

Development of contextual teaching and learning based audiovisual learning videos in III grade of elementary school

Submitted: 12 April 2023
Accepted: 18 July 2023
Published: 31 July 2023

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Abstract: This research aimed to determine the development and feasibility of audiovisual learning videos based on the Contextual Teaching and Learning (CTL) approach, as well as to assess the students' response to the audiovisual learning videos on the topic of food technology. The method used in this research is Research and Development (RnD) from Borg & Gall. This development only used 6 steps out of 10 steps, this is because researchers only conduct research at one educational institution (school) and see the limited time, effort, and costs of researchers. Product assessment for the feasibility test of contextual teaching and learning based audiovisual learning videos was carried out by 3 experts, namely a media expert, language expert, and subject matter expert with the target of limited-scale product trials, that are students of class IIIB MIN 1 Tangerang City, totaling 30 people. The results of the feasibility assessment after validation by the experts are as follows: (a) media validation scored 80%; (b) language validation scored 82%; and (c) subject matter validation scored 76.5%. Consequently, the overall feasibility score for the audiovisual learning videos was 79.5%, indicating that the videos are considered "Feasible." Thus, these learning videos can be utilized by students to enhance the learning process by involving illustrations from the surrounding environment in the topic of food production technology. Furthermore, the students' response to the audiovisual learning videos based on CTL, as assessed through the product trial in Grade III B at MIN 1 Kota Tangerang, obtained a questionnaire response percentage of 90.6%, falling into the category of "Excellent." The survey results demonstrate that the students are enthusiastic about the learning process using the contextual video learning media.

Keywords: learning videos, contextual teaching and learning, food technology.

PRELIMINARY

Online learning or distance learning is the implementation of a policy aimed at maintaining the continuity of the education process despite the pandemic situation. Students can interact with teachers using various applications, such as Google

Classroom, video conferencing, telephone or live chat, Zoom, or through WhatsApp groups. This form of learning represents an educational innovation to address the challenges of accessing diverse learning resources. The success of a learning model or media depends on the characteristics of the students. However, online schooling has its weaknesses, which can have an impact on students' psychological well-being, including the emergence of learning burnout. In fact, on various social media channels, expressions of boredom and restlessness among students regarding online schooling are widespread. This is further supported by a survey by the Ministry of Women's Empowerment and Child Protection, which states that 58% of children feel that learning from home is not enjoyable (kemenpppa.go.id).

Indeed, to engage students in more enjoyable online learning, the use of audiovisual learning videos can be an effective strategy. Especially during the pandemic, audiovisual learning videos have become a convenient alternative for distance learning. Research conducted by Agustini and Ngarti (2020:63) provides reasons why video learning is a suitable choice as a learning medium, including: (1) efficient use of class time; (2) more active learning opportunities for students; (3) videos can help explain material clearly; (4) the learning style of each individual is different so that with the video all of these aspects are fulfilled; and (5) reducing the teacher's burden to use the lecture model in the teaching and learning process.

There are many ways to improve the quality of education, and one of them is through the implementation of Contextual Teaching and Learning (CTL) in the learning process.

METHOD

Borg & Gall (in Sugiyono, 2019:394) stated that research and development is a process/method used to validate and develop a product. They use the term "Research and Development" (R&D) which can be translated as research dan development. Furthermore, they refer to the "product." The term "product" here does not only refer to physical objects such as textbooks, instructional films, and computer software but also includes methods such as teaching methods and programs.

Sugiyono (2019:404) outlines the 10 steps of research and development for creating or developing new products and testing them. These steps are potential and

problems identification, data collection, product design, design validation, design revision, initial testing, product revision, usage testing, product usage revision, and mass production. However, the researcher only utilized the first 6 steps because the purpose was not to create a new product but to develop an existing product.

