Ishel
International Seminar on Humanity, Education, and Language
Universitas Negeri Jakarta | Online Conference |
Volume 1 , July 2025

DEVELOPMENT OF CRITICAL THINKING TEACHING MATERIALS IN WRITING PROCEDURE TEXTS THROUGH CLASSCRAFT MEDIA FOR GRADE XI STUDENTS OF SMA

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ABSTRACT

This study aims to develop teaching materials for writing procedure texts based on Facione's critical thinking patterns through classcraft media. This study uses a research and development (R&D) method with the ADDIE model consisting of five stages, namely analysis, design, development, implementation, and evaluation. The analysis stage is carried out through observation, interviews, and questionnaires which show low critical thinking skills in writing procedure texts and the unavailability of appropriate teaching materials. At the design stage, a prototype of teaching materials was designed by integrating Facione's six critical thinking indicators. The validation results by material experts and media experts showed a very good score, namely 4.85 for material experts and 4.8 for media experts. Limited trials showed an increase in students' procedural text writing skills from an average of 60.3 to 83.5 after using teaching materials. Meanwhile, the results of the Effectiveness Test scored 0.84 with a high and effective category. The response results showed very positive from students and teachers, both in terms of appearance, ease of use, and the usefulness of teaching materials in learning. Thus, the teaching materials developed are considered feasible and effective for use to improve the ability to write procedural texts with critical thinking patterns through classcraft media.

Keywords: teaching materials; Facione's critical thinking patterns; writing procedural texts; classcraft

INTRODUCTION

In the 2024/2025 school year, Indonesian learning at the high school level that uses an independent curriculum will continue to carry a text-based approach. In addition, the success of a learning process is greatly influenced by the fulfillment of all learning components as a whole. Rahyubi in Anggita & Widyaningsih (2021) stated that the learning component includes eight things, namely (1) learning objectives, (2) curriculum, (3) educators, (4) students, (5) learning techniques, (6) teaching materials, (7) learning media, and (8) evaluation of learning outcomes. Each component has its own role and function in supporting the course of learning activities. The Independent Curriculum gives teachers the freedom to compile and develop teaching materials independently. According to Saryantono et al (2022), learning materials that are structured and used by teachers and students during learning activities are called teaching materials.

The results of observations at SMAN 1 Tambun Selatan explained that the use of teaching materials has not been implemented optimally. So far, learning activities have only centered on improving the ability of students to listen, record and memorize the material presented without understanding it. This is because teachers do not maximize

DOI: https://doi.org/10.21009/ishel.v1i1.59686

teaching materials, they are only limited to explaining methods or lectures and educational resources used are only textbooks and PPT. This certainly has an impact on the difficulty of students in achieving the Minimum Completeness Criteria (KKM) that have been set by the school, which is 76. There is a gap in expectations and reality in Indonesian language learning, so it is necessary to have teaching materials according to the needs of students. In line with this, Murahmanita et al (2020) revealed that teachers are required to use teaching materials in accordance with the learning needs of students so that the intended learning outcomes are achieved in the learning process.

In addition, learning Indonesian, of the 4 language skills that are often considered difficult is writing skills. Murahmanita et al (2020) explained that writing is not just an activity of copying, taking notes, or completing schoolwork, but also related to accuracy in choosing words and the ability to arrange sentences in an orderly manner and according to the rules of written language. In line with that, Fahmi et al (2023) added that good writing skills include mastery of grammar, critical thinking skills, the ability to organize ideas, and convey messages clearly and effectively in written form. Based on these two views, it can be concluded that writing is a complex skill because it requires grammatical understanding and critical thinking skills. Therefore, without adequate writing skills, students will have difficulty conveying an idea, ideas, and grammar in writing.

On that basis, the Indonesian teacher explained that the skill of writing procedural texts in the phase F independent curriculum is still difficult for students to understand. This is proven because they think that procedural texts are easy to understand, but the results of their writings are still copied from procedural texts that already exist on the internet. This is due to their low critical thinking ability in compiling procedural texts. As a result, students experience obstacles in expressing good, strong and structured ideas in their writing. One of the skills that students need to master in high school is the ability to write procedural texts coherently, both in oral and written form, in accordance with the characteristics of the text to be compiled (Simamora et al., 2023). Procedural texts themselves are a type of text that presents steps in a sequential and systematic manner to achieve a goal or to make and do something (Aldifron et al., 2022).

Based on this, there is a need for teaching materials that can be used by teachers and students who can develop their critical thinking skills in writing procedures. Students will find it easier to write procedures if the writing topic is obtained from experiences or events around them and knows how to convey ideas and ideas in their heads into writing. Learning to write requires maximum efforts from teachers to create a fun learning environment, and not burden students, on the contrary, students are encouraged to enjoy the writing process as a means of self-expression, this is important because writing activities require active involvement in the critical thinking process (Lovita et al., 2023).

