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Development of Biography Writing Teaching Materials Based on the Picture and Picture Model for Senior High School Students

Fatharani Aulia [1] *, Sri Suciati [1] , Harjito [1]
[1] *Universitas PGRI Semarang, Indonesia*

fatharaniulfi@gmail.com*

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ABSTRACT

Developing students' biography writing skills requires instructional materials that facilitate idea generation, information organization, and coherent text construction. However, conventional learning resources often provide insufficient guidance and visual support to address students' difficulties in producing well-structured biographical texts. This study aims to develop biography writing teaching materials based on the Picture and Picture learning model for tenth-grade senior high school students and evaluate their validity, practicality, and potential effectiveness. Employing a research and development (R&D) approach, the study adopted the ADDIE instructional design framework, encompassing needs analysis, design, development, implementation, and evaluation. Data were collected through observations, interviews, questionnaires, expert validation, documentation, and students' writing assessments involving Indonesian language teachers and tenth-grade students from two senior high schools in Semarang Regency. The findings revealed substantial instructional needs, with 96.77% of students requiring more comprehensive explanations of biography text types and 91.94% expressing interest in Picture and Picture-based learning. Expert validation yielded an average feasibility score of 86.50%, indicating that the developed materials were suitable for classroom implementation after minor revisions. Teacher evaluations demonstrated highly positive acceptance, while student responses ranged from 87.74% to 89.68% across the assessed dimensions. Furthermore, students achieved average biography writing scores of 83.93 and 83.91 at the two participating schools, respectively, both categorized as good. These findings indicate that integrating sequential visual representations, structured writing guidance, and literacy-oriented activities offers a feasible and practical instructional resource for biography writing. The study contributes to Indonesian language education by extending the Picture and Picture model from a classroom teaching strategy into an integrated teaching material development framework.

Keywords: Biography Writing; Picture And Picture Model; Teaching Materials Development; Writing Instruction; Visual Learning

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INTRODUCTION

Writing has emerged as a fundamental competency in 21st-century education, as it enables learners not only to communicate ideas but also to construct knowledge, develop creativity, and engage in critical and reflective thinking. In language learning contexts, writing represents a complex process that requires students to integrate linguistic knowledge, including vocabulary, grammar, and text organization, while simultaneously transforming ideas into meaningful written discourse. The growing emphasis on higher-order thinking skills and digital literacy has further elevated the importance of writing as a vehicle for developing

learners' academic and communicative competence. Salem (2025) argues that writing activities can contribute to the development of essential 21st-century skills, particularly communication, collaboration, and self-efficacy, which are increasingly required in contemporary educational settings. Likewise, Apriyadi et al. (2024) emphasize that effective writing instruction should facilitate learners' metacognitive awareness and critical engagement with ideas, especially through the integration of innovative digital technologies. The potential of technology-enhanced writing environments has also been demonstrated by Chen et al. (2024), who found that structured feedback supported by computer-assisted learning systems can improve students' writing performance and learning engagement. Furthermore, Fan and Wang (2024) highlight the significant role of self-regulated writing strategies in helping learners manage writing challenges and achieve better writing outcomes. Reflecting the growing significance of this field, a bibliometric analysis conducted by J. et al. (2024) revealed a continuing increase in scholarly attention to writing skills research, indicating that writing remains a central focus in language education. Therefore, writing instruction should be viewed not merely as a means of developing language proficiency but also as a strategic pathway for equipping learners with the cognitive, communicative, and technological competencies required in the modern era.

Biography writing plays an important role in fostering students' literacy, creativity, and communication skills because it encourages learners to engage with real-life experiences, interpret meaningful events, and present information in a coherent narrative form. Through the process of writing biographies, students are required to gather information, analyze sources, organize ideas, and transform factual data into structured texts, thereby strengthening their reading and writing literacy. Wato et al. (2025) emphasize that biographical writing involves the integration of linguistic and textual elements that help learners develop a deeper understanding of language use and text construction. In addition to enhancing literacy skills, biography writing provides opportunities for students to express ideas creatively by selecting relevant information, developing narrative flow, and presenting personal or historical experiences in an engaging manner. Research conducted by Rohman et al. (2025) and Sianipar et al. (2025) demonstrates that effective biography-writing instruction can significantly improve students' ability to communicate ideas through written texts. Furthermore, Safitri and Turistiani (2025) argue that experiential learning activities in autobiographical writing encourage learners to connect personal experiences with written expression, thereby enhancing both creativity and reflective thinking. From a broader perspective, biographical narratives also serve as meaningful communicative tools that enable learners to construct and share personal and social experiences, fostering deeper engagement with language and identity formation (Wardhani, 2023). Therefore, biography writing should be viewed not only as a language-learning activity but also as a valuable means of developing students' literacy competence, creative expression, and communication skills.

Despite the educational value of biography writing, its implementation in senior high schools continues to encounter various pedagogical challenges that hinder students' writing development. One of the most frequently reported difficulties is students' limited ability to generate and elaborate ideas when composing biography texts. Writing requires learners to transform information into meaningful narratives, a process that demands not only linguistic knowledge but also planning, self-regulation, and cognitive engagement (Kim & Graham, 2022). However, many students struggle to identify relevant information, select significant events, and develop coherent narratives, resulting in texts that lack depth and clarity. Fan and Wang (2024) further explain that perceived writing difficulty and inadequate self-regulated writing strategies can negatively affect students' writing performance. In addition to idea generation, organizing biography texts remains a considerable challenge, as learners often experience difficulties in arranging chronological events, maintaining textual coherence, and applying appropriate genre conventions. Recent studies suggest that instructional support and structured feedback play a crucial role in helping students manage these complexities during the writing process (Chen et al., 2024). Nevertheless, classroom practices frequently rely on conventional teaching approaches and limited instructional resources, providing insufficient opportunities for students to engage actively in meaningful writing experiences. Apriyadi et al. (2024) argue that

innovative learning support is necessary to stimulate students' metacognitive awareness and facilitate more effective writing development. Similarly, Salem (2025) found that interactive and collaborative learning environments can increase learners' engagement, confidence, and participation in writing activities. The persistence of these challenges indicates a need for innovative teaching materials that can assist students in generating ideas, organizing information systematically, and constructing biography texts in a more engaging and meaningful manner.

