

RESEARCH ARTICLE

Students' literary literacy across cognitive processes in reading A.A. Navis' short story *Robohnya Surau Kami*

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ABSTRACT

Students' ability to interpret implicit meanings, symbolism, and social criticism in literary texts remains limited, despite these competencies being fundamental to literary literacy and higher-order reading comprehension. Existing studies have predominantly assessed general reading proficiency, with relatively little attention to the cognitive processes underlying literary reading. This study aims to examine students' literary reading abilities based on cognitive processes and identify their levels of literary literacy through their responses to A.A. Navis's short story *Robohnya Surau Kami*. The study is grounded in the cognitive reading process framework and Kintsch's Construction-Integration Model, which conceptualizes reading comprehension as the dynamic construction of meaning through interactions among textual information, prior knowledge, and inferential reasoning. Employing a quantitative descriptive design, the study involved 31 Indonesian senior high school students who completed a multiple-choice literary literacy test measuring six cognitive processes: searching for information, understanding, analyzing, inferring, synthesizing, and evaluating. Descriptive statistical analysis revealed an overall mean score of 67.08, indicating a moderate level of literary reading ability. Students demonstrated the strongest performance in synthesizing and evaluating but showed the weakest performance in inferential reasoning, highlighting difficulties in constructing implicit meanings. Literary literacy levels ranged from basic comprehension to advanced evaluative reading, with most students clustered at the understanding and analytical levels. These findings suggest that literary literacy develops through non-linear cognitive processes shaped by the semantic complexity and interpretive demands of literary texts, underscoring the need for explicit instructional support to strengthen students' inferential and interpretive reading skills.

Keywords: literary literacy; cognitive processes; reading short stories; literacy level; literary learning.

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INTRODUCTION

Reading literacy is the most fundamental basic competency in developing higher-order thinking skills, social participation, and readiness to face the challenges of the 21st century. Internationally, reading literacy remains a crucial issue. The results of the 2023 Programme for International Student Assessment (PISA) show that most students in various countries are still at the basic level, namely: able to find explicit information, but have difficulty in inferencing, analyzing, and evaluating texts. In Indonesia, this condition is evident in the reading literacy score, which is far below the average for Organization for Economic Co-operation and Development (OECD) countries, with a score of 359 compared to the global average of around 476. Furthermore, only a small proportion of students achieve the minimum level of competency in reading. This indicates that the ability to understand implicit meaning and think critically remains a serious challenge in both national and global contexts.

In the context of language and literature learning, reading literacy is not only understood as the ability to recognize and understand explicit information in texts, but also as the ability to process meaning, make inferences, synthesize information, and critically evaluate messages and values contained in texts (Hudha, 2019). In the process, reading literacy involves a multi-level cognitive process that takes place actively and constructively, starting from basic information processing to integration and evaluation of meaning (Kintsch, 2013; Afflerbach et al., 2015; McNamara & Magliano, 2019). This cognitive process is realized through language as a means of thinking (Ramadhanti, 2020). Students can brainstorm ideas to process the meaning of the text they read, thus determining whether their thinking has reached a certain level. Results from the Programme for International Student Assessment (PISA) indicate that students' reading literacy skills, particularly at the inference and evaluation levels, remain a serious challenge. Students tend to be better able to answer questions at the information retrieval and literal comprehension levels than those requiring text analysis, inference, and evaluation (OECD, 2019, 2023). This condition shows that learning to read, including reading literature, has not fully optimized the involvement of high-level cognitive processes needed to build comprehensive reading literacy.

In the development of literacy studies, the concept of literary literacy emerged as a subset of reading literacy with specific characteristics. Literary literacy focuses not only on understanding the content of a text, but also on the ability to interpret symbolic meaning, understand irony, and evaluate the values contained within literary texts (Graesser et al., 2011; Snow, 2002). Globally, literary literacy contributes to the development of empathy,

critical thinking skills and social awareness in readers (Kidd & Castano, 2013; Mar et al., 2009). This shows that literary literacy has a strategic role in shaping students' cognitive and affective competencies as a whole.

Several studies over the past decade have shown that students' reading abilities are not homogeneous across all cognitive processes. Many readers perform well at the explicit information comprehension stage but struggle with analyzing, inferring, and evaluating texts (Graesser et al., 2011; Plakans, 2009). This finding is relevant to the study of literary literacy because literary texts basically require the involvement of high-level cognitive processes to capture the implicit meaning and aesthetic messages contained within them.

In the context of measuring reading literacy, various studies confirm that literacy assessment can be conducted using standardized instruments designed based on cognitive process indicators. Multiple-choice instruments are considered valid and legitimate in measuring reading literacy, including higher-order thinking skills, as long as the items are structured to require processing of meaning, inference, and evaluation, and are supported by adequate item quality analysis (Haladyna & Downing, 2004; Rupp et al., 2006; Quaigrain & Arhin, 2017). Thus, the format of the instrument is not the main determinant of assessment quality but rather the suitability between the indicators, cognitive demands, and literacy constructs being measured (Cappelleri et al., 2014; DeVellis & Thorpe, 2022).

