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DEVELOPING LANGUAGE STUDY TEXTBOOKS: AN EFFORT TO UNDERSTAND DISCOURSE THEORY USING BASIC LITERACY BASED ON PROBLEM SOLVING MODEL

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Abstract

Discourse material and discourse theory are two different studies, but both are important to be mastered by students of the Elementary School Teacher Education Study Program (PGSD) as provisions for becoming professional teachers. The results of the assessment through the ujian.ac.id application show that the average score of students' understanding of discourse theory has not yet reached completion. Based on the needs analysis, it is necessary to develop an Indonesian Language Study textbook as a contextual learning resource that also functions as basic literacy material through habituation, development, and learning activities. This study aims to: describe the results of the textbook validation test, and describe the results of the textbook effectiveness test. The study used the Research and Development (R&D) method of the Borg & Gall model which was simplified into seven stages. The validation results by material experts obtained an average score of 4.27 with the category "very good". The effectiveness test was carried out in two stages, namely small scale and large scale, involving two learning classes that had equivalent characteristics. Based on the results of the large-scale effectiveness test, an increase in learning outcomes of 0.70 was obtained with a moderate category. The novelty of this study lies in the integration of basic literacy in problem-based learning that encourages students to be active and effective in the learning process. Thus, the Indonesian Language Study textbook is effectively used to improve the understanding of discourse theory of PGSD students through the involvement of basic literacy in problem-based learning. Students become more active and are able to utilize learning time effectively through literacy activities facilitated by the developed textbook. The contribution of this research lies in providing PGSD students with a practical and contextual learning resource that not only strengthens theoretical mastery but also enhances critical literacy practices essential for future teachers.

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INTRODUCTION

Language is the main means for humans to think, communicate, and build social interactions. Language is a distinctive symbol of a country or region, because it is a vital element in communication and the main communication tool (Ginting et al., 2025). Language is a communication system that continues to develop, including changes in the meaning of words (Aisyah & Hartono, 2025). Wulandari et al. (2025) added that language evolves over time, with changes in diction and the formation of new words that affect meaning. Language changes due to technology are nothing new in linguistic studies (Manik et al., 2025). Amaliah & Maulana (2025) argue that language plays a vital role as a means of communication in society, both as a communicator (speaker) and a communicant (listener). From a functional

perspective, language has two main functions: structural and pragmatic (Hidayati et al., 2025). Indonesian is the official and national language that functions as a social communication tool for interaction between humans. (Adawiah et al., 2025). The Indonesian language used must use standard words and comply with good and correct rules (Hasanah et al., 2025). Learning Indonesian involves developing language skills in four main aspects: listening, speaking, reading and writing (Fayrianto & Purwati, 2025).

Language proficiency not only serves to convey information, but also to understand context, construct meaning, and form knowledge structures. Therefore, good language proficiency is an important foundation in the education process, especially at the elementary level as the initial phase of forming students' literacy competencies. Literacy development traditionally includes learning language-based knowledge and skills, such as reading, writing, speaking, and listening (Chandel & Lim, 2025). Literacy skills are important abilities that students must have in order to face the impact of advances in information technology that drive various changes (Hartini et al., 2024). Language skills in the context of higher education, especially in the Elementary School Teacher Education (PGSD) study program, students are not only limited to communication aspects, but also include a theoretical understanding of the structure, function, and context of language. Language skills are not only obtained from memorization or theoretical explanations (Wulandari et al., 2025). One of the important materials in language studies is discourse theory. This theory equips prospective teachers with an in-depth understanding of how language works in a broader context, including in texts and social communication. Through critical discourse theory, Teun A. van Dijk presents a comprehensive approach to analyzing text, covering aspects of text, cognition, and social context (Romadhon & Darni, 2025).

Discourse theory cannot be understood instantly without a systematic and contextual approach. This material requires students to be able to analyze the structure and meaning of texts based on situations, communication goals, and the roles of participants in discourse. Therefore, mastery of discourse theory is important as a provision for teacher professionalism, especially in text-based learning activities and literacy strengthening. Literacy is the process of absorbing knowledge-based information from texts or oral speech to improve cognitive abilities (Saputra et al., 2024). Based on the results of the learning evaluation carried out through the ujian.ac.id platform, it was found that the average score of PGSD students' understanding of discourse theory had not reached the expected level of completion. These results indicate that there are still obstacles in absorbing discourse material optimally, both in terms of material content, presentation approaches, and learning media used.

