



The Development of Short Story Writing Teaching Materials to Improve Student's Writing Skills: A Metaphorming Approach

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Innovative teaching materials for short story writing are required to enhance students' writing skills. This study proposes the use of the metaphorming approach in developing teaching material for short story writing. This study is a Research and Development (R&D) which used the ADDIE model that consists of five stages, including analysis, design, development, implementation, and evaluation. Data was collected through interviews, tests, questionnaires, and observations at the junior high school level. The design of the teaching materials was integrated with metaphorming principles. Furthermore, the validation process of the design involved experts in metaphorming, instructional design, and linguistics. The validation included three aspects, content, layout, and language. At the implementation stage, teaching material was implemented in the learning to examine its effectiveness in enhancing students' writing skills. A statistical test was carried out to investigate the significance of increasing students' writing skills. The ADDIE model was evaluated at the final stage and at each stage to ensure the quality of development. The results showed that the teaching material for short story writing with a metaphorming approach had met the validity and reliability criteria. Furthermore, its implementation in learning improves students' writing skills significantly.

Keywords: metaphorming, research, development, teaching materials, writing skills

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INTRODUCTION

Every country must be ready to compete in the industrial revolution era. The quality of human resources has a significant impact in this situation. Moreover, competition in globalization requires people to develop various skills relevant to information and communication technology development. According to Abd Al-Lateef & Al Yakin (2021), Norris (2019), and Chalkiadaki (2018), stated that several skills must be developed in facing competition in this era, namely critical thinking, problem-solving, communication, collaboration, creativity or invention, and literacy skills. Reading and writing literacy are important things that must be instilled from an early age. It is the responsibility of teachers and all those involved in education to produce and improve the quality of learning so the children's literacy skills can be developed at an early age. Learning writing skills is one of the things that helps youngsters develop their creativity and literacy.

Writing skills are one of the four language skills, namely listening, speaking, reading, and writing, that every student must master. Troyka (2010) stated that all language skills must be learned integrative, and learning exercises focus on using the language in real contexts. In writing, learners must develop their thinking skills to express their ideas in written form.

The purpose of writing is to know how to use grammar and punctuation correctly. Moreover, writing can also develop the students' abilities in dynamic thinking, analytical skills, and distinguishing things accurately and validly. In addition, writing skills facilitate students' academic performance (Zhang, 2013), both as a learning medium and a tool to express and communicate ideas about their experience and develop science and academic fields (Coffin. et al., 2005).

Learning to write short stories is an approach to improving your writing skills. Students can apply this method earlier to enhance their creativity and writing abilities (Angeline & Rani, 2019). According to Stanton (2012), Barbot (2013), and Barbot. et al., (2012), writing short stories is a creative writing learning related to an open design process built on creativity and is relevant to the development of children's thinking skills. The inclusion of creative writing in language teaching practice is justified for several reasons: First, creative writing aids language development in grammar, vocabulary, and discourse. Second, creative writing enables students to experiment with language creatively (Stanton, 2012; Kırkgöz, 2014). Writing short stories can help students develop their left brain's intellectual intelligence (IQ) and right brain's emotional intelligence (EQ), which affect each other.

Based on the findings of interviews in the preliminary study, the students still have trouble writing down their thoughts and ideas effectively and appropriately in formal situations. It is caused by several factors such as students, teachers, inappropriate learning strategies and techniques, and teaching materials. Teaching materials are one of the essential factors in achieving learning objectives. Teaching materials play an important part in the learning process, both as an independent source of learning for students and as an effective material for teachers in developing and presenting study materials (Cunningsworth, 1995; Sheldon, 1988; Sholehudin. et al., 2020). Quality

teaching materials accompanied by teacher guidance will significantly affect learning success. This statement has the same opinion as Wena (2009), who stated that it will be difficult for a teacher to carry out the learning process without proper learning materials systematically. In the implementation of the curriculum, teaching materials are also extremely significant.

Moreover, teaching materials can help teachers and students find and obtain information quickly and accurately. The availability of instructional resources during the learning process allows teachers to reduce the amount of information delivered verbally. Teaching materials have a significant impact on achieving optimal learning outcomes (Ellington & Race, 1997). According to Tomlinson (1998) and Astriyanti et al. (2021), innovative teaching materials require appropriate preparation techniques so that the teaching materials developed are of high quality and attractive so that they motivate students to learn and foster student interest in learning. Furthermore, teaching materials for writing short stories that are innovative and contextual are still limited. Therefore, their development is challenging (Mulawarman, 2022; Upreti, 2012). Hyland (2013) and Hyland (2007) added that the authenticity of the samples of texts offered in developing language learning textbooks must be considered.