However, literary literacy studies that specifically map student achievement based on their cognitive processing levels in reading literary texts are still relatively limited, particularly those using canonical Indonesian literary texts. Most previous studies have focused more on learning strategies, pedagogical interventions, or qualitative analysis of student responses to literary texts (Bond & Fox, 2015; Snow, 2002). Furthermore, several studies have shown that students' reading skills do not develop evenly across cognitive processes. Students tend to be better at understanding explicit information than at inferring and evaluating meaning (Graesser et al., 2011; Plakans, 2009). This gap indicates that reading instruction, particularly literary reading, has not fully optimized the engagement of higher-level cognitive processes. Furthermore, previous research has generally focused more on learning strategies or pedagogical interventions and has not systematically mapped students' literary literacy skills based on cognitive processes. Furthermore, there has been minimal use of Indonesian literary texts as empirical sources in cognitive-based literacy studies.

One of the Indonesian short stories frequently used in learning and academic studies is "*Robohnya Surau Kami*" by AA. Navis. This short story is known for containing social and

religious criticism conveyed through irony and satire, thus requiring readers to undertake a reading process that goes beyond literal understanding, including inferring implicit messages, synthesizing ideas, and evaluating the values put forward by the author. Theoretically, literary reading comprehension can be explained through a cognitive processing model that positions reading as a process of constructing and integrating meaning. The construction-integration model explains that readers construct representations of meaning through the interaction between textual information, prior knowledge, and ongoing inferential processes (Kintsch, 2013). This view is reinforced by studies that emphasize that text comprehension involves various levels of processing, from the word and sentence level to the formation of situation models that enable readers to evaluate and reflect on the content of the text (Cain & Oakhill, 2014; McNamara & Magliano, 2019; Perfetti, 2007).

Unlike previous studies that generally focused on literary reading learning strategies, readers' responses to literary works, or improving learning outcomes through specific treatments/interventions, this study specifically maps students' literary literacy abilities based on six cognitive processes in reading Indonesian literary texts that are rich in symbolism, irony, and social criticism. This mapping allows for the identification of relationships between the characteristics of literary text meaning and variations in students' cognitive processes achievements. Thus, this study provides a new perspective on the development of literary literacy that does not always occur linearly as assumed by the hierarchy of cognitive processes in reading.

Based on these conditions, the main problem in this study is that there has not been a systematic description of students' literary literacy based on the level of cognitive processes in reading literary works, especially short stories. Therefore, this study aims to describe students' literary literacy abilities, especially the short story "*Robohnya Surau Kami*" by AA. Navis based on six cognitive processes, namely: searching for Information, understanding, analyzing, inferring, synthesizing, and evaluating; and determining students' literary literacy levels based on achievements in each of these cognitive processes.

METHOD

This research is a descriptive quantitative research that aims to describe the literary literacy of high school students based on the cognitive processes in reading the short story "*Robohnya Surau Kami*" by AA. Navis. The subjects of this research consisted of 31 students of class XI of SMAN 1 Salimpaung, Batusangkar, West Sumatra. The selection of the subjects

of this research was carried out using a purposive sampling technique. One of the basic considerations for drawing this sample was that students had studied short story texts in class XI and the short story that students read and that was in accordance with the students' cognitive level was the short story "*Robohnya Surau Kami*" by AA. Navis. In other words, the subjects of this research were students who had studied short story texts in accordance with the Indonesian language learning achievements at that phase.

The instrument used in this study was a multiple-choice test which was structured based on six levels of cognitive processes, namely: Searching for Information, understanding, analyzing, inferring, synthesizing, and evaluating (Hudha, 2019). The multiple choice test grid is presented in Table 1 below.

No	Indicator	Sub-Indicator	Number of Questions	Item Number
1	Searching for Information	a. Finding new information	2	1, 2
		b. Distinguishing facts and opinions	2	3, 4
		c. Distinguishing main ideas from supporting ideas	2	5, 6
		d. Distinguishing ambiguous words	2	7, 8
		e. Formulating questions to obtain new information	2	9, 10
		f. Validating true statements	2	11, 12
2	Understanding	a. Integrating information	2	13, 14
		b. Presenting information symbolically	2	15, 16
		c. Identifying the basic structure of information	2	17, 18
3	Analyzing	a. Identifying attributes and components of information	2	19, 20
		b. Identifying patterns and relationships in information	2	21, 22
		c. Identifying main ideas	2	23, 24
		d. Identifying errors	2	25, 26
		e. Evaluating ideas	2	27, 28
		f. Identifying arguments	2	29, 30
4	Inferring	a. Presenting evidence	2	31, 32
		b. Presenting alternatives	2	33, 34
		c. Drawing conclusions	2	35, 36
5	Synthesizing	a. Evaluate correct and incorrect conclusions	2	37, 38
		b. Predict information by linking existing information	2	39, 40
		c. Evaluate correct and correct predictions	2	41, 42
		d. Elaborate information by adding details, explanations, examples, or relevant information.	2	43, 44
6	Evaluating	a. Assess the trustworthiness of a source of information or opinion	2	45, 46
		b. Assess whether an opinion is credible	2	47, 48
		c. Assess the clarity, accuracy, precision/precision, relevance, significance, depth and breadth, logicity, and impartiality of the information	2	49, 50
		d. Assess the structure and language of the text	2	51, 52
		e. Assess the argument	2	53, 54
Total			54	

Table 1. Multiple Choice Test Instrument Grid

The multiple-choice test grid was structured into 54 multiple-choice questions for the literary literacy test. The multiple-choice test instrument was validated by two Indonesian language education experts with expertise in reading literacy and learning assessment. Validation was conducted on the suitability of the indicators, item construction, language, and representation of the cognitive processes being measured. Measuring the reliability of the instrument is one of the limitations of this study because the research focused on descriptive mapping of student abilities based on cognitive process indicators that had undergone content validation by experts.