Preliminary observations and needs analysis conducted in senior high schools in Semarang Regency revealed several challenges in biography writing instruction. The findings indicated that many students demonstrated low engagement in writing activities and encountered difficulties in expressing ideas effectively through written texts. These findings are consistent with the results of a needs analysis study conducted by Napiah (2022), which emphasized the importance of contextualized English learning materials to address students' learning needs and improve engagement in language learning. These difficulties were reflected in limited vocabulary mastery, inadequate understanding of Indonesian spelling conventions, and weaknesses in constructing coherent and meaningful sentences. Such conditions are consistent with previous studies showing that writing performance is often constrained by learners' perceived writing difficulty and insufficient self-regulated writing strategies, which can reduce confidence and hinder the development of writing competence (Fan & Wang, 2024). Furthermore, classroom observations revealed that biography writing instruction was still largely dominated by teacher-centered practices, where students were positioned as passive recipients of information rather than active participants in the writing process. As a result, opportunities for idea exploration, collaborative learning, and meaningful engagement with writing tasks remained limited. This finding aligns with Waked et al. (2024), who argue that writing instruction becomes more effective when students are actively involved in inquiry, exploration, and knowledge construction rather than merely receiving information from teachers. The needs analysis further highlighted the demand for instructional materials that can stimulate idea generation, provide systematic guidance for organizing biography texts, and encourage active participation during learning activities. In addition, recent research emphasizes the importance of innovative learning support that facilitates metacognitive awareness and assists learners in managing the cognitive demands of writing tasks (Apriyadi et al., 2024). These findings suggest that existing learning resources have not yet optimally supported the achievement of biography writing objectives and underscore the need for the development of innovative teaching materials that are more responsive to students' learning characteristics and instructional needs.

Teaching materials are widely recognized as a crucial element in improving the quality of writing instruction because they provide learners with structured learning experiences, meaningful content, and guidance throughout the writing process. Effective materials not only present knowledge but also facilitate learners' engagement in activities that promote language development and skill acquisition. Tomlinson (2012) emphasizes that teaching materials function as a source of language input, learning support, and opportunities for meaningful interaction that can enhance learners' engagement and learning outcomes. Similarly, Richards (2001) argues that instructional materials play an essential role in translating curriculum goals into practical classroom experiences by providing teachers and students with clear learning pathways. In writing instruction, the quality of teaching materials is particularly important because writing requires complex cognitive processes, including idea generation, organization, drafting, and revision. Hyland (2003) explains that learners often need explicit scaffolding and guided practice to develop effective writing abilities, especially when producing extended texts. Furthermore, Harwood (2010) notes that well-designed materials should respond to learners' needs, learning contexts, and instructional objectives in order to facilitate meaningful learning experiences. Consequently, teaching materials that incorporate relevant content, systematic writing guidance, and engaging learning activities can help students generate ideas more effectively, organize information coherently, and participate more actively in the learning process. Therefore, the development of innovative and contextually relevant teaching materials

is essential to support students' writing development and enhance the effectiveness of biography writing instruction.

One instructional model that has considerable potential to support students' writing development is the Picture and Picture model. This model employs a sequence of images as the primary learning medium, requiring learners to observe, analyze, and arrange visual information logically before transforming their understanding into written language. According to Huda (2014) and Shoimin (2017), the Picture and Picture model emphasizes active student participation, collaborative learning, and the construction of knowledge through visual stimuli. These characteristics are closely aligned with constructivist learning principles, which view learning as an active process in which learners construct meaning based on their experiences and interactions with learning materials. From a cognitive perspective, visual representations can facilitate information processing by helping learners organize ideas and establish meaningful connections among concepts. Paivio's (1990) Dual Coding Theory explains that information presented through both verbal and visual channels is more effectively processed and retained than information delivered through a single mode. Similarly, Mayer's (2021) Cognitive Theory of Multimedia Learning suggests that visual materials can enhance comprehension and reduce cognitive load by enabling learners to process information through complementary cognitive channels. In the context of writing instruction, these theoretical foundations indicate that visual stimuli can assist learners in generating ideas, organizing content, and constructing coherent texts. Hyland (2003) further emphasizes that effective writing instruction requires appropriate scaffolding to support learners throughout the writing process, particularly during planning and idea development. By providing concrete visual cues and a structured sequence of information, the Picture and Picture model can stimulate students' imagination, facilitate idea generation, improve text organization, and increase engagement in writing activities. Therefore, integrating the Picture and Picture model into biography writing materials offers a pedagogically sound approach to supporting students in producing more coherent, meaningful, and well-structured texts.

