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Examining the Impact of WRITE Learning Model on Students' Critical Reading Skill in Elementary School

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Abstract
Despite the recognized importance of critical reading for academic success, elementary school students in Indonesia continue to demonstrate low proficiency in this skill, particularly in connecting texts with personal experiences and evaluating information critically. This gap is exacerbated by the limited integration of technology-based literacy models that simultaneously develop reading and writing competencies. This study aims to analyze the influence of WRITE (Writing-Reading Literacy Assisted Interactive and Reflective E-Book) learning models on critical reading skills of elementary school students. This study uses a quantitative method with the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach to analyze the relationship between the tested variables. The research instrument used questionnaires to measure various aspects of critical reading skills. The sample used in this study amounted to 71 students from elementary school in Magelang. The results showed that most of the hypotheses tested had significant relationships, especially in the aspects of analysis, interpretation, evaluation, and inference that affected students' critical reading skills. However, some factors such as appreciation of critical reading skills did not show significant influence. The learning model in this study has been proven to be effective in improving students' critical reading skills. This research contributes to the development of technology-based learning methods that can be implemented in elementary education to improve students' critical thinking skills.
Keywords: Critical reading skills; elementary education; interactive reflective e-book; writing and reading literacy; WRITE model

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INTRODUCTION

Basic literacy skills, which include the ability to read, write, and count, are fundamental competencies that every individual must master. These skills are the main prerequisites for continuing to higher education (Anwas et al., 2022). Reading and writing literacy is an essential ability that has a crucial role in building critical understanding in students. According to Graham & Hebert, (2011), reading and writing literacy not only serves as a means to understand subject matter, but also as an instrument for fostering critical and analytical thinking skills. At the elementary education level, mastery of this literacy is very important to build a solid foundation for future academic success. Reading as a crucial skill that needs to be developed in elementary school students (Ghani et al., 2022). Reading as the main basis for students to master the

learning material (Hassanzadeh & Nikkhoo, 2019). In addition to reading skills, writing also needs to be developed. Writing is the methods to train students' critical thinking skills. Through writing activities, students can interpret information in various forms, such as images, tables, graphs, maps, and others (Shara et al., 2022). Andriani et al. (2019) stated that there is a close relationship between writing and reading skills.

The results of observations in the fourth grade found several problems, namely most of the students' critical reading skills did not look good. This can be seen during presentation and question and answer activities, most students are confused when asked about the shortcomings and advantages of the stories read. This shows that students still have difficulty connecting reading texts with their life experiences. However, many studies show that the critical reading ability of primary school students is still at a worrying level, especially in Indonesia. Learning strategies are needed as an effort to strengthen the success of the learning process. Critical reading is the ability to analyze written material, distinguish facts and opinions, make questions, make decisions based on logic, make comparisons and evaluations (Ozensoy, 2021). Fisher & Frey, (2019), suggests that critical reading involves the ability to question the content of the text, look for connections between ideas, and connect the text to a broader context. Through this reading, students obtain comprehensive reading text information. Critical reading can be done on all types of texts such as argumentative, informational and literary. Critical reading encourages readers to discover implicit meanings and make critiques of written input (Churat et al., 2022). Critical reading can improve academic ability (Kosimov, 2022). This increase occurs because students are encouraged to gain a deeper understanding of the reading content. Critical reading supports the success of students' learning achievement to be better (Elhefni et al., 2020). Critical reading encourages students to have a long-term memory. This makes students able to master the learning material well, so that learning achievement can increase. Critical reading also has a significant effect on students' ability to meet their needs (Ocak & Karslı, 2022).