The Metaphorming learning paradigm is one of the learning models that can make learning more meaningful and increase creativity. Metaphorming is an idea to relate the problems encountered with everyday experiences and knowledge that has been known previously. The key to metaphorming is making connections and exploring their meaning in depth. The process of metaphorming can be described by using the acronym CREATE, which means "Connect – Relate – Explore – Analyze – Transform – Experience" (Siler, 1999). The Metaphorming approach supports students in accelerating thinking, creating, discovering something new, and connecting seemingly unrelated things into interrelated things, ultimately leading to problem-solving. According to Ramli and Boeriswati's (2019) research, the metaphorming teaching approach is ideal for teachers to improve students' writing skills and develop cognitive competencies in the writing process. Furthermore, Handayani (2014) stated that metaphorming is a learning model that puts students at the center of learning (student-centered).

Zhang (2019) presented that the metaphorming approach is a creative and new way for students to develop new ideas and perspectives. Metaphorming helps students to explore many ideas, knowledge, and creative solutions. Over the years, we have discovered how to use metaphorming to help businesses generate innovative ideas that lead to concrete results with measurable results (Siler, 1999; Siler, 2010). The metaphorming learning approach is a fun way and teaching technique that increases students' creativity and is finally able to solve problems and find solutions, and eventually, they become geniuses (Anwar, 2019; Navaneedhan & Kamalanabhan, 2016; Ryu, 2013). The metaphorming approach is a way to develop a Creative Thinking System (COS), a genius's way of thinking that will likely be passed on to all students. This phase is considered a strategic breakthrough because it teaches children how to learn, which is far more significant than simply providing them with knowledge of the things taught in school. Training students

to think creatively, which is part of the metaphorming approach, is the foundation for innovation and creation (Sunito et al., 2013; Habibie, 2013).

METHOD

This study is a Research and Development (R&D) that was conducted at the junior high school level in DKI Jakarta Province, Indonesia. The research was carried out in the 2021-2022 academic year. The outputs of this development were in the form of teaching materials that can be applied practically and tested for validity and feasibility. The development model used in this study is the ADDIE model (Branch, 2009). According to Cheung (2016), the ADDIE model is simple and can be applied to a curriculum that teaches knowledge, skills, or attitudes. This development is carried out through several systematic stages, as shown in the following diagram,

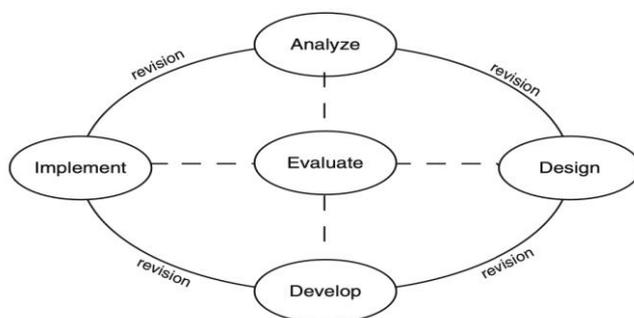


Figure 1
Model ADDIE (Analyze-Design-Development-Implementation-Evaluation)

Figure 1 illustrates each stage of development in the ADDIE model that can be used as a guide when applying the model in developing teaching materials for short story writing based on metaphoring. This model is an instructional process consisting of five phases: analysis, design, development, implementation, and evaluation. This model provides an approach that focuses on providing feedback for continuous improvement to produce valid, practical, and effective teaching materials. (Branch, 2009). Each stage has a different number of procedures. Furthermore, the explanation of the stages of the ADDIE model adopted in this study is as follows:

Analyze

This study aimed to collect, identify, and analyze information about the need to develop teaching materials for writing short stories with a metaphorming approach. Activities at this stage included performance analysis, student analysis, and context analysis. Performance analysis began by collecting problems encountered in learning to write short stories carried out. The data were collected through observation and interviews with teachers and students. The data were analyzed to identify the main factors that became obstacles in learning to write stories. In addition, an analysis of students was also carried out. This analysis included a study of characteristics based on the level of story writing skills. Data collection for this analysis was carried out through tests.

Furthermore, context analysis was also carried out to build a conceptual framework about learning to write short stories with a metaphorming approach and a framework for developing teaching materials. This analysis was conducted through literature and document studies to explore information about metaphorming, curriculum, materials, and learning objectives. The last analysis results were described and referenced in the preparation of prototypes of teaching materials carried out in the next stage.