Needs analysis conducted through interviews, questionnaires, and documentation studies showed that students need learning resources that are more contextual, interactive, and facilitate understanding of abstract theories. Students also expressed that they need textbooks that not only present theories, but are also accompanied by exercises, applied examples, and problem-solving-based learning approaches. Textbooks are an important component in education that have a crucial role in transferring knowledge and values (Saputri et al., 2025). Teaching materials are a very important element in the learning process and are part of teaching resources (Akhyaruddin et al., 2024). The development of teaching materials plays an important role in the success of the teaching and learning process (Munir et al., 2025). The Independent Curriculum is an important strategy in Indonesian education reform that provides flexibility for educators in designing teaching materials (Faturrohman et al., 2025).

Basic literacy is a very relevant approach in supporting the understanding of discourse theory. Literacy has a crucial role in improving the quality of learning in the world of education. (Solih & Julianto, 2025). Through reading, writing, and understanding texts, students can develop critical and analytical thinking skills needed to master discourse concepts. Basic literacy is also an important part of building an academic culture among student teachers. The purpose of basic literacy is to develop a person's ability in reading, writing, numeracy, science, digital literacy, finance, and culture and citizenship (Nurdiana et al., 2024). Literacy skills, especially in reading and writing, are important elements in academic development (Khoironi et al., 2025). Literacy development must be carried out in a structured and continuous manner, both in teaching and learning activities in class and outside the classroom (Musfiroh & Rozie, 2025). The problem-based learning (PBL) learning model in the development of this textbook was chosen as a pedagogical framework because it has been proven to be able to increase students' active involvement in solving problems based on real contexts. PBL encourages students to think critically, collaborate, and find solutions to the problems they face in the learning process. Learning that can train students to think critically is learning based on problem solving (Mosey et al., 2025).

The developed textbook not only presents discourse theory systematically, but is also designed to encourage students to actively read, understand, and discuss the material through a problem-solving approach. Problem solving is a form of learning that involves solving problems through systematic steps by organizing ideas creatively to find solutions (Nurmalasari et al., 2025). In line with the statement of Salamao et al. (2025) that problem solving is a learning model that emphasizes problem-solving skills and hones creativity. Problem solving skills are needed to develop cognitive abilities (Nurmeidina et al., 2025). Thus, this textbook functions not only as a source of information, but also as a vehicle for developing thinking skills and literacy for PGSD students.

This research and development was conducted starting in the even semester of the 2023/2024 academic year with a focus on the understanding of students of the Elementary School Teacher Education Study Program (PGSD) Semarang State University semester two (2) of the basics and structure of paragraphs, which can be mastered well if students have mastered several previous linguistic levels, namely phonology, morphology, syntax, and semantics as a basis for mastering more complex linguistic levels in the form of paragraphs or discourse. Learning the four linguistic materials is presented sequentially in a very short time using the case method model in two teaching hours for each material, and although students have conducted independent exploration through various sources, learning outcomes have not reached the learning objective completion criteria (KKTP) of 70, with an average cognitive assessment through *ujian.ac.id* (part of the *apps.unnes* mobile application) of only 58.26, so remedial work is needed for students who have not completed it; the following presents the results of the discourse material assessment for students in semester two (2) of 2023.

Based on the results of the assessment conducted through the *ujian.ac.id* platform, most PGSD students did not reach the expected level of mastery in discourse theory. Of the 46 students assessed, only a small number achieved scores in the "enough" category (70-80), while the majority obtained scores below 69, which is categorized as "less." The average class score was only 58.26, far below the minimum passing criterion of 70. These findings emphasize that students face significant challenges in understanding discourse material, thereby justifying the need for the development of contextual and literacy-oriented textbooks that can better support their learning.