Previous studies have demonstrated the effectiveness of various instructional innovations in improving students' writing abilities across different educational contexts. Research on biography writing instruction indicates that students achieve better writing outcomes when learning activities provide structured support for idea generation, information organization, and text construction, enabling learners to develop more coherent and meaningful written products (Rohman et al., 2025; Sianipar et al., 2025). In the area of teaching material development, numerous studies have reported that instructional materials designed according to learners' needs can enhance learning engagement, motivation, and academic achievement by providing appropriate scaffolding and meaningful learning experiences (Tomlinson, 2012). Other studies focusing on the Picture and Picture learning model have revealed positive impacts on students' participation, comprehension, and ability to organize information through visual sequences that facilitate active learning and knowledge construction (Huda, 2014; Shoimin, 2017). Furthermore, literacy-based learning approaches have been widely recognized for strengthening students' reading and writing competencies by encouraging meaningful interaction with texts, critical reflection, and contextual learning experiences. Recent studies have shown that literacy-oriented instruction contributes not only to language proficiency but also to students' higher-order thinking skills and communication abilities (Wato et al., 2025; Safitri & Turistiani, 2025). Taken together, these findings suggest that teaching material development, visual learning strategies, and literacy-based instruction each offer significant benefits for writing education. Nevertheless, studies that integrate these three components within biography writing instruction remain relatively limited, particularly in the context of developing teaching materials for senior high school students.

Despite the growing body of research on writing instruction, teaching material development, literacy-based learning, and the Picture and Picture model, several important gaps remain. Previous studies have generally examined the effectiveness of the Picture and Picture model as an instructional strategy for improving students' engagement, participation, and learning outcomes in classroom settings (Huda, 2014; Shoimin, 2017). Likewise, research on

writing instruction has primarily focused on teaching methods, learning activities, and classroom interventions aimed at enhancing students' writing performance (Hyland, 2003). In the area of materials development, many studies have emphasized the design of instructional resources for general language learning purposes without specifically addressing the distinctive characteristics of biography writing, which requires students to organize chronological information, identify significant life events, and construct coherent narratives. Furthermore, although literacy-based approaches have been widely applied to foster language proficiency and critical thinking, their integration into specialized writing materials remains relatively underexplored. As a result, existing studies tend to investigate learning models, literacy practices, and instructional materials as separate areas of inquiry rather than as integrated components of a comprehensive learning resource. Consequently, limited attention has been given to the development of biography writing teaching materials that simultaneously incorporate literacy-based learning principles and the Picture and Picture model to support students' writing processes. This gap highlights the need for an instructional resource that combines visual learning strategies, structured writing guidance, and literacy-oriented activities within a single teaching material specifically designed for senior high school biography writing instruction.

This study offers a distinctive contribution by integrating the Picture and Picture learning model, literacy-based learning principles, and biography writing instruction into a comprehensive teaching material package specifically designed for senior high school students. While previous studies have largely examined the effectiveness of the Picture and Picture model as a classroom instructional strategy, the present study extends its application by transforming the model into a structured instructional resource that supports students throughout the writing process. The developed materials incorporate sequenced visual activities, guided writing tasks, literacy-oriented exercises, and systematic scaffolding to assist students in generating ideas, organizing chronological information, and constructing coherent biography texts. In addition, the integration of visual learning strategies with literacy-based activities provides a learning experience that encourages active participation, critical engagement with texts, and meaningful knowledge construction. Therefore, this study contributes to the field of language education by enriching the literature on teaching material development and offering an innovative instructional resource that can support the improvement of biography writing skills in secondary education.

Based on the identified instructional needs and research gaps, this study aims to develop Picture-and-Picture-Based Biography Writing Teaching Materials for Senior High School Students. The proposed materials are designed to integrate visual learning activities, literacy-oriented learning experiences, and structured writing guidance to facilitate students' idea generation, information organization, and biography text construction. Through the development process, the study seeks to produce teaching materials that meet the criteria of validity, practicality, and effectiveness as instructional resources for biography writing instruction. Furthermore, the study is expected to provide both theoretical and practical contributions to language education by offering an innovative model of teaching material development that supports students' writing development and enhances the quality of writing instruction at the secondary school level.

METHOD

This study employed a Research and Development (R&D) approach to develop Picture-and-Picture-Based Biography Writing Teaching Materials for Senior High School Students. Research and Development is a systematic research method aimed at producing educational products and evaluating their quality, effectiveness, and usability in educational settings (Borg et al., 2003). The R&D approach was considered appropriate because the primary objective of this study was not only to investigate a phenomenon but also to design, develop, and validate an instructional product that could address students' difficulties in biography writing. The development process adopted the ADDIE model proposed by Branch (2009), which consists of five interconnected stages: Analysis, Design, Development, Implementation, and Evaluation.

The Analysis stage focused on identifying students' needs, learning problems, and curriculum requirements related to biography writing instruction. The Design stage involved planning the structure, content, learning activities, and assessment components of the teaching materials. During the Development stage, the materials were produced and subjected to expert validation. The Implementation stage involved testing the developed materials in a real classroom setting, while the Evaluation stage was conducted to assess the validity, practicality, and effectiveness of the product and to make necessary revisions. The ADDIE model was selected because it provides a systematic and flexible framework for developing instructional materials while ensuring continuous evaluation and improvement throughout the development process.

The study was conducted at SMA X during the 2025/2026 academic year. The research site was selected based on the results of a preliminary needs analysis, which revealed that students encountered difficulties in writing biography texts and that the available teaching materials had not adequately supported the learning process. The participants of this study consisted of one Indonesian language teacher and tenth-grade students at SMA X. The teacher was involved in the needs analysis, product validation, and implementation stages by providing information regarding classroom learning conditions and evaluating the developed teaching materials. The student participants were involved in the needs analysis, product trials, and evaluation processes. They were selected because biography writing is one of the competencies taught in the Indonesian language curriculum at the senior high school level and requires appropriate instructional support to facilitate students' writing development.

The development procedures in this study were adapted from the ADDIE instructional design model proposed by Branch (2009). The procedures consisted of seven stages: needs analysis, product design, product development, expert review, product revision, limited field testing, and final product development.