Design

This stage aimed to design a detailed blueprint for teaching materials. The design of teaching materials refers to the conceptual framework obtained at the analysis stage. The design of these teaching materials considered various aspects included: learning objectives, competencies to be achieved, forms of teaching materials, materials, learning media, time allocation, contextual learning concepts, development costs, and assessment instruments. The teaching materials developed must be integrated with the CREATE principle in the metaphorming approach. The blueprint design for teaching materials at this stage was evaluated formatively and improved until it was feasible.

Development

This stage was the realization of the blueprint design that was made comprehensively in teaching materials. In the previous stage, we had prepared a conceptual framework for developing teaching materials. Furthermore, it was realized in the form of teaching material products. It continued development and improvement through formative evaluation so that the product was ready to be implemented following the objectives. A formative evaluation was carried out involving practitioners and experts in metaphorming, linguistics, and development. Formative evaluation of the design of teaching materials aimed to validate several criteria, including the suitability of learning outcomes, learning objectives, and the material in the prepared teaching materials. Aspects that were considered were the suitability of the material, instructional, and the principles of the metaphorming approach, aspects of the appearance of teaching materials, to aspects of language (Litlejohn, 2011; Tomlinson, 2013).

Implementation

Teaching materials for writing short stories with a metaphorming approach that had been made were then implemented in learning or real situations. During the implementation process, the design of teaching materials that had been developed was applied to actual conditions. The teaching materials that had been developed were delivered according to learning activities. Furthermore, a formative evaluation was carried out to get feedback regarding the improvement for the next teaching material.

Evaluation

The last stage of the ADDIE Model stage was evaluation. The evaluation carried out at the ADDIE stage included formative and summative evaluations. The formative evaluation was examined in each stage of the ADDIE model. This evaluation aimed to ensure that each stage followed the procedures for developing teaching materials. While the summative evaluation was an evaluation carried out at the end of the model stage,

which aimed to investigate the effectiveness of the use of teaching materials for writing short stories with a metaphorming approach to student learning outcomes. The data was collected by using a test.

Furthermore, to find the effectiveness of the intervention using teaching materials that had been developed on students' writing skills, a statistical test named the average difference test was carried out. Furthermore, the summative evaluation also ensured the achievement of learning objectives, practicality, and validity of the teaching materials developed. Practitioners and experts validated the instruments used for formative and summative evaluations in metaphorming, linguistics, and teaching materials development.

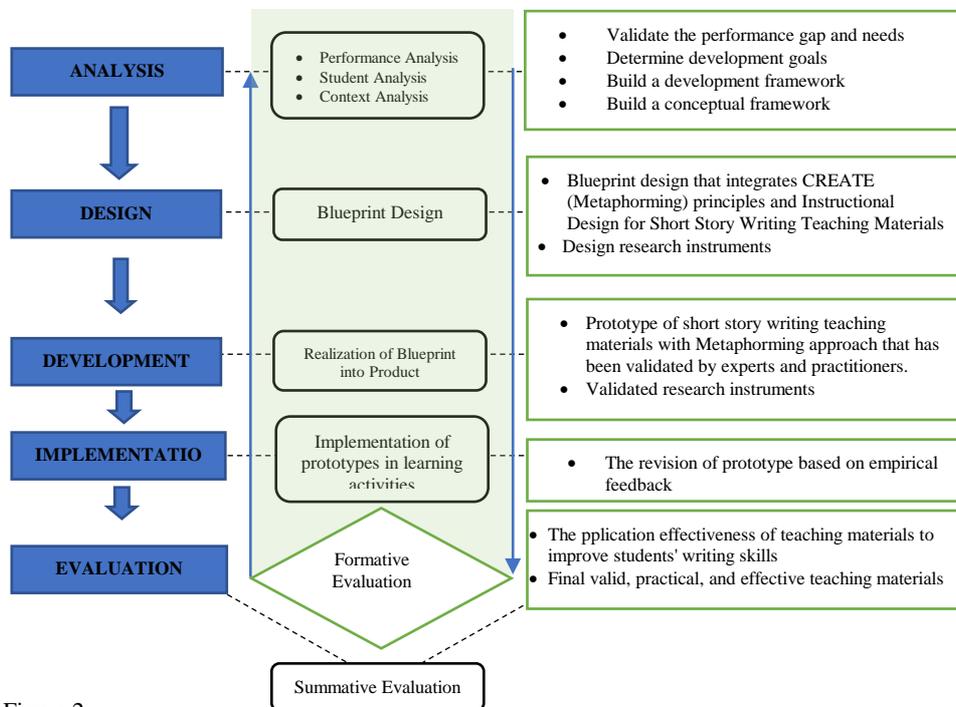


Figure 2
Research flowchart

FINDINGS

The results of this development study are in the form of teaching materials for writing short stories with a metaphorming approach. The following are some of the analysis results at the development stage.