Based on the previous assessment data, a needs analysis was conducted through various instruments, such as questionnaires, interviews, observations, and experiences during the mentoring of Indonesian Language Studies courses for PGSD students. Data were collected from partner lecturers, students, and higher education observers who have a special interest in Indonesian Language Studies courses, especially in paragraph or discourse material. Students have actually been familiar with linguistic material since elementary and secondary education levels, but have not studied linguistic theories comprehensively. In fact, mastery of linguistic theory is very important for prospective elementary school educators, not only to facilitate Indonesian language learning, but also to assess the quality of language in various teaching material texts used by students. The use of appropriate teaching materials can strengthen students' pronunciation, understanding, and communication skills (Septian et al., 2025). Elementary school is a very important stage of education for instilling the basics of literacy (Parisu et al., 2025). Elementary school teachers must be able to understand, assess, and even develop teaching materials that are appropriate to students' abilities and needs, so that mastery of linguistic theory, especially discourse, is mandatory for PGSD students so that they are able to act as editors, assessors, users, and even developers of teaching materials for lesson texts.

This study aims to develop an Indonesian language study textbook that can be used effectively in the process of learning discourse theory in the PGSD study program. The main objectives of this study are to (1) describe the results of the validation test of the developed textbook, and (2) describe the results of the effectiveness test of the textbook in improving students' understanding of discourse theory through the involvement of basic literacy. With the development of this textbook, it is hoped that PGSD students can improve their understanding of discourse theory more meaningfully, and be able to integrate basic literacy skills and problem solving skills into learning practices in elementary schools later.

The novelty of this research lies in the integration of discourse theory materials into a textbook that explicitly incorporates basic literacy practices within a problem-based learning (PBL) framework. Unlike existing textbooks that mainly focus on theoretical exposition, this material is designed to actively engage PGSD students in literacy habits (reading, writing, and critical text analysis) while solving contextual problems. Research Questions:

- How valid is the developed Indonesian Language Study textbook for PGSD students in terms of content, presentation, language, and graphics?
- How effective is the textbook in improving students' understanding of discourse theory through the integration of basic literacy in problem-based learning?

RESEARCH METHOD

Research Design

This study uses a research and development (R&D) approach that aims to produce a product in the form of an Indonesian Language Study textbook that is feasible and effective for use in learning. The development model used in this study is the ASSURE model developed by Heinich, Molenda, Russell, and Smaldino (2002). This model was chosen because it focuses on developing learning that adapts to the characteristics of students, media, and relevant learning strategies, as well as evaluating student engagement and learning outcomes (Gasmi et al., 2025). The ASSURE model consists of six stages, namely: (1) Analyze Learners, (2) State Objectives, (3) Select Methods, Media, and Materials, (4) Utilize Media and Materials, (5) Require Learner Participation, and (6) Evaluate and Revise (Rahmah & Jasiah, 2025). At the beginning of the study, the researcher prepared a design of learning materials in accordance with the ASSURE model and developed teaching materials that support learning (Ningsih et al., 2025). Each stage is carried out systematically to ensure that the textbooks developed are in accordance with the needs and characteristics of students, and are able to improve their understanding of the discourse study material. This study adopted a Research and Development (R&D) approach using the ASSURE model. The model emphasizes learner-centered design and consists of six steps: (1) Analyze learners, (2) State objectives, (3) Select methods, media, and materials, (4) Utilize media and materials, (5) Require learner participation, and (6) Evaluate and revise.

Research Participants

The subjects in this study were students of the Elementary School Teacher Education Study Program (PGSD) at the Strata 1 (S1) level at Semarang State University, Indonesia. The population in this study were all first semester students taking the Indonesian Language

Studies course. Sampling was carried out by purposive sampling, namely the selection of samples based on certain objectives and criteria set by the researcher. The sample criteria included students who had studied the basics of linguistics, but did not yet have an in-depth understanding of discourse theory. The research sample consisted of two classes, each used for a limited trial (small group trial) and a large trial (large group trial), with a total of 46 students. The study involved 46 PGSD students (32 female, 14 male, aged 18-19). Students had prior exposure to basic linguistics but limited experience with discourse theory or PBLbased learning. The involvement of students as research subjects aimed to assess the readability, feasibility, and effectiveness of the textbook in improving understanding of the concepts developed in the textbook.