The first stage, needs analysis, was conducted to identify students' difficulties in biography writing, existing instructional practices, and the characteristics of the teaching materials needed in the learning process. The second stage, product design, involved preparing the framework, learning objectives, content structure, learning activities, and assessment components of the teaching materials. The third stage, product development, focused on producing the initial draft of the Picture-and-Picture-Based Biography Writing Teaching Materials.

The fourth stage, expert review, was conducted to evaluate the content, instructional design, and language aspects of the developed materials. Feedback and recommendations obtained from the experts were used in the fifth stage, product revision, to improve the quality of the product. The sixth stage, limited field testing, involved implementing the revised materials with a group of students to examine their practicality and effectiveness in supporting biography writing instruction. Finally, the seventh stage resulted in the final product, which was produced after incorporating findings and suggestions obtained during the field-testing process. Data were collected using observation, interviews, questionnaires, and documentation techniques. The use of multiple data collection techniques enabled the researcher to obtain comprehensive information regarding the development and implementation of the teaching materials and to enhance the credibility of the research findings (Creswell & Creswell, 2018).

Observation was conducted to identify classroom learning conditions, students' participation, and the implementation of biography writing instruction before and during the use of the developed teaching materials. Interviews were conducted with the Indonesian language teacher to obtain in-depth information regarding students' learning difficulties, instructional needs, and feedback on the developed product. Questionnaires were administered to experts, teachers, and students to collect data related to the validity, practicality, and effectiveness of the teaching materials. Documentation was used to gather supporting data, including curriculum documents, lesson plans, students' writing products, photographs, and other relevant records related to the research process. The combination of these techniques allowed the researcher to obtain both qualitative and quantitative data required for the development and evaluation of the instructional product.

Several research instruments were employed to collect data throughout the development process. The instruments were designed to obtain information related to the needs analysis, product validity, practicality, and effectiveness of the developed teaching materials. According to Creswell and Creswell (2018), research instruments serve as essential tools for gathering accurate and systematic data to support the achievement of research objectives. The needs analysis questionnaire was administered during the preliminary stage to identify students' learning difficulties, learning needs, and teachers' expectations regarding biography writing instruction. The information obtained from this instrument served as the basis for designing the Picture-and-Picture-Based Biography Writing Teaching Materials. The questionnaire consisted of closed-ended and open-ended items to capture both quantitative and qualitative information concerning the existing learning conditions. To evaluate the quality of the developed product, validation sheets were provided to material experts, learning experts, and design experts. The validation instrument assessed several aspects, including content appropriateness, language accuracy, presentation quality, instructional design, and visual appearance. The validation results were used to determine the validity of the teaching materials and to identify areas requiring revision before implementation. The teacher response questionnaire was employed after the implementation stage to examine the practicality and usability of the developed materials from the teacher's perspective. The instrument focused on the clarity of content, ease of implementation, suitability with learning objectives, and overall usefulness in supporting biography writing instruction. In addition, a student response questionnaire was administered to collect students' perceptions of the developed teaching materials. The questionnaire evaluated students' engagement, motivation, ease of use, attractiveness of the visual materials, and perceived benefits in improving their biography writing skills. The data obtained from teacher and student response questionnaires were used to determine the practicality and acceptance of the developed product in the learning process.

The data collected in this study were analyzed using both qualitative and quantitative descriptive techniques. The combination of these analyses was intended to provide a comprehensive evaluation of the validity, practicality, and feasibility of the developed Picture-and-Picture-Based Biography Writing Teaching Materials.

Qualitative data analysis was applied to the data obtained from interviews, observations, open-ended questionnaire responses, and expert suggestions. The analysis involved data reduction, data organization, interpretation, and conclusion drawing. The qualitative findings were used to identify students' learning needs, evaluate the strengths and weaknesses of the product, and formulate revisions for product improvement. Expert comments and recommendations were particularly utilized to refine the content, instructional design, and visual appearance of the teaching materials.

Quantitative descriptive analysis was employed to analyze the results of the needs analysis questionnaire, expert validation sheets, teacher response questionnaires, and student response questionnaires. The responses were converted into numerical scores and analyzed using descriptive statistics in the form of percentages and mean scores. The quantitative results were used to determine the level of validity and practicality of the developed teaching materials.

The feasibility of the product was determined based on the percentage scores obtained from expert validation and user responses. The percentage score was calculated using the following formula:

$$P=\frac{\sum X}{\sum X_i}\times100\%$$

where (P) represents the percentage score, (\sum X) represents the total score obtained, and (\sum X_i) represents the maximum possible score.

The resulting percentages were then interpreted according to the feasibility criteria presented in Table 1.

Table 1. Product Feasibility Criteria

Table 1. Product Feasibility Criteria

Percentage (%)	Category
81–100	Highly Feasible
61–80	Feasible
41–60	Moderately Feasible
21–40	Less Feasible
0–20	Not Feasible

Products categorized as feasible or highly feasible were considered appropriate for classroom implementation. The feasibility criteria were used to interpret the results of expert validation, teacher responses, and student responses regarding the developed teaching materials.

RESULT AND DISCUSSION

1. Results of Needs Analysis for Biography Text Teaching Materials Development

The development of biography text teaching materials integrated with the Picture and Picture model was initiated through a needs analysis involving Indonesian language teachers from SMA Virgo Fidelis and SMA Negeri 2 Ungaran. This stage aimed to identify the existing learning conditions, the teaching materials currently used, and teachers' expectations regarding the development of instructional resources for biography writing.

The findings revealed that teachers predominantly relied on school-issued textbooks as the primary source of learning materials in teaching biography texts. Although these textbooks served as the main instructional reference, teachers perceived that the available materials had not sufficiently facilitated students in developing biography writing skills in a more structured and engaging manner. Furthermore, the findings indicated that there were no specific teaching materials designed exclusively to support the teaching of biography writing.

