

Original Research

Exploring Effective Reading Tasks for Senior High School: Addressing Key Gaps Using Barrett's Taxonomy

Elwa Junaidi, Yetti Zainil & Junaidi Junaidi

Universitas Negeri Padang, Padang, Indonesia

Article Info

Article history:

Received 21 August 2024

Revised 26 October 2024

Accepted 28 October 2024

Keywords:

Barrett's Taxonomy

Higher-Order thinking skills

Senior high school

Critical thinking

Reading skill



Abstract

This study addresses a critical gap in high school reading instruction by analyzing the development needs of reading comprehension tasks through the lens of Barrett's Taxonomy. Despite its established utility in structuring comprehension levels, Barrett's Taxonomy is underutilized in Indonesian high school curricula, leaving a gap in tasks that adequately foster inferential and evaluative skills. Aiming to bridge this gap, this research employed a cluster random sampling method to select six high schools in Padang, effectively capturing a representative sample of English teachers' perspectives. Data were gathered through questionnaires and structured interviews with one teacher from each school, focusing on their preferences for reading task content and structure. Results reveal that teachers highly prioritize reorganization, inferential comprehension, evaluation, and appreciation, with a slightly lower emphasis on literal comprehension. Furthermore, teachers favored content areas such as significant phenomena, culture, science and technology, health, social issues, and natural disasters across various text types. Identified areas for task improvement include enhancing topic diversity, aligning texts with students' cultural backgrounds and proficiency levels, and incorporating higher-order thinking skills (HOTS). The study's findings underscore the need for culturally relevant, cognitively engaging tasks that support both language acquisition and critical thinking skills. In the broader context, this research contributes valuable insights for curriculum developers and educators worldwide, advocating for reading tasks that align with global educational priorities to foster analytical skills, thereby preparing students to navigate complex information landscapes.

Corresponding Author: Zainil, yettizainil@fbs.unp.ac.id

1. Introduction

Reading comprehension tasks are indispensable tools in education, shaping students' ability to interpret, analyze, and engage with complex information. Such tasks cultivate both critical thinking and linguistic skills, which are foundational for effective learning and broader cognitive development. As [Al Roomy \(2022\)](#) points out, reading comprehension is a multifaceted skill that hinges on both linguistic proficiency and critical thinking, two competencies essential for learners in navigating textual information. Through carefully crafted tasks, students are encouraged not only to recall information but to process it deeply, an engagement that is especially vital in today's increasingly complex information landscape.

To foster critical thinking, reading tasks often employ formats like multiple-choice questions, which challenge students to discern and evaluate plausible but incorrect alternatives. This format, as suggested by [Catts \(2022\)](#), can enhance comprehension by prompting students to sift through subtle nuances, thereby

reinforcing understanding of the text. The role of teachers is crucial here, as they guide students to approach reading tasks as opportunities for honing language skills, linking new information to prior knowledge, and developing essential comprehension strategies. [Souisa and Meyer \(2020\)](#) argue that this bridging of new and known concepts is vital for comprehension, particularly for students who initially struggle with understanding. Moreover, [Amalia \(2020\)](#) notes that responding to reading tasks can significantly improve comprehension, emphasizing the multi-layered cognitive processes involved in achieving reading proficiency.

Numerous frameworks exist to structure these reading tasks, among which Bloom's and Barrett's Taxonomies are most prominent in educational contexts. Bloom's Taxonomy, widely applied in curricula across the globe, including Indonesia ([Laddha et al., 2021](#)), categorizes cognitive skills from basic recall to higher-order thinking ([Kwangmuang et al., 2021](#)). It enables educators to craft tasks that cater to various levels of cognitive demand, from mere knowledge to creation and evaluation. In contrast, Barrett's Taxonomy is specifically designed for reading comprehension, offering a robust standard that focuses on five essential levels: literal comprehension, reorganization, inferential comprehension, evaluation, and appreciation ([Amalya et al., 2020](#); [Aynalem & Tesmand, 2023](#)). This taxonomy equips educators with a framework to generate targeted reading questions that build from basic understanding to evaluative analysis, aligning well with the goals of fostering critical thinking through reading. The structured approach provided by Bloom's Taxonomy allows educators to create questions that not only assess comprehension but also encourage higher-order thinking skills. For instance, the application of this taxonomy in reading instruction can enhance students' abilities to analyze, evaluate, and create, which are essential components of critical thinking ([Köksal et al., 2023](#); [Assaly & Smadi, 2015](#); [Ekalia et al., 2022](#)). Research indicates that effective reading comprehension strategies, such as making connections between the text and prior knowledge, summarizing key ideas, and formulating evaluative questions, significantly contribute to students' understanding of complex texts ([Roozkhoon & Samani, 2013](#); [Forood & Farahani, 2013](#)). These strategies align with the cognitive demands outlined in Bloom's Taxonomy, which emphasizes the importance of engaging students in higher-order thinking tasks that require them to interpret and analyze information critically ([Ramadhani et al., 2023](#)).

Furthermore, the integration of critical thinking skills into reading comprehension not only aids in understanding diverse literature but also fosters a more interactive reading experience where students actively construct meaning ([Ramadhani et al., 2023](#)). Moreover, the motivation and engagement of students play a crucial role in their reading achievement. Studies have shown that intrinsic motivation, particularly for literary texts, correlates positively with reading comprehension, while extrinsic motivations may not yield the same benefits ([Guthrie et al., 2013](#)). This suggests that when students are motivated to engage deeply with texts, they are more likely to employ critical thinking strategies effectively, thereby enhancing their comprehension and analytical skills ([Guthrie et al., 2013](#)). Thus, educators can leverage this understanding to create a learning environment that promotes both motivation and critical engagement with reading materials.

Studies have shown both the effectiveness and challenges in implementing Barrett's Taxonomy within educational materials. For instance, [Novytsari \(2017\)](#) observed a dominance of evaluative questions in eleventh-grade reading tasks, underscoring an emphasis on higher-order thinking, while [Alhadi and Zainil \(2023\)](#) identified inconsistencies in the application of Barrett's levels in workbooks used across schools in Padang, Indonesia. Such inconsistencies suggest a gap in the systematic use of Barrett's Taxonomy, potentially impacting students' balanced cognitive development. This is echoed by research indicating that the effective integration of higher-order thinking skills (HOTS) into educational frameworks is crucial for fostering critical thinking and problem-solving abilities among students ([Andayani, 2023](#); [Sukmawijaya et al., 2020](#)). The lack of uniform application may hinder the development of these essential skills, which are increasingly recognized as vital for academic success and real-world problem-solving ([Mytra et al., 2021](#); [Supiandi et al., 2019](#)).

Furthermore, research by [Su'Ad et al. \(2022\)](#) emphasizes the importance of engaging students with content that is culturally and contextually relevant. This indicates that tasks aligned with Barrett's Taxonomy could better foster comprehension if tailored to student interests and abilities. The integration of local wisdom and culturally relevant materials has been shown to enhance student engagement and learning outcomes ([Su'ad et al., 2022](#); [Pujiastuti & Haryadi, 2023](#)). Moreover, the development of teaching materials that prioritize higher-order thinking skills can significantly improve students' cognitive abilities, as

highlighted in various studies (Yusnadi et al., 2020; Pillawaty et al., 2022). The alignment of educational content with students' backgrounds not only supports cognitive development but also encourages a more meaningful learning experience, thereby bridging the gap between theoretical frameworks and practical application in the classroom (Tian, 2023; Musa & Othman, 2021).