Instruments

The instruments used in this study consist of three types, namely: (1) Expert validation instrument, used to assess the suitability of the textbook based on aspects of material content, language, presentation, and graphic display. This instrument was given to two validators, namely a linguistics expert and an expert in the field of elementary school language studies. The assessment was carried out using a Likert scale of 1–5 with categories ranging from very suitable to not suitable. (2) Test instrument, used to measure the effectiveness of the textbook on students' understanding of discourse study material. This instrument is in the form of pretest and posttest questions consisting of multiple choice and short essays, arranged based on predetermined learning achievement indicators. (3) Student perception questionnaire, used to determine students' responses and involvement in using the textbook during the learning process. This questionnaire consists of several statement items with an assessment scale used to assess aspects of benefits, ease, and interest in the textbook.

Data Analysis

Data obtained in study This analyzed in a way quantitative and qualitative. Result data validation expert analyzed in a way quantitative with count average value for each aspect assessment, then categorized based on scale eligibility. Pretest and posttest result data student analyzed with use technique average comparison for know change understanding student before and after use textbook. Pretest and posttest results compared to For see improvement scores achieved by students. In addition that, questionnaire data perception student analyzed in a way descriptive quantitative with count percentage on each grain statement. Analysis This aiming For describe response student to use textbook in activity learning, as well as evaluate aspect benefits, convenience, and interest to presented material. Results of the analysis This give description comprehensive about effectiveness textbook in increase understanding theory discourse.

RESEARCH FINDINGS AND DISCUSSION **Research Findings**

The Indonesian Language Studies course is designed not only to improve students' theoretical understanding, but also to hone their critical thinking, collaborative, and academic literacy skills. The learning process is carried out systematically by combining online and offline approaches through learning platforms provided by the institution. Students are actively involved from the start by being given the responsibility to manage learning resources, conduct text analysis, and compile and present the results of their studies in class scientific forums. This approach aims to form an academic culture based on in-depth text studies and contextual application of theory.

Habitual and development literacy is carried out by students through elena (apps.unnes application) before and after face-to-face. Students carry out independent reading activities (habitual literacy) followed by a team compiling a paper based on one text that is studied based on discourse theory (development literacy). Furthermore, the main resource team presents the paper in a learning forum. There is a main rebuttal team that criticizes the paper, and other teams also carry out the same activities, responding critically based on discourse theory as learning literacy material. The learning process takes place by implementing a problem-based learning model.

This learning model encourages students to play an active role in the process of knowledge construction and continuous academic literacy training. The application of problem-based learning not only makes students recipients of information, but also seekers of solutions to real language problems that they find in the text. In addition, the collaborative and participatory learning atmosphere strengthens their understanding of language concepts, especially in the realm of discourse, and improves their ability to argue and convey ideas systematically. This is in line with the main goal of higher education in producing graduates who think critically, communicatively, and reflectively.

Results of the Validation Test of Indonesian Language Study Textbooks

The suitability of the content of the developed textbook is determined by conducting validation by material experts who are expert lecturers in the field of language studies. Before conducting validation of the textbook, clear criteria references are needed so that the assessment can be carried out objectively and in a focused manner. These criteria serve as guidelines for validators in assessing the extent to which the textbook meets important aspects, such as the suitability of the content, language, presentation, and graphics. In this context, validation by material experts is carried out by referring to the criteria that have been prepared based on relevant standards, as shown in Table 1.

Table 1 Material Expert Validation Result Criteria

No	Score Range	Criteria	No	Score Range
1	3.75 to 5.00	Very Good	1	3.75 to 5.00
2	2.50 to 3.74	Good	2	2.50 to 3.74
3	1.75 to 2.49	Enough	3	1.75 to 2.49
4	0.00 to 1.25	Not enough	4	0.00 to 1.25

The criteria in Table 1 are an important basis for the validation process of textbook content by material experts. The clarity of the indicators used helps ensure that the assessment process is carried out systematically and consistently. With these criteria, textbook development can be directed to meet the quality of content that is in accordance with learning needs at the elementary education level. The validation process by material experts was carried out to ensure that the contents of the textbook had met the standards of academic and pedagogical eligibility. The validators involved were lecturers with expertise in the field of language studies, who provided assessments based on previously prepared validation instruments. The aspects assessed included the suitability of the material to learning outcomes, the integration of the content, the depth of the material, and the clarity and readability of the language. The results of the assessment by material experts are shown in Table 2.