The interviews and needs assessment also demonstrated that teachers recognized the importance of supplementary teaching materials that could better address students' learning needs. Teachers expected the developed teaching materials to be systematically organized, visually appealing, and contextualized to students' experiences and interests. In addition, the materials were expected to provide relevant examples of biography texts and clear guidance on the stages involved in writing biographies. Such characteristics were considered essential in assisting students to understand the structure and linguistic features of biography texts while simultaneously supporting the development of their writing competence.

These findings suggest that the existing instructional resources have not fully accommodated the pedagogical demands of biography writing instruction. Consequently, the development of specialized teaching materials integrating the Picture and Picture model became necessary to support more effective and meaningful learning experiences. The needs analysis thus provided an empirical foundation for designing teaching materials that are responsive to classroom realities and aligned with both teachers' expectations and students' learning characteristics.

Table 1. Summary of Teachers' Needs Analysis

Aspect	Findings
Existing teaching materials	School textbooks
Special biography teaching materials	Not available
Expected characteristics	Attractive, systematic, and contextual
Expected benefits	Improving students' biography writing skills

The students' needs analysis was conducted to identify learners' experiences, preferences, and expectations regarding the learning of biography writing. Understanding students' perspectives was considered essential to ensure that the developed teaching materials would be relevant to their characteristics and responsive to their learning needs. The findings indicated that most students required a clearer explanation of the various types of biographies, with 96.77% of respondents expressing the need for more comprehensive instructional support in this area. This result suggests that although biography texts are included in the curriculum, students still encounter difficulties in distinguishing the characteristics and classifications of biography texts presented during classroom instruction. In terms of instructional models, 88.71% of students reported that they had not previously been introduced to the Picture and Picture model. Despite their limited familiarity with this approach, 91.94% of the respondents expressed interest in and a need for learning activities incorporating the Picture and Picture model. This finding demonstrates students' openness to alternative instructional approaches that provide more visual and interactive learning experiences. It also reflects their expectation for learning environments that are more engaging and supportive of idea generation during the writing process.

The analysis further explored students' preferences regarding the figures to be presented in the biography teaching materials. The results showed that 53.23% of students preferred biographies of national heroes, while 45.16% were more interested in educational figures. These preferences indicate that students tend to value inspirational figures whose life stories embody perseverance, achievement, and contributions to society. Such findings provide important considerations for selecting contextual and meaningful examples within the developed teaching materials. Overall, the results of the students' needs analysis revealed the necessity of developing biography text teaching materials that not only provide adequate conceptual explanations but also integrate innovative instructional models capable of enhancing students' motivation and participation in learning. In addition, incorporating biography texts featuring figures relevant to students' interests may contribute to more meaningful and engaging writing experiences.

Table 2. Students' Needs Analysis Results

Findings	Percentage
Need explanations regarding types of biographies	96.77%
Have not been familiar with the Picture and Picture model	88.71%
Need the implementation of the Picture and Picture model	91.94%
Prefer biographies of educational figures	45.16%
Prefer biographies of national heroes	53.23%

The findings of the needs analysis highlight the importance of developing contextual teaching materials that are responsive to both teachers' instructional needs and students' learning characteristics. The results showed that teachers primarily relied on school textbooks as the main instructional resource for teaching biography texts. However, these materials had not been specifically designed to support students in developing biography writing skills through guided and systematic learning experiences. At the same time, students expressed the need for more comprehensive explanations of biography text types, engaging learning activities, and instructional approaches that could facilitate the writing process. These findings indicate a discrepancy between the learning resources currently available and the actual needs encountered in classroom practice.

The identified gap underscores the necessity of developing teaching materials that extend beyond merely presenting subject matter. Effective teaching materials should function as learning resources that guide students through the learning process, encourage active participation, and accommodate learners' developmental characteristics. This perspective is in line with the view that teaching materials should be systematically organized to enable students

to achieve predetermined learning objectives while promoting meaningful learning experiences. In the context of biography writing instruction, the availability of contextual materials is particularly important because students are expected not only to understand the concept of biography texts but also to transform ideas and information into coherent written products. Furthermore, the findings provide empirical support for the principles underlying teaching material development. The teachers' expectations for instructional resources that are systematic, attractive, and equipped with examples and writing guidance reflect the essential characteristics of quality teaching materials. Similarly, students' preferences for materials featuring inspirational figures suggest the importance of selecting content that resonates with learners' interests and social contexts. Integrating relevant examples into teaching materials may enhance students' engagement and facilitate their understanding of the structure and linguistic features of biography texts.

Another noteworthy finding concerns students' responses to the Picture and Picture model. Although most participants had not previously encountered this instructional model, a substantial proportion expressed a need for learning activities incorporating visual sequences. This result suggests that students are receptive to alternative learning approaches that offer more interactive and visually supported experiences. The use of sequential pictures in biography writing instruction may help students organize events chronologically, identify important aspects of a person's life, and generate ideas more effectively during the writing process. From a pedagogical perspective, the integration of the Picture and Picture model into biography text teaching materials appears relevant to the characteristics of writing instruction. Writing is often perceived by students as a demanding activity because it requires them to generate ideas, structure information, and communicate thoughts coherently. The use of visual stimuli can serve as scaffolding that assists students in overcoming difficulties related to idea generation and text organization. Therefore, embedding the Picture and Picture model within the developed teaching materials may provide practical support for students while simultaneously promoting more engaging classroom interactions.

Overall, the results of the needs analysis reinforce the argument that the development of biography text teaching materials should be grounded in empirical evidence derived from classroom realities. By addressing the gap between existing resources and learners' actual needs, the present study contributes to the design of teaching materials that are pedagogically relevant, contextually appropriate, and potentially effective in supporting students' biography writing skills.