Literacy in the digital era is no longer limited to understanding printed texts, but also includes the ability to understand information through digital media (Kristiawan et al., 2022; Sudatha et al., 2024). The WRITE (Writing-Reading Literacy Assisted Interactive and Reflective E-Book) learning model is one of the strategies in improving critical reading skills. This model supports the realization of interesting, and innovative learning. Interactive e-book integration encourages activeness and develops students' understanding of reading texts (Zhang et al., 2021). Interactive e-books help students develop the skills to analyze and evaluate information from a variety of sources, which is an essential component of critical reading (Lim et al., 2020). E-books encourage student activity during the reading learning process. According to research conducted by Lim et al. (2020), interactive e-books can elevate students' motivation to learn while helping them understand the material better. Reflective integration also not only develops students' critical thinking skills, but also fosters self-awareness of learning and analyzing their experiences (Yaacob et al., 2020). Through reflective thinking, students reflect on the reading text and relate it to the experience and knowledge they have. Reflective thinking involves being engaged, ongoing, determined, and thoughtfully evaluating everything that is considered to be true with reasons that support and lead to conclusions (Ozudogru, 2021). Reading comprehension can be affected by reading habits that are done regularly. Getting used to reading provides significant benefits for students, allowing them to become more informed and insightful (Andriani et al., 2019) In addition, writing activities must have meaning for students. Writing provides various benefits, including students being able to convey their thoughts in a structured and meaningful form (Karakuş, 2023).

This study aims to find out how WRITE (Writing-Reading Literacy Assisted Interactive and Reflective E-Book) learning model has an impact on critical reading skills in elementary school students.This study tested 11 hypotheses that analyze the relationship between various factors in the learning process, such as analysis, interpretation, evaluation, and inference, on students' critical reading skills. This research makes an important contribution by presenting new insights into the interaction between these factors in improving critical thinking skills. The hypothesis in

this study is as follows.

H1: A significant association can be found between Accompanying Impact and Critical Reading Skill

H2: A significant association can be found between Analysis and Interpretation

H3: A significant association can be found between Appreciation and Critical Reading Skill

H4: A significant association can be found between Evaluation and Inference

H5: A significant association can be found between Inference and Analysis

H6: A significant association can be found between Instructional Impact and Accompanying Impact

H7: A significant association can be found between Interpretation and Appreciation

H8: A significant association can be found between the Principle of Reaction and the Social System

H9: A significant association can be found between Social Systems and Critical Reading Skills

H10: A significant association can be found between Support System and Critical Reading Skill

H11: A significant association can be found between Syntax and Critical Reading Skill

METHODS

Design

This study uses Quantitative Estimation Using Cross-Sectional Research Method to identify the relationship between critical reading skills in learning in elementary schools and various factors that influence them. The cross-sectional research design was chosen because there was no direct control over student learning variables, but analyzed existing data to identify patterns and relationships between variables (Abas et al., 2023). This type of correlation enables researchers to determine the degree to which variables influence the development of critical reading skills in elementary school students.

Participant

This study involved 71 elementary school students in Magelang. The students are from grade IV. The participants consisted of 41 female students and 30 male students. All students participated in the implementation of WRITE (Writing-Reading Literacy Assisted Interactive and Reflective E-Book) learning model during classroom instruction.

Data Collection

Data were collected using questionnaires to gather information on critical reading skills. According to Keller, (2010) the questionnaire instrument was administered to Grade IV students to assess their level of critical reading skills. The questionnaire utilized a Likert scale with four response options. The test instrument consisted of 11 questions covering 5 aspects, while the response instrument included 25 items divided into 6 aspects. Scoring for positive statements was as follows: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Conversely, for negative statements, the scoring was reversed: strongly disagree (4), disagree (3), agree (2), and strongly agree (1).

Validity and Reliability

This study uses Confirmatory Factor Analysis (CFA) is used to design and enhance reflectively measured constructs based on domain sampling models. According to Hair et al., (2019) validity signifies to the accuracy of a measurement tool, with convergent validity being a crucial indicators. Convergent validity assesses the correlation between items within the same dimension and evaluates the Average Variance Extracted (AVE). The recommended AVE value should exceed 0.5 (Bagozzi & Yi, 1988).

Reliability refers to the consistency and stability of the measurement instrument. The indicators used to assess reliability include the consistency of individual items and internal coherence (Hair et al., 2006). For exploratory research, a reliability score of at least 0.60 is considered acceptable, while studies based on a predetermined measure should have a reliability score of 0.70 or higher (Hair et al., 2011). According to Purwanto & Sudargini, (2021) he first step in evaluating reflective measurement models involves checking factor loadings. The

next step is to assess internal consistency reliability, typically measured using composite reliability (Jöreskog, 2013). Higher reliability scores generally indicate a stronger level of reliability (Purwanto & Sudargini, 2021).