Addressing these gaps, this study introduces a novel approach by designing reading tasks based on Barrett's Taxonomy for tenth-grade students, specifically targeting the underemphasized levels of inferential comprehension and evaluation. Unlike previous studies that predominantly focus on content analysis, this research emphasizes a structured categorization of cognitive processes, offering a systematic approach to developing reading tasks that encourage analytical and evaluative thinking. This approach aims to create tasks that not only enhance students' understanding of content but also prepare them for higher cognitive demands in subsequent educational stages.

This study aims to analyze and develop reading comprehension tasks aligned with Barrett's Taxonomy, targeting essential yet often overlooked areas like reorganization, inferential comprehension, evaluation, and appreciation. By providing teachers with a comprehensive tool to enhance students' comprehension and critical thinking, this research offers valuable insights for curriculum designers and educators striving to align reading instruction with global standards. Incorporating all levels of Barrett's Taxonomy, the findings present a replicable model for creating tasks that support academic needs and foster critical thinking, preparing students for real-life challenges in a connected world.

2. Literature Review

2.1 Need Analysis

Conducting a needs analysis is crucial for identifying essential components in reading tasks to enhance comprehension. This process focuses on skills like literal comprehension and reorganization, aligning tasks with students' learning needs. As Nation & Nation (2001) state, needs analysis bridges the gap between students' current skills and learning goals, enabling tailored tasks that effectively address these gaps. This is especially important in reading comprehension, where understanding specific learner needs leads to better instructional strategies (Ulla & Winitkun, 2017). Hyland (2019) highlights that this approach defines learners' specific language needs, ensuring that tasks align with Grade X requirements. By incorporating students' backgrounds and interests, tasks become more engaging, thus enhancing motivation and comprehension, as noted by Brown & Lee (2015). Findings suggest that task relevance to students' experiences predicts deeper engagement and comprehension (Hirvonen et al., 2009).

Integrating higher-order thinking skills (HOTS) into reading tasks further supports deep comprehension. Aryani & Wahyuni (2020) suggest that HOTS can be embedded within comprehension questions to foster cognitive engagement and understanding. Research supports that reading comprehension goes beyond decoding, involving critical thinking and comprehension monitoring (Kolić-Vehovec & Bajšanski, 2006). Thus, reading tasks should not only improve literal comprehension but also encourage Grade X students to analyze, evaluate, and synthesize information for a fuller understanding of texts.

2.2 Reading Task

Reading tasks are typically assigned by lecturers or teachers in comprehension classes and can be created by instructors, adapted from texts, or modified to suit specific needs. A task is essentially a planned activity that involves completing or attempting specific work. Lee (2000) defines a task as involving a classroom activity with a clear objective requiring student interaction, organized through a mechanism with an emphasis on meaning exchange. Li et al. (2021) adds that tasks involve pragmatic language processing, focusing on meaning and utilizing language resources to produce communicative output. Successful reading tasks, as described by Şimşek & Direkçi (2023), use authentic texts, provide thematic frameworks, and engage students through various reading and interaction stages. Effective tasks should include elements like input, roles, settings, actions, monitoring, results, and feedback (Carless, 2022), with Pareek & Thakkar (2021) noting the importance of a beginning question and input data. Pareek & Thakkar (2021) identify ten essential components, including goals, input, procedures, task types, and roles of teachers and learners. Tasks should focus on communicative, emotive, and cognitive processes, with input including materials such as images or texts, procedures outlining student actions, and task types categorized into opinion-gap, reasoning-gap, and information-gap activities. The roles of both teachers and learners are crucial in managing instruction and interactions (Richards & Rodgers, 2014).

2.3 Barrett's Taxonomy

In Barrett's Taxonomy is a critical framework within the context of Kurikulum Merdeka, as it categorizes various text types that students encounter, including narrative, descriptive, procedural, expository, recount, and report texts. Each of these text types serves distinct educational purposes, facilitating students' abilities to articulate their thoughts and feelings on age-appropriate topics and current issues. For instance, descriptive texts are characterized by their focus on detailing the attributes of objects in space, which aligns closely with report texts that present factual information about various subjects (Young et al., 2023).

Furthermore, narrative texts emphasize the temporal attributes of events, addressing the sequence and timing of occurrences, while expository texts organize information into conceptual frameworks that can be analyzed and understood (Yıldırım et al., 2020). This categorization is essential for educators to ensure a balanced approach to teaching reading comprehension, as no single text type should be privileged over others (Young et al., 2023). Moreover, procedural texts, which provide step-by-step instructions for tasks such as cooking or first aid, are vital for practical learning experiences. They engage students in active learning and application of knowledge (Limón-Fernández et al., 2022). In contrast, recount texts serve to retell past events, thereby enhancing students' narrative skills and their ability to construct coherent stories (Schurer et al., 2020). Kaye et al. (2022) further elucidate the diversity of text literacy, emphasizing the importance of understanding tangible descriptions, narrative sequences, expository concepts, and procedural instructions. This multifaceted approach to text types not only enriches students' literacy skills but also fosters a deeper comprehension of various subjects (Miralpeix & Muñoz, 2018).

Research indicates that familiarity with topics significantly enhances comprehension across all reading levels (Velásquez, 2019). This finding is particularly relevant in the context of Barrett's Taxonomy, as it suggests that students who are well-acquainted with the subject matter are likely to engage more effectively with the texts. For example, prior knowledge allows readers to connect new information with what they already know, facilitating better integration and understanding of the material (Manihuruk, 2020). Additionally, Park et al. (2022) identifies a broad spectrum of text topics, including science, culture, and health, which are crucial for developing students' critical thinking and discussion skills in contemporary contexts (Sangers et al., 2020). This diversity in text types and topics not only supports literacy development but also prepares students for real-world challenges, fostering a more comprehensive educational experience (Tavera & Casinillo, 2020).

3. Method

This study employs a descriptive research design to identify critical elements in reading tasks for tenth-grade students, guided by Barrett's Taxonomy. Following Berwick's classification, as referenced in Wankhade et al. (2022), needs analysis methods were divided into inductive (e.g., interviews, observations) and deductive (e.g., questionnaires, surveys) approaches. To ensure robust data collection, this study integrated both methods. For sampling, cluster random sampling was applied to target a broad population efficiently, focusing on 18 public high schools in Padang City. Following Teddlie & Yu's (2007) recommendations on effective sampling ratios in educational research, 30% of these schools (SMA Negeri 1, 2, 3, 7, 8, and 10 Padang) were randomly selected. In each school, one tenth-grade teacher was chosen through random selection, resulting in a sample size of six teachers. Data collection consisted of two main types to meet the study's objectives:

1. **Deductive Data:** A structured questionnaire was administered to assess teachers' perspectives on critical aspects necessary for reading tasks. The questionnaire combined closed and open-ended questions and was designed in line with Barrett's Taxonomy categories to capture quantitative measures of these critical aspects.
2. **Inductive Data:** Structured interviews provided qualitative insights, allowing teachers to share their experiences and specific needs related to reading tasks in more detail.

Quantitative data gathered from the questionnaire responses were analyzed using descriptive statistics. Mean scores for each question were calculated to provide a clear interpretation of the overall levels of need, categorized into five levels: Very High, High, Moderate, Low, and Very Low (Dawadi et al., 2021). To calculate the descriptive percentages, the formula:

$$\text{Descriptive Percentage} = \left(\frac{a}{b}\right) \times 100\%$$

was used, where 'a' denotes the score obtained, and 'b' the total possible score. This allowed for a precise interpretation of each critical aspect's relative importance.