2. Results of Teaching Materials Development and Expert Validation

The needs analysis stage, a prototype of biography text teaching materials integrated with the Picture and Picture model was developed. The product was designed to support the teaching of biography writing for tenth-grade senior high school students while addressing the instructional needs identified during the preliminary investigation. The developed teaching materials consisted of several components intended to facilitate students' understanding and writing of biography texts. These components included a cover page, table of contents, learning objectives, explanatory materials related to biography texts, examples of biography texts, learning activities based on the Picture and Picture model, students' worksheets, evaluation exercises, and references. The overall design of the materials emphasized clarity, systematic organization, and visual attractiveness to encourage students' active participation in learning activities.

The integration of the Picture and Picture model constituted one of the distinctive features of the developed product. Sequential images depicting the life events of selected figures were incorporated into learning activities to assist students in identifying chronological relationships, generating ideas, and organizing information prior to the writing process. Through these activities, students were expected to construct biography texts more systematically while simultaneously developing their writing skills. Before being implemented in classroom settings, the prototype underwent expert validation to assess its feasibility. The validation process involved experts in Indonesian language education who evaluated the

product based on aspects of content presentation, material appropriateness, language use, the implementation of the Picture and Picture model, and graphic design.

The results of the expert validation indicated that the developed teaching materials met the criteria for feasibility across all assessed dimensions. The material aspect obtained the highest score (92.19%), followed by content presentation and the Picture and Picture aspect, both achieving 87.50%. The language aspect received a score of 85.00%, while the graphic aspect obtained 81.25%. Overall, the developed teaching materials achieved an average score of 86.50%, indicating that the product was feasible for implementation after minor revisions.

Table 3. Expert Validation Results

Aspect	Percentage	Category
Content presentation	87.50%	Feasible
Material	92.19%	Feasible
Language	85.00%	Feasible
Picture and Picture	87.50%	Feasible
Graphics	81.25%	Feasible
Average	**86.50%**	**Feasible**

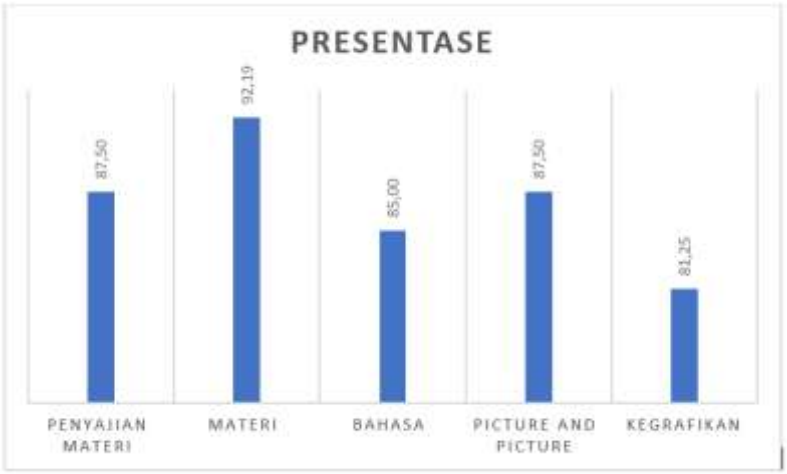


Figure 1. Expert Validation Scores

The expert validation results demonstrate that the developed biography text teaching materials fulfilled the essential criteria required of educational resources intended for classroom use. The overall feasibility score of 86.50% suggests that the product possesses adequate quality in terms of content, presentation, language, instructional design, and visual appearance. Although revisions were recommended in several aspects, the validation outcomes indicate that the teaching materials were sufficiently developed to proceed to the field-testing stage. From the perspective of teaching material development, these findings support the principle that instructional resources should be systematically designed to align with learning objectives, students' characteristics, and curricular demands. The relatively high scores obtained in the material and content presentation aspects indicate that the developed materials adequately addressed the competencies associated with biography writing while presenting the content in an organized and accessible manner. Such findings reinforce the importance of integrating pedagogical considerations into the design of teaching materials rather than focusing solely on the transmission of subject matter.

The feasibility of the developed product also reflects the importance of content validity in educational material development. Validation by experts serves as a quality assurance

mechanism to ensure that instructional resources accurately represent the intended concepts, employ appropriate language, and incorporate suitable learning activities. In this study, the validation process contributed not only to determining the product's eligibility but also to identifying areas requiring refinement prior to implementation. Another noteworthy aspect concerns the integration of visual elements through the Picture and Picture model. The favorable evaluation of this component suggests that visual sequencing can be effectively incorporated into biography writing instruction. Visual media have long been recognized for their potential to support comprehension, stimulate learners' interest, and facilitate the organization of ideas. In the context of writing instruction, sequential images may function as scaffolding tools that assist students in constructing coherent narratives based on chronological events.

The present findings are consistent with previous studies highlighting the benefits of the Picture and Picture model in language learning contexts. For example, Goyali (2020) reported that the implementation of the Picture and Picture model promoted students' engagement and participation in writing activities. The current study extends these findings by demonstrating that Picture and Picture can be integrated not only as an instructional strategy but also as an integral component of teaching material development. This integration offers a practical contribution to Indonesian language education by providing teachers with validated resources that support the teaching of biography writing. Overall, the expert validation findings suggest that the developed teaching materials possess both pedagogical relevance and practical applicability. The combination of systematic content organization, contextual learning activities, and visual support represents a promising approach to enhancing students' experiences in learning to write biography texts.