Results of the Students' Writing Skills Analysis

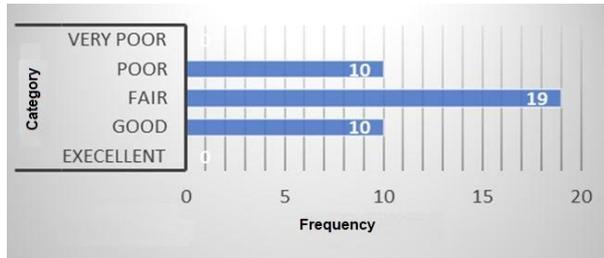


Figure 3
Students' writing skills

The diagram above shows the test results of 39 students; none of the students achieved the "very good" category (score interval 85-100). Ten students, or 26%, achieved the "good" category (interval score 70-84). Nineteen students, or 48%, achieved the "enough" category (interval score 60-69), and ten students, or 26% achieved the "less" category (interval score 0-59). The test results are the total scores of seven aspects of the assessment test, including theme, plot, setting, point of view, language style, characters, and characterizations, the integration of elements in the short stories. This initial writing skills analysis strengthens the information obtained through observations and interviews regarding the need to develop teaching materials for short story writing.

Teaching Material Component Structure

The component structure of teaching materials for short story writing with a metaphorming approach that has been prepared is as follows.

Cover



Figure 4
Cover

The cover is an initial display of short story teaching materials with a metaphorming approach. This page contains the book's identity in the form of the title "Teaching Material for Writing Short Stories with Metaphorming Approach" and "Author." This page is designed with an attractive appearance to attract readers to study this book.

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Learning Instruction Page

B. KEGIATAN INTI

Pada kurikulum 2013, kegiatan inti mengamati dihubungkan dengan sangat erat dengan kegiatan menanya. Demikian pula kegiatan menanya juga terkait erat dengan kegiatan mengumpulkan data. Pembelajaran dengan pendekatan metaphorming juga demikian urutannya. Kalau ada sedikit perbedaannya, pendekatan metaphorming menghendaki pelibatan imajinasi selain kemampuan berpikir. Selain itu, pembelajaran metaphorming kadang menghendaki tahapan kegiatan tersebut terlaksana secara simultan.

Mengamati, Menanya, dan Mengusulkan sebagai Proses Mengembangkan Kemampuan Mengasosiasi -CONNECT

Kegiatan inti pada kurikulum 2013 dimulai dengan mengamati. Demikian halnya dengan pembelajaran dengan pendekatan metaphorming, yang juga dimulai dengan proses mengamati. Bedanya, yang dilibatkan dalam pengamatan bukan sebatas pikiran, melainkan juga imajinasi. Khususnya terkait dengan kemampuan mengasosiasi. Dalam konteks materi struktur cerpen, siswa mengamati sebuah bentuk kipas yang telah bertuliskan kata "cinta" yang ketika kipas tersebut dimaikan satu tahap (dibuka lagi), ditemukan kata "luas". Pada tahap ini peserta didik dihadapkan pada situasi mengamati dengan sungguh-sungguh untuk dapat mengembangkan kemampuan asosiasi dalam upaya melanjutkan kata berikutnya sebagai sebuah hubungan asosiasi (connecting) dari kata yang satu dengan kata lainnya.

Pada kesempatan seperti itu, siswa akan terpecah menjadi dua kelompok, yakni: kelompok yang telah mampu mengamati dengan sangat baik sehingga telah beralih peran menjadi peserta yang aktif mengusulkan urutan kata berikutnya, sementara sebagian peserta didik lain masih tetap mengerjakan pikiran dan imajinasinya untuk memahami urutan tahapan kata tersebut mengapa seperti demikian adanya. Dalam kondisi tersebut, siswa yang "tertinggal" secara replik akan terus bertanya kepada temannya mengapa muncul atau dipilih kata tersebut. Tentu saja, yang ditanya akan memberikan penjelasan bahwa kata berikut merupakan asosiasi dari kata sebelumnya. Kejadian tersebut terus berlangsung, sehingga sebagian besar atau secara keseluruhan peserta didik mampu mengurutkan kata berikutnya.



Berdasarkan cerita di atas, diharapkan siswa sudah merasakan bahwa materi yang akan dipelajari merupakan hal yang sangat berguna untuk dirinya. Mereka berkeinginan memahami dan mengungkap bahwa kehidupan merupakan sesuatu yang dinamis. Perayaan hidup banyak raganya dan menuntut keberanian dan keberanian dalam menjahannya.