For the qualitative data from interviews, thematic analysis was conducted to extract recurring themes and insights, following Adeoye-Olatunde & Olenik's (2021) guidelines. This approach provided a nuanced context for the quantitative findings, enriching the study's overall insights into teachers' needs. Through detailed sampling, data collection, and analysis processes, this methodology establishes a replicable framework for evaluating reading tasks in educational settings, ensuring both quantitative clarity and qualitative depth.

4. Results

4.1 Findings

In this section, the researcher focused on analyzing the critical aspect that need to be addressed for tenth-grade senior high school students based on Barrett's Taxonomy The researcher analyzed all of the respondents' responses from both six respondents of English teachers of Senior High School in Padang using instrumentations such as questionnaire and interview guide.

The findings reveal across the text types, teachers consistently emphasized topics that are relevant to real-world contexts, scientific advancement, health, and cultural heritage. These choices demonstrate an educational commitment to developing students' awareness of their surroundings, societal issues, and global phenomena, thereby fostering well-rounded knowledge and critical thinking skills. The analysis-based theme presented below:

4.1.1 Level of Reading Task Questions Based on Barrett's Taxonomy

This section examines the levels of Barrett's Taxonomy that teachers identified as essential for constructing effective reading tasks. The taxonomy's hierarchy includes literal comprehension, reorganization, inferential comprehension, evaluation, and appreciation, each playing a unique role in enhancing students' reading proficiency. Table 1 below presents teachers' ratings on the importance of each level for developing reading tasks:

Table 1. Level of Reading Task Questions Based on Barrett's Taxonomy

No	Level of Reading Task Questions	Not Important	Less Important	Important	Very Important	Total Score	Mean	Category
		1	2	3	4			
1	Literal Comprehension	1		4	1	17	2.83	High
2	Reorganization	-	-	4	2	20	3.33	Very High
3	Inferential Comprehension	-	-	2	4	22	3.67	Very High
4	Evaluation	-	-	-	6	24	4	Very High
5	Appreciation		1	2	3	19	3.16	Very High

Note: 1.00 – 1.75 = very low, 1.76 – 2.50 = low, 2.51 – 3.25 = high, 3.26 – 4.00 = very high

The data in Table 1 illustrate that teachers view the higher-order levels—reorganization, inferential comprehension, evaluation, and appreciation—as crucial for developing well-rounded reading tasks. All these categories scored within the "very high" range, emphasizing the teachers' preference for tasks that go beyond basic recall and encourage students to engage deeply with texts. This prioritization aligns with educational trends that stress critical thinking and complex comprehension, indicating that teachers value tasks that not only build foundational understanding but also foster analytical skills and evaluative judgment.

The "high" rating for literal comprehension suggests that while foundational comprehension is important, it is considered less critical than skills that encourage students to interpret, reorganize, and evaluate information. Teachers likely expect students to have already acquired basic comprehension skills and are therefore focused on cultivating more advanced cognitive abilities. In summary, the findings indicate a clear preference for tasks that challenge students' cognitive capacities across various dimensions of comprehension, preparing them for nuanced reading and critical interpretation.

4.1.2 Topics of Reading Task Questions

In this section, we examine the preferred topics for reading tasks as indicated by teachers, reflecting diverse interests across different text types. These topics align with the *Kurikulum Merdeka* for tenth-grade students, covering descriptive, narrative, exposition, procedure, recount, and report texts. Each text type presents unique themes that contribute to students' understanding of various subjects and contexts:

Table 2. Topic for Descriptive Text

No	Level of Reading Task Questions	Total	Percentage
1	Science and Technology		
2	Social		
3	Culture	1	16.67%
4	Important Phenomenon	3	50%
5	Education		
6	Natural Phenomenon		
7	Natural Disaster		
8	Sports		
9	Health		
10	Language		
11	Literature		
12	Moral		
13	Plant	1	16.67%
14	Animal	1	16.67%

Table 2 Teachers favored "important phenomena" as the primary topic for descriptive texts, comprising 50% of responses. This indicates a preference for real-world, impactful events that can deepen students' contextual awareness. Other interests include culture, plants, and animals (each 16.67%), suggesting a balanced interest in relatable, culturally significant, and environmental themes. These choices reflect a desire to make descriptive texts both relevant and engaging for students. .

Table 3. Topic for Narrative Text

No	Level of Reading Task Questions	Total	Percentage
1	Science and Technology		
2	Social		
3	Culture	4	67%
4	Important Phenomenon		
5	Education		
6	Natural Phenomenon		
7	Natural Disaster		
8	Sports		
9	Health		
10	Language		
11	Literature		
12	Moral	2	33%
13	Plant		
14	Animal		

For narrative texts, “culture” emerged as the dominant theme (67%), followed by “moral” (33%). This reflects an interest in stories that reinforce cultural identity and ethical values, aligning narrative tasks with moral and social learning objectives. Teachers appear to prioritize content that fosters cultural awareness and values, which are critical in shaping students’ ethical and social understanding.

Table 4. Topic for Exposition Text

No	Level of Reading Task Questions	Total	Percentage
1	Science and Technology	3	50%
2	Social	2	33.33%
3	Culture		
4	Important Phenomenon	1	16.67%
5	Education		
6	Natural Phenomenon		
7	Natural Disaster		
8	Sports		
9	Health		
10	Language		
11	Literature		
12	Moral		
13	Plant		
14	Animal		

"Science and technology" ranked highest (50%) as a preferred topic for exposition texts, followed by "social" issues (33.33%) and "important phenomena" (16.67%). This focus on science and socially relevant themes highlights a commitment to topics that encourage students to engage with contemporary issues and foster analytical skills necessary for understanding complex information.

Table 5. Topic for Procedure Text

No	Level of Reading Task Questions	Total	Percentage
1	Science and Technology	2	33.33%
2	Social		
3	Culture		
4	Important Phenomenon		
5	Education		
6	Natural Phenomenon		
7	Natural Disaster		
8	Sports	1	16.67%
9	Health	3	50%
10	Language		
11	Literature		
12	Moral		
13	Plant		
14	Animal		

In procedure texts, "health" was the most emphasized topic (50%), followed by "science and technology" (33.33%) and "sports" (16.67%). This choice indicates an emphasis on practical, life-related themes, suggesting that teachers value instructional texts that provide real-world, actionable knowledge in areas such as health and technology.

Table 6. Topic for Recount Text

No	Level of Reading Task Questions	Total	Percentage
1	Science and Technology	2	33.33%
2	Social		
3	Culture		
4	Important Phenomenon		
5	Education		
6	Natural Phenomenon		
7	Natural Disaster		
8	Sports	1	16.67%
9	Health	3	50%
10	Language		
11	Literature		
12	Moral		
13	Plant		
14	Animal		

For recount texts, “social” topics led the preferences (50%), followed by “science and technology” (33.33%) and “sports” (16.67%). This preference for social topics underscores a focus on narratives that are grounded in societal experiences, supporting the development of students' social awareness and engagement with community themes.

Table 7. Topic for Report Text

No	Level of Reading Task Questions	Total	Percentage
1	Science and Technology	2	33.33%
2	Social		
3	Culture		
4	Important Phenomenon		
5	Education		
6	Natural Phenomenon		
7	Natural Disaster		
8	Sports	1	16.67%
9	Health	3	50%
10	Language		
11	Literature		
12	Moral		
13	Plant		
14	Animal		

The “natural disaster” theme was prioritized (50%) for report texts, followed by “science and technology” (33.33%) and “important phenomena” (16.67%). This focus indicates a need for topics that increase awareness of environmental issues and natural events, aligning with educational goals to foster informed, environmentally-conscious citizens.