Students' ability to think critically is still not fully developed. According to Chafee, individuals who have the ability to think critically are able to judge things carefully, think logically, and give rational reasons in taking action or believing in something and this ability will be more effective if supported by an environment that makes optimal use of technology (in Rohayati & Friatin, 2019). In addition, critical thinking skills help individuals to evaluate the validity of information so that they can compile a persuasive and convincing procedural text systematically and logically. Therefore, the integration of critical thinking patterns in critical thinking teaching materials in writing procedural texts will provide systematic stages to build good and logical ideas.

Facione develops a critical thinking pattern through six main indicators, namely: interpretation, analysis, inference, evaluation, explanation, and self-regulation (Novitasari & Aznam, 2023). By using a critical thinking pattern, teaching materials can help and provide guidance for students in compiling procedural texts precisely, concisely, and logically. The integration of these six critical thinking patterns in teaching materials, students will be helped in compiling strong, systematic, and convincing ideas in writing procedural texts. Each indicator of critical thinking has an important role in shaping in-depth writing skills. Thus, the integration of Facione's critical thinking pattern in teaching materials not only supports the achievement of basic competencies, but also fosters essential high-level thinking skills in learning to write procedural texts.

Teaching materials with a critical thinking pattern for writing procedural texts, designed using interactive learning media, namely "Classcraft: Steps in Procedural Adventure". Classcraft is a learning platform designed to increase students' active participation in teaching and learning activities by integrating game elements into classroom management (Saputra, 2022). In addition, classcraft is also a gamification medium that creates an adventure-like learning experience (Schatten & Schatten, 2019). This media was chosen as a medium to develop teaching materials that are packaged in the form of adventures with each post having a mission to complete. This creates an interesting context such as living a story in a fantasy world and makes learning more structured because there are stages that they have to go through.

Therefore, the problems that have been described earlier and efforts to achieve the goals of the independent curriculum show that improving the quality of teaching materials used by teachers has an important role in determining the success of the learning process. The use of the media "Classcraft: Steps in Procedural Adventure" is expected to increase the effectiveness of learning to write procedural texts with a better Facione critical thinking pattern. This is a solution to the problems faced by students in improving procedural text writing skills through the application of critical thinking patterns. Another important thing, the development of teaching materials for critical thinking in writing procedural texts through classcraft media is also expected to make it easier for teachers to carry out learning in the classroom more effectively, in accordance with the demands of the Independent Curriculum in phase F.

METHOD

This research is a type of R&D *(Research and Development) research* that aims to produce teaching materials for critical thinking in writing procedural texts through classcraft media for grade XI high school students. The development model used is the ADDIE model, which consists of five main stages, namely: Analyze, Design, Develop, Implement, and Evaluate (Rachmah et al., 2023).

The first stage, Analyze, is carried out by identifying the needs of students and teachers for teaching materials by observing the learning process, interviews with teachers, and distributing questionnaires to students. This data is used to find out the gap between existing learning conditions and ideal needs. The second stage, Design, the researcher designs teaching materials, namely by designing materials and designing media. In the design of the material, the preparation of learning objectives, learning scenarios, teaching materials for critical thinking in procedural texts, and assessment rubrics, the media design stage is integrated into the media classcraft. The third stage, Develop, is the process of realizing the design into an initial product (product I) which is then validated by material experts and media experts. After receiving input from experts,

DOI: https://doi.org/10.21009/ishel.v1i1.59686

the product was revised into product II which was revalidated until it was declared suitable for use. The fourth stage, Implement, is carried out in Indonesian learning activities. The product was tested through experiments using a one group pretest-posttest design, to determine the difference in students' writing ability before and after using classcraft teaching materials. The last stage, Evaluate, was carried out by collecting responses from students and teachers through questionnaires. This evaluation aims to measure the effectiveness and feasibility of teaching materials.

The data collected in this study were analyzed qualitatively and quantitatively. Qualitative data includes needs analysis and input from experts, while quantitative data is in the form of validation results and experimental data. The validation results are calculated using an average score with the eligibility category according to Widyoko (2009) in the following table.

