

Development of Teaching Methods Using Infographic Media and Comic Life Practice Towards Students Learning Interests

Mansyur¹, Ahmad Rudi², Akbar Iskandar^{3*}

¹Educational Research and Evaluation, Universitas Negeri Makassar, Makassar, Indonesia

²Universitas Terbuka, Makassar, Indonesia

³Department of Informatics, Universitas Teknologi Akba Makassar, Makassar, Indonesia

Abstract

The purpose of the study was to determine the process of developing teaching methods using infographic and comic life media on interest in learning chemistry, teaching methods using infographic media and comic life on interest in learning chemistry can be declared valid, practical and effective for use in schools. This type of research is development research. The data analysis technique used to obtain the appropriate data, so that it can be processed using the data technique validation results of the infographic and comic life media teaching methods. Data on the effectiveness of learning media, data on the practicality of learning devices. The procedure for developing teaching methods includes needs analysis, design phase, realization/construction phase, test and evaluation phase and implementation phase. Development results in the form of teaching methods based on infographics and comic life that can be used by teachers and students in the learning process. In the expert test of instrument validation, the teaching method underwent several revisions before being implemented in schools until a valid, effective and practical learning media was obtained. The results of the validation of infographic and comic life media with an average validity value of 4.0. The practicality of teaching methods meets the criteria by providing convenience for educators/teachers and students in the learning process and the effectiveness of teaching methods meets the criteria by looking at the positive responses of students with a percentage of 70% stating strongly agree and 30% agreeing.

Keywords: Teaching Method; Infographics; Comic; Plomp.

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Introduction

The development of Science and Technology is increasingly advanced, making the competition increasingly fierce and thus competition is unavoidable. Entering the digital era 4.0 in the world of education, of course it will be a threat as well as a challenge for the world of education (Rahmatullah et al., 2022). It becomes a threat for a teacher who cannot implement a technology-based learning process. But on the other hand, it will be a challenge for a teacher who continues to try or learn to adapt to the digital era 4.0, namely using technology in teaching and learning activities.

Face-to-face learning will not be separated from the use of technology. This condition shows clear evidence that education must adapt to technological developments. The use and demands of the internet continue to grow endlessly, knowledge is now easy to obtain, students easily access the necessary information. The development of this technology must be responded to quickly, precisely and optimistically. Practitioners and educational institutions are required to be able to align the changing times marked by technological sophistication with ethical values. That way the school can become a moral bulwark for students, so that it can grow hand in hand with technology and can take advantage of it for positive things.

Education policies that continue to change, several policies that have changed, namely the implementation of the 2013 curriculum. Furthermore, the latest policy is independent learning. It should be noted that this change is of course the

*Corresponding author.

E-mail address: akbariskandar@akba.ac.id (Akbar Iskandar)



result of previous educational evaluations. One of the reasons for the change in education policy is the achievement of the goals of education itself. It should be realized that the purpose of education itself is dynamic, not static. The 2013 curriculum is designed so that the learning process is not only teacher-centered but also student-centered. In the sense that the teacher is only a facilitator or guide. Then the independent learning policy is expected so that teachers can determine their own plans used in the learning process.

Teacher has a major role in the activities of the learning process, because the teacher determines a strategy or learning plan starting from the initial activity to the end of the learning activity (Fauskanger et al., 2022). Thus, teachers need creative and innovative ideas in the learning process. Having control in activities from beginning to end in the learning process so it is necessary to have strategies in the learning process that are in accordance with the needs of students.

One of the factors that influence the failure to achieve learning objectives is that students are less motivated in the learning process. Students who are less motivated in learning will have an impact on the activeness of students in the learning process. According to the main role in the learning process, namely a teacher. Thus, teachers need to think creatively and innovatively in the learning process. A teaching method and learning media are needed that can increase the motivation of students in learning activities (Putri et al., 2022).