Table 2 Material Expert Validation Results

No	No Score Range Assessment Average Assessment Criteria					
		Indicators	Score			
1	3.76 to 5.00	Contents	4.25	Very Good		
2	2.51 to 3.75	Presentation	4.33	Very Good		
3	1.26 to 2.50	Graphics	4.11	Very Good		
4	0.00 to 1.25	Linguistics	4.38	Very Good		

Total Average	4.27	Very Good

Based on the validation results listed in Table 2, the textbook obtained a score that is included in the very valid category. All aspects assessed show a high level of feasibility, reflecting that the textbook has been compiled by paying attention to the quality of the content and the accuracy of the delivery of the material. However, input from the validator remains the basis for improvements to perfect the textbook before it is used in learning. The assessment of the Indonesian language study book by material experts was carried out by giving a score to each indicator that had been determined in the validation instrument. This score reflects the extent to which the textbook meets the eligibility criteria in terms of content, presentation, language, and relevance to learning outcomes. Each indicator is assessed using a specific scale which is then averaged to determine the validity category. The validation results obtained are presented in detail in Table 3.

Table 3 Value of Validation Results of Material Experts on Indonesian Language Study Books

No	Indicator	Expert 1	Expert 2	Total	Sum / Average / Category	
A	Content Components	24	27	51	4.25 (Very Good)	
В	Presentation	24	28	52	4.33 (Very Good)	
	Components					
C	Graphics	18	23	41	4.10 (Very Good)	
	Components					
D	Language	16	19	35	4.38 (Very Good)	
	Components					
	Tota	ıl		179	4.26 (Very Good)	

Based on Table 3, the average value given by the material experts shows that the Indonesian language study book is included in the category of "very valid." High scores on most indicators indicate that the textbook has met the content quality standards needed to support the learning process. These results strengthen the belief that the textbook can be used in the learning context with only minor revisions according to the validator's suggestions.

Results of the Effectiveness Test of Indonesian Language Study Textbooks

The pretest was conducted as an initial step to identify the level of students' understanding of the discourse study material before using the developed textbook. The group used as the subject was study group H, which was selected purposively as a small-scale trial group. The pretest instrument was compiled based on discourse understanding indicators that were relevant to learning outcomes in the language study course. The scores obtained by students in the pretest are presented in Table 4.

Table 4 Small Scale Discourse Comprehension Pretest Score (Class H)

No Range (Category)	Number of Students	Total Value	Information
1 91-100 (Very Good)	0	0	Completed=1
2 81-90 (Good)	0	0	Not Completed=5
3 70-80 (Enough)	1	74	Average = 60.33
4 0-69 (Less)	5	320	(Not enough)

Table 4 shows that the finding provides a strong basis that the developed textbooks are very much needed to improve student competence, especially in understanding and analyzing discourse more critically and systematically. The effectiveness test was carried out in two stages, namely small-scale and large-scale trials. Participants in the small-scale trial were determined heterogeneously based on the results of the initial assessment (cognitive value). After completing the pretest, students were asked to read the textbook for a week. This is in

line with the fact that reading is the gateway to knowledge (Afifah, et al., 2024). Pre-learning was given treatment in the form of habitual literacy activities, namely reading the Indonesian Language Study book independently. Trial participants were divided into two teams heterogeneously based on their abilities. The development literacy is in the form of a structured task of writing a paper on conducting a study of elementary school level texts based on discourse theory.

The posttest was conducted on the same group after they followed the learning process using the developed textbook. The purpose of this posttest was to measure the extent to which students' understanding of the discourse study material had increased, especially after being given basic literacy-based intervention with a problem-solving approach. The posttest scores obtained by students were then compared with the pretest scores to see the effectiveness of using the textbook. Table 5 presents details of the results of the formative cognitive competency test scores on a small scale.