Table 1 Scoring Guidelines for Expert Validation

No.	Score Interval		Value	Category
1.	$X > \bar{X} + 1.8$ Sbi	$X > 4.2$	A	Highly Worth It
2.	$\bar{X} + 0.6$ Sbi $< X \leq \bar{X} + 1.8$ Sbi	$3.4 < X \leq 4.2$	B	Proper
3.	$\bar{X} - 0.6$ Sbi $< X \leq \bar{X} + 0.6$ Sbi	$2.6 < X \leq 3.4$	C	Quite Decent
4.	$\bar{X} - 1.8$ Sbi $< X \leq \bar{X} + 0.6$ Sbi	$1.8 < X \leq 2.6$	D	Less Worthy
5.	$X \leq \bar{X} - 1.8$ Sbi	$X \leq 1.8$	E	Very Less Worthy

Meanwhile, the statistical analysis of the experiment was carried out using SPSS 25 which began with the normality test, paired sample t-test, and N-Gain test to measure the improvement of students' abilities after using teaching materials. H0 decision-making is rejected if the Sig value is < 0.05 and vice versa H0 is accepted if the Sig value ≥ 0.05. if H0 is rejected, then it can be concluded that there is a significant difference between the learning outcomes of students before and after using the teaching materials. And vice versa. As for the N gain score test, to see the effectiveness of the teaching materials is represented based on the criteria below.

Table 2 Categories of N-Gain Score Distribution

Score	Criterion
$G > 0.70$	Tall
$0.30 < g > 0.70$	Keep
$G < 0.30$	Low

(Haeke, in Warodiah et al., 2023)

RESULTS AND DISCUSSION

This section presents the results of the research consisting of five main focuses: (1) the results of the needs analysis, (2) the design of the developed teaching materials,

(3) the results of development and validation, (4) the results of the effectiveness test of the teaching materials through experiments, (5) the evaluation of the responses of teachers and participants

Analysis of the Need for Teaching Materials

Needs analysis was carried out through classroom observations, interviews with teachers, and the distribution of questionnaires to students at SMAN 1 South Tambun. The results of the analysis showed that the ability to write procedural texts of students was still low. Most students have difficulty developing ideas independently and tend to copy texts from the internet. In addition, the teaching materials available are limited to textbooks, PPTs, and are not equipped with interactive or digital elements that can encourage critical thinking.

The learning methods used by teachers tend to be monotonous, lecture-dominant, and less varied, causing student involvement in learning to be low. Students also show passive participation and are rarely given the opportunity to practice critical thinking skills directly. Both teachers and students expressed the need for innovative teaching materials that are engaging, accessible, and support the development of critical thinking skills.

Design or Design of Teaching Materials

This activity consists of designing teaching materials and teaching media. The design of teaching materials begins with formulating learning objectives, then learning objectives are reduced to several learning indicators which will later become learning steps in the learning scenario. The teaching materials are designed based on Facione's critical thinking pattern. After that, teaching materials were compiled which were integrated into the media "Classcraft: Steps in Adventure Procedure" which consisted of 4 posts where each post had a mission to complete. Post 1: Understanding the Context, Post 2: Modeling, Post 3: Writing Guided Procedure Text, and Post 4: Writing Self-Guided Procedures. Revisions are carried out based on input from the supervisor, including improvements to terms, material flow, and the addition of voices and visual elements

Expert Development and Validation Results

Validation of teaching materials was carried out with material experts and media experts at the first validation the following results were obtained.

Table 3 Results of the First Validation Test

Results of the Calculation of the First Validation Test of the Subject Matter Expert	Results of the Calculation of the First Validation Test of Media Experts
$X = \frac{48}{14} = 3{,}42$ Based on the Likert scale score conversion guidelines, a score **of 3.42** is a B grade with a **decent category.**	$X = \frac{35}{10} = 3{,}5$ Based on the Likert scale score conversion guidelines, a score **of 3.5** is a B grade with a **decent category.**

Then a revision is carried out based on the input and suggestions of material experts and media experts, among others; learning objectives are adjusted to contain elements of conditions so that they are more measurable; Explained objectives in how-to videos are removed to focus on the flow of activities using Classcraft; the practice and assessment section is clarified in its instructions and the appearance is simplified; The

DOI: https://doi.org/10.21009/ishel.v1i1.59686

material in post 2 is added explanations to strengthen students' understanding; grammar corrected according to PUEBI; media display is adjusted to age segmentation and color simplicity; Supervisor profile added to the developer page; typeface is limited to a maximum of two to keep it readable comfortably; interactive buttons fixed via hyperlink reset; the addition of voice over and background sound resetting are carried out to strengthen the audio-visual aspect; and color contrast and graphic elements are adjusted to create a harmonious look. This thorough revision is carried out so that the teaching materials are not only visually appealing, but also effective in content and functionality in learning. Then the second validation was carried out with the following results.