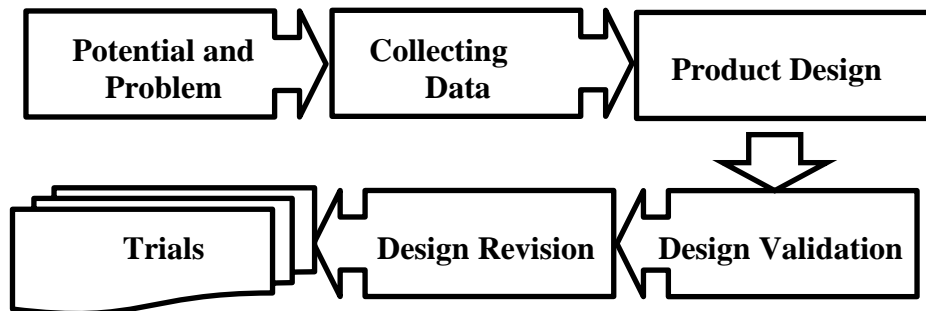


Figure 1. The steps for using the research and development method

1. Potential and Problems

In this stage, the author identifies the potential and issues present at MIN 1 Tangerang City by conducting observations in the Thematic Instruction process at MIN 1 Tangerang City. The author discovered that the learning process in III Grade at MIN 1 Tangerang City faced several challenges, particularly related to the teachers. These challenges include a lack of innovation in the teaching process, resulting in decreased interest among students. Additionally, there are still many students who have low abilities in terms of listening/attentiveness with focus, and it is evident that the students' absorption capacity varies among individuals.

2. Information Gathering

Based on the potential and issues found during the field observation, the author developed more engaging online and offline learning using audiovisual materials based on Contextual Teaching and Learning (CTL) approach. This was done to capture the students' interest in the learning process.

3. Product Design

In this research, the researcher designed the learning process using the Scientific approach with the Contextual Teaching and Learning (CTL) model and several other teaching methods. Additionally, audiovisual learning media with the assistance of PowerPoint software was employed to enhance the students' understanding of concepts and learning outcomes in Grade IIIB at MIN 1 Tangerang

City. The audiovisual learning media created using PowerPoint software was developed in the form of instructional videos.

4. Design Validation

The product feasibility test is carried out by experts, namely material experts, language experts, and media experts.

5. Design Revision

Validation through discussions with experts and other experts, so that weaknesses can be identified. These weaknesses are then tried to be reduced by improving the design.

6. Trials

Product trials were carried out on all MIN 1 students in Tangerang City class III B with a total of 30 students.

RESULTS

After creating the audiovisual learning videos based on the Contextual Teaching and Learning (CTL) approach, the next step is to validate the videos with several experts, including design experts, language experts, and subject matter experts. The validation process is conducted to obtain feedback, opinions, suggestions, and evaluations from the experts regarding the audiovisual learning videos based on the Contextual Teaching and Learning approach.

Table 1. Results of Media Expert Validation Assessment

No.	Assessment Aspects	Assessment Score		Average
		Media Expert I	Media Expert II	
1.	Attractiveness	4	4	4
2.	Image sharpness	4	4	4
3.	Material suitability	8	9	8,5
4.	Text readability	10	11	10,5
5.	Accuracy in the use of color	4	4	4
6.	Sound effect selection precision	4	5	4,5
7.	Simplicity of visual design	16	17	16,5
8.	Ease of accessing media	16	16	16

No.	Assessment Aspects	Assessment Score		Average
		Media Expert I	Media Expert II	
	Amount	66	70	136
	Percentage (%)	77,6	82,4	80

Table 2. Results of Language Expert Validation Assessment

No.	Assessment Aspects	Assessment Score		Average
		Language Expert I	Language Expert II	
1.	language suitability	12	13	12,5
2.	Text readability	12	12	12
3.	Simplicity of language	9	9	9
4.	Dialogic and interactive	7	8	7,5
	Amount	40	42	42,5
	Percentage (%)	80	84	82

Table 3. Results of Material Expert Validation Assessment

No.	Assessment Aspects	Assessment Score		Average
		Material Expert I	Ahli Meteri II	
1.	Relevance	36	40	38
2.	Accuracy	12	12	12
3.	The suitability of the presentation with the demands of learning	15	15	15
	Amount	63	67	65
	Percentage (%)	74,1	78,8	76,5

Product trials were carried out on a limited basis, this product trial was carried out at MIN 1 Tangerang City on April 8 2022, this learning video was tested on a sample of 30 students of class III.

