



# Innovation in Learning Financial Literacy Through the Development of Animation Film for Elementary School Students

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**Abstract.** This research aims to produce a valid, practical, and effective financial literacy animation film. A good understanding of financial literacy from an early age can foster a responsible character in financial management so that they can distinguish between needs and wants. This development research utilizes the ADDIE model, namely Analysis, Design, Development, Implementation, and Evaluation. The research instruments consisted of expert validation sheets to assess validity, student response questionnaires to assess practicality, and financial literacy questionnaires to assess the effectiveness of the animated film. This research produced a 3-dimensional animated film of financial literacy for elementary school students as an innovation for learning, introducing the money, understanding the importance of saving, and distinguishing between needs and wants in order to foster a sense of financial management responsibility. The animation film developed is considered valid, practical, and effective. Therefore, it is suitable as an innovation in school learning.

**Keywords:** Learning Innovation, Financial Literacy, Animated Film, Elementary School.

## 1 Introduction

Education will always develop and be updated according to the times. The progress of the times and science and technology can create different ways of thinking, especially with regard to learning theory which has pushed a lot towards learning innovation. Innovation is an idea, item, event, method that is felt or observed on something new for a person or group of people, whether it is the result of invention or discovery to achieve a certain goal or solve a certain problem [1]. learning innovation can be interpreted as a new effort in the learning process, using various methods, approaches, facilities and an atmosphere that supports the achievement of learning objectives. Various examples of innovations in learning, such as learning approaches or strategies, learning media, teaching aids, learning methods, curriculum, classroom management, as well as technology-based learning known as ICT [2].

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The use of the application of animated films in learning is an innovation of appropriate facilities and infrastructure, because the application of animated films in learning can be adapted to student characteristics, materials, and supporting infrastructure. That way if the application of animated films in learning is used appropriately, the learning objectives in the cognitive, psychomotor domains will be achieved. Animation is one of the most interesting forms of pictorial presentation, in the form of a moving image simulation that describes the displacement or movement of an object. The use of animation in the learning process is very helpful in increasing the effectiveness and efficiency of the teaching process, as well as increasing learning outcomes. In addition, the use of learning media, especially animation, can increase attractiveness, as well as student motivation in participating in the learning process [3]

Financial literacy education is needed to educate people to be aware and understand how to manage finances wisely and as needed. There are five indicators of financial literacy for students, to determine whether students have good financial management skills or not, including willing to do light work at home or outside the home, being able to manage pocket money, training children to save, donate and invest [4]. In Indonesia, serious and planned financial literacy education is still rarely carried out in family education and formal education [5]. Financial literacy education should be given as early as possible to children, especially pre-school and elementary school children [6]. According to psychologist Stefanie Pekasa M. Psi, children's financial intelligence can be given when children have started to be given pocket money for school. The point of giving pocket money is not how big or small the nominal is, but how to teach children to start managing their own money. According to financial planner Janus Financial, Dwita Ariani, giving pocket money is a way to teach children to manage money as early as possible. Being given the responsibility of managing their own money will help the child's maturation process [7].

Seeing the importance of learning financial literacy, especially for elementary school students, a solution that can make it easier for students to learn financial literacy is to apply animated films as an innovation in their learning. The use of appropriate animated films in a lesson, in this case regarding financial literacy, can certainly help students understand the material they are studying. Animated films will look interesting and can help students' understanding because they are made with settings and time in economic or buying and selling processes, for example or those related to children's daily economic life, such as saving [8]. Through this animated film made by educators which is designed in an attractive way, it is hoped that it can increase students' interest in learning, especially in financial literacy so that students can easily understand learning to introduce money, understand the importance of saving, and distinguish between needs and wants so as to foster a sense of responsibility towards financial management.

Currently the use of animated films in learning, especially learning mathematics is still rare. Given the characteristics of mathematics where the object of study is abstract, the linking of mathematical concepts and material with context is important and absolute. That's why this research is very important because it will produce an animated product in the form of a 3-dimensional animated film that can help students understand real financial literacy.

## 2 Method

This research aims to produce an animated financial literacy learning film which includes the introduction of money, financial management between needs and wants and saving activities. to foster students' sense of responsibility towards themselves regarding good financial management. Assessment of quality product development must meet 3 criteria, namely valid, practical, and effective [9]. This type of research is development research which is intended to develop learning media using 3-dimensional animated films as an innovation for learning financial literacy of elementary school students. This study uses research and development methods. The development model taken is the R and D model with the ADDIE type, namely Analysis, Design, Development, Implementation and Evaluation because this research and development model is more rational and more complete than the others by development steps [10].