Figure 6
Snippets of learning instructions (a)



Figure 7
Snippets of learning instructions (b)

This page depicts the stages of the learning activities' execution, including learning to create a short story using a metaphorming approach that emphasizes language exploration as a means of thinking and expression. The metaphorming approach develops short story writing skills in the acronym CREATE, which stands for Connect, Relate, Explore, Analyze, Transform, and Experience. The use of pictures or photos adapted to the material's content depicts the contents of the learning instructions.

Assessment rubric

Rubrik Penilaian Menulis Kreatif				
Kriteria	Baik Sekali (4)	Baik (3)	Cukup (2)	Kurang (1)
Pengembangan	Menunjukkan detail pengembangan latar belakang secara menyeluruh dengan jumlah maksimal.	Menunjukkan detail pengembangan latar belakang secara menyeluruh dengan jumlah yang cukup.	Menunjukkan detail pengembangan latar belakang secara menyeluruh dengan jumlah minimal.	Tidak menunjukkan detail pengembangan latar belakang secara menyeluruh.
Penokohan	Menunjukkan deskripsi tokoh melalui ciri fisik, pola pikir, aktivitas, symbol dan sebagainya untuk menunjukkan jati diri, serta tokoh dengan jumlah maksimal.	Menunjukkan deskripsi tokoh melalui ciri fisik, pola pikir, aktivitas, symbol dan sebagainya untuk menunjukkan jati diri, serta tokoh dengan cukup.	Menunjukkan deskripsi tokoh melalui ciri fisik, pola pikir, aktivitas, symbol dan sebagainya untuk menunjukkan jati diri, serta tokoh dengan jumlah minimal.	Tidak menunjukkan deskripsi tokoh melalui ciri fisik, pola pikir, aktivitas, symbol dan sebagainya untuk menunjukkan jati diri.
Suara	Menunjukkan pengembangan sudut pandang tokoh melalui dialog / monolog yang menunjukkan nilai - nilai karakter yang tokoh dengan jumlah maksimal.	Menunjukkan pengembangan sudut pandang tokoh melalui dialog / monolog yang menunjukkan nilai - nilai karakter yang tokoh dengan jumlah cukup.	Menunjukkan pengembangan sudut pandang tokoh melalui dialog / monolog yang menunjukkan nilai - nilai karakter yang tokoh dengan jumlah minimal.	Tidak menunjukkan pengembangan sudut pandang tokoh melalui dialog / monolog yang menunjukkan nilai - nilai karakter yang tokoh.
Alur Cerita	Pengembangan secara narasi untuk menunjukkan pesan cerita.	-	-	Tidak ada pengembangan secara narasi untuk menunjukkan pesan cerita.

Figure 8
The snippet of the assessment rubric

This page displays an assessment rubric that can measure students' writing skills after learning to write short stories with a metaphorming approach. The indicators assessed in writing short stories consist of depiction, characterizations, sound, and storyline. The score obtained shows the ability of students to express their feelings, experiences, and imaginations as well as their knowledge in the form of written stories.

Expert Validation Results

The teaching materials that have been designed are then evaluated by experts quantitatively and qualitatively. Experts give qualitative assessments by providing suggestions for improvements to the design of teaching materials that have been made. The experts testing the validity and feasibility of this teaching material design consisted of nine lecturers and educational practitioners with expertise in linguistics, educational technology, and metaphorming. Quantitative assessment of the design of teaching materials was also carried out using a questionnaire instrument consisting of three main parts, namely the design validity, content validity, and language validity sections. Finally, the experts rated each item of the questionnaire provided. Then the expert's assessment results were analyzed using the Aiken method to find out the index of agreement. Calculation of the Aiken index using the following equation.

$$V = \frac{\sum s}{n(c-1)}, \quad s = r - I_0.$$

n was the number of experts who judged, V was the Aiken index or the agreement index of the experts for each item of the questionnaire, s was the rating value given by each expert, r minus the value of the lowest rating category I_0 which used, and c was the number of rating categories used. Furthermore, the calculated value of the V value for each item was compared with the V_{table} value for the nine assessors, which was 0.75. If the value of the Aiken index calculation result was more than the V_{table} index value, the assessment was declared valid. The results of the calculation of the Aiken index for the three parts of the questionnaire, namely the feasibility of the design, the feasibility of the content, and the feasibility of the language, are presented in the diagram below,



Figure 9
Aiken index of design eligibility



Figure 10
Aiken index of content eligibility



Figure 11
Aiken index of language eligibility

Based on Figures 1, 2, and 3, it can be concluded that the results of the expert's assessment for the three main sections covering the feasibility of design, content, and language are valid. It can be seen from the Aiken index value that each item is greater than the Vtable index value (0.75). The next step is that the teaching materials that having been designed could be tested in the field.