Data collection was conducted by asking students to read the short story "*Robohnya Surau Kami*" by AA. Navis and then completing a multiple-choice test. The data for this study were students' answer scores on a multiple-choice literary literacy test. The data sources were grade XI students of SMAN 1 Salimpaung, Batusangkar, West Sumatra, who were the research respondents. Students' literary literacy scores were analyzed using descriptive statistics. Each correct answer was given a score of 1 and an incorrect answer was given a score of 0. The scores obtained by students were then converted into percentages using the percentage formula, namely: the score obtained divided by the maximum score multiplied by 100%. The maximum score is 700. This score was adapted from the literacy categories of the PISA 2018 Framework.

Through an average calculation, the percentage of students' literary reading ability is determined based on their cognitive processes with the interpretation criteria being very good (85—100%), good (70—84%), sufficient (55—69%), less (40—54%), and very less (0—39%). Next, determine the level of students' literary literacy using the maximum score adapted from the 2018 PISA Framework, namely: 700 (Hudha, 2019). Based on the scores obtained, the interpretation of students' literary literacy levels was determined using the following criteria: Level 1a (0—262), Level 1b (263—335), Level 2 (336—407), Level 3 (408—480), Level 4 (481—553), Level 5 (554—626), and Level 6 (627—700) (Hudha, 2019).

RESULTS AND DISCUSSION

In this section, the answers to two problem formulations are explained, namely: the ability to read the short story "*Robohnya Surau Kami*" by AA. Navis based on students' cognitive processes and students' literary literacy levels in reading the short story "*Robohnya Surau Kami*" by AA. Navis.

Reading Ability of the Short Story "*Robohnya Surau Kami*" by AA. Navis Based on Cognitive Processes

Students' ability in reading the short story "*Robohnya Surau Kami*" by AA. Navis is in the range of 67.08, which indicates that students have reached a basic level of understanding and analysis but have not fully mastered the inferential process and implicit meaning analysis which are the main characteristics of literary texts. Students have understood the content of the short story and the main message contained in the story, but have not shown good and even mastery of all cognitive processes of reading literature. The results of the percentage score for each cognitive process in reading short stories are presented in Table 2 below.

No	Indicator	Score (%)	Category
1	Searching for Information	64,25%	Sufficient
2	Understanding	62,90%	Sufficient
3	Analyzing	69,62%	Sufficient
4	Inferring	63,44%	Sufficient
5	Synthesizing	70,97%	Good
6	Evaluating	71,29%	Good
Average		67,08%	sufficient

Table 2. Short Story Reading Ability Scores

Searching for Information

Students' searching for information's ability was in the sufficient category, with an average indicator score of 64.25%. The scores for each searching for information's sub-indicator are presented in Table 3 below.

No	Sub-Indicator	Score (%)	Category
1	Finding new information	74,19%	Good
2	Distinguishing facts and opinions	74,19%	Good
3	Distinguishing main ideas from supporting ideas	62,90%	Sufficient
4	Distinguishing ambiguous words	56,45%	Sufficient
5	Formulating questions to obtain new information	59,68%	Sufficient
6	Validating true statements	58,06%	Sufficient
Average		64,25%	Sufficient

Table 3. Searching for Information's Ability Scores

The reading ability of the short story "*Robohnya Surau Kami*" by A.A. Navis in the aspect of searching for information is in the sufficient category, indicating that most students have been able to find explicit information contained in the text, although this ability has not developed optimally. Based on the instrument grid, the aspect of searching for information is measured through the ability to find new information, distinguish facts and opinions, distinguish main ideas and explanatory ideas, distinguish ambiguous words, and formulate questions to obtain new information. This achievement indicates that students have been

able to build a literal representation of the content of the short story, especially in identifying characters, settings, events, and activities carried out by characters in the story.

Students' ability to find explicit information is evident when they are able to identify Pak Lebai as a figure who continues to maintain worship activities at the surau, recognize the condition of the surau, which is increasingly being abandoned by the community, and understand the changing orientation of society that prioritizes worldly life. This information is presented relatively directly by the author so that it can be recognized through a literal reading process. According to OECD (2023), the ability to find and retrieve explicit information is the initial foundation of reading literacy because it allows readers to construct a basic representation of the text's content before engaging in more complex interpretations and evaluations. These findings indicate that most students already possess the basic ability to access information implicit in literary texts.

However, the achievement, which is still in the sufficient category, indicates that some students still have difficulty distinguishing between facts and opinions, which identify information within the overall structure of the story. In the short story "*Robohnya Surau Kami*" by A.A. Navis, some information is conveyed through comments from characters and the narrator that contain evaluative elements, so students need to understand the context in which the information is used. Duke et al. (2021) explains that a reader's success in finding information is determined not only by the ability to recognize explicit facts, but also by the ability to understand the relationships between parts of the text. Therefore, the ability to find information in this study has not been fully developed because some students still focus on finding facts without understanding the role of that information in constructing the meaning of the story.

