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Students' Perceptions of Integrating Qalam AI and Teacher Competencies in Arabic Reading Instruction

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ENGLISH ABSTRACT
In the educational context, the advancement of artificial intelligence technology, such as Qalam AI, brought significant positive impacts due to its ability to analyze morphological (*sharf*) and syntactic (*nahw*) patterns within Arabic sentences. However, this potential must be complemented by teachers' competencies in validating the results of Qalam AI's analysis of Arabic texts. This study explored students' perceptions of integrating Qalam AI and teacher competencies in Arabic reading instruction. This study used a quantitative approach. The sampling technique used in this study was a convenience sampling method with 150 participants selected from various educational institutions. The data collection technique involved questionnaires. The effectiveness questionnaire assessed five key indicators: ease of learning, material comprehension, student satisfaction, interest and motivation, and learning activity. The validity test of this research used Pearson product-moment, and the reliability test used Cronbach's alpha formula. The questionnaire was tested for validity and reliability using SPSS 24. The validity and reliability tests of the instrument showed that each statement was valid and reliable. The research results indicated students "agree" that integrating Qalam AI and teacher competencies could facilitate understanding of the material and enhance learning activities. Additionally, it showed students "strongly agree" that this integration could simplify learning, provide satisfaction, and increase student interest and motivation. Therefore, it could be concluded that integrating Qalam AI technology and teacher competencies could be utilized in the educational context, particularly in the teaching and learning processes such as reading instruction.

Keywords: Evaluation, Arabic Reading Skills, Teachers' Competencies, Artificial Intelligence, Qalam AI

INDONESIAN ABSTRACT

Kemajuan teknologi artificial intelligence seperti Qalam AI dalam dunia pendidikan dapat memberikan dampak positif karena kemampuannya dapat menganalisis pola morfologi (sharf) dan sintaksis (nahw) dalam sebuah kalimat bahasa Arab. Tentu, hal tersebut harus diimbangi dengan kompetensi guru dalam memvalidasi hasil analisis Qalam AI terhadap teks bahasa Arab. Penelitian ini bertujuan untuk mengeksplore persepsi siswa terhadap integrasi penggunaan teknologi Qalam AI dan kompetensi guru bahasa dalam pembelajaran membaca bahasa Arab. Penelitian ini menggunakan pendekatan kuantitatif. Teknik pengambilan sampel menggunakan metode sampel konvenien dengan berjumlah 150 peserta didik yang diambil dari beberapa instansi pendidikan. Teknik pengambilan data berupa angket. Instrument angket yang digunakan berupa angket efektivitas dengan 5 indikator: kemudahan dalam pembelajaran, peningkatan pemahaman materi, kepuasan peserta didik, peningkatan minat dan motivasi peserta didik, dan peningkatan aktivitas. Uji validitas penelitian ini menggunakan pearson product moment dan uji reliabilitas penelitian ini menggunakan rumus cronbach's alpha. Instrument angket telah diuji tingkat validitasnya dan reliabilitasnya menggunakan program spss 24. Pengujian validitas dan reliabilitas instrumen menunjukkan bahwa setiap butir pernyataan dinyatakan valid dan reliabel. Hasil penelitian menunjukkan siswa "setuju" bahwa integrasi Qalam AI dan kompetensi guru dapat mempermudah pemahaman materi dan meningkatkan aktifitas pembelajaran. Serta menunjukkan bahwa siswa "sangat setuju" bahwa integrasi Qalam AI dan kompetensi guru dapat mempermudah pembelajaran, memberikan kepuasan, serta meningkatkan minat dan motivasi siswa. sehingga dapat disimpulkan bahwa integrasi teknologi Qalam AI dan kompetensi guru dapat digunakan dalam konteks pendidikan terutama pada proses pembelajaran dan pengajaran seperti keterampilan membaca.