4.1.3 The Validity of Reading Tasks Book Based on Barrett’s Taxonomy

The reading task book, developed to align with Barrett’s Taxonomy, underwent validation by eight experts, including academic professionals and high school teachers, to ensure its effectiveness in meeting educational goals.

Table 8. Aims and Approaches Validity

Aims and Approaches	Indicator		Mean Score	Category
	1.	The objectives of textbook are quite similar to the curriculum's objectives.		4.13
2.	The reading tasks' objectives meet the needs.		4.38	Excellent
3.	The reading tasks are appropriate for both learning and teaching.		4.38	Excellent
4.	The reading tasks mainly consist of what is required.		4.13	Excellent
5.	For the teachers, the reading tasks are an excellent resource.		4	Good
Total			21.2	Excellent
Score			4.2	

The high mean score of 4.2 in [Table 8](#) demonstrates that the reading task book effectively meets educational objectives, with particular emphasis on alignment with curriculum goals and student needs. This validation confirms that the tasks serve as a valuable resource for both students and teachers, reinforcing the effectiveness of the Barrett's Taxonomy approach for enhancing comprehension and higher-order thinking.

Table 9. Design and Organization Validity

Design and Organization	Indicator	Mean Score	Category
	1. The content is well-organized.	4	Good
	2. The content is organized (e.g., by complexity, "learnability," usefulness, and so on).	4.13	Excellent
	3. The layout is easy to understand.	4.5	Excellent
Total Score		8.63	Excellent
		4.32	

[Table 9](#) reveals with a mean score of 4.32, the design and organization of the reading tasks rank as excellent, particularly in clarity and content structure. These high scores indicate that the book is user-friendly, helping students navigate complex reading tasks effectively. The organized layout and strategic content arrangement support comprehension and engagement, contributing to effective learning experiences.

Table 10. Content Validity

Content	Indicator	Mean Score	Category
	1. The reading selections based on Barrett's Taxonomy are authentic language components.	4.5	Excellent
	2. The content is suitable (interesting, challenging, topical, varied, culturally acceptable, unlike to date)	4.5	Excellent
	3. There is enough variety and number of topics	4	Good
	4. The topics engage students to increase their knowledge and deepen their experience.	4.5	Excellent
	5. The social and cultural contexts described in the textbook will be relatable to students.	4.5	Excellent
Total Score		22.5	Excellent
		4.5	

The excellent mean score of 4.5 reflects that the textbook's content is both relevant and engaging for students, offering varied and culturally appropriate material. This content validation in [table 10](#) highlights the importance of culturally resonant materials, enhancing students' connection to the texts and facilitating deeper comprehension and critical thinking.

Table 11. Skill Validity

Skill	Indicator	Mean Score	Category
	1. The development of reading based on Barrett's Taxonomy is prioritized.	4.5	Excellent
	2. The development of reading strategies Barrett's Taxonomy is prioritized.	4.63	Excellent
Total Score		9.13	Excellent
		4.57	

The mean score of 4.57 in the [table 11](#) indicates the textbook's strong focus on fostering essential reading skills, emphasizing Barrett's Taxonomy's levels. This prioritization of reading strategies reinforces critical comprehension and analytical skills, validating the book as a comprehensive tool for skill development.

Table 12. Vocabulary Validity

	Indicator	Mean Score	Category
Vocabulary	1. Words from the new vocabulary are presented.	4.0	Good
	2. The new vocabulary words are supplied at a suitable level to aid the students in the retention of new vocabulary	4.38	Excellent
Total Score		8.38 4.19	Excellent

With a score of 4.19 in the [table 12](#), the vocabulary component proves effective, balancing new vocabulary with appropriate difficulty to aid student retention. This thoughtful vocabulary inclusion supports language acquisition, ensuring students can engage meaningfully with complex texts.

Table 13. Exercises and Activity Validity

	Indicator	Mean Score	Category
Exercises and Activities	1. The reading tasks based on Barrett's Taxonomy contain interactive and tasks that require students to communicate using new language.	4	Good
	2. The reading tasks based on Barrett's Taxonomy instructs students to read for understanding.	3.8	Good
	3. Instructions in the reading tasks based on Barrett's Taxonomy tell students to produce English in a communicative manner.	3.5	Good
	4. Top-down and bottom-up reading techniques are utilized.	4	Good
	5. Students are provided enough examples based on Barrett's Taxonomy to develop top-down technique for reading comprehension.	4.5	Excellent
	6. The reading tasks based on Barrett's Taxonomy make understanding easier by addressing one new concept at a time rather than several new concepts,	4.5	Excellent
	7. The exercises based on Barrett's Taxonomy encourage to think critically about the text.	4.5	Excellent
Total Score		24.8 3.54	Good

The [table 13](#) shows overall score of 3.54 indicates that while the exercises are effective in fostering reading comprehension, there is room for enhancement. Noteworthy is the excellent rating in areas that support critical thinking and structured concept focus, underscoring the textbook's commitment to deep cognitive engagement.

Table 14. Methodology Validity

	Indicator	Mean Score	Category
Methodology	1. The reading tasks present a method for learning a language.	4	Good
	2. The techniques for introducing and practicing new language items are appropriate for your students.	4.25	Excellent
	3. The reading skill is taught	4.5	Excellent
	4. The ability to communicate is developed.	4	Good
Total Score		16.75	Excellent
		4.19	

A score of 4.19 showcases the book’s solid methodological foundation, supporting student skill acquisition through structured learning techniques. This aligns well with Barrett’s Taxonomy, ensuring a balanced approach to skill development and language learning.

Table 15. Attractiveness of the Textbook and Physical Make-up Validity

	Indicator	Mean Score	Category
Attractiveness of the Textbook and Physical Make-up	1. The book's cover is attractive.	4	Good
	2. The visual imagery in the reading tasks have outstanding aesthetic level.	3.5	Good
	3. The illustrations are simple enough and relatively close to the text to enhance rather than distract from its meaning.	4.25	Excellent
	4. The text is interesting enough which make the students will happy to read it.	4.5	Excellent
Total Score		16.25	Excellent
		4.06	

With a mean score of 4.06, the textbook’s physical design and visual appeal effectively engage students, aiding comprehension without causing distraction. This focus on visual quality reinforces the book’s usability and accessibility for students.

Table 16 Teacher Manual Validity

	Indicator	Mean Score	Category
Teacher Manual	There is a sufficient direction for the teachers who will be using the reading tasks.	3.25	Average
Total Score		3.25	Average
		3.25	

The [table 16](#) reveals that the teacher manual received a mean score of 3.25, categorizing it as average. This score reflects that the guidance provided for teachers using the reading tasks is adequate but may require improvement. The average rating suggests that while there is some direction available, it might not be comprehensive enough to fully support teachers in effectively implementing the reading tasks. Overall, this indicates a need for enhanced instructional resources to better assist educators in utilizing the material.

Table 17. Practical Consideration Validity

Practical Consideration	Indicator	Mean Score	Category
	1. The book is long-lasting and durable.	4	Good
	2. The textbook has an attractive design.	4	Good
Total		8	Good
Score		4	

Based on the table 17, it can be seen that the practical consideration indicators achieved a mean score of 4, categorizing it as good. This score indicates that the textbook is both durable and long-lasting, as well as visually appealing due to its attractive design. The good rating suggests that the textbook meets practical standards for usage, ensuring it is a reliable resource for students and teachers alike. Overall, these aspects contribute positively to the overall usability and appeal of the textbook.