This instrument was processed using the SmartPLS 3.0 application. The analysis aimed to conduct PLS algorithm testing and bootstrapping testing. The algorithm test is used to assess the validity and reliability of the results, considering the values of Cronbach's Alpha (>0.7), Composite Reliability (>0.7), AVE (>0.5), and Loading Factor (>0.7) (Hair et al., 2019)

Data Analysis

The data analysis technique used to assess validity and reliability involves first-order confirmatory factor analysis, which aims to obtain valid and reliable item constructs. To evaluate the latent variable construct model, Partial Least Squares – Structural Equation Modeling (PLS-SEM) is applied. PLS-SEM is an analytical method designed to identify or construct predictive models. According to Huang et al., (2020), PLS-SEM is specifically intended to detect causal relationships with statistically significant reciprocal linear connections. This technique is particularly suitable for developing models of the theory. In this study, PLS-SEM is applied to examine the relationships between research variables. The analysis process involves using the PLS algorithm and bootstrapping, which repeats sampling 5000 times to obtain path coefficients and significance (Hair et al., 2019). According to Henseler & Chin, (2010) , this method enables a detailed examination of the correlations and influences between dimensions.

A Variance Inflation Factor (VIF) value of 5 suggests potential multicollinearity issues, so the VIF value must remain below 5 Hair et al., (2011). SRMR and RMS_theta are widely applied indicators in PLS-SEM for assessing the overall of model fit. SRMR values span from 0 to 1, with a value under 0.08 indicating an adequate model fit (Hu & Bentler, 1998). RMS_theta values are specifically used for evaluating reflective measurement models, with values below 0.12 indicating a good model fit (Henseler et al., 2014). The Q2 value must be greater than zero to demonstrate the predictive accuracy of the structural model for a given endogenous construct. Generally, Q2 value exceeding 0, i.e. 0.25, and 0.5, indicate minor, moderate, and significant levels of predictive accuracy (Hair et al., 2019).

RESULTS AND DISCUSSION

Results

Validity and Reliability Test

The testing model is executed to verify the validity and estimate the reliability of the data for each variable using Smart-PLS. The value of the path coefficient, item load factor, and structural model of PLS-SEM results measurement are shown in Figure 1 and Figure 2. The results of the convergence validity and reliability tests and response are shown in Table 1 and Table 2.

Figure 1 displays the results of factor analysis on the instrument test. The results of this analysis factor have 5 aspects, namely interpretation, analysis, inference, evaluation and appreciation of critical reading skills. Each factor represents a key dimension of students' ability to engage critically with texts. The interpretation factor reflects the skill of understanding explicit and implicit meanings within the text. The analysis factor indicates the ability to identify relationships among ideas, arguments, and textual structures. The inference factor involves drawing logical conclusions based on textual evidence. The evaluation factor represents the ability to assess the credibility, logic, and relevance of information. Finally, the appreciation factor encompasses the reader's reflective response and emotional engagement with the text. Together, these five aspects provide a comprehensive framework for assessing and understanding students' critical reading competencies.