Field Trial Results

To further justify the reliability and validity of the designed teaching materials, the designed teaching materials were then tested. This trial involved 64 junior high school students in DKI Jakarta Province, Indonesia. The data from the field trials were then analyzed using SPSS 21 software. The following is the output of the statistical description analysis of the short story writing skills of the students who were the research sample using SPSS 21,

Table 1
Descriptive statistics of student writing skill score

Statistic	Pre-Test	Post-Test
N	64	64
Mean	66.11	79.89
Std. Error of Mean	0.898	0.957
Median	65.00	78.00
Mode	61	75
Std. Deviation	7.180	7.653
Variance	51.559	58.575
Skewness	0.163	0.297
Std. Error of Skewness	0.299	0.299
Kurtosis	-0.264	0.706
Std. Error of Kurtosis	0.590	0.590
Range	33	39
Maximum	83	96
Minimum	50	57
Sum	4231	5113
Percentil 25/50/75	61/50/75	75/78/85.75

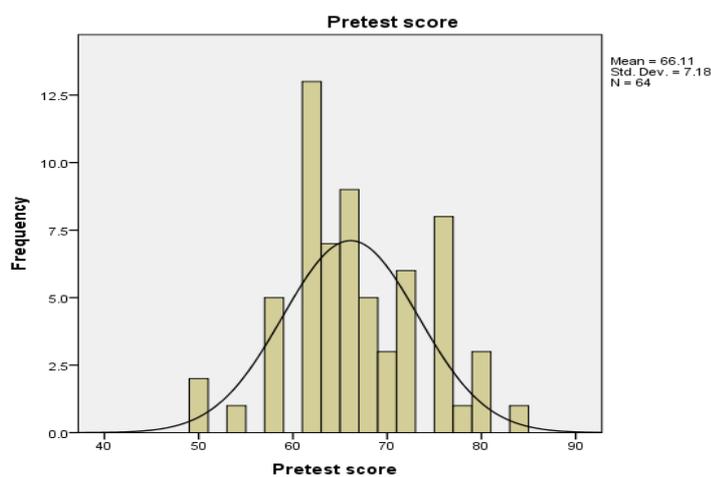


Figure 12
Histogram of students' writing skill pretest scores

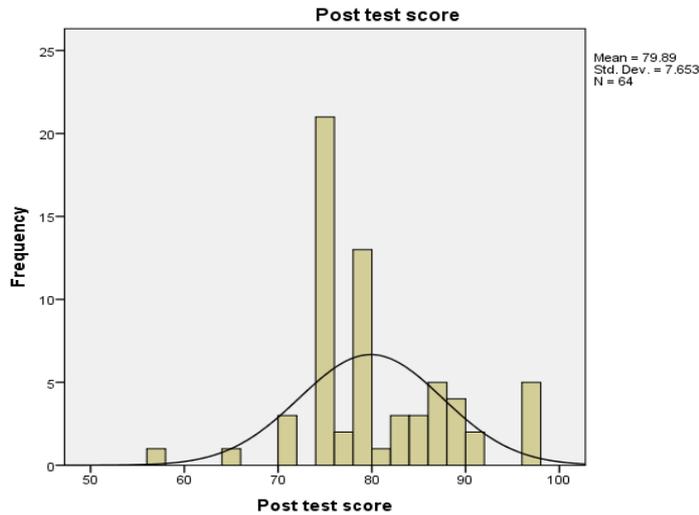


Figure 13
Histogram of students' writing skill post-test scores

The difference in mean scores between the students' average pre-test and post-test scores is shown by the descriptive statistical analysis of their writing skill scores. Further tests utilizing the paired t-test were required to determine the significance level of this average difference. Before that, a preconditioning test, the normalcy test using the Kolmogorov-Smirnov test, was performed.

Table 2
Output normality test using SPSS

	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Pre-test	0.140	64	0.003
Post-Test	0.187	64	0.000

The normality test results using SPSS show that the pre-test and post-test data of the students' writing skills were not normally distributed. So that the mean difference test was carried out using a non-parametric statistical test, namely the Wilcoxon test.

Table 3
Output Wilcoxon test using SPSS

Pair 1	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	66.11	64	7.180	0.898
Post-Test	79.89	64	7.653	0.957
Test Statistics		Post-test-Pre-test		
Z	-6.739 ^b			
Asymp. Sig. (2-tailed)	0.000			

Wilcoxon test results show a Sig value of $0.00 < 0.05$, indicating a statistically significant mean difference. In the paired statistical sample table above, the mean score of students' writing skills in pre-test data (before using teaching materials) is 66.11 with a standard deviation of 7.180, and the mean score of students' writing skills in post-test data (after using teaching materials) is 79.89 with standard deviation 7.653. It means that descriptively there is a significant difference in the mean score.