***Kata Kunci**: Evaluasi, Keterampilan Membaca Bahasa Arab, Kompetensi Guru, Artificial Intelligence, Qalam AI*

Introduction

The rapid growth of technology in recent decades has significantly impacted various fields, including education (Rizki, Rohman, & Ghofur, 2023). One of the technological innovations that contributed to the educational context was artificial intelligence (AI) (Alzahrani, 2022). AI was a term that described the machine's ability to think, similar to the activities of the human brain (Ghandour & Woodford, 2019; Muzaal & Ali, 2020). The impact of AI development in the educational context enabled users to perform administrative functions such as reviewing and assessing student assignments more effectively and efficiently and achieve higher quality in teaching activities. (Chen, Chen, & Lin, 2020). Therefore, AI has the potential to revolutionize education, ultimately leading to better educational outcomes. (Owan et al., 2023). This indicated that the development of technology has provided many facilities for the application of AI in the educational context (Hwang et al., 2020).

The experience of technological development led to a hypothesis: whether the presence of artificial intelligence can help learners in language learning. (Agustina et al., 2023). Considering the implementation of artificial intelligence technology in education, it was inevitable that significant opportunities and challenges would be faced (Mon et al, 2023). To answer the hypothesis, the utilization of artificial intelligence technology in education aimed to enhance the existing educational system (Kaban, 2023). Furthermore, AI technology provides personalized learning, which optimizes the learning approach for the needs of each student (Xie et al., 2019).

Even more, to enhance the academic experience of learners globally, several institutions attempted to implement artificial intelligence technology in their higher education (Wang et al., 2023). The reason was artificial intelligence technology offered effective supports or features, particularly in internet-based learning and teaching, automating instructors' routine tasks, and powering adaptive assessments (Seo et al., 2021). Thus, the education sector, which involves all areas of work with technology, must continue to be capable of producing human resources, as this is one of the key aspects to consider in the era of Industry 4.0. (Ekantiningsih & Sukirman, 2023). Both these elements – AI technology and humans – must remain balanced in the educational context, so that the role of humans in education remains intact and is not entirely replaced by technology.

In response to the technological advancements of the Society 5.0 era, Arabic language teaching has been enhanced by integrating artificial intelligence into the learning process (Anwar & Ahyarudin, 2023). Teaching a language is an art that must balanced with the development of technology useful for language teaching and learning skills by providing language content using multimedia, computers, and the internet (Al Musawi et al., 2016). There are four skills that students must learn: listening *(istima)*, speaking *(kalam)*, reading *(qira'ah)*, and writing *(kitabah)* (Rizki, 2023). As the focus of this research, reading skills were the ability to recognize letters, read texts according to harakat, and comprehend the content of the reading materials (Hamid & Muhammad, 2006). Understanding the Arabic script symbols in the realm of harakat was closely related to learning the syntax and morphology (Rizki, 2022). Therefore, the challenges in learning Arabic language skills, particularly in reading skills, are related to the identification of grammar *(i'rab)*, translation influenced by *i'rab*, and interpretation

(Lutfiyatun et al., 2023). So that, One of the competencies that must be prepared in Arabic language learning is linguistic competence, which includes phonology, morphology, syntax, and semantics (Manoppo & Arif, 2023).

The rapid development of AI in education has been utilized as a tool for assessment or evaluation. Zachari Swiecki, in his journal titled "Assessment in the Age of Artificial Intelligence," stated that "AI has transformed into one of the tools for conducting assessments or evaluations with several paradigms, including the learning patterns from onerous to feasible, from discrete to continuous, from uniform to adaptive, from inauthentic to authentic, and from antiquated to modern (Swiecki et al., 2022). The presence of evaluations serves as a means to determine students' success and determine if there are any shortcomings in learning (Ramadhani, 2019). As explained by Arikunto, one of the functions of evaluation in education is to select, diagnose, place, and measure a subject (Handriawan & Nurman, 2023). Based on this, evaluation was one of the important and strategic aspects in an education context (Hidayat & Asyafah, 2019). In an educational context, several terms refer to evaluation, including test, assessment, and measurement. Each term needs to be explained to avoid misunderstanding in this research. A test is a method to determine students' ability in a specific field. Assessment was the activity of collecting information to monitor progress and make decisions. Meanwhile, measurement refers to a series of procedures or principles on how to use these procedures in educational tests and assessments (Kizlik, 2012).