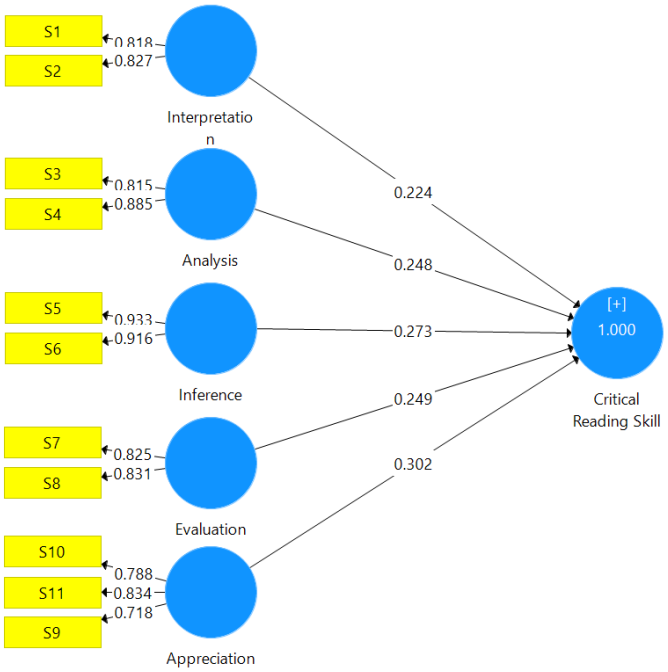

Figure 1. Results of Analysis Factors Critical Reading Skill Test

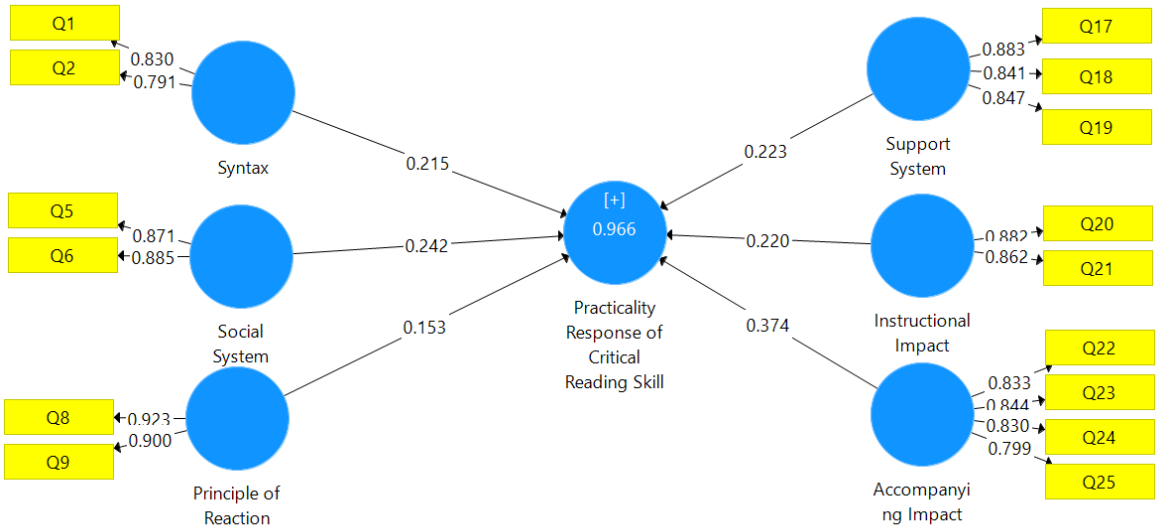

Figure 2. Results of Analysis Factor (Response)

Figure 2 shows the results of factor analysis on the response instrument. The results of this analysis factor have 6 aspects, namely syntax, social system, principle of reaction, support system, instructional impact and accompanying impact which affect the response of critical reading skills. Figures 1 and 2 show a factor analysis showing the acceptable convergent validity of each item. At the construct level, AVE is often used as an indicator of convergent validity. In Table 1, the AVE value is within the acceptable limit of the factor value for each item greater than 0.50. This indicates that all items meet the validity requirements.

Table 1. The Result of Construct Validity and Reliability Critical Reading Skill Test

Aspect (Test)	Indicators	Question Items	Factor Loading	Decision	AVE	Composite Reliability	Decision	VIF	Decision
Interpretation	*Finding the cause and effect of an event*	S1	0.818	Valid	0.676	0.807	Reliable	1.614	No multicollinearity
	Finding a statement about a person	S2	0.827	Valid				1.506	No multicollinearity
Analysis	*Reveal reasons for supporting and opposing an opinion*	S3	0.815	Valid	0.724	0.839	Reliable	1.479	No multicollinearity
	Categorize characters, objects, places and times of events	S4	0.885	Valid				1.256	No multicollinearity
Inference	*Formulate alternative problem-solving*	S5	0.933	Valid	0.854	0.922	Reliable	2.521	No multicollinearity
	Predicting the result of the continuation of the reading text	S6	0.916	Valid				2.138	No multicollinearity
Evaluation	*Asses the credibility of information and opinions*	S7	0.825	Valid	0.686	0.813	Reliable	1.667	No multicollinearity
	Assesses the content of the reading with the experience they have, values, ethics and morals that apply	S8	0.831	Valid				1.160	No multicollinearity
Appreciation	*Expressing feelings and opinions in the context of the reading*	S9	0.718	Valid	0.611	0.824	Reliable	1.478	No multicollinearity
	Reveal expressions related to the event, the perpetrator and his character	S10	0.834	Valid				1.626	No multicollinearity
	Expressing opinions about the language and images used by the author	S11	0.718	Valid				1.633	No multicollinearity