From a literary literacy perspective, this finding indicates that some students are still at the surface reading stage. They are able to recognize what is happening in the story but have not yet fully utilized that information to construct deeper interpretations. This finding supports the view Cervetti et al., (2020), the ability to find information is the initial stage in the knowledge construction process, which must be followed by activities such as understanding, connecting, and evaluating information so that readers gain a more comprehensive meaning.

Understanding

The students' comprehension ability was in the sufficient category, with an average of 62.90%, indicating that they were in the sufficient category. The scores for each comprehension sub-indicator are presented in Table 4 below.

No	Sub-Indicator	Score (%)	Category
1	Integrating information	66,13%	Sufficient
2	Presenting information symbolically	65,52%	Sufficient
3	Identifying the basic structure of information	58,06%	Sufficient
Average		62,90%	Sufficient

Table 4. Understanding's Ability Scores

The ability to comprehend obtained a percentage of 62.90% and was the lowest achievement compared to the other five cognitive processes. This finding is interesting because theoretically, comprehending is a prerequisite for the development of analytical, inferential, synthetic, and evaluative skills. However, the results of the study actually showed that students' comprehension ability was lower than their synthesizing and evaluating abilities. This finding indicates that the development of students' literary literacy does not occur linearly as assumed by the hierarchy of cognitive processes in reading. Based on the instrument grid, comprehension ability was measured through three main sub-indicators, namely: integrating information, representing information symbolically, and identifying the basic structure of information. In this aspect, students are required to connect various pieces of information scattered throughout the story so they can understand the relationship between the condition of the surau, Pak Lebai's activities, and changes in the community's life orientation. The ability to comprehend is no longer simply finding information, but requires readers to build connections between information to form a more complete representation of meaning.

The low achievement in the aspect of understanding can be explained through the characteristics of the short story "*Robohnya Surau Kami*" by A.A. Navis, which is rich in symbolism and social criticism. The surau in the story not only functions as a physical building, but also becomes a symbol of the decline of religious values in society. Similarly, the character of Pak Lebai not only plays a role as the story's protagonist, but also represents a critique of religious understandings that are detached from social responsibility. To understand this relationship, students must be able to integrate the various pieces of information scattered throughout the text and connect them to the broader social context.

The results of this study are also in line with the model of reading comprehension development put forward by Kim (2015), his explains that comprehension is the result of

the interaction of various cognitive components, including language knowledge, inferential ability, and information integration. In the context of this study, low comprehension achievement indicates that some students are unable to connect literal information with broader conceptual meanings. As a result, they can understand the events that occur in the story, but are not yet able to fully grasp the social and religious meanings that are at the heart of A.A. Navis's criticism. This finding is an important contribution of this study because it shows that in reading literature, comprehension skills do not always develop at a higher level than synthesis and evaluation skills. The clarity of the moral message in the story allows students to synthesize and evaluate, but understanding the symbolic relationships that underlie the story remains a challenge.

Analyzing

Analyzing's ability demonstrated relatively high achievement, with an average of 69.62%, making it one of the indicators with the highest average in this study. The scores for each analytical sub-indicator are presented in Table 5 below.

No	Sub-Indicator	Score (%)	Category
1	Identifying attributes and components of information	66,13%	Sufficient
2	Identifying patterns and relationships in information	79,03%	Good
3	Identifying main ideas	72,58%	Good
4	Identifying errors	67,74%	Sufficient
5	Evaluating ideas	61,29%	Sufficient
6	Identifying arguments	70,97%	Good
Average		69,62%	Sufficient

Table 5. Analyzing's Ability Scores

The analyzing ability obtained a percentage of 69.62% and was in the sufficient category. This result indicates that most students were able to identify relationships between ideas, find the main idea, recognize relationship patterns, and understand the arguments contained in the short story "*Robohnya Surau Kami*" by A.A. Navis. Based on the instrument grid, analytical ability was measured through the ability to identify attributes, relationship patterns, main ideas, fallacies, ideas, and arguments contained in the text. This achievement shows that students not only understand the explicit information, but have begun to connect various elements of the story to build a deeper understanding. Students' analytical ability was evident when they were able to identify the relationship between changes in the community's life orientation and the increasingly abandoned condition of the surau. Most students understood that the main conflict of the story did not lie in the physical collapse of the surau building, but rather in the changes in values that occurred in the community's life. They were also able to recognize that A.A. Navis built social criticism

through the conflict between the religious life represented by Pak Lebai and the materialistic orientation of society. This ability indicates that students have begun to understand the conceptual structure underlying the story.

From a literary literacy perspective, analytical skills are an important stage because they enable readers to connect narrative elements with broader social and ideological meanings. Beach et al. (2011) explains that literary analysis involves not only understanding characters, plot, and setting, but also the ability to identify how these elements are used by the author to convey values, ideology, and social criticism. This finding indicates that some students have been able to see the function of story elements in constructing the social message the author wants to convey.