Table 5 Posttest Score of Small Scale Stage Discourse Comprehension (Rombel H)

No	Range (Category)	Number of Students	Total Value	Information
1	91-100 (Very Good)	1	92	Completed=6
2	81-90 (Good)	3	252	Not Completed=0
3	70-80 (Enough)	2	160	Average = 84
4	0-69 (Less)	0	504	(Good)

The posttest scores listed in Table 5 show a significant increase in scores for most students compared to the previous pretest results. This increase indicates that the use of textbooks contributes positively to strengthening discourse understanding, especially in the aspects of content analysis, text structure, and drawing conclusions. These results strengthen the assumption that the problem-solving-based literacy approach is able to encourage students to think more critically and reflectively in understanding texts. The results of the small-scale test obtained an average of 84 (in the good category). Learning reflection was carried out using a questionnaire instrument. Based on this instrument, input was obtained that the contents of the book were sufficient for students' needs. However, the duration of time in carrying out habitual literacy was too short.

The collection of this initial data is very important to determine the extent of the level of understanding of discourse possessed by students and to identify potential difficulties they face. Thus, the results of the pretest become the initial basis for evaluating the effectiveness of the treatment to be given, as well as providing a basis for designing a learning approach that is appropriate to students' needs. Face-to-face learning runs effectively through the five phases of the PBL model. The pretest results are as follows.

Table 6 Large Scale Stage Discourse Comprehension Pretest Score (Class I)

No	Range (Category)	Number of Students	Total Value	Information
1	91-100 (Very Good)	0	0	Completed=13
2	81-90 (Good)	1	82	Not Completed = 33
3	70-80 (Enough)	12	840	Average = 60.74
4	0-69 (Less)	33	1872	(Not enough)
	Tot	tal	2,794	

Table 6 shows variations in pretest scores obtained by students in understanding discourse. The fairly diverse range of values indicates that students' initial abilities are uneven and there are still a number of students who show a level of understanding below expectations. This condition reflects the importance of developing learning strategies that are able to bridge the gap in understanding between students. The low achievement of some students at this early stage also strengthens the assumption that planned and systematic learning interventions are needed in order to increase the ability to understand discourse as a whole.

Learning activities are carried out in accordance with the design in the study, a posttest is carried out as a measuring tool to determine the increase in students' understanding of discourse in Class I. This posttest is given in a form and level of difficulty that is equivalent to the pretest, so that it is possible to make an objective comparison between before and after treatment. Measurement through the posttest plays an important role in assessing the effectiveness of the learning model that has been applied. In addition, the posttest also provides empirical data that can be used to assess the extent to which students have developed in terms of their ability to compose, interpret, and understand the meaning in a discourse.

Table 7 Posttest Score for Large Scale Stage Discourse Comprehension (Class I)

				,
No	Range (Category)	Number of Students	Total Value	Information
1	91-100 (Very Good)	2	192	Completed=44
2	81-90 (Good)	28	2,464	Not Completed=2
3	70-80 (Enough)	14	1.120	Average=85.04
4	0-69 (Less)	2	136	(Good)
	Total		3.912	

Table 7 presents the posttest scores which show a general increase in scores compared to the pretest results. This change indicates that most students experienced development in understanding the discourse after receiving the learning treatment. This increase in scores can be an indicator of the success of the implementation of the learning model used in the study. These results also provide an illustration that the approach applied is able to encourage active student involvement in the learning process and improve their critical thinking skills towards the content of the discourse being studied. Thus, the posttest not only functions as a measuring tool for learning outcomes, but also as evidence of the effectiveness of the learning intervention as a whole.

Discussion

The findings of this study confirm that the development of an Indonesian Language Study textbook based on basic literacy and problem-solving models significantly improves PGSD students' understanding of discourse theory. This aligns with the first research question, which addressed the validity of the textbook. Validation results indicated that the book was categorized as "very good" across content, presentation, language, and graphics. The second research question regarding effectiveness was also answered, as students' posttest scores increased substantially compared to pretest results, with an N-Gain score of 0.70, indicating moderate improvement. Problem solving as a student-focused learning approach can be used to improve problem-solving skills in the context of education (Fitriyani et al., 2025). Expert validation shows that the developed textbook meets the established criteria with an average score of 4.27, which is included in the "very good" category. This indicates that the contents of the textbook have been well-structured and in accordance with the learning needs of students. The application of basic literacy also plays an important role in the development of language study textbooks, because with basic literacy, learning is gradual and more comprehensive. Based on research by Afifah et al. (2025) that basic literacy consists of habitual literacy, developmental literacy, and learning literacy, and each part that is designed can provide a comprehensive and interactive learning experience.