4.1.4 Teachers' Views: Need Analysis and The Urge of Reading Tasks Based on Barrett's Taxonomy

There The qualitative insights gathered from teachers underscore specific areas in English instruction that require improvement, particularly in the context of reading tasks. These excerpts from teacher interviews reveal diverse opinions on enhancing English language materials, reflecting on both cultural relevance and pedagogical depth. Each excerpt is followed by detailed analysis and interpretation.

"We need more reading material."

Interview Excerpt: Teacher from SMA Negeri 1 Padang (Date: October 5, 2024, Interview Set 1):

This response highlights the need for a greater variety of reading resources to meet students' diverse learning needs. By expanding the pool of reading materials, students would be exposed to a broader range of topics and vocabulary, ultimately enriching their learning experience. This suggestion aligns with a fundamental objective of language learning: providing materials that cater to different interests and language levels.

"The text should be based on students' ability, habit, and understanding. For the topics, it's better if they are related to **West Sumatera / Minangkabau Culture.**"

Interview Excerpt: Teacher from SMA Negeri 2 Padang (Date: October 5, 2024, Interview Set 2)

This teacher underscores the importance of creating materials that are both level-appropriate and culturally relevant. By including culturally significant topics like West Sumatera or Minangkabau heritage, students may find the materials more relatable and engaging. This perspective emphasizes culturally responsive pedagogy, where local culture becomes an integral part of language learning, aiding students in connecting with the material and reinforcing their cultural identity.

"The previous texts only present an outline of material. The material is **not too deep.** It should describe text definitions, characteristics, etc. The reading tasks should accommodate students to learn without the teacher's guidance."

Interview Excerpt: Teacher from SMA Negeri 3 Padang (Date: October 6, 2024, Interview Set 3)

This feedback calls for more comprehensive material that allows for **self-directed learning.** By providing detailed explanations and well-defined learning objectives, students can better understand concepts independently. This perspective supports a constructivist approach to learning, where students actively build knowledge through well-structured tasks that reduce dependency on teacher guidance.

“**Make the types of questions clear.** Moreover, reading tasks should encourage **higher-order thinking skills (HOTS).**”

Interview Excerpt: Teacher from SMA Negeri 7 Padang (Date: October 7, 2024, Interview Set 4):

The teacher stresses the importance of clear and structured questions that promote **higher-order thinking**. Tasks should move beyond simple comprehension and involve analysis, synthesis, and evaluation to enhance critical thinking skills. This focus on HOTS aligns with current educational trends that prioritize cognitive skills necessary for real-world problem-solving.

“**The reading text needs to be marked with line numbers** to make it easier for students to find answers quickly. **Vocabulary also needs improvement** as it is difficult for students.”

Interview Excerpt: Teacher from SMA Negeri 8 Padang (Date: October 7, 2024, Interview Set 5)

This teacher’s feedback highlights two main points: enhancing text accessibility through line numbers and improving vocabulary support. Line numbering can simplify the navigation of texts during comprehension tasks, while focused vocabulary instruction would address language difficulties. This approach would create a more user-friendly format and support incremental vocabulary acquisition, making reading tasks more manageable for students.

“The material should be **relatable to students’ lives**. I often compile various texts from other sources, as government-provided texts are **not attractive or relevant**. Foreign materials are more organized, covering aspects like perspective, dialogue, and pronunciation within one text.”

Interview Excerpt: Teacher from SMA Negeri 10 Padang (Date: October 8, 2024, Interview Set 6)

Here, the teacher underscores the need for relatable and well-organized materials that reflect students’ everyday experiences. The feedback suggests that imported texts often exhibit better structural organization and thematic coherence, which could be emulated to make locally developed materials more engaging and effective. This view calls for more relevant, life-applicable reading materials to resonate with students’ realities, enhancing their connection to the language content.

Collectively, these perspectives emphasize a clear call for improvements in reading tasks based on Barrett’s Taxonomy. Teachers express a need for diverse, culturally relevant, and pedagogically effective materials that promote independent learning and critical thinking. This need for depth in instructional materials aligns with the goals of Barrett’s Taxonomy, which prioritizes comprehension levels from literal to evaluative.

The recurring themes of relevance and engagement suggest that culturally connected materials can enhance students’ motivation and comprehension. Furthermore, the focus on higher-order thinking skills indicates a shift towards tasks that prepare students for complex cognitive engagement, essential for real-world application. These insights highlight the importance of contextually meaningful, well-organized, and accessible reading materials that align with students’ cognitive and cultural needs, ultimately supporting a holistic approach to language development.

5. Discussion

This study primarily aimed to identify key aspects for developing Grade X reading tasks aligned with Barrett’s Taxonomy to enhance students’ comprehension skills. By structuring reading tasks around the five levels of Barrett’s Taxonomy (literal comprehension, reorganization, inferential comprehension, evaluation, and appreciation), the research intended to balance lower and higher-order cognitive skills, ultimately promoting a comprehensive reading comprehension capability among students. The analysis, informed by teacher feedback, underscores the importance of aligning reading materials with pedagogical frameworks to support students’ academic and personal growth.

The findings highlight specific levels within Barrett's Taxonomy prioritized by educators, including reorganization, inferential comprehension, evaluation, and appreciation, all rated as "very high" in importance, while literal comprehension was considered "high." This hierarchy of comprehension levels reflects a collective shift in educational priorities toward fostering critical and analytical skills over basic recall. Consistent with previous research, these findings affirm the value of Barrett's Taxonomy in structuring tasks that promote higher-order thinking skills. For instance, [Surtantini, \(2019\)](#) noted the importance of developing different sub-skills of reading comprehension aligned with Barrett's levels, emphasizing the need for a structured approach in educational materials ([Surtantini, 2019](#)).

Moreover, the emphasis on critical and analytical thinking skills is echoed in various educational contexts. For example, [Mayarni and Nopiyantri \(2021\)](#) highlighted that analytical skills are integral to critical thinking, which involves analysis, synthesis, and evaluation of concepts ([Mayarni & Nopiyantri, 2021](#)). This aligns with the findings of [McBride and Philippou \(2021\)](#) who noted that students must develop questioning skills to interrogate data effectively, thereby enhancing their critical thinking capabilities ([McBride & Philippou, 2021](#)). Similarly, the integration of critical thinking in curricula, as discussed by [Cahit, \(2019\)](#) emphasizes the importance of critical reading and comprehension skills across various subjects, reinforcing the need for educators to incorporate these skills systematically into their teaching practices ([Cahit, 2019](#)).

Furthermore, the necessity for educators to focus on practical applications of critical thinking is supported by [Valūnaitė-Oleškevičienė et al., \(2019\)](#) who identified a demand for improvements in analytical skills and critical thinking within university studies. This is particularly relevant in the context of Barrett's Taxonomy, as it provides a structured approach to developing these competencies. The application of Barrett's levels in reading comprehension tasks, as noted by [Surtantini \(2019\)](#) further illustrates the importance of constructing educational materials that cater to various levels of understanding, thereby promoting a deeper engagement with texts ([Surtantini, 2019](#)).

Moreover, the teachers' preference for topics such as culture, science and technology, and social issues aligns with existing literature stressing the importance of culturally relevant and diverse reading materials to improve engagement and proficiency ([Amalya et al., 2020](#); [Souisa & Meyer, 2020](#)). The need for contextually relatable content, as expressed by teachers in this study, resonates with the findings of [Souisa and Meyer \(2020\)](#), who argued for reading materials that bridge students' prior knowledge with new information, thereby fostering a more meaningful learning experience. This relevance to students' lives not only improves engagement but also enhances retention and deeper comprehension.