The social criticism conveyed by A.A. Navis is not always stated directly, but is instead constructed through the conflict between what the character believes and the consequences that arise from that belief. According to Graesser et al., (2011), In-depth analysis of a text requires the ability to connect various pieces of information scattered throughout the text so that readers can build complex conceptual relationships. The low ability of some students to understand these relationships indicates that analyzing literary texts requires skills that go beyond literal comprehension. This finding makes an important contribution to the study of literary literacy because it shows that analytical skills develop when students are able to connect narrative elements with a broader social context.

Inferring

Students' inferencing ability averaged 63.44% and was a key weakness in their literary literacy. Scores for each inferencing sub-indicator are presented in Table 6 below.

No	Sub-Indicator	Score (%)	Category
1	Presenting evidence	62,90%	Sufficient
2	Presenting alternatives	66,13%	Sufficient
3	Drawing conclusions	61,29%	Sufficient
Average		63,44%	Sufficient

Table 6. Inferring's Ability Scores

The inferential ability obtained a percentage of 63.44% and is in the sufficient category. This result indicates that students' ability to construct implicit meaning is still relatively limited compared to their analytical, synthesizing, and evaluating abilities. Based on the instrument grid, inferential ability is measured through the ability to show evidence, suggest alternatives, and draw conclusions based on information contained in the story. At this stage, students are not only required to understand what is written in the text, but also to construct

meanings that are not directly stated by the author. The low inferential achievement is closely related to the characteristics of the short story "*Robohnya Surau Kami*" by A.A. Navis, which is rich in symbolism and irony. The surau in the story not only functions as a place of worship, but also becomes a symbol of the decline of religious values in society. Likewise, the character of Pak Lebai not only represents a pious individual, but also serves as a medium for criticism of religious practices that are not accompanied by social responsibility.

According to McNamara & Magliano (2019), inferential reasoning is at the heart of reading comprehension because it allows readers to connect textual information with prior knowledge. Readers with good inferential skills are able to construct coherent meaning even when important information is not directly stated in the text. In this study, some students still understood the surau as a physical building and had not fully grasped its symbolic function as a representation of changing social values. This finding is in line with research Elleman & Oslund (2019) which shows that inferential ability is one of the most important predictors of success in advanced reading. Readers with low inferential ability tend to be able to understand literal information but have difficulty interpreting implicit meaning. In the context of this study, low inferential achievement indicates that some students are still at the stage of literal understanding and are not yet fully able to interpret the symbolism, irony, and social criticism that are the main characteristics of short stories.

Synthesizing

Students' synthesis ability was relatively high, with an average of 70.97%. The scores obtained for each synthesis sub-indicator are presented in Table 7 below.

No	Sub-Indicator	Score (%)	Category
1	Evaluate correct and incorrect conclusions	77,42%	Good
2	Predict information by linking existing information	74,19%	Good
3	Evaluate correct and correct predictions	66,13%	Sufficient
4	Elaborate information by adding details, explanations, examples, or relevant information.	66,13%	Sufficient
Average		70,97%	Good

Table 7. Synthesizing's Ability Scores

The ability to synthesize achieved a percentage of 70.97% and was in the good category. This result indicates that most students were able to integrate various pieces of information contained in the story to form a broader and more comprehensive understanding. Based on the instrument grid, the ability to synthesize was measured through the activities of determining correct conclusions, making predictions, assessing the accuracy of predictions, and elaborating on information contained in the text.

The high level of synthesis achievement indicates that students are relatively capable of seeing the connections between the various events in the story and combining them into a coherent conclusion. Most students were able to conclude that A.A. Navis's main criticism relates to the imbalance between spiritual life and social responsibility. They were also able to predict the possible consequences if society continues to ignore the religious values that underpin social life. According to Afflerbach et al., (2015), synthesis is a form of higher-order thinking in reading because it requires readers to connect various pieces of information scattered throughout the text to build new understanding. This ability depends not only on understanding the available information but also on the ability to integrate that information with prior knowledge.

In this study, students appeared to be utilizing social experiences and cultural values they had not yet acquired to understand the moral message contained in the story. The high level of synthesis achievement in this study indicates that although students had difficulty interpreting all the symbols contained in the story, they were still able to understand the moral message at the core of the story. This finding provides important evidence that literary literacy does not develop linearly. Theoretically, synthesis is a higher cognitive process than comprehension and inference.

Evaluating

Students' evaluation skills demonstrated the highest achievement, with an average of 71.29%. The scores for each evaluation sub-indicator are presented in Table 8 below.

No	Sub-Indicator	Score (%)	Category
1	Assess the trustworthiness of a source of information or opinion	67,74%	Sufficient
2	Assess whether an opinion is credible	74,19%	Good
3	Assess the clarity, accuracy, precision/ precision, relevance, significance, depth and breadth, logicity, and impartiality of the information	79,03%	Good
4	Assess the structure and language of the text	69,35%	Sufficient
5	Assess the argument	66,13%	Sufficient
Average		71,29%	Good

Table 8. Evaluating's Ability Scores

The ability to evaluate achieved the highest percentage, namely 71.29% and is in the good category. This result indicates that students are able to provide assessments of the values, ideas, and social criticism contained in the short story. Based on the instrument grid, the ability to evaluate is measured through the ability to assess the level of confidence in a statement, assess the relevance of arguments, assess the quality of information, and assess

the accuracy of a conclusion. The high evaluation achievement indicates that students are relatively able to provide assessments of the actions of the characters and the social conditions depicted in the story. Most students were able to assess that the attitude of the community who left the surau is a form of deviation from ideal religious values. They also understood that the author's criticism is not only directed at society, but also at Pak Lebai who focuses too much attention on ritual worship without adequate social involvement.