At the analysis stage, needs analysis, curriculum analysis, and student characteristic analysis were carried out. At the design stage, namely making a design based on the results of the initial analysis in the needs analysis activity which includes the preparation of material maps, preparation of frameworks for animated films, preparation of scripts and display designs. At the development stage, is the production stage in making animated films that contain text, sound, images, and animation. The implementation stage is the testing stage of animated films in classroom learning for elementary school students, namely to assess the practicality and effectiveness of animated films. At the Evaluation stage, based on observations at the implementation step, the next step is to carry out the evaluation stage to describe the obstacles and difficulties during the use of animated film media.

Data collection techniques based on observation, expert validation and questionnaires. This observation is used to obtain data regarding curriculum analysis, material analysis and student characteristics as research subjects. Data validity of the animated film developed is based on the assessment of media experts and material experts. There are two media experts and two material experts who evaluate the product. The first media expert works as a lecturer at UNSIKA Karawang, and the second media expert works as a content creator. The first material expert works as a lecturer in the Mathematics Education study program at UNSIKA Karawang, and the second material expert works as a mathematics teacher at Cemarajaya 2 Karawang Elementary School. The instruments used to assess practicality were student response questionnaires and responses from teachers at school. Meanwhile, to assess effectiveness, the instrument used was a financial management ability questionnaire for students

The data obtained in this research are in the form of quantitative and qualitative data. Quantitative data was obtained from the validation scores of material experts and media experts, student response data, and data on students' financial management abilities through the developed animated films. Qualitative data were obtained from suggestions and comments from experts as well as constraints in the development of animated films.

The data analysis technique used is a quantitative descriptive analysis technique. The data analyzed were data from material expert and media expert validation sheet instruments, student response data, and student financial management data. In the analysis of the expert validation sheet there are steps taken, namely: calculating the average

total score for each aspect, calculating the average total validation score (RTV) for all experts, and converting the RTV into a qualitative category [11]. The criterion for the validity of animated films in this study is if the validity category is at least valid. The validity category in this study is presented in Table 1.

**Table 1.** Validity categories of animated films

Score Intervals	Validity Category
$4,01 < RTV \leq 5,00$	Very valid
$3,34 < RTV \leq 4,01$	Valid
$2,67 < RTV \leq 3,34$	Pretty valid
$2,00 < RTV \leq 2,67$	Less valid
$1,00 < RTV \leq 2,00$	Invalid

Data analysis from the student response questionnaire was carried out by calculating the average total score. If the average total score obtained from students' responses to the implementation of learning using animated films is more than or equal to 70, then the student's response is said to be positive and the animated film is stated to be practical. For the analysis of student financial management questionnaire data obtained before and after using animated films, it is done by calculating the average score. Then from the total average the effectiveness category is obtained. There are 4 categories of effectiveness as shown in Table 2.

**Table 2.** Effectiveness category based on total average

Score Intervals	Effectiveness Category
$3,00 < \bar{x} \leq 4,00$	Very good
$2,00 < \bar{x} \leq 3,00$	Good
$1,00 < \bar{x} \leq 2,00$	Not good
$\bar{x} \leq 1,00$	Very Not good

### 3 Result and Discussion

#### 3.1 Results

This research is development research that refers to the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The following presents the stages of developing an animated film according to the ADDIE model.

##### 1. Analysis stage

At this stage it aims to determine the basic problems needed in developing learning media. The animated film developed is used for elementary school students as an innovation in learning financial literacy. The instruments used for curriculum analysis, material analysis and student characteristics are direct observations at school. Based on the curriculum analysis, it is known that elementary school students' understanding of financial literacy is still lacking, and the learning that has been used so far is still conventional.

2. Design stage

At this stage the design is made based on the results of the initial analysis which includes the preparation of material maps, script preparation, film framework and display design. This animated media design uses the Plotagon application, Animaker and for recording it uses the Imovie and kinemaster applications. Present examples of animated film footage that has been produced (Fig 1).