DISCUSSIONS

The initial stage of this development research is the analysis stage which includes three core activities: the analysis of students' writing skills, performance analysis, and context analysis. The first stage, students' writing skills, is to validate the need for developing teaching materials for writing short stories with a metaphorming approach. The analysis of the respondents' writing skills showed that 56% of the respondents' writing skills are in a low category. The second stage, performance analysis, aims to investigate the obstacles faced by teachers and students in learning to write, especially short stories. The observations and interviews showed that the limited number of innovative and contextual writing materials for short stories was the obstacle that many respondents put forward. The results of research support this by Mulawarman (2022) and Upreti (2012), that examined the limitations of teaching materials are obstacles encountered in learning to write. Research by Zhang (2013) and Santosa et al. (2019) showed a relationship between teaching materials and students' writing skills. Furthermore, context analysis aims to build a conceptual framework for developing teaching materials for writing short stories with a metaphorming approach. The last context is done through an in-depth study of the relevant research literature, the study of curriculum documents, and teaching materials for writing short stories currently used named learning objectives. The results of these three analyzes become the reference framework for this development research.

The validation of the teaching materials developed includes three criteria: content, design, and language feasibility. The validation results of the three criteria have met the eligibility criteria, with the Aiken index value greater than the index value in the Aiken table (Aiken, 1985). Based on the analysis results, the teaching materials developed have found the validity criteria. It can be seen from the results of the validity test by experts for the three main parts: the feasibility of design, content, and language is valid. Content validity is very important to note so that teaching materials do not spread conceptual errors (misconceptions) that students can take to the next level of education or future language use. Therefore, various linguistic criteria must consider the language used in teaching materials. The author's messages and information conveyed to the reader can be well received through good and correct language. Finally, an attractive design that supports teaching materials' content can help students understand the contents of teaching materials more easily.

The results of the trial implementation of short stories writing teaching materials using a metaphorming approach to students showed a significant difference in the mean score between students' short stories writing skills before and after using the teaching materials that had been developed in this study. The results indicated the effectiveness

of applying short story writing teaching materials developed with a metaphorming approach in improving students' writing skills. Research by Zhang (2013) and Santosa et al. (2019) showed a significant effect of instructional learning on students' writing skills. Zhang (2013) found that learning methods had a significant impact on student's academic scores. Experimental research conducted by Ramli et al. (2019) and Ryu (2013) suggested that the metaphorming approach can improve students' writing performance. In addition, Herni & Djamas (2019) research showed that using student worksheets with a metaphorming approach could improve students' creative thinking skills.

The teaching materials developed by the teacher applied the principle of metaphorming thinking. According to Navaneedhan & Kamalanabhan (2016), metaphorical thinking is one of the mental tools in humans that can help develop cognitive structures to process information. Furthermore, Siler (2010) argued that metaphorming emphasizes the process of thinking, being creative, finding something new, and connecting all things that look unrelated into interrelated things and ultimately leads to problem-solving. Jensen (2001) also stated that learning that elaborates on metaphorming could explore the natural connections and relationships between various subjects and fields of knowledge. Habibie (2013) examined that metaphorming is a way to develop a creative thinking system. The advantage of the metaphorming approach is a strategic breakthrough that can improve students' writing skills.

The principle of metaphorming that is integrated into this teaching material includes the process of Connect, Relate, Explore, Analyze, Transform, And Experience (CREATE). In the connect stage, students connect words with other words with the help of the ability to develop associations (Siler, 1999; Siler, 2009). For instance, they linked the word king with power, power with a lion, a lion with authority, authority with responsibility, and responsibility with weight. When described, this student's thought process was like an open fan (Figure 13). Students thought divergently about two or more different ideas or objects and then connected them.

