy to see. This is supported by (Schroeder, et al., 2009) every video must be full color and easily seen by students. The use of this media as a tool for learning process activities (Gowasa, et al., 2019). Learning media is used to increase curiosity, interest, motivation, and stimulus in the learning process and psychologically have an influence on students (Jundu, et al., 2020). Students who are still adapting to learning videos will have difficulty understanding the material described. The developed video needs to pay attention to the development principles of flexibility, maintainable, reusability, compatibility, and reusable. Religious-based learning videos will provide information on etiquette ordered by religion. Students are more embedded in religious values and are easier to do what is recommended so as to improve student learning outcomes.

Practicality of Learning Videos

The learning videos that have been validated and revised are then tested on a wide scale in class VIII A and class VIII C as an experimental class. The results of student and teacher responses to the implementation of learning using learning videos are presented in Table 3.

Table 3. Student and Teacher Responses to the Use of Learning Videos

Types of Data	Persentase (%)	Criteria
Student responses to the use of learning videos	85	Good
Teacher's responses to the use of learning videos	84	Good

The responses of students and teachers were taken to determine the readability and implementation of learning activities using a pop up question-based learning video integrated with religious characters of the human digestive system material for MTs students. The results of student and teacher responses show that the learning videos developed have met the level of readability and practicality with very good criteria. Supported by research results (Rahmadana et al., 2018) the practicality of learning videos is measured by the percentage of student and teacher responses so that it states that the assessment aspect is in the category good. Media-based learning technology makes an influential contribution in increasing student learning independence (Jundu, et al., 2020).

The increased enthusiasm of students in learning activities with the development of learning videos is shown by their enthusiasm and interest in campaigning for eating etiquette as recommended by religion (Sari & Manurung, 2019) explained that learning activities carried out in the surrounding environment can increase understanding of the material that has been taught. Students actively build new knowledge from their initial knowledge (Koentjoro, 2020). The results of the study (Irawan, et al., 2017) showed that the learning video was declared feasible and effective as a learning medium.

The Effectiveness of Learning Videos

The effectiveness of the learning video is assessed from the learning outcomes on the aspects of knowledge and attitudes. The learning outcomes of the knowledge aspect were taken using test questions before and after learning activities using the developed learning videos. The data is taken to measure the level of classical completeness of student learning outcomes. Data on learning outcomes aspects of knowledge and attitudes are presented in Table 4.

Table 4. Learning Outcomes Aspects of Knowledge and Attitude

Assessment Aspects	Completeness Percentage (%)		Average (%)	Criteria
	VIII A	VIII C		
Knowledge	52.10	58.30	55.20	Poor
Attitude	92	93	92.50	Very Good

The learning outcomes obtained by students include aspects of knowledge and aspects of student attitudes. The learning outcomes of students' knowledge aspects of class VIII A reached 52.10% completeness and class VIII C achieved completeness of 58.30%. The high value of student learning outcomes shows that students' enthusiasm is also high in learning activities. The

average completeness of students is still in the very poor category because learning readiness after experiencing a pandemic affects students. Class VIII A students who have not achieved completeness 47.9% and class VIII C students who have not achieved completeness 41.70% but the effect of the learning video has a moderate effect as shown by the N-gain value (Figure 2).

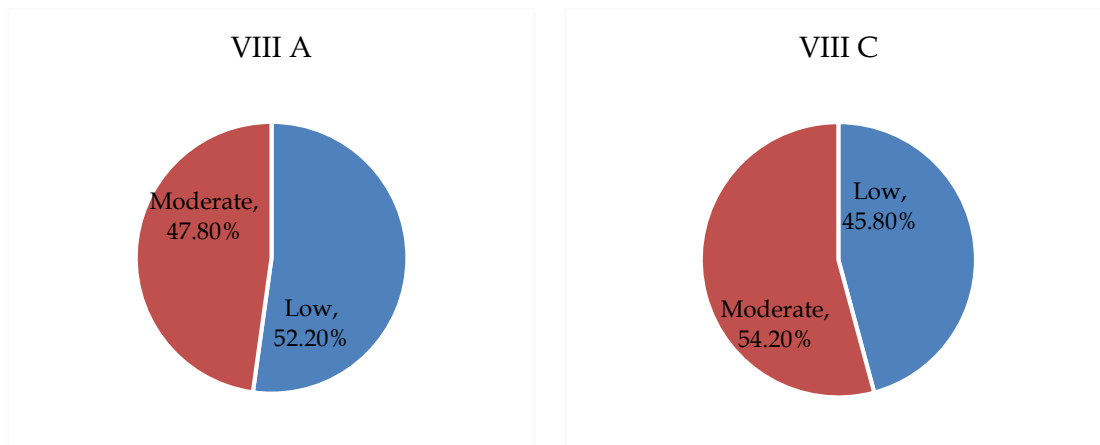


Figure 2. Result of the N-Gain

The results of the N-gain of class VIII C are better than those of class VIII A. However, the acquisition of knowledge values is not far between the two. This is because the students of class VIII A during the learning process carried out the last hour of learning. Psychologically, children are tired to accept new material again. Even with a more fun learning method. The results of the study (Koentjoro, 2020) explain the acquisition of optimal learning outcomes showing the success of the quality of the learning process carried out with various learning models. Fun learning causes a positive response from students to grow which directly impacts on increasing interest in learning, learning activities which ultimately have an impact on improving learning outcomes (Jundu, et al., 2020).

The results of learning aspects of student attitudes in the material of the integrated food digestive system of religious characters showed completeness of 92.5% with very good criteria. The learning outcomes of the attitude aspect show that the achievement of the criteria is very good except for the aspect of concern for reprimanding friends who eat while talking, or drinking while walking which is not recommended in eating etiquette. Supported by research (Setiawan & Arifendi, 2016) students are reluctant to reprimand friends who make mistakes because some students have shy characters.

The high score of religious attitudes obtained after learning using learning videos shows students' religious attitudes that look real. This learning can be accepted by students if it is applied in everyday life. Praying before

eating shows our gratitude for the meal and asks for blessings for the food we eat. Adab is forbidden to speak when eating which has been taught by religion, of course, it has a very good purpose for us so that we do not choke. Science comes from religion. The universe is God's creation.

Conclusion

The learning video based on pop up questions integrated with religious characters for MTs that was developed was declared to be very valid, practical and effective for use in learning activities on the human digestive system.

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