The prioritization of reorganization, inferential comprehension, and evaluative levels within Barrett's Taxonomy reflects broader educational trends emphasizing critical thinking skills. This assertion is supported by [Javorčíková et al. \(2021\)](#), who highlight the significance of integrating critical reading into educational frameworks to enhance cognitive engagement among learners ([Javorčíková et al., 2021](#)). The integration of critical reading is essential, as it equips students with the necessary skills to navigate complex texts and fosters higher-order thinking, which is increasingly demanded in contemporary educational settings.

Furthermore, the emphasis on these higher-level skills suggests that educators are becoming more aware of the necessity to prepare students for advanced educational challenges, where the synthesis, analysis, and application of knowledge are paramount ([Maltepe, 2016](#)). The variation in topic preferences across different text types, such as science and technology for expository texts and health for procedural texts, underscores an awareness of curriculum goals that encourage students to engage with relevant, real-world topics. This is particularly evident in studies that explore the critical reading abilities of students in various contexts, indicating that exposure to diverse subject matter enhances their analytical skills ([Bağcı, 2019](#)). For instance, [Bağcı \(2019\)](#) found that integrating critical reading skills into teacher training programs significantly improves pre-service teachers' abilities to foster these skills in their future students ([Bağcı, 2019](#)).

Moreover, the selection of texts that resonate with students' experiences and interests can lead to increased engagement and motivation, further enhancing their critical thinking capabilities ("The Effects of Graphic Organizer-based Reading Instruction on Reading Comprehension among Malaysian ESL Learners", 2023). Additionally, the role of reading habits in developing higher-level cognitive skills cannot be overlooked. [Bağcı \(2019\)](#) asserts that individuals with established reading habits are more inclined to engage in complex mental processes such as analysis, synthesis, and evaluation compared to those without such habits ([Bağcı, 2019](#)). This notion is supported by findings that link critical reading self-efficacy to the

frequency and variety of reading experiences (Pratama, 2024). As students encounter a range of texts, they not only improve their comprehension but also cultivate the ability to critically assess and interpret information, which is essential in today's information-rich environment (Hromova et al., 2021).

An identified gap in the current educational materials is the insufficient provision of engaging, diverse reading tasks that meet both students' and teachers' expectations. Teachers in this study highlighted a need for more comprehensive materials that are culturally relevant and better aligned with students' linguistic abilities and cognitive needs (Howell, 2021; Jacob & Centofanti, 2024). This aligns with Howell (2021), who found that evolving educational materials to remain engaging and effective often requires periodic content updates and enhancements to meet changing educational demands.

In light of these findings, this study contributes to the field by developing a structured approach to reading task design that integrates all levels of Barrett's Taxonomy. This approach addresses a need for balanced cognitive development in students' reading tasks and offers a replicable model for educators and curriculum developers, supporting the development of materials that emphasize critical thinking and comprehension skills. For future research, examining the effectiveness of these structured tasks across diverse educational settings could provide insights into the adaptability of Barrett's Taxonomy for different student demographics and learning environments. Further studies might also explore the impact of integrating digital tools to enhance engagement with reading tasks and conduct longitudinal studies to assess how well these comprehension skills translate to improved academic performance and real-world applications.

6. Conclusion

In conclusion, this study provides valuable insights into the development of Grade X reading tasks based on Barrett's Taxonomy, aimed at enhancing reading comprehension for senior high school students. By aligning these tasks with the preferences of English teachers in Padang, the study reveals a strong need for integrating higher-order thinking skills alongside diverse, contextually relevant topics. Key findings indicate that tasks incorporating important phenomena for descriptive texts, cultural narratives, science and technology in expository texts, health-related procedural texts, social issues in recounts, and natural disasters in reports foster students' comprehension through literal, inferential, reorganizational, evaluative, and appreciative skills. This approach not only promotes critical thinking but also supports deeper cognitive engagement, responding to a growing educational emphasis on analytical and evaluative skills. The study's novelty lies in its comprehensive application of Barrett's Taxonomy to create reading tasks that encourage a balanced development of both lower and higher-order cognitive skills, making it a valuable resource for policymakers and curriculum developers. Implications of this research extend to enriching students' learning experiences by connecting classroom tasks to real-world contexts, thus enhancing engagement and relevance. For future research, investigating the effectiveness of these structured tasks across varied educational environments could yield insights into Barrett's adaptability, while exploring digital tool integration could further enhance student engagement with reading tasks.

References

- Adeoye-Olatunde, O. A., & Olenik, N. L. (2021). Research and scholarly methods: Semi-structured interviews. *Journal of the American College of Clinical Pharmacy*, 4(10), 1358–1367. <https://doi.org/10.1002/jac5.1426>
- Al Roomy, M. (2022). Investigating the effects of critical reading skills on students' reading comprehension. *Arab World English Journal*, 13(1), 31–45. <https://doi.org/10.24093/awej/vol13no1.3>
- Alhadi, M., & Zainil, Y. (2023). An analysis of Barrett's Taxonomy's applications in teacher association (MGMP) published English workbooks (LKS) for senior high schools in Padang. *Journal of English Language Teaching*, 12(2), 582–589.
- Amalia, R. (2020). Game edukasi dan cerita interaktif sejarah kerajaan di Sumatra menggunakan algoritma fuzzy Sugeno untuk mengatur perilaku NPC. *Jurnal Informatika dan Rekayasa Perangkat Lunak*, 1(2), 192–202. <https://doi.org/10.2222/jipl.2020.1.2>
- Amalya, R. V. A., Anugerahwati, M., & Yaniafari, R. P. (2020). An analysis of reading comprehension questions based on Barrett's Taxonomy of an English coursebook entitled Bright for Eight Graders. In *Proceedings of the National English Education, Language, and Literature Seminar (NEELLS)*, (pp. 45-57).