These results directly address the research gap identified in the introduction: PGSD students lacked contextualized and literacy-oriented resources for mastering discourse theory.

By embedding literacy practices into problem-based learning, the textbook bridges this gap and provides a model for integrating theoretical concepts with practical, student-centered activities. In line with Chandel and Lim (2025), literacy-based instruction enhances critical thinking and comprehension, while studies such as Dangkulos et al. (2025) emphasize the predictive role of problem-solving disposition in teacher education. The present study strengthens these findings by showing that literacy integration within discourse theory can produce measurable gains in comprehension and engagement among PGSD students.

Students involved in this study showed a significant increase in their understanding of discourse after using the textbook. The pretest results showed that most students were in the low category, while the posttest showed a positive shift with many students reaching the good category. This shows that the approach used in the textbook is able to bridge the existing understanding gap. In addition, the integration of basic literacy activities in learning also contributes to improving students' analytical abilities. Thus, this textbook is not only effective in conveying theory, but also in equipping students with critical thinking skills needed in an educational context.

Compared with similar interventions in other contexts, the results are consistent with Abror et al. (2024). Student-focused learning, such as Problem-Based Learning (PBL) and Problem-Solving (PS), has been widely applied in education to improve learning outcomes (Suryani et al., 2025). Problem solving is a learning model that makes education more relevant because this model accustoms students to facing and solving problems (Awaliyah et al., 2025). PBL encourages students to be actively involved in the learning process by collaborating in groups and solving real problems faced. This approach not only improves students' critical thinking skills but also strengthens their ability to communicate and argue. Although recent advances in problem solving using code provide promising opportunities (Evstafev, 2025), it is important to consider how this approach can be applied in the context of language and literacy learning.

Another implication is the role of literacy in fostering long-term academic culture. As noted by Aprilia et al. (2025), literacy programs improve students' reading abilities in early schooling, while Agnestia et al. (2025) highlight literacy culture as a driver of reading development. This study extends these insights into higher education by showing that habitual, developmental, and learning literacy can strengthen future teachers' mastery of complex linguistic concepts. Thus, the textbook not only functions as a content resource but also as a literacy training tool that aligns with 21st-century competencies such as critical thinking, collaboration, and problem solving.

Mastery of discourse theory in the context of higher education is very important for prospective teachers. Increasing students' understanding of this theory through the developed textbooks shows that the materials presented are able to facilitate a deeper learning process. The use of learning materials is one of the important elements that support improving the quality of the learning process (Afifah, et al., 2024). The use of appropriate teaching materials, students can more easily understand the concepts taught. Thus, this textbook can be an effective learning resource in supporting the mastery of discourse theory. In addition, this textbook is designed to include various applicable examples that are relevant to real situations in the classroom. This will encourage prospective teachers to apply discourse theory in their future teaching practices.

This finding also shows that basic literacy activities integrated into learning have a significant impact. The level of basic literacy skills in Indonesia at the national level, based on the PISA assessment, is still very low (Hariyati et al., 2024). In line with the results of the 2019 PISA survey released by the OECD, Indonesia is ranked 62 out of 70 countries in terms of literacy skills (Aprilia et al., 2025). Thus, literacy is very much needed, in this case basic literacy. Literacy activities are reading and writing activities related to language and cultural knowledge (Agnestia et al., 2025). The activities of reading, writing, and understanding texts facilitated by textbooks help students develop analytical and critical skills. Basic literacy is a strong foundation for building an academic culture needed for prospective teachers. Literacy helps develop self-potential, understand information critically, and play an active role in social and global life (Janul & Sunendar, 2024).