(a) meaning of money



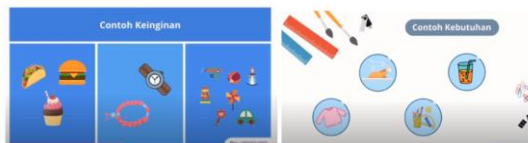
(b) use of money



(c) the meaning of financial literacy



(d) the examples of saving



( e) the examples of wants and needs



(f) the examples of animation in learning

**Fig. 1.** Present examples of animated film footage that has been produced.

Source of image (a) to (f) is personal document

### 3. Development stage

This development stage is the production stage in making animation. Before being used in learning, this animated film has been validated by two material experts and two media experts. The following are the validation results from material experts and media experts:

**Table 3.** The validation by media experts

Aspect	1 <sup>st</sup> Validator	2 <sup>nd</sup> Validator	Mean
Suitability	4,20	4,00	4,10
Easiness	4,00	4,00	4,00
Display	4,25	4,50	4,38
Communicative	4,00	4,00	4,00
Mean			<b>4,12</b>

**Table 4.** The validation by material experts

Aspect	1 <sup>st</sup> Validator	2 <sup>nd</sup> Validator	Mean
Suitability	4,25	3,50	3,88
Comprehensive	4,00	4,33	4,17
Easiness	4,25	4,00	4,13
Clarity	4,00	3,75	3,88
Mean			<b>4,02</b>

In table 3 and table 4 it shows that the average for the assessment of media experts and material experts is above 4 and the meaning is included in the very valid category. This shows that the animated film has fulfilled the suitability aspect in the selection of learning media based on the learning objectives and characteristics of the students, as well as suitability in the selection of material content, dialogue and animation; aspects of ease of use by teachers and students; and aspects of clarity in storylines, animations, and dialogs, as well as clear and neat layouts. In terms of material, animated films have also fulfilled aspects of suitability with learning competencies and student development levels; aspects of the completeness of the material and practice questions contained in the learning media; aspects of ease for students to understand and use; as well as aspects of clarity in displaying descriptions, animations, dialogues and systematic arrangement of material in learning media.

### 4. Implementation Stage

At the implementation stage, the animated films that have been validated are then tried out in the learning. The trial was carried out on elementary school students at Cemarajaya 2 Karawang.

### 5. Evaluation Stage

The result of the practicality assessment of animated films were obtained from trial activities. In the trial activity, students were given a questionnaire regarding their responses after participating in learning using animated films.

**Table 5.** Student Response to Animated Films

Aspect	Percentage %
Content Quality	73,33
Pleasure	96,88
Grammatical	95
Illustration	93,89
Mean	<b>89,78</b>

Table 5 shows that the average student response to animated films is more than 75% that is 89,72% and the pleasure aspect shows a very high percentage. It shows that students have a positive response to animated films.

Data on students' financial management ability is used to assess the effectiveness of animated films. Students fill out a financial literacy questionnaire after obtaining financial literacy learning with animated films. It is done to see how capable students are of understanding financial management.

**Table 6.** Student's literacy skills

Aspect	Score
Financial management	3,85
Interest in saving	3,68
Basic insurance knowledge	3,13
Basic investment knowledge	3,45
Mean	3,53

Table 6 shows that the average for each aspect of financial literacy is in the very good effectiveness category, that is 3.53. Thus, the animated films in learning financial literacy that has been developed are effectively used in cultivating the character of student responsibility in their financial literacy skills

### 3.2 Discussion

Effective animated films contribute greatly to emotional uplift and stimulate individual psychological stability [12]. The results showed that the students' responses to the animated film were also positive. Based on the results showing that elementary school students' understanding of financial literacy is in the very good category after carrying out learning using animated film media. Thus, the use of animated films in learning can foster the character of responsibility in student financial management so that they can distinguish between needs and wants. Not only for face-to-face learning, animated films can also be used for online learning and training students' independence in learning [13].

This animated film can indeed be used as an innovation in learning at school, so that students feel interested in listening to the material because it is like watching a film. But what happens a lot in the field, many teachers feel that learning using animated

film media will take up quite a lot of time for the learning process and difficulties in making animated films. Even though technology is sophisticated and many elementary school students use their cell phones for everyday life, this can be used as a convenience in delivering learning materials by utilizing technology. One of the ways to improve student performance can also be by using technology. There are several ways to improve student performance by using learning technology. First, learning experiences are made more valuable by focusing on worthwhile goals, not just passing tests. Second, through technology, experience can lead to a deeper level of understanding, beyond rote memory [14].

In the development of this animated film there are no significant obstacles. The school where the animation film implementation was trialed, namely SD Cemarajaya Karawang was cooperative and facilitated the implementation of this research well.

## 4 Conclusion

The developed financial literacy animation films meet valid, practical, and effective criteria. The validity of animated films is shown by the assessments from two media experts and two material experts with very valid categories. The practicality of animated films can be seen from the positive student responses to learning using animated films media. The effectiveness of animated films is shown by the growth of the students' character of responsibility in financial management so that they can distinguish between needs and wants, and are motivated by the desire to save as provisions for the future. These results indicate that the animated films developed can be used as an innovation in learning at school.

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