3. Teachers' Evaluation of the Developed Teaching Materials

The field testing phase involved teachers' evaluations to determine the practicality and appropriateness of the developed biography text teaching materials in actual classroom settings. The evaluation focused on several aspects, including the cover design, table of contents, learning indicators, content design, material accuracy, content presentation, material integration, content suitability, and evaluation exercises. The results indicated that teachers perceived the developed teaching materials very positively. The aspects of learning indicators, content design, material accuracy, content presentation, content suitability, and evaluation exercises each obtained a perfect score of 100%, indicating a "Very Good" category. The material integration aspect also received a high score of 95.83%, followed by the cover aspect with 91.67%. Meanwhile, the table of contents aspect obtained a score of 79.17%, categorized as "Good." Overall, the findings demonstrate that teachers considered the developed teaching materials to be highly feasible and appropriate for supporting biography writing instruction.

Table 4. Teachers' Evaluation of the Developed Teaching Materials

Aspect	Percentage	Category
Cover	91.67%	Very Good
Table of contents	79.17%	Good
Learning indicators	100%	Very Good
Content design	100%	Very Good
Material accuracy	100%	Very Good
Content presentation	100%	Very Good
Material integration	95.83%	Very Good
Content suitability	100%	Very Good
Evaluation exercises	100%	Very Good

Students' responses were collected to identify their perceptions of the developed teaching materials after participating in the learning activities. The evaluation covered four aspects: appearance, language, material presentation, and perceived benefits.

The results showed that students responded favorably to all assessed aspects. The language aspect received the highest score (89.68%), followed by appearance (89.25%), material presentation (88.00%), and benefits (87.74%). All aspects were categorized as "Very Good," indicating that students found the teaching materials understandable, attractive, and beneficial in supporting their learning process.

Table 5. Students' Responses toward the Teaching Materials

Aspect	Percentage	Category
Appearance	89.25%	Very Good
Language	89.68%	Very Good
Material presentation	88.00%	Very Good
Benefits	87.74%	Very Good

The findings from the field testing phase indicate that the developed teaching materials were well accepted by both teachers and students. The positive evaluations provided by teachers suggest that the product possesses a high degree of practicality and is compatible with classroom instructional needs. In particular, the high scores obtained for learning indicators, content accuracy, and evaluation exercises reflect teachers' perceptions that the materials align with curriculum objectives and effectively support the teaching of biography writing.

Students' responses further strengthen the evidence regarding the product's acceptability. The favorable evaluations across all aspects demonstrate that the developed materials successfully addressed learners' expectations identified during the needs analysis stage. The high ratings for language and appearance suggest that the materials were presented in a manner that was accessible and engaging for students. Such characteristics are important because students are more likely to participate actively in learning when instructional resources are perceived as understandable and visually appealing.

The positive response toward the visual aspects of the teaching materials also highlights the role of attractive instructional design in enhancing students' learning experiences. The integration of the Picture and Picture model provided visual support that may have facilitated students' comprehension and sustained their attention throughout the learning process. According to multimedia learning theory, the combination of verbal explanations and relevant visual representations can optimize cognitive processing by helping learners organize and integrate information more effectively. Therefore, the incorporation of sequential images within the developed materials may have contributed to students' favorable perceptions of the learning experience. From the perspective of learning motivation, the findings suggest that the developed teaching materials have the potential to foster students' interest and engagement in biography writing activities. Learning resources that are interactive, visually stimulating, and aligned with students' characteristics may encourage greater participation and persistence during the learning process. Motivation plays a critical role in writing instruction because students who perceive learning activities as meaningful and enjoyable are generally more willing to invest effort in developing their writing skills.

The findings of this study are also consistent with previous research emphasizing the benefits of visual learning approaches in language education. Studies investigating the implementation of the Picture and Picture model have reported improvements in students' participation and enthusiasm during classroom activities. The present study complements these findings by demonstrating that the integration of Picture and Picture within teaching materials can contribute not only to the instructional process but also to the usability and attractiveness of the learning resources themselves. Overall, the field-testing results indicate that the developed

teaching materials possess practical value for classroom implementation. The positive evaluations from teachers and students suggest that the materials are not only feasible in terms of content quality but also capable of supporting engaging, motivating, and learner-centered experiences in biography writing instruction.

4. Results of Students' Biography Writing Performance

To examine the effectiveness of the developed teaching materials, students' biography writing performance was assessed following the implementation of the learning activities. The assessment focused on several aspects of biography writing, including originality of ideas, content relevance, organization, language use, vocabulary, and writing mechanics.

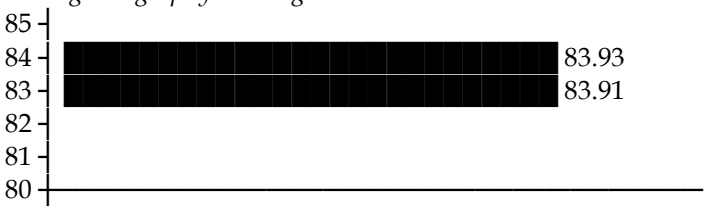
The results revealed that students from both participating schools achieved favorable outcomes in biography writing tasks after using the developed teaching materials. Students from SMA Virgo Fidelis obtained an average score of 83.93, while students from SMA Negeri 2 Ungaran achieved an average score of 83.91. Based on the predetermined assessment criteria, both average scores were categorized as "Good."

These findings indicate that the developed biography text teaching materials integrated with the Picture and Picture model were able to support students in producing biography texts that met the expected standards of performance.

Table 6. Students' Biography Writing Scores

School	Average Score	Category
SMA Virgo Fidelis	83.93	Good
SMA Negeri 2 Ungaran	83.91	Good

Figure 2. Students' Writing Performance after Using the Teaching Materials



The results of the writing assessment suggest that the developed teaching materials contributed positively to students' biography writing performance. Although the present study did not employ an experimental design to establish causal relationships, the consistently favorable scores obtained across the two schools indicate that the materials provided meaningful support for students during the writing process.