Development Indonesian Language Study textbook for Students of the Elementary School Teacher Education Study Program (PGSD) aim to For increase understanding theory discourse through problem solving and integration approach literacy basis. Textbooks function not only to convey linguistic theory, but also to develop students' language skills (Manuela et al., 2025). Research This show that mastery theory discourse is key for prospective teachers for understand structure and function Language in context education. With serve relevant and contextual material, students can see connection direct between theories studied with experience daily they. Approach contextual in proven textbook effective in increase motivation Study students. When the material being taught related with life they, students become more active and enthusiastic in the learning process. This model encourages students to be actively involved in learning, work together, and apply critical and creative thinking skills (Gito Fahreza et al., 2025). This create atmosphere dynamic learning, where interactions between students and lecturers in progress more interactive, supportive development skills communication as well as important collaboration in modern education.

Challenge still there is, although results study show significant improvement in understanding theory discourse. Some student state that time provided For activity literacy habituation too short. For that, adjustment in allocation time need done so that students can more delve deeper material before involved in discussion class. With give enough time, students expected can more critical and analytical moment discuss theory discourse. Feed come back from student about textbook becomes source valuable information For future improvements. Feedback related structure learning and presentation material show importance involvement student in development process textbook. With involving they in this process, development textbook becomes more responsive to needs and expectations students, so that increase effectiveness learning. Use instrument clear and structured validation allow objective assessment to eligibility textbook.

Literacy integration base in learning based on problem give impact significant positive. Basic literacy skills are important skills that must be mastered and continuously improved (Zulfa et al., 2025). Literacy also encourages increased communication skills, adapting to change, and thinking creatively (Fahmi et al., 2025). The concept of literacy as a dynamic process that includes curiosity, critical thinking, oral language, and reading and writing skills (Hoiriyah & Hasanah, 2025). Through activity reading, writing and understanding text, students can develop skills think critical needed For analyze discourse. Skills literacy This become foundation important in build culture strong academics, that would be support they as future teacher candidates.

Application of problem solving models in development textbooks also function For push student think creative and collaborative in finish problem. Problem solving is a learning process carried out through identifying and solving problems (Sudariana, 2025). PBL uses everyday problems to develop thinking skills, find solutions, and understand the material (Oktaviana & Azmy, 2025). With approach this, students No only taught For understand theory, but also for apply knowledge the in context real. Engagement active in the learning process help they develop ability For to argue as well as convey idea in a way systematic.

The study provides an important contribution to the development of language education in Indonesia, especially in the context of teacher education. The development of effective textbooks can not only improve students' understanding of discourse theory but also support their professionalism as prospective teachers. In addition, the problem solving model is also

very important to implement. This is in line with the research of Dangkulos et al. (2025) that problem-solving skills are very important for prospective elementary school teachers because they will teach concepts and develop problem-solving skills in students. This textbook is expected to be an alternative learning resource that contributes to improving the quality of education at the elementary level.

CONCLUSION

This study successfully developed an Indonesian Language Study textbook for PGSD students using the ASSURE model. Validation results indicated that the textbook met academic and pedagogical standards with an average score of 4.27 ("very good"), while the effectiveness test showed significant improvements in students' understanding of discourse theory (N-Gain = 0.70, moderate category). These findings demonstrate that integrating discourse theory with basic literacy and problem-based learning creates a contextualized, student-centered resource that enhances comprehension and critical thinking skills. Practical implications include the potential for curriculum developers to integrate literacy-based approaches into linguistic materials, for educators to employ problem-solving literacy tasks in their teaching, and for textbook authors to design more contextual resources that align with 21st-century skills such as collaboration, communication, and critical thinking.

Nevertheless, this study is not without limitations. It was conducted with a relatively small sample from a single institution, which may restrict the generalizability of the results. In addition, the time allocated for literacy activities was limited, which might have affected the depth of student engagement. Future research should expand the sample size to multiple institutions, investigate long-term impacts of textbook use on teaching practice, and explore how literacy-based textbooks can be adapted for other linguistic materials or integrated with digital platforms to increase accessibility and interactivity. Overall, the developed textbook contributes to bridging the gap in discourse theory learning for PGSD students and provides a model for integrating literacy into teacher education, with implications for strengthening both theory and practice in language education.

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