- Andayani, A. (2023). The effectiveness of higher-order thinking skill (HOTS)-based nationalism character education in Indonesian language learning. *EAI Endorsed Transactions on Collaborative Computing*, 17(12), 2333287. <https://doi.org/10.4108/eai.17-12-2022.2333287>
- Aryani, E., & Wahyuni, S. (2020). An analysis of higher-order thinking skills realization in reading comprehension questions. *Language Circle Journal of Language and Literature*, 15(1), 83-89. <https://doi.org/10.15294/lc.v15i1.26064>
- Assaly, I., & Smadi, O. (2015). Using Bloom's taxonomy to evaluate the cognitive levels of master class textbook's questions. *English Language Teaching*, 8(5), 100–110. <https://doi.org/10.5539/elt.v8n5p100>
- Aynalem, Y. B., & Tesmand, A. G. (2023). An analysis of reading comprehension sub-skills in EFL textbooks. *Journal of Languages and Language Teaching*, 11(4), 641–654.
- Bağcı, H. (2019). An investigation of Turkish language and Turkish language and literature teacher candidates' critical reading self-efficacy (The case of Mehmet Akif Ersoy University). *Advances in Language and Literary Studies*, 10(4), 14–23. <https://doi.org/10.7575/aialc.v10n4p.14>
- Barrett, C. F., Santee, M. V., Fama, N. M., Freudenstein, J. V., Simon, S. J., & Sinn, B. T. (2022). Lineage and role in integrative taxonomy of a heterotrophic orchid complex. *Molecular Ecology*, 31(18), 4762–4781. <https://doi.org/10.1111/mec.16307>
- Brown, H. D., & Lee, H. (2015). *Teaching by principles: An interactive approach to language pedagogy*. Pearson.
- Bulatbayeva, K., Fahrutdinova, G., Dlimbetova, G., Moldabekova, S., & Bakirova, K. (2019). Ecological problems of the region as the base for foundation of an English-speaking communicative competence. *Acta Pedagogica Naturalis*, 1(e0814), 33-46. <https://doi.org/10.3897/ap.1.e0814>
- Cahit, E. (2019). A review on the relationship between critical thinking skills and learning domains of Turkish language. *Educational Research and Reviews*, 14(3), 67–77. <https://doi.org/10.5897/err2018.3658>
- Carless, D. (2022). From teacher transmission of information to student feedback literacy: Activating the learner role in feedback processes. *Active Learning in Higher Education*, 23(2), 143–153. <https://doi.org/10.1177/1469787420933577>
- Catts, H. W. (2022). Rethinking how to promote reading comprehension. *American Educator*, 45(4), 26–32.
- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36.
- Ekalia, Y., Selamat, E., Jemadi, F., Jelimun, M., & Setiawan, A. (2022). Implementing Bloom's revised taxonomy in analyzing the reading comprehension questions. *English Education Journal of English Teaching and Research*, 7(1), 59–66. <https://doi.org/10.29407/jetar.v7i1.17823>
- Forood, S., & Farahani, A. (2013). A comparative study between the performance of Iranian high and low critical thinkers on different types of reading comprehension questions. *Theory and Practice in Language Studies*, 3(9), 1710–1716. <https://doi.org/10.4304/tpls.3.9.1710-1716>
- Guthrie, J., Klauda, S., & Ho, A. (2013). Modeling the relationships among reading instruction, motivation, engagement, and achievement for adolescents. *Reading Research Quarterly*, 48(1), 9–26. <https://doi.org/10.1002/rrq.035>
- Hickman, L., Thapa, S., Tay, L., Cao, M., & Srinivasan, P. (2022). Text preprocessing for text mining in organizational research: Review and recommendations. *Organizational Research Methods*, 25(1), 114–146. <https://doi.org/10.1177/1094428120948603>
- Hirvonen, R., Georgiou, G., Lerkkanen, M., Aunola, K., & Nurmi, J. (2009). Task-focused behavior and literacy development: A reciprocal relationship. *Journal of Research in Reading*, 33(3), 302–319. <https://doi.org/10.1111/j.1467-9817.2009.01415.x>
- Howell, R. A. (2021). Engaging students in education for sustainable development: The benefits of active learning, reflective practices, and flipped classroom pedagogies. *Journal of Cleaner Production*, 325, 129318. <https://doi.org/10.1016/j.jclepro.2021.129318>
-

- Hromova, N., Kryvych, M., Chernihivska, N., Vinnytska, T., & Bloshchynskyi, I. (2021). Forming critical reading skills in a low-intermediate class of English. *World Journal of English Language*, 12(1), 74–82. <https://doi.org/10.5430/wjel.v12n1p74>
- Hyland, K. (2019). *Second language writing*. Cambridge University Press.
- Jacob, T., & Centofanti, S. (2024). Effectiveness of H5P in improving student learning outcomes in an online tertiary education setting. *Journal of Computing in Higher Education*, 36(2), 469–485. <https://doi.org/10.1007/s12528-023-09387-1>
- Javorčíková, J., Badinská, M., Ližbětínová, L., & Brett, D. (2021). The need for integration of reading, critical thinking and academic reading skills: A quantitative analysis of Slovak undergraduates' reading performance. *Journal of Language and Cultural Education*, 9(1), 12–29. <https://doi.org/10.2478/jolace-2021-0002>
- Kaye, L. K., Rousaki, A., Joyner, L. C., Barrett, L. A. F., & Orchard, L. J. (2022). The online behaviour taxonomy: A conceptual framework to understand behaviour in computer-mediated communication. *Computers in Human Behavior*, 137, 107443. <https://doi.org/10.1016/j.chb.2022.107443>
- Köksal, D., Ulum, Ö., & Yürük, N. (2023). Revised Bloom's taxonomy in reading texts in EFL/ESL settings. *Acta Educationis Generalis*, 13(1), 133–146. <https://doi.org/10.2478/atd-2023-0007>
- Kolić-Vehovec, S., & Bajšanski, I. (2006). Comprehension monitoring and reading comprehension in bilingual students. *Journal of Research in Reading*, 30(2), 198–211. <https://doi.org/10.1111/j.1467-9817.2006.00319.x>
- Kwangmuang, P., Jarutkamolpong, S., Sangboonraung, W., & Daungtod, S. (2021). The development of learning innovation to enhance higher-order thinking skills for students in Thailand junior high schools. *Heliyon*, 7(6), e07316. <https://doi.org/10.1016/j.heliyon.2021.e07316>
- Laddha, M. D., Lokare, V. T., Kiwelekar, A. W., & Netak, L. D. (2021). Classifications of the summative assessment for revised Bloom's taxonomy by using deep learning. *arXiv Preprint*, arXiv:2104.08819. <https://doi.org/10.48550/arXiv.2104.08819>
- Lee, J. F. (2000). *Tasks and communicating in language classrooms*. [No further publication information available].
- Li, Y., Thomas, M. A., & Liu, D. (2021). From semantics to pragmatics: Where IS can lead in natural language processing (NLP) research. *European Journal of Information Systems*, 30(5), 569–590. <https://doi.org/10.1080/0960085X.2021.1879914>
- Limón-Fernández, H., Loyo, L., & Mayoral-Gutiérrez, L. (2022). Reading argumentative texts: Effects of the presence-absence of connectives in reading comprehension and cognitive effort. *Revista Costarricense de Psicología*, 41(2), 99–117. <https://doi.org/10.22544/rcps.v41i02.01>
- Maltepe, S. (2016). An analysis of the critical reading levels of pre-service Turkish and literature teachers. *Eurasian Journal of Educational Research*, 16(63), 168–184. <https://doi.org/10.14689/ejer.2016.63.10>
- Manihuruk, D. (2020). The correlation between EFL students' vocabulary knowledge and reading comprehension. *JET (Journal of English Teaching)*, 6(1), 86–95. <https://doi.org/10.33541/jet.v6i1.1264>
- Mayarni, M., & Nopiyanti, E. (2021). Critical and analytical thinking skill in ecology learning: A correlational study. *Jurnal Pendidikan Biologi Indonesia (JPBI)*, 7(1), 63–70. <https://doi.org/10.22219/jpbi.v7i1.13926>
- McBride, K., & Philippou, C. (2021). “Big results require big ambitions”: Big data, data analytics, and accounting in master's courses. *Accounting Research Journal*, 35(1), 71–100. <https://doi.org/10.1108/arj-04-2020-0077>
- Miralpeix, I., & Muñoz, C. (2018). Receptive vocabulary size and its relationship to EFL language skills. *IRAL – International Review of Applied Linguistics in Language Teaching*, 56(1), 1–24. <https://doi.org/10.1515/iral-2017-0016>
-