According to OECD (2019), modern reading assessments not only measure the ability to comprehend information, but also the ability to evaluate and reflect on the meaning contained in the text. In the context of this study, high evaluative skills indicate that students are able to connect the content of the story with their own value systems. In this study, the proximity of the story's theme to students' social and religious experiences is suspected to be one of the factors that facilitates their evaluation of the characters' actions and the social criticism conveyed by A.A. Navis. The results of this study reinforce the finding that the development of literary literacy does not always follow a hierarchical sequence of cognitive processes. Although understanding and inferencing show relatively low achievement, the ability to evaluate is actually the highest achievement.

Thus, from a cognitive process perspective, students' literary reading abilities are non-linear, particularly in terms of the order of cognitive process difficulty in literary literacy. Inferential emerges as the most challenging process, while synthesis and evaluation are relatively stronger in the context of literary texts with explicit moral content. This finding confirms the empirical mapping of the relationship between literary text characteristics and variations in cognitive process outcomes, enriching cognitive-process-based literary literacy studies. In relation to literary reading instruction in schools, teachers need to design reading lessons that consciously facilitate each stage of students' cognitive processes. At the searching for information stage, teachers can guide students in recognizing explicit information through directed factual questions and practicing differentiating facts, opinions, and ambiguous words in literary texts.

In the analysis stage, teachers can guide students to identify thematic patterns, main ideas, and relationships between characters and events through structured discussions and the use of concept maps. Because inference is a major weakness, teachers need to provide scaffolding in the form of reflective questions that require the interpretation of implicit meaning, irony, and symbols in literary texts, and to familiarize students with linking conclusions to textual evidence. In the synthesis stage, teachers can encourage students to

combine various pieces of information to construct conclusions and predict complete meaning. Meanwhile, in the evaluation stage, teachers can train students to critically assess the ideas, values, and messages of the text by linking them to social contexts and real-life experiences. With this cognitive-process-oriented literary learning, teachers not only help students understand literary texts but also develop literary literacy in a deeper and more balanced way.

Students' Literary Literacy Level in Reading the Short Story "*Robohnya Surau Kami*" by AA. Navis

The analysis of literary reading literacy levels using the PISA framework shows that students' literary literacy abilities vary and are not the same at each literacy level. The maximum PISA score used as a benchmark is 700. The highest student achievement score is 687 at Level 6 and the lowest student achievement score is 129 at Level 1a. This finding confirms that students' literary literacy cannot be understood as a single ability but rather as a spectrum of abilities that represent the involvement of hierarchical cognitive processes in reading literary texts. This pattern is in line with the PISA reading literacy framework which positions reading as the ability to understand, use, evaluate, and reflect on texts in various contexts (Hudha, 2019; OECD, 2019, 2023).

The results of the literary reading literacy level of 31 high school students are presented in Table 9 below.

No	Achievement Score Range	Literacy Level	Number of Students	Percentage
1	0—262	Level 1a: Searching for Information	4	16,13%
2	263—335	Level 1b: Searching for Information	1	
3	336—407	Level 2: Understanding	7	22,58%
4	408—480	Level 3: Analyzing	2	6,45%
5	481—553	Level 4: Inferring	6	19,43%
6	554—626	Level 5: Synthesizing	5	16,13%
7	627—700	Level 6: Evaluating	6	19,35%
Total			31	100%

Table 9. Results of Analysis of Students' Literary Literacy Levels

Mapping of literary literacy levels shows that students' abilities are spread across all literacy levels, from Level 1 to Level 6. This finding indicates that students' literary reading abilities are heterogeneous and develop gradually according to the level of complexity of the thinking processes involved in understanding literary texts. According to OECD (2023), Reading literacy not only the ability to find information, but also the ability to understand, interpret, reflect, and evaluate the meaning contained in the text. In the context of this study, the distribution of students across all levels indicates that the short story "*Robohnya Surau*

Kami" by A.A. Navis is able to elicit a variety of cognitive responses according to the abilities of each reader.

Level 1 (1a—1b): Literary Literacy at the Searching for Information Level

Five students were at Levels 1a and 1b, indicating that their literary literacy skills were still dominated by the process of searching explicit information. At this level, students were able to find explicit information contained in the short story, such as characters, settings, events, and character activities. They were able to identify Pak Lebai as the main character who guards the surau, recognize the increasingly deserted condition of the surau, and understand the activities of the community that are more oriented towards worldly life. However, their understanding was still limited to explicit information and so were unable to develop a deeper interpretation of the story's meaning. This finding is consistent with the PISA description that readers at the basic level still rely on explicit information and simple relationships between parts of the text (OECD, 2019). Besides that, according to OECD (2023), Readers at a basic level are generally able to take in information directly available in the text, but still have difficulty connecting this information to more complex meanings.