Table 2. The Result of Construct Validity and Reliability Student's Response

Aspect (Response)	Indicators	Question Items	Factor Loading	Decision	Composite Reliability	Decision	VIF	Decision
Syntax	*Ease of syntax learning model*	Q1	0.830	Valid	0.735	Reliable	1.224	No multicollinearity
	Varied learning	Q2	0.791	Valid			1.156	No multicollinearity
	Usefulness of learning syntax	Q3	0.598	Out			1.112	No multicollinearity
	Interest in learning	Q4	0.434	Out			1.088	No multicollinearity
Social System	*Participant-centered learning*	Q5	0.871	Valid	0.789	Reliable	1.415	No multicollinearity
		Q6	0.885	Valid			1.496	No multicollinearity
		Q7	0.635	Out			1.085	No multicollinearity
Principle of Reaction	*Student activity*	Q8	0.923	Valid	0.802	Reliable	1.786	No multicollinearity
	Communicative learning process	Q9	0.900	Valid			1.873	No multicollinearity
	Learning atmosphere in the classroom	Q10	0.650	Out			1.074	No multicollinearity
Support System	*Completeness of learning resources*	Q11	0.595	Out	0.801	Reliable	1.295	No multicollinearity
	Ease of use of e-books	Q12	0.572	Out			1.517	No multicollinearity
	Ease of e-book material	Q13	0.580	Out			1.533	No multicollinearity
	Clarity of reflective e-book material	Q14	0.473	Out			1.423	No multicollinearity
	The appeal of reflective e-book presentation	Q15	0.361	Out			1.257	No multicollinearity
	Reflective e-book language facility	Q16	0.417	Out			1.515	No multicollinearity
	Ease of use of LKPD	Q17	0.883	Valid			2.665	No multicollinearity
	Attractiveness of LKPD	Q18	0.841	Valid			1.860	No multicollinearity
	Language facilities at LKPD	Q19	0.847	Valid			2.432	No multicollinearity
Instructional Impact	*Supporting the development of critical reading*	Q20	0.882	Valid	0.864	Reliable	1.373	No multicollinearity
		Q21	0.862	Valid			1.373	No multicollinearity
Accompanying Impact	*Supports independence. creativity. collaboration. and reflection*	Q22	0.833	Valid	0.896	Reliable	1.894	No multicollinearity
		Q23	0.844	Valid			2.039	No multicollinearity
		Q24	0.830	Valid			1.914	No multicollinearity
		Q25	0.799	Valid			1.722	No multicollinearity

The Result of Measurement Model Analysis

Table 3 shows, all constructs have a VIF value of less than 5.0, indicating that there are no multicollinearity issues in each dimension. The model's SRMR value in this study is 0.178, with the RMS_theta value being 0.200. Despite surpassing 0.12, the value is still tolerable. Therefore, this model is generally said to be good.

Table 3. The Results of Analysis Collinearity and Model Fit

Dimension	VIF	Model Fit
Accompanying Impact and Critical Reading Skill	2.680	**Saturated Model** SRMR: 0.178 rms Theta: 0.200
Appreciation and Critical Reading Skill	1.218	
Inference and Critical Reading Skill	1.428	
Instructional Impact and Critical Reading Skill	2.801	
Interpretation and Critical Reading Skill	1.673	
Principle of Reaction and Critical Reading Skill	1.874	
Social System and Critical Reading Skill	2.276	
Support System and Critical Reading Skill	2.864	
Syntax and Critical Reading Skill	1.729	

Table 4 presents a summary of the results of the hypothesis testing of the indicator model. The results of the T value concluded that the variables or factors tested had a significant impact on the results measured in the study. The P value indicates that the results of the analysis are significant except for hypothesis 8, namely in the Appreciation → Critical Reading Skill path.