Table 4. Student response results

No.	Assessment Aspects	Assessment Score
1.	Content/material	166
2.	Media	133
	Amount	299
	Percentage (%)	90.6

DISCUSSION

The learning media developed in this research is in the form of audiovisual materials used to deliver information from the teacher to the students during the learning process, aiming to achieve a higher quality of learning. The teaching model applied in this study is the Contextual Teaching and Learning (CTL) model, which is not bound by physical location, making it highly suitable for distance learning. Asyhar (2012:3) stated, "Instructional media can be understood as anything that can deliver or convey messages from a planned source, thus creating a learning environment."

Regarding instructional videos, Nanda et al. (2017) explained that videos can offer a fresh perspective by providing concrete visualizations of concepts in a tangible form. To deliver a clearer message of abstract materials, instructional videos that can relate the content to the real-life experiences of the students or contextualize the information are necessary. The importance of innovation in the use of media lies in its ability to enhance students' knowledge and understanding.

In line with Nanda, Raihanati (2020) stated that instructional media is something used during the teaching and learning process to stimulate students' thoughts, interests, feelings, and attention, thereby creating a conducive learning environment.

The use of models, strategies, methods, and media should align with the characteristics of the students. The utilization of audiovisual media based on Contextual Teaching and Learning (CTL), which the researcher has developed, is highly beneficial for elementary school students, especially those at the lower levels, who tend to have a preference for practical application in real-life situations. This notion is supported by Sanjaya's (2018:255) perspective that learning within the Contextual Teaching and Learning (CTL) approach goes beyond passive listening and note-taking; it involves direct

experiential learning. Sanjaya further elaborates that Contextual Teaching and Learning (CTL) is a teaching strategy that emphasizes full engagement of students in discovering the subject matter and connecting it to real-life situations. This approach encourages students to apply what they have learned in their daily lives.

Before the audio-visual learning video based on contextual teaching and learning is tested on students, an assessment and validation is carried out on several experts including media experts, language experts, and material experts. This is done to ensure that the audio-visual learning video based on contextual teaching and learning has been examined and declared feasible to be tested on students. The results of validation from several experts, when viewed from the category of interpretation values put forward by Arikunto (2007: 44), that the minimum value of a medium is stated to be quite feasible in the range of values between 41% - 60%, the range of values between 61% - 80% is declared feasible, and the range of values between 81% - 100% is declared very feasible.

The final result of the media expert validation test conducted on two competent experts in the media scored 80%, which is included in the appropriate category. So that it can be seen that the audio-visual learning video media based on contextual teaching and learning has been declared feasible with revisions and can be tested after the media is repaired.