Table 4 Second Validation Test Results

Results of the Calculation of the Validation Test of the Two Subject Matter Experts	**Results of the Validation Test of the Two Media Experts**
$X = \frac{68}{14} = 4{,}85$ Based on the Likert scale score conversion guidelines, a score **of 4.85** is an **A** grade with a **very decent category.**	$X = \frac{48}{10} = 4{,}8$ Based on the Likert scale score conversion guidelines, a score **of 4.8** is in **the A** category with **a very decent category.**

Based on the results of the second stage of validation carried out by material experts and media experts, it can be concluded that "Critical Thinking Teaching Materials in Writing Procedural Texts through Classcraft Media in Grade XI High School Students" is included in the category of very feasible to be used in the learning process.

Results of Effectiveness Tests through Experiments

After going through the validation stage by experts, the next step is to test teaching materials to students. This trial was carried out on grade XI M students at SMAN 1 South Tambun using a one-group pretest-posttest design. The analysis begins by performing a normality test to find out if the data has a normal distribution. This normality test was carried out using the Shapiro-Wilk method. The following are presented the results of the normality test of data obtained through processing using SPSS.

Table 5 Normality Test Results

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Itself.
Pretest	.161	25	.094	.939	25	.144
Postest	.171	25	.057	.927	25	.074

Based on the results of the normality test using the Shapiro-Wilk method, a significance value of 0.144 was obtained for data before the use of teaching materials, and 0.074 for data after the use of teaching materials. Regarding the two significance values before and after using teaching materials greater > 0.05, it can be concluded that the data is normally distributed. Thus, the data meets the normality requirements so that it can be carried out to the next stage, namely with a T test to test the difference in pre-test and post-test results. The following are the results of the analysis of the T test.

Table 6 Paired Sample Test Results

Paired Samples Correlations				
		N	Correlation	Itself.
Pair 1	Pretest & Postest	25	.794	.000

Based on the results of the Paired Sample Correlation analysis, a correlation value of 0.794 with a significance level of 0.000 was obtained. A significance value smaller than <0.05 indicates that there is a significant relationship between the value before and after the use of teaching materials. These findings indicate that teaching materials have a positive and meaningful influence on improving students' understanding, which is reflected in the increase in writing results after using teaching materials. Furthermore, to find out the level of effectiveness of teaching materials in more depth, an analysis of the N-Gain Score test was carried out based on the results of the students' pre-test and post-test. The results of the N-Gain Score test are presented in the following table.

Table 7 N-Gain Score Test Results

	N	Minimum	Maximum	Mean	Hours of deviation
ngain_score	25	.39	1.00	.8402	.20635
ngain_percent	25	38.71	100.00	84.0164	20.63539
Valid N (listwise)	25				

Based on the table of the results of the N-Gain Score test, it can be seen that the average value of the N-gain score obtained is 0.84, which implies that the value is greater than > 0.7, meaning that the use of teaching materials is in the high category. As for the n-gain percentage, 84% was obtained, which implies that the value is greater> 76% means that the use of teaching materials is in the effective category.

Evaluation of Student and Teacher Responses

The results of the evaluation of the responses of teachers and students showed a very positive response to the teaching materials developed. Based on the questionnaire shared, the results of the students stated that the teaching materials were easy to understand, interesting, and made the learning process more enjoyable. In addition, the results of the teacher's questionnaire stated that the teaching materials were relevant to the needs of students and encouraged active involvement and students' critical thinking skills in writing procedural texts. These findings reinforce that the product is suitable for use in Indonesian language learning in grade XI.

CONCLUSION

Based on the results of validation by experts, the teaching materials developed obtained an average score of 4.85 from material experts and 4.8 from media experts, both of which are included in the "Very Feasible" category. In addition, the learning outcomes of students after using teaching materials showed a significant improvement. The paired sample t-test yielded a significance value of 0.000 ($p < 0.05$), and an N-Gain score reached an average of 0.84 or 84%, which falls into the category of high effectiveness. These findings show that critical thinking teaching materials in writing procedural texts through Classcraft media are not only valid and practical, but also effective in improving students' writing skills.

More than just quantitative data, this success reflects a change in the learning experience of students that are more meaningful. The integration of gamification-based digital learning media such as Classcraft increases engagement and motivation for

learning, making the learning process more interactive and enjoyable. Students no longer depend on copying from the internet, but begin to develop ideas independently, critically, and systematically. This process not only hone writing skills, but also fosters critical thinking skills, self-regulation, and confidence. Thus, the teaching materials developed are declared feasible, statistically effective, and educational, as well as providing a meaningful and student-centered learning experience.

ACKNOWLEDGMENT

Thank you to the researcher to Prof. Dr. Endry Boeriswati, M.Pd., Mr. Nur Sekhudin, S.Pd., M.Hum., who has provided guidance and direction to complete this research. Thank you also to the teachers and students of SMAN 1 Tambun Selatan for their participation, as well as their families and all parties who have provided support so that this research can be completed properly.

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