Therefore, almost all of the hypotheses in this study are valid. The PLS-SEM pathway model is illustrated in Figure 3.

Table 4. The Result of Path Analysis Verification for Test and Response of Critical Reading Skill

Path	Path Coefficient	T Value	P Value	Decision
Accompanying Impact → Critical Reading Skill	0,531	6,621	0,000	H1 Adopted
Analysis → Interpretation	0,501	5,191	0,000	H2 Adopted
Appreciation → Critical Reading Skill	0,011	0,107	0,914	H3 Not Adopted
Evaluation → Inference	0,370	3,154	0,002	H4 Adopted
Inference → Analysis	0,405	3,607	0,000	H5 Adopted
Instructional Impact → Accompanying Impact	0,749	7,679	0,000	H6 Adopted
Interpretation → Appreciation	0,316	2,842	0,005	H7 Adopted
Principle of Reaction → Social System	0,475	4,247	0,000	H8 Adopted
Social System→ Critical Reading Skill	0,274	3,594	0,000	H9 Adopted
Support System → Critical Reading Skill	0,274	3,589	0,000	H10 Adopted
Syntax → Critical Reading Skill	0,255	3,294	0,001	H11 Adopted

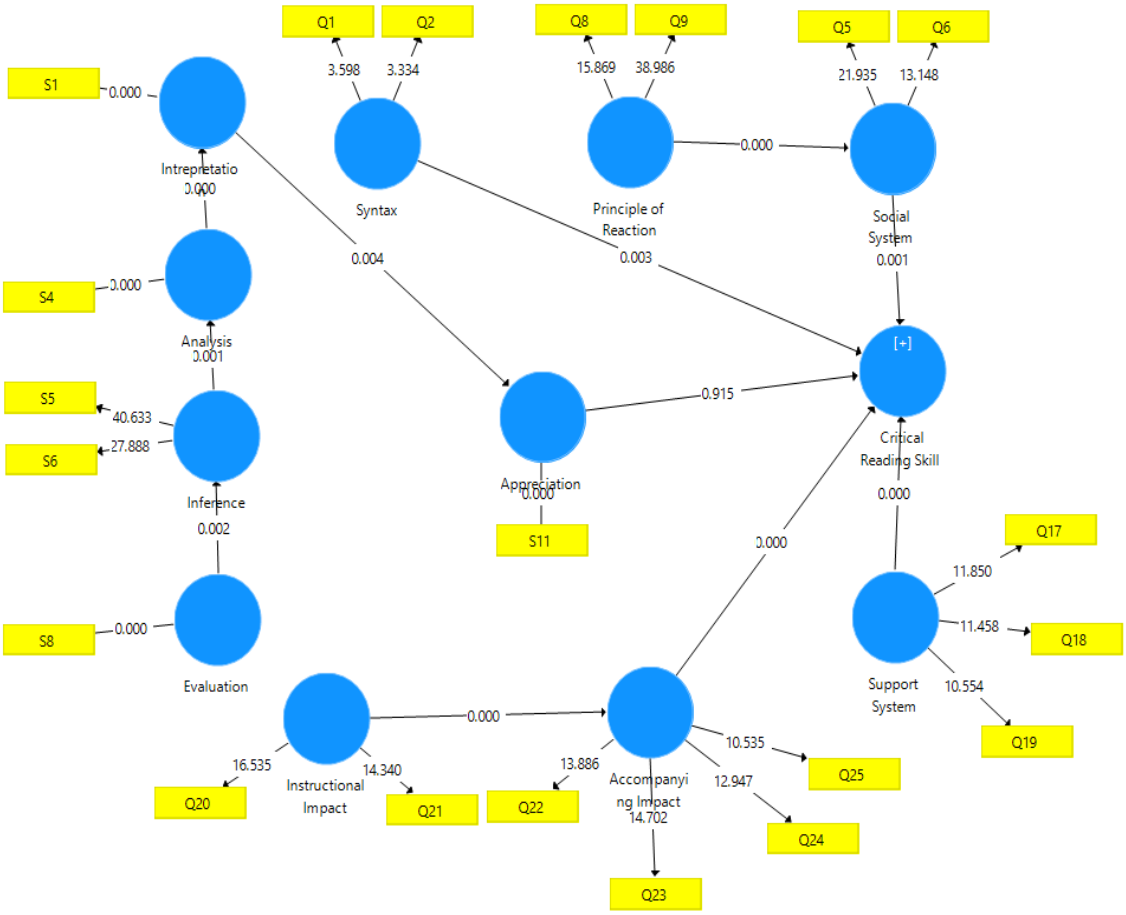

Figure 3. PLS-SEM Pathway Model Test and Response Diagram

The Q2 value is in the range between 0.056 to 1,000. This suggests that the model has moderate and substantial predictive capability to endogenous constructs. The Q2 value reaching 1,000 indicates high predictive relevance. A Q2 value below 0.500 indicates moderate predictive relevance.

Table 5. Coefficient of Predictive Relevance (Q2)

Path	Q^2
Accompanying Impact → Critical Reading Skill	0.436
Analysis → Critical Reading Skill	1.000
Appreciation → Critical Reading Skill	1.000
Evaluation → Critical Reading Skill	1.000
Inference → Critical Reading Skill	0.477
Instructional Impact → Critical Reading Skill	0.283
Interpretation → Critical Reading Skill	1.000
Principle of Reaction → Critical Reading Skill	0.420
Social System→ Critical Reading Skill	0.306
Support System → Critical Reading Skill	0.415
Syntax → Critical Reading Skill	0.056

Discussion