In the context of the short story "*Robohnya Surau Kami*" by AA. Navis, the position of students at this level shows that literary texts are treated like simple narrative texts, not as texts containing symbols and social criticism. Snow (2002) emphasizes that readers at this level have not yet constructed a situational model that allows students to understand the implicit message. While the short story "*Robohnya Surau Kami*" by AA. Navis can still be read at a basic level, its true literary meaning cannot yet be accessed by readers at this level. Students still understand the surau as a mere physical building and have not yet seen its symbolic function as a representation of the decline of religious values in society.

Level 2: Literary Literacy at the Understanding Stage

The majority of students in this study, totaling 7 students, were at level 2. Students at this level were able to understand the main idea, basic relationships, and general meaning of the text. They were able to recognize the explicit moral message and understand the story's main conflict, but also still needed support to draw conclusions and reflect on the meaning more deeply. Most students were able to connect the various pieces of information contained in the story, thus understanding the relationship between the condition of the surau and changes in community behavior. They understood that the increasingly quiet

surau was related to changes in people's life orientation, which prioritized worldly interests over religious activities. According to Kintsch (2013), Reading comprehension occurs when the reader is able to integrate the various pieces of information contained in the text into a coherent representation of meaning.

Cain & Oakhill (2014) also found that intermediate readers often understand the content of the text, but are not yet consistent in making inferences and reflections. In the short story "*Robohnya Surau Kami*" by AA. Navis, students at this level are generally able to understand that society prioritizes worldly affairs over worship, but have not yet fully grasped the irony and social criticism conveyed by the author. Students have been able to build relationships between information contained in the story, but have not yet fully been able to interpret the symbolism and irony used by A.A. Navis. The dominance of students at this level also shows that the ability to understand is still the main foundation of students' literary literacy.

Level 3: Literary Literacy at the Analyzing Stage

Two students were at level 3. Students at this level demonstrated the ability to analyze main ideas, relationships between parts of the text, and the meaning of words or phrases in context. They began to be able to connect various parts of the text to build a more coherent understanding. They began to understand that the main conflict of the short story lies not in the collapse of the surau building, but rather in the shift in values that occurs in the community. This finding aligns with the PISA description that readers at this level are able to integrate information and perform simple analysis (OECD, 2019). In the context of the short story "*Robohnya Surau Kami*" by AA. Navis, Level 3 students begin to grasp the relationship between social change and the collapse of religious values, although their analysis is still limited to basic thematic relationships. Graesser et al. (2011) states that analysis at this stage still focuses on pattern recognition, not ideological evaluation. In this case, literary analysis skills have begun to develop, although in-depth inferences have not yet fully formed. However, the relatively small number of students at this level indicates that analytical skills require the involvement of more complex thought processes than simply understanding the story's content. Beach et al. (2011) explains that literary analysis requires the reader's ability to connect narrative elements with the social, cultural, and ideological contexts represented in the text.

Level 4: Literary Literacy at the Inferring Stage

Six students were at Level 4, demonstrating the ability to interpret meaning by considering the overall context of the text. Students at this level were able to interpret symbols, understand irony, and connect the text to formal or public knowledge. Students were able to construct meaning that was not directly stated in the text. They began to understand that the surau in the short story serves as a symbol of the decline of religious values and that the character of Pak Lebai represents a critique of religious practices that pay little attention to the social dimension. This ability also demonstrated a deeper involvement in the inference process than in the previous level. This is also in line with the PISA description that readers at Level 4 can evaluate texts by considering the broader context (OECD, 2019). In the short story "*Robohnya Surau Kami*" by AA. Navis, students at this level begin to understand that the surau is not just a physical building, but a symbol of the decline of the religious values of society. According to Perfetti (2007) and McNamara & Magliano (2019), this type of inference demands a high level of meaning representation.

Level 5: Literary Literacy at the Synthesis Stage

Five students at Level 5 demonstrated the ability to synthesize information, draw sound conclusions, and critically reflect on the text. They were able to integrate various aspects of the story to build a comprehensive understanding. At this level, students were able to integrate the various pieces of information scattered throughout the story into a coherent understanding of the social criticism and moral message the author intended to convey. They were able to connect the conflict between Mr. Lebai and society to the issue of balance between spiritual life and social responsibility. This is in line with the findings Snow (2002) and Afflerbach et al., (2015) that readers at a higher level are able to combine information and produce a coherent interpretation. In the short story "*Robohnya Surau Kami*" by A.A. Navis, students at Level 5 are able to see the relationship between the characters, plot, and moral message as a whole, although the synthesis they conducted tends to focus on the general moral message.

Level 6: Literary Literacy at the Evaluation Stage

Six students achieved Level 6, the highest literacy level. Students at this level are able to critically evaluate texts, form hypotheses, and assess ideas using various criteria. Students

not only understand the author's message but are also able to critically assess the characters' actions and the social conditions depicted in the story. Students at this level view the collapse of the prayer house as not merely an event in the story, but rather a symbol of broader social issues concerning the relationship between religiosity, social responsibility, and changing values in society. In this case, evaluative skills represent the highest form of literacy because they involve simultaneous understanding, interpretation, reflection, and critical assessment (OECD, 2019). These findings indicate that some students have achieved mature literary literacy, namely the ability to read literary texts as representations of social reality that can be reflected on and evaluated critically.