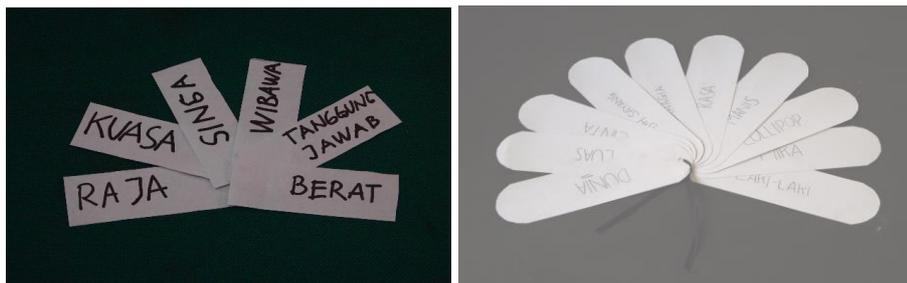


Figure 14

Results of connecting words with other words (connecting)

Relate is the stage of connecting something different in a relationship. Students relate previously known things to different ideas (Siler, 1999; Siler, 2009). Students observed the strings of words that they have connected through their association skills in the connection

stage. Students connected the words that were arranged to relate to each other as an idea. The order of the words was as written in the picture above; namely, the words king, power, lion, authority, responsibility, and weight are arranged in a single idea (relate). The results of the related process were as follows.

"Many people want to be king. Great power is guaranteed. However, the real king has the character of a lion, brave and authoritative. It is the responsibility to lead the people. The king must be fair to all his subjects. The king must also be calm in the face of problems to become peaceful. The title of king was very heavy because it had to create a prosperous kingdom".

In metaphorming learning, the relate stage is included in achieving the discovery phase, which requires observing, collecting, digesting, etc. Students observe each linked word, gather ideas together to make sentences, and summarize the sentences conveyed by group members into thoughts (paragraphs).

Students can describe the similarities between several ideas in the exploration stage and then explain them (Siler, 1999; Siler, 2009). Exploration is the process of uncovering critical thoughts and exploring imagination. In this stage, students described the short story's structure, which consisted of orientation, problem, climax, resolution, and completion, by proposing a name change from the stages of the short storyline based on their respective analogies. Finally, some analogized the phases in the short story's plot as the journey of life, climbers, and health. Below are examples of activities exploring critical thinking and imagination that students have made.



Figure 15
Analyzing the short story plot phase with the journey of life and the phase of health.

The analysis stage is when students think about several things and analyze them by reviewing the steps in the previous stage (Siler, 1999; Siler, 2009). After mastering the structure of short stories in the exploration section, students classified the short story scripts that had been made. If the text was included in the introduction (orientation), they also prepared a follow-up script, namely the problem paragraph using their critical mind and imagination. Likewise with other students, if they believed that their initial paragraph had already started with a problem, they continued preparing the next paragraph. On such occasions, students' critical thoughts emerged by throwing out several statements as possible situations or conditions that develop from the initial

paragraphs they are now reading. Finally, throw some statements that underlay the creation of the next paragraph's idea. The activities carried out by these students are referred to as associative learning. The term association in this study referred to the ability to group various ideas and multiple associate events and then enter them into memory fragments. During the transfer of specific events to the brain, the experience is stored about other events. Experiences stored in the brain's memory relate and interact with previous already available experiences (Zhang, 2019).

Students can find something new in the transform stage through the previous stages, namely connection, exploration, and analysis results. The transform stage is the stage of communicating the results of creation for a better next creation. Students shared their work in front of the class, starting from the introduction, the problem to the climax. Other students as observers were allowed to submit hypotheses to guess the end of the solution. However, it was always done to enable students to predict. After that, the series of opportunities to witness the presentation of the resolution and settlement became interesting because each group of guessers was interested in seeing the possibility of success or failure of the assumptions (hypotheses) they presented.

At the experience stage, pictures or discoveries of new things can be applied by students. Students have written a complete short story starting from the introduction, problem, climax, solution, and completion. According to Zhang (2019), this section is a very important part of achieving the process and learning outcomes. Students gain experience in learning and succeed in getting meaning from what they have learned so that understanding, and awareness emerge.

Based on the results of this study, some limitations could be an opportunity for further research. This development research is limited to short story writing skills intended to support improving 21st-century skills. Further research can further investigate the development of teaching materials with a broader focus than what has been researched. In addition, the approach used in this study is limited to the metaphorming approach, which is part of Brain-Based Learning. Further research can investigate other model approaches to improve students' skills.

CONCLUSIONS

This development research aims to produce teaching materials for writing short stories with a metaphorming approach tested for validity and feasibility in design, content, and language. In addition, these teaching materials have also been tested for their reliability in improving students' writing skills through interesting and innovative learning experiences. The principle of these teaching materials applies the syntax of the metaphorming approach, which consists of several CREATE stages, namely connect, relate, explore, analyze, transfer, and experience. Based on the analysis results, the teaching materials for writing short stories with a metaphorming approach have met the eligibility criteria based on expert judgment and field trials. These teaching materials can be recommended for use in learning to write short stories. Future research is suggested to explore other approaches in developing short story teaching materials, such as a neurolinguistic approach.

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