The results of this study show good validity and reliability, as confirmed by the value of factor loading, AVE, CR, and VIF. The loading factor of the indicator is obtained more than 0.70, meaning that the indicators have a strong correlation with the measurable construct. The Average Variance Extracted (AVE) has a value above 0.50, indicating that over fifty percent of the indicator's variance is accounted for by the variable construct. Composite Reliability (CR) which is also above 0.70 indicates the high reliability of the construct. Q2 value reaching 1,000 indicates high predictive relevance, with other values below 0,500 indicating Moderate predictive relevance. In addition, the Variance Inflation Factor (VIF) is below 5, ensuring that there is no significant multicollinearity among the indicators in the model. The VIF analysis confirmed that there was no significant multicollinearity among the indicators in the model, with all values under limit of 5 (Hair et al., 2011).

Accompanying impact contributes to the development of critical reading skills. Indicators such as support for independent, creative, collaborative, and reflective attitudes reflect that these aspects help students think critically. These skills are measured through the ability to interpret, analyze, and evaluate the readings (Erkek, 2022). Thus, the accompanying aspect plays a supporting factor in improving students' critical understanding. Critical thinking skills such as reflective, evaluative, and collaborative elements play a role in understanding the text in depth (Duran & Dökme, 2016). Elder & Paul, (2009), said that the independent and reflective aspects of learning can improve critical reading skills because students are able to evaluate the information they acquire. In the analytical aspects of instruments such as the disclosure of reasons and categorizing the character and time of events, while interpretation includes the discovery of the cause and effect of an event and the statements of figures. The two are interrelated because in-depth analysis supports students' ability to interpret texts more accurately. In some studies, analysis is considered a key skill to support interpretation, where students express reasoning, categorize information, and identify patterns in the text (Elder & Paul, 2009; Erkek, 2022; Oikonomidis & Sofianopoulou, 2023). This helps the reader find deeper meaning from the information Duran & Dökme, (2016) .