This is also in line with the PISA framework which describes Level 6 readers as reflective and critical readers (OECD, 2023). In the short story "Robohnya Surau Kami" by AA. Navis, students at this level are able to evaluate the position of the character Pak Lebai, assess the author's social criticism, and relate the message of the short story to social realities outside the text. Afflerbach et al., (2015) emphasizes that this kind of evaluative ability requires a high level of metacognitive awareness. Students' high levels of metacognitive awareness contribute to their ability to analyze, evaluate, and conclude values in literary texts (Gani et al., 2025b). In addition, the higher the students' metacognitive awareness, the better their ability to connect and evaluate the values contained in the text (Gani et al., 2025a). Nevertheless, this finding confirms that literary evaluation can be achieved by students even though inference is still a challenge for other students, thus confirming that the development of literary literacy is not linear.

Overall, the distribution of students across literacy levels indicates that literary literacy develops gradually, but does not entirely follow a linear sequence of cognitive processes. Interestingly, the number of students at Levels 4 to 6 is greater than the number of students at Level 3. This finding indicates that some students are able to synthesize and evaluate relatively explicit moral messages in the story, even though their analytical and inferential skills have not yet developed optimally. This result reinforces the findings in the first research problem formulation that the development of literary literacy is strongly influenced by the characteristics of the meaning presented by the text. In the short story "*Robohnya Surau Kami*" by A.A. Navis, the clarity of the moral message allows students to achieve a high level of literacy, while symbolism and irony remain challenges that hinder the development of analytical and inferential skills.

In line with that, the results of the second problem formulation indicate that students' literary literacy levels are spread from basic to high evaluative levels, with a dominant tendency at the understanding level. The integration of these two findings confirms that literary literacy levels do not always reflect a hierarchical order of cognitive process difficulty, because some students are able to reach the synthesis and evaluation levels when the text presents a relatively explicit moral message, although inferential and argumentative analysis abilities remain the main weak points.

These findings expand the PISA reading literacy framework by providing empirical evidence that literary texts containing social criticism enable different literacy development patterns compared to informational/factual texts, and confirm that inference is a crucial weakness in literary literacy. These findings also demonstrate the relationship between the cognitive process of reading and the level of literary literacy in the context of literary texts, indicating that literary literacy develops dynamically according to the demands of the meaning and characteristics of the text, rather than simply following a cognitive sequence from low to high (Afflerbach et al., 2015; Kintsch, 2013; OECD, 2019, 2023).

The varying levels of students' literary literacy also require the implementation of differentiated learning, both through scaffolding for students with basic literacy and more challenging reflective assignments for students with advanced literacy. The selection of literary texts containing social criticism, such as the short story "*Robohnya Surau Kami*" by AA. Navis, should be utilized as a means of developing critical literacy by linking the text to the context of students' lives. According to Rafitri et al., (2024), using texts that truly suit students' interests is an important factor in improving student literacy, alongside support from teachers, schools, parents, and the community in developing students' reading literacy. Furthermore, to improve reading comprehension, students need to recognize and be aware of problem-solving strategies and techniques while reading and be aware of the factors that contribute to reading comprehension (Ramadhanti et al., 2026).

CONCLUSION

This study shows that students' literary literacy in reading the short story "*Robohnya Surau Kami*" by A.A. Navis develops in stages, but does not follow a linear pattern from lower to higher cognitive processes. This study also reveals that students' achievement in each cognitive process does not move hierarchically, but is instead influenced by the characteristics of the meaning within the literary text. Students are able to achieve synthesis

and evaluation skills when the text presents a relatively explicit moral message, but experience difficulties in inferential processes and argumentative analysis, which require interpretation of symbolic meaning, irony, and social criticism. Meanwhile, students' literary literacy levels range from basic to high evaluative levels, with a predominance at the understanding and analysis levels, indicating that literacy achievement is not always directly proportional to the complexity of cognitive processes.

Theoretically, this study can contribute to expanding the study of reading literacy by emphasizing that literary literacy is not merely a subset of reading literacy but has distinct cognitive characteristics, particularly in the involvement of inferential and interpretative processes in addressing implicit meaning. Methodologically, this study contributes by developing a cognitive-process-based literary literacy mapping model using a structured instrument capable of identifying variations in student achievement at each cognitive level. This model can be used as an alternative in literary literacy assessments, not only measuring final results but also mapping students' thinking processes more comprehensively.

Thus, this study confirms that literary literacy is a multidimensional skill that requires the involvement of various cognitive processes. Therefore, literary reading instruction needs to be directed not only at literal comprehension but also at strengthening inferential skills and analyzing implicit meanings to ensure a more balanced and in-depth development of student literacy. This study has limitations due to the relatively small number of respondents and the use of a single literary text as a data source. Therefore, future research could involve a broader sample, various literary genres, and employ more in-depth psychometric analysis to test the validity and reliability of cognitive-process-based literary literacy instruments.

DECLARATIONS

Ethical considerations

Not applicable

Use of artificial intelligence (AI)

The authors declare that no generative artificial intelligence (AI) tools were used in the preparation, analysis, or writing of this manuscript.

Conflict of Interest

The authors declare no conflicts of interest.

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