- Musa, N., & Othman, M. (2021). Effectiveness of teaching higher-order thinking skills (HOTS) in Islamic education for primary school. *International Journal of Academic Research in Business and Social Sciences*, 11(4). <https://doi.org/10.6007/ijarbss/v11-i4/8858>
- Mytra, P., Wardawaty, W., Akmal, A., Kusnadi, K., & Rahmatullah, R. (2021). Society 5.0 in education: Higher-order thinking skills. *EAI Endorsed Transactions on Collaborative Computing*, 18(11), e2311812. <https://doi.org/10.4108/eai.18-11-2020.2311812>
- Nation, I. S. P. (2001). *Learning vocabulary in another language* (Vol. 10). Cambridge University Press.
- Novytasari, D. A. (2017). Analysis of reading comprehension questions in the English textbook for eleventh graders based on Barrett's taxonomy. *Unpublished manuscript*, [University name, if available].
- Pareek, P., & Thakkar, A. (2021). A survey on video-based human action recognition: Recent updates, datasets, challenges, and applications. *Artificial Intelligence Review*, 54(3), 2259–2322. <https://doi.org/10.1007/s10462-020-09908-2>
- Park, S.-M., & Kim, Y.-G. (2022). A metaverse: Taxonomy, components, applications, and open challenges. *IEEE Access*, 10, 4209–4251. <https://doi.org/10.1109/ACCESS.2022.3141897>
- Pillawaty, S., Nurhamzah, N., & Nurmila, N. (2022). Analysis of higher-order thinking skills on end-of-year assessment questions for Islamic education subjects. *Attthulab Islamic Religion Teaching and Learning Journal*, 7(2), 76–88. <https://doi.org/10.15575/ath.v7i2.19164>
- Pratama, A. (2024). Students' critical thinking on reading comprehension based on contextual reading material: An experimental study. *SALEE: Study of Applied Linguistics and English Education*, 5(1), 258–270. <https://doi.org/10.35961/salee.v5i1.1097>
- Pujiastuti, H., & Haryadi, R. (2023). Higher-order thinking skills profile of Islamic boarding school students on geometry through the STEM-based video approach. *International Journal of STEM Education for Sustainability*, 3(1), 156–174. <https://doi.org/10.53889/ijses.v3i1.135>
- Ramadhani, N., Salija, K., & Baa, S. (2023). The correlation between students' critical thinking skills and their reading comprehension at undergraduate study program, English department faculty of languages and literature, Universitas Negeri Makassar. *Klasikal Journal of Education, Language Teaching, and Science*, 5(1), 25–36. <https://doi.org/10.52208/klasikal.v5i1.612>
- Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge university press.
- Roozkhoon, M., & Samani, E. (2013). The effect of using anticipation guide strategy on Iranian EFL learners' comprehension of culturally unfamiliar texts. *Mediterranean Journal of Social Sciences*, 4(6), 127–134. <https://doi.org/10.5901/mjss.2013.v4n6p127>
- Sandahl, J. (2020). Opening up the echo chamber: Perspective taking in social science education. *Acta Didactica Norden*, 14(4), Article 8350. <https://doi.org/10.5617/adno.8350>
- Sangers, N., Evers-Vermeul, J., Sanders, T., & Hoeken, H. (2020). Vivid elements in Dutch educational texts. *Narrative Inquiry*, 30(1), 185–209. <https://doi.org/10.1075/ni.18090.san>
- Sarker, I. H. (2021). Deep learning: A comprehensive overview on techniques, taxonomy, applications and research directions. *SN Computer Science*, 2(6), Article 420. <https://doi.org/10.1007/s42979-021-00765-6>
- Schurer, T., Opitz, B., & Schubert, T. (2020). Working memory capacity but not prior knowledge impact on readers' attention and text comprehension. *Frontiers in Education*, 5, Article 26. <https://doi.org/10.3389/educ.2020.00026>
- Şimşek, B., & Direkçi, B. (2023). The effects of augmented reality storybooks on students' reading comprehension. *British Journal of Educational Technology*, 54(3), 754–772. <https://doi.org/10.1111/bjet.13208>
-

- Souisa, T. R., & Meyer, F. (2020). Building students' background knowledge on reading comprehension through the PREP method for the tenth grade students at SMA Negeri 1 Tiakur. *Koli Journal*, 1(1), 36–48.
- Su'ad, S., Astiyowati, L., Setiadi, G., Utaminingsih, S., & Fakhriyah, F. (2022). Development of textbooks oriented to higher-order thinking skills based on local wisdom. *EAI Endorsed Transactions on Creative Technologies*, 11(10), Article e2319429. <https://doi.org/10.4108/eai.11-10-2021.2319429>
- Sukmawijaya, A., Yunita, W., & Sofyan, D. (2020). Analyzing higher-order thinking skills on the compulsory English textbook for tenth graders of Indonesian senior high schools. *JoALL (Journal of Applied Linguistics and Literature)*, 5(2), 137–148. <https://doi.org/10.33369/joall.v5i2.10565>
- Supiandi, U., Sari, S., & Subarkah, C. (2019). Enhancing students' higher-order thinking skills through an Instagram-based flipped classroom learning model. *Advances in Educational Sciences*, 18(2), 55–65. <https://doi.org/10.2991/aes-18.2019.55>
- Surtantini, R. (2019). Reading comprehension question levels in grade X English students' book in light of the issues of curriculum policy in Indonesia. *Parole: Journal of Linguistics and Education*, 9(1), 44–52. <https://doi.org/10.14710/parole.v9i1.44-52>
- Tavera, G., & Casinillo, L. (2020). Knowledge acquisition practices and reading comprehension skills of the learners in Hilongos South District, Leyte Division, Philippines. *JPI (Jurnal Pendidikan Indonesia)*, 9(3), 533–541. <https://doi.org/10.23887/jpi-undiksha.v9i3.28114>
- Teddle, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of mixed methods research*, 1(1), 77-100.
- Tian, X. (2023). Deep learning influences on higher education students' digital literacy: The mediating role of higher-order thinking. *International Journal of Engineering Pedagogy (iJEP)*, 13(6), 33–49. <https://doi.org/10.3991/ijep.v13i6.38177>
- Ulla, M., & Winitkun, D. (2017). Thai learners' linguistic needs and language skills: Implications for curriculum development. *International Journal of Instruction*, 10(4), 203–220. <https://doi.org/10.12973/iji.2017.10412a>
- Valūnaitė-Oleškevičienė, G., Puksas, A., Gulbinskienė, D., & Mockienė, L. (2019). Student experience on the development of transversal skills in university studies. *Pedagogika*, 133(1), 63–77. <https://doi.org/10.15823/p.2019.133.4>
- Velásquez, E. (2019). The effect of discipline-related knowledge on heritage language learners' reading comprehension. *Athens Journal of Education*, 7(1), 31–48. <https://doi.org/10.30958/aje.7-1-2>
- Wankhade, M., Rao, A. C. S., & Kulkarni, C. (2022). A survey on sentiment analysis methods, applications, and challenges. *Artificial Intelligence Review*, 55(7), 5731–5780. <https://doi.org/10.1007/s10462-022-10157-4>
- Widodo, A., Radiusman, R., Umar, U., & Nursaptini, N. (2020). Analisis konten HOTS dalam buku siswa kelas V tema 6 “Panas dan perpindahannya” kurikulum 2013. *Madrasah: Jurnal Pendidikan dan Pembelajaran Dasar*, 12(1), 1–13. <https://doi.org/10.18860/mad.v12i1.7744>
- Yıldırım, K., Çetinkaya, F., Ateş, S., Kaya, D., & Rasinski, T. (2020). Testing the KAPS model of reading comprehension in a Turkish elementary school context from low socioeconomic background. *Education Sciences*, 10(4), Article 90. <https://doi.org/10.3390/educsci10040090>
- Young, T., Ricks, P., & MacKay, K. (2023). Engaging students with expository books through interactive read-alouds. *The Reading Teacher*, 77(1), 6–15. <https://doi.org/10.1002/trtr.2210>
- Yusnadi, Y., Rosdiana, R., & Anifah, A. (2020). The development of teaching materials for the principles of nonformal education based on higher-order thinking skills on the subject of tasks and population goals of nonformal education. *Budapest International Research and Critics in Linguistics and Education (BIRLE) Journal*, 3(1), 377–386. <https://doi.org/10.33258/birle.v3i1.826>
-