The appreciation aspect in the instrument emphasizes the ability of students to express feelings and opinions related to the content of the reading, language, and the expression of the author. In this study, Appreciation did not have a significant influence on Critical Reading Skills due to weak connections, different levels of student understanding, and instructional factors. Appreciation can be taught separately from the critical thinking process, so that there is no relationship between the two. According to Rosenblatt, (2018) appreciation of the text encourages students to give emotional and intellectual responses to the content of the reading. The method of this research can be carried out so that appreciation can have a significant effect on critical reading skills. Evaluation and inference have a significant correlation in critical reading. Critical reading skills focus on inference extraction. The evaluation aspect measures students' ability to assess the credibility of information and the suitability of texts with moral and ethical experiences. Meanwhile, inference includes the ability to predict the continuation of the

text and devise alternative solutions. According to Lipman, (2017), evaluation of the credibility of the information in the text allows students to make logical inferences and relevant solutions.

Inference skills help deepen text analysis skills. The aspect of inference encourages students to make predictions and solutions, which further supports the ability of in-depth analysis on the structure and content of the reading. Both create a comprehensive understanding of the text being read. Ennis, (2018) explains that inference involves the ability to make logical inferences based on existing evidence, which ultimately favors a more in-depth analysis of the text. Inferential skills help students identify patterns and structures in texts. An instructional impact that focuses on developing critical reading skills through hands-on instruction. With an effective instructional approach, students become more able to develop additional skills that support critical reading. According to Slavin, (2020), good instructional impacts, such as reflective teaching methods, encourage accompanying impacts such as independent and collaborative attitudes. Students' interpretation skills can increase their appreciation of texts. This strengthens the aesthetic evaluation and response skills in reading. In theory Fisher & Frey, (2019), accurate interpretation helps students give appreciation to elements of the text, such as characters, language, and aesthetics. Reaction principles, such as effective communication and a communicative learning atmosphere, support social systems in student-centre learning. With structured communication, students can be more active in comprehension, discuss texts and improve critical reading skills. (Cole et al., 1985) , stating that effective social interactions, such as communication and participation, support an active and participatory learning environment.

A social system that encourages active and participatory learning plays an important role in improving students' critical reading skills. Through student-centered learning, students have the opportunity to explore texts in more depth through discussion, collaboration, and reflection. According to (Gordon & English, 2016), a social system in learning supports critical thinking skills by engaging students in discussions and collaboration to understand texts. System support, such as the completeness of learning resources, the ease of use of reflective e-books, and the clarity of the material, play a significant role in the development of critical reading skills. With comprehensive and engaging learning resources, students can focus more on understanding the structure and content of the text, thereby improving their analysis, evaluation, and inference skills. The importance of system support in learning, such as reflective e-books, clear materials, and engaging learning resources, to improve students' critical thinking skills (Condliffe et al., 2022; Gage et al., 2024; Lee & Gage, 2020). The syntax of the learning model, such as usefulness, learning variety, and student interest have an influence on critical reading skills. Engaging syntax helps students understand the text more systematically and in-depth, encouraging them to interpret, analyze, and appreciate the reading. According to Joyce et al., (2009), the syntax of the varied and interesting learning model helps students understand the text more systematically.

CONCLUSION

The results of this study show that most of the hypotheses proposed significantly affect the development of students' critical reading skills. Factors such as accompanying impact, analysis, interpretation, evaluation, inference, as well as instructional support, these factors have been demonstrated to have a significant impact on the enhancement of students' critical thinking abilities. In addition, system support, learning syntax, and social systems play a role in creating a optimal learning environment to critical reading skills through active discussions, collaborative interactions, and effective use of learning resources.

However, the results of the study also showed that appreciation of the 3rd hypothesis did not have a significant influence on critical reading skills. This can be caused by students' low understanding in connecting appreciation of texts with critical thinking processes, or instructional methods that have not fully supported the development of appreciation comprehensively. Therefore, this aspect still requires a more appropriate instructional approach so that appreciation of texts can be well integrated in the development of critical reading skills.

This study has several limitations, including that the instruments used have not fully captured the complexity of students' critical thinking skills, especially in the appreciation aspect. In addition, the context of research in one region or institution limits the generalization of findings. These limitations can be considered for future research to use more comprehensive methods and wider sample coverage.

The recommendation for future research is to develop more comprehensive instruments specifically for text appreciation to better capture the complexity of students' critical reading skills. Additionally, future studies should consider expanding the sample size and broadening the research context to enhance the generalizability of the findings.

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