Not achieving the expected learning objectives can be caused by the teaching method or learning media used by the teacher. The teaching method used by the teacher can have a positive impact on students, namely providing motivation and activeness of students in the learning process so that students' interest in learning can increase (Tabroni et al., 2022). Therefore, researchers want to find solutions to these problems through research. Thus, the authors are interested in conducting research with the title "Development of Teaching Methods Using Infographic Media and Comic Life Practice Towards Students Learning Interests".

Method

This type of research is Research and Development (R&D). This research is planned in several stages, namely needs analysis stage, design stage, realization/construction, test, revision, and socialization (Gustiani, 2019). This research was conducted at SMA Addaraen Makassar with the research subjects being students of class X SMA with a total of 20 people as a limited trial place. The research procedure used is the plomp development model (Handayani et al., 2022). In the following, the research procedure is presented in the form of an image.

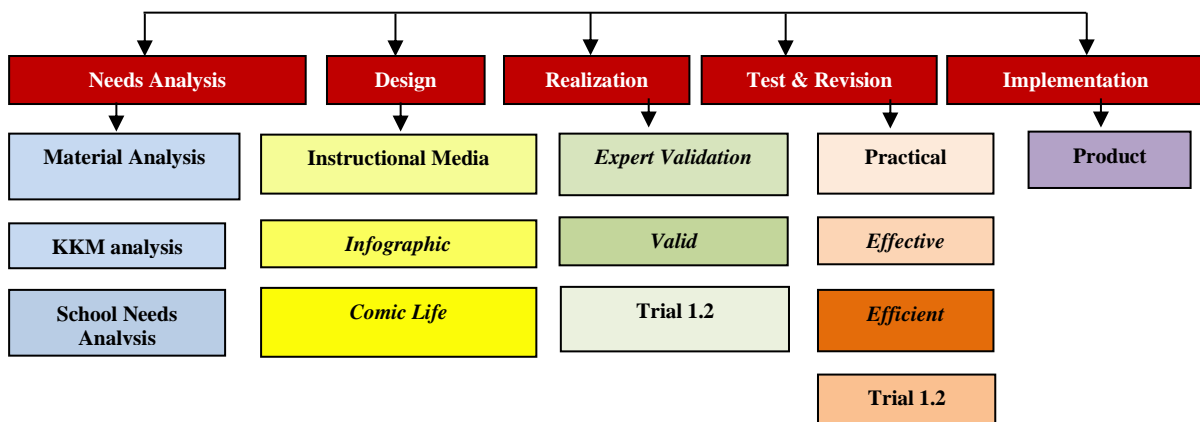


Figure 1. Plomp Model for Development of Teaching Method Using Infographic and Comic Life-Based Learning Media.

The data collection technique used is the validation sheet of learning media, observation, student response questionnaires to the learning media. This validation sheet can provide information that the quality of the development of infographic-based learning media, comic life and practice is based on the assessment of the validator (expert). The observation sheet used in the study was an observation sheet on the implementation of learning media used in the learning process. The questionnaire used was given to students with the aim of knowing students' interest in learning

after the application of the learning media that had been developed. The data analysis techniques used are (1) validation data on learning media (2) effectiveness data on learning media and (3) practicality data on learning media.

Results and Discussion

Result

The result of this research is the development of teaching methods using Infographics and Comic Life. This infographic and comic consists of practicum syntax and learning process syntax.



Figure 2. Infographics and Comic Life-Based Teaching Methods

Based on the results of the analysis the teaching method uses infographics and comic life data from the assessment results from experts, with the assessed areas of study consisting of five aspects, namely material aspects, language, infographic and comic display quality and attractiveness. Overall the expert's assessment is at a value of 4, with the average value of the total validity of teaching methods using Infographics and comics is 4.0 which is in the range ($4 \leq V \leq 5$). The results of the validity of the teaching method can be shown in the following table:

Table 1. Validation Results of Teaching Methods Using Infographics and Comics

No	Rated aspect	X	Information
1.	Theory	4.0	Valid
2.	Language	4.0	Valid
3.	Infographics and comic display quality	4.0	Valid
4.	Attractiveness	4.0	Valid
Total average		4.0	Valid