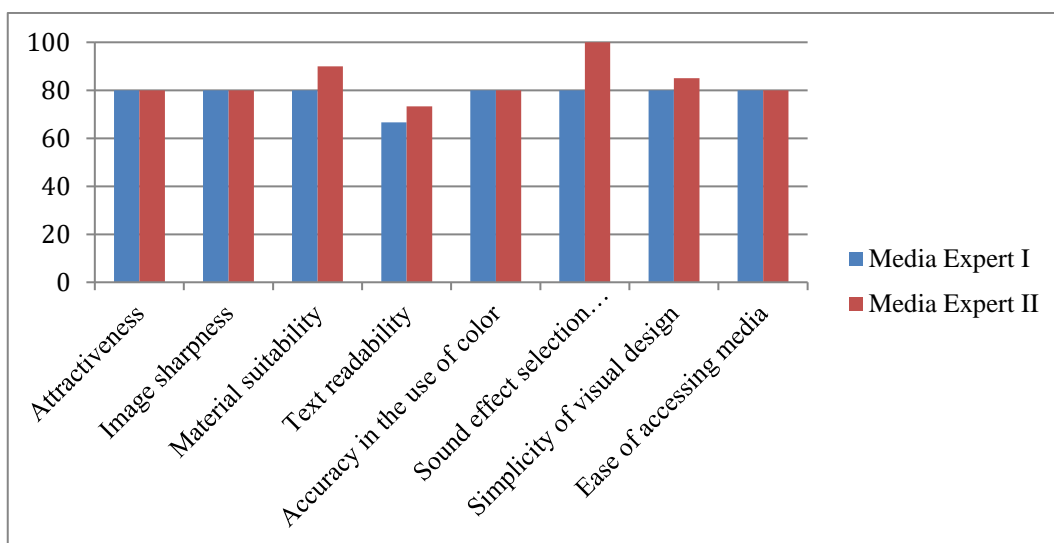


Figure 2. Results of Media Expert Validation Assessment

When viewed from the language aspect, audio-visual learning videos based on contextual teaching and learning have a value of 82% of the maximum value of 100% which is included in the very feasible category and can be tested after conducting language expert tests on two experts, from the input that has been given to researchers regarding the language used in audio-visual learning videos based on contextual teaching and learning has been improved properly and maximally.

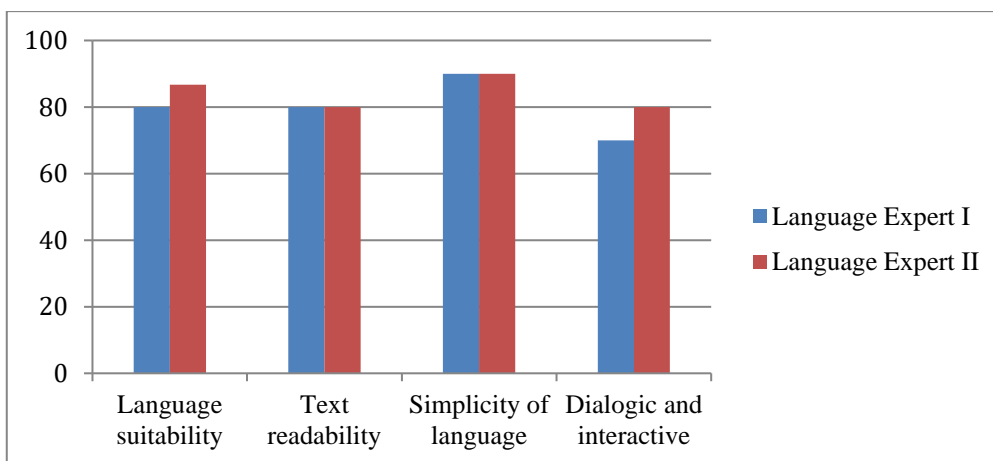


Figure 3. Results of Language Expert Validation Assessment

Furthermore, if you look at the aspects of the material that will be delivered to students in audio-visual learning videos based on contextual teaching and learning, it gets a value of 76.5% of the maximum value, which is 100%, with the value obtained entering into the appropriate category to be tested on students, this value is obtained after conducting a validation test on the material aspects to two material experts according to the subject being focused on, the input that has been given to researchers regarding assessment instruments has been improved properly and optimally for the realization of a good contextual teaching and learning-based audio-visual learning video.