One possible explanation for these outcomes lies in the use of sequential images embedded within the Picture and Picture model. The visual representations may have assisted students in generating and organizing ideas before translating them into written texts. Visual supports can function as scaffolding that enables learners to perform tasks beyond their independent capabilities before gradually achieving autonomy (Vygotsky, 1978). In the context of writing instruction, scaffolding strategies facilitate students' development of ideas and organization of texts (Hyland, 2003).

In addition, the chronological arrangement of pictures may have facilitated students' understanding of the structural components of biography texts. Since biography writing emphasizes the presentation of life events in a logical sequence, visual scaffolding can help students recognize the progression of events and incorporate them into a coherent text. Consequently, students may have found it easier to develop introductions, organize the main events of the figure's life, and conclude their writing appropriately.

Students' positive responses toward the developed teaching materials, as identified during the field-testing phase, also suggest that motivation may have played a role in

supporting writing performance. Keller (1987) emphasized that attention, relevance, confidence, and satisfaction are essential components in sustaining learners' motivation. Likewise, Sardiman (2018) argued that motivation functions as a driving force that encourages students to actively engage in learning activities. Learning activities that incorporate visual elements and interactive tasks tend to promote greater engagement and participation. When students perceive instructional materials as attractive and relevant to their needs, they may become more willing to invest effort in completing writing assignments.

From a theoretical perspective, these findings provide support for the proposition that visual sequencing strategies can facilitate writing development. Previous studies have also reported positive outcomes associated with the use of the Picture and Picture model. Dewi et al. (2019) found that the model contributed to improvements in students' writing activities, while Goyali (2020) reported increased engagement and participation during language learning. The present study extends these findings by demonstrating the potential of integrating Picture and Picture within teaching materials designed specifically for biography writing instruction. The integration of sequential images into writing instruction may function as a form of scaffolding that assists learners in organizing ideas and constructing meaningful texts. In this regard, the findings contribute to the growing body of literature emphasizing the value of visual supports in language learning and writing pedagogy.

The present findings also carry practical implications for Indonesian language education. The developed teaching materials may serve as an alternative instructional resource for teachers teaching biography texts at the tenth-grade level. By combining explicit writing guidance with the Picture and Picture model, the materials offer a structured approach that can be adapted to classroom contexts. Furthermore, the emphasis on active learning and meaningful engagement aligns with the principles underpinning the implementation of the Merdeka Curriculum, which encourages learner-centered and contextually relevant educational practices.

Despite these promising findings, several limitations should be acknowledged. First, the field testing was conducted in only two senior high schools within the same geographical area, limiting the generalizability of the results. Second, the study employed a limited field-testing design without the inclusion of a control group. As a result, the effectiveness of the developed teaching materials cannot be conclusively compared with other instructional approaches. Third, the product was developed specifically for biography writing instruction at the tenth-grade level, which may restrict its applicability to other educational contexts.

Future studies are therefore encouraged to expand upon the present research in several ways. Researchers may investigate the effectiveness of the developed teaching materials using experimental or quasi-experimental designs involving control groups. Additional studies involving a broader range of schools and participant characteristics would also provide stronger evidence regarding the generalizability of the findings. Moreover, future developments could explore the integration of digital technologies into Picture and Picture-based teaching materials to enhance accessibility and interactivity. Finally, the application of this instructional approach to other genres of writing may offer further insights into its potential contributions to language learning.

CONCLUSION

The present study developed biography text teaching materials integrated with the Picture and Picture model for tenth-grade senior high school students. The needs analysis revealed a gap between the existing learning resources and the instructional needs of both teachers and students. Teachers relied primarily on school textbooks and expressed the need for systematic, attractive, and contextual teaching materials that provide clear guidance for biography writing. Similarly, students indicated the need for more comprehensive explanations of biography texts and showed positive expectations toward the use of the Picture and Picture model in learning activities. The development process resulted in teaching materials that incorporated visual sequencing activities, explicit writing guidance, examples of biography texts, and evaluation tasks designed to support students' writing development. Expert validation findings demonstrated that the developed product met the required standards of

feasibility in terms of content presentation, material appropriateness, language use, integration of the Picture and Picture model, and graphic design. These results indicate that the teaching materials were suitable for classroom implementation after minor revisions. Field-testing results further showed that both teachers and students responded positively to the developed teaching materials. Teachers evaluated the product as highly appropriate for supporting biography writing instruction, while students perceived the materials as attractive, understandable, and beneficial for their learning process. The favorable responses suggest that the integration of visual elements and structured learning activities contributed to the practicality and acceptability of the developed product.

In terms of learning outcomes, students from both participating schools achieved good levels of performance in biography writing after using the developed teaching materials. Although the study did not employ an experimental design, the findings suggest that the integration of the Picture and Picture model within biography text teaching materials has the potential to support students in organizing ideas, understanding the structure of biography texts, and engaging more actively in writing activities. The findings of this study contribute both theoretically and practically to the field of Indonesian language education. Theoretically, the study supports the proposition that visual sequencing strategies can facilitate writing development by providing scaffolding during the writing process. Practically, the developed teaching materials offer an alternative resource that may assist teachers in implementing more contextual and student-centered approaches to teaching biography writing, particularly within the framework of the Merdeka Curriculum.

Nevertheless, the present study was limited to field testing conducted in two senior high schools and did not include a control group for comparison purposes. Therefore, future research is recommended to investigate the effectiveness of the developed teaching materials through experimental or quasi-experimental designs involving broader participant groups. Further studies may also explore the development of digital versions of Picture and Picture-based teaching materials and examine their application in teaching other text genres within Indonesian language learning contexts.

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