Based on the questionnaire/questionnaire of student responses to the teaching method using Infographics and Comics made in the form of google form, information obtained as much as 70% gave an assessment of agree and 30% gave an assessment of strongly agree. The percentage of student responses can be seen in Table 2. Following:

Table 2. Percentage of student responses to teaching methods

No.	Category	Percentage
1.	Strongly disagree	-
2.	Don't agree	-
3.	Agree	70%
4.	Strongly agree	30%

The results of the practicality data analysis obtained in the study are the average given by the observer to several aspects of observation in assessing the implementation of the learning process using Infographics and Comics, namely 4.2 which is in the (Good) category $4 \leq x \leq 5$. Field of study observed are the syntax of infographics and comics, the

principles of infographics and comic-based teaching methods, and the support system. The results of implementation observations can be seen in Table 3 below:

Table 3. Observations on the Implementation of Teaching Methods

No	Rated aspect		Information
1	Syntax on infographics and comics	4.4	Implemented
2	Principles of infographics and comic-based learning media	4.2	Implemented
3	Support System	4.2	Implemented
Total average		4.2	Implemented

Discussion

The results of the analysis of the Infographic and Comic-based teaching methods are shown in the data from the assessment of the experts, it can be explained that the teaching method developed is a teaching method using Infographic and Comic media which is valid according to the expert's assessment. The average value of the total validity of the teaching method is 4.0 which is in the range ($4 \leq V \leq 5$). The study areas assessed consisted of five aspects, namely material aspects, language aspects, quality aspects and infographic and comic display aspects and attractiveness. The results of the analysis of the validity of the teaching method that describes the feasibility of applying it in the learning process. The valid value of the analysis can be concluded that the teaching method using Infographics and Comic Life can be used with development tests.

The response of students to learning by using Infographics and Comic Life shows that most of the students feel happy about learning by using comic and infographic media (Gomez-Giraldo, 2022). Students who feel happy with the learning process using these media generally give reasons that the learning process becomes more interesting so that the learning material is easy to understand. This is in line with research from (Priantini, 2021); (Firmansyah et al., 2021) which states that student responses to comic-based learning media are very feasible to use. According to (Saputra & Pasha, 2021); (Sinta et al., 2021), states that the comic learning media used can increase students' learning motivation. Furthermore, the opinion of (Muliani, 2021), stated that infographic learning media can help students in learning so that students understand the learning material more easily. The indicators used in determining the effectiveness of the teaching method using Infographics and Comics have been met. Thus it can be concluded that the teaching method is effective so that it is feasible to use in the learning process activities.

Based on the results of the analysis on the practicality of the media obtained in the study, the average given by the observer to several aspects of observation in assessing the implementation of the learning process activities using Infographic and Comic media is 4.2 which is in the (Good) category $4 \leq x \leq 5$. Thus, the teaching method using Infographics and Comics developed is valid, effective and practical so that it is suitable for use in the learning process in schools. This is in line with research from (Syafri & Kurniawati, 2021), which states that infographic media can be an alternative that can be used in learning, because it creates learning motivation and fosters student interest in reading. In line with the results of research from (Dharmayanti et al., 2021); (Lo et al., 2021).

Conclusions and Suggestions

Conclusions

Based on the results of the study, it can be concluded as follows: (a) The stages in developing teaching methods using Infographics and Comics include the needs analysis stage, the design stage, the realization/construction stage, the test and revision stage and the implementation stage. (b) The teaching method using Infographics and Comic Life that was developed has met the criteria of development research, namely valid, practical and effective and suitable for use in the learning process activities.

Suggestions

Based on the results of research on the development of teaching methods using infographics and comics, researchers can provide the following suggestions.

1. Teachers can apply teaching methods using infographics and comics in order to increase students' interest in learning.
2. For further research, it is expected to develop teaching methods using other media that can increase students' interest and motivation to learn.

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