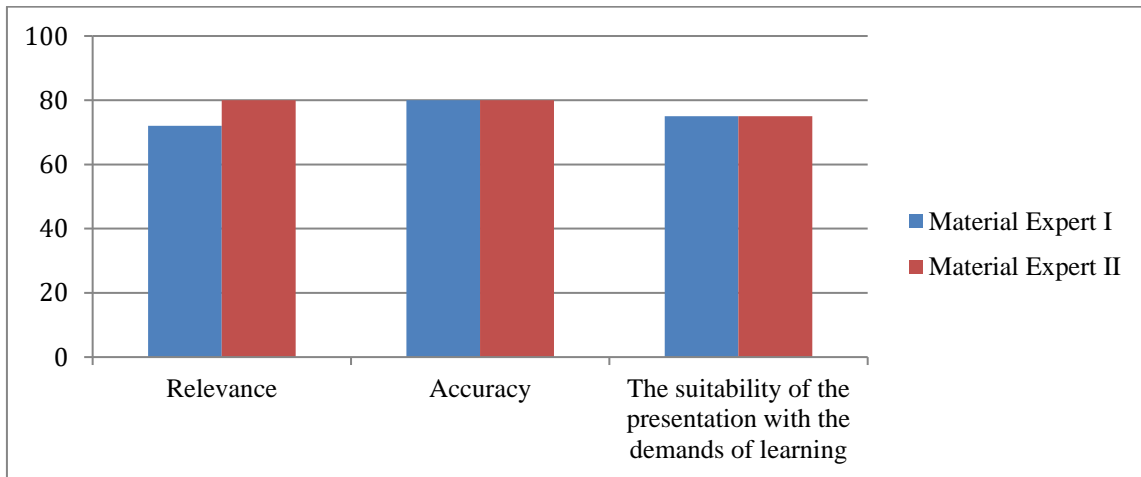


Figure 4. Material Expert Validation Assessment Results

The product trial was conducted on a limited scale at MIN 1 Tangerang City on April 8, 2022. During the product trial, the researcher and the Grade IIIB teacher conducted face-to-face learning in the classroom with 30 students, and the duration of the session was 60 minutes. This time was utilized for delivering the instructional material on food production technology and the concept of area measurement. After comprehending the content presented in the audiovisual instructional video based on Contextual Teaching and Learning, the participants were given a response questionnaire consisting of two assessment aspects, namely content/material aspect and media aspect.

Based on the results of filling out student response questionnaires, it was found that the total score of the assessment was 299 from the maximum number of statements of 330 with a percentage of 90.6%. Thus, based on the category of interpretation according to Utomo (2009: 137) this value is included in the "very good" criteria.

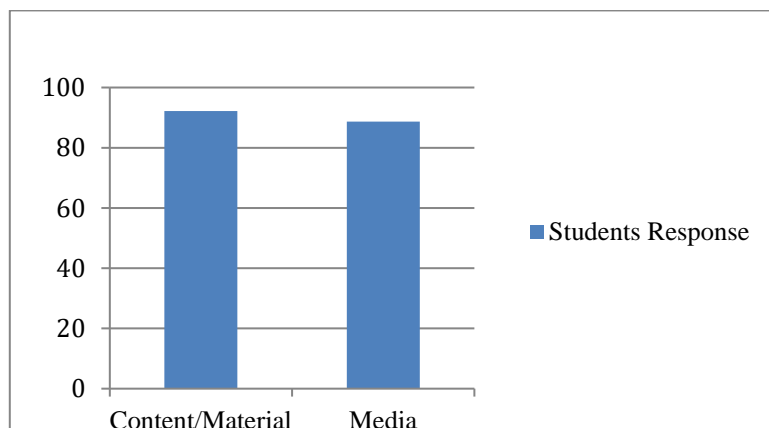


Figure 5. Student Response Results

From carrying out trial activities on contextual teaching and learning-based learning videos, researchers received responses that students in class III B MIN 1 Tangerang City liked learning using contextual teaching and learning-based video, learning with a contextual approach is not always carried out in the room, but the learning process can be carried out in various places, contexts and settings, so this does not cause students to feel bored in learning (Raihanati, et al. 2020: 3).

CONCLUSION

Based on research and development results of learning videos based on contextual teaching and learning in class III elementary schools, the authors formulate the following conclusions.

1. The development of audio-visual learning videos based on contextual teaching and learning for class III elementary school at MIN 1 Tangerang City went through several research stages as stipulated by Borg and Gall (in Sugiyono, 2018: 298) which began with finding potential and problems, data collection, product design, product validation, product revision, and product testing. The contents of the learning video content, namely food production technology material that involves more illustrations in the surrounding environment.
2. The results of feasibility testing of contextual teaching and learning-based learning videos after going through expert validation, show the following results: (a) media validation results obtain a value of 80%; (b) language validation results obtained a value of 82%; and (c) the results of the material validation obtained a value of 76.5%. Then the feasibility value of the learning video is 79.5%. This shows that the feasibility of learning videos based on contextual teaching and learning is included in the "Feasible" category. Thus, this learning video can be used by students to help the learning process which involves more illustrations in the surrounding environment on food production technology material.
3. Student responses to learning videos based on contextual teaching and learning based on product trials in class III B MIN 1 Tangerang City obtained a response questionnaire percentage value of 90.6% which was in the "Very Good" category. The results of student response questionnaires show that students are enthusiastic about the learning process with contextual learning video media.

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