The use of AI technology subsequently raised students' perceptions about its application in the educational process. Based on these perceptions, several researchers have attempted to conduct scientific studies on how students perceive the utilization of artificial intelligence in education. First, studies on students' perspectives regarding the effectiveness of mathematics learning with the implementation of Chat GPT. The results of this study indicated that learning experiences with AI provided opportunities for exploration and creativity, enriched student interactions with the material, stimulated critical thinking, and fostered active engagement in the learning process. (Auna & Hamzah, 2024). Second, studies on students' perceptions of using Chat GPT: Opportunities and Challenges for Indonesian language learning as a compulsory course in the university curriculum. The results of this study indicated that lecturers should

limit and assist the use of Chat GPT in learning while also acting as facilitators to enhance students' abilities in the educational process (Pratiwi et al., 2024). Third, the effectiveness of quizlet.com in Arabic vocabulary learning: students perception and acceptance of technology. This study's results indicated that quizlet.com was effective in learning Arabic vocabulary (Kholis & Nadhif, 2023). Fourth, students' perception of artificial intelligence technology to develop 21st-century learning skills. The results of this study indicated that the AI tools most commonly used by students were Canva, Chat GPT, and Quizizz (Fadli & Iskarim, 2024). Fifth, students' perception of the use of AI in writing class. The results of this study indicated that the use of AI was beneficial in terms of accessibility, adaptability, and simplicity. (Phan, 2023; Sumakul, Hamied, & Sukyadi, 2022).

The previous studies focused on Chat GPT technology, Canva, Quizizz, and various fields of study such as mathematics, Indonesian language, and writing classes. Meanwhile, this new study focuses on using Qalam AI and the teacher's competence in Arabic reading instruction from the student's perspective.

Methods

This study used a quantitative approach involving numerical data for analysis (Sugiyono, 2016). This study used a one-shot case study experimental design, where an empirical group is given an Arabic language learning evaluation using Qalam AI. The research design is in the table below:

Table 1: Experimental Design One-Shot Case Study

Treatment	Observation
X	O

(Fraenkel, Wallen, & Hyun Helen H., 2012)

Notes:

X = Treatment using Qalam AI in Arabic language learning

O = Variable effectiveness.

The sample for the study was taken from 150 students from 3 institutions. The sample selection was based on the convenience method, which the researcher used to choose a sample of the subject from a population (Etikan, 2016) or choose a sample that is effortlessly reachable to the researcher (Golzar & Noor, 2022). The sampling was

based on the statement that evaluation must be conducted for all students or participants (Sugiyono, 2016). The purpose of this research was to explore how students' perceptions of the utilization of Qalam AI and teacher competencies in Arabic reading instruction.

The data collection method in this study involved perception questionnaires. The questionnaire was structured/closed-ended, meaning respondents were asked to select their answers from predefined options. The response scale in this study initially used a 5-point Likert scale developed by Rensis Likert (1932), which included 1. Strongly agree, 2. Agree, 3. Neutral, 4. Disagree, 5. Strongly disagree (Kusmaryono, Wijayanti, & Maharani, 2022; Likert, 2024). However, the researcher modified the 5-point scale to 4 response options: 1. Strongly agree, 2. Agree, 3. Disagree, 4. Strongly disagree. The modification of the 4-point scale aimed to eliminate the ambiguity of the results due to the presence of a neutral option in the original 5-point scale.

The perception questionnaire was used to explore students' views on the use of Qalam AI and teacher competencies in Arabic Reading instruction. The substance of the perception questionnaire in this study utilized a modification of 5 indicators, as explained in the table below (Pratiwi et al., 2024):

Table 2: Indicators and Statement Items of the Questionnaire

No	Indicators	Statement items
1	Ease of learning	1, 2, 3
2	Material comprehension	4, 5, 6
3	Students satisfaction	7, 8
4	Interest and motivation	9, 10
5	Learning Activity	11, 12

The instrument must be tested for validity and reliability. The validity test was used to determine the instrument's accuracy in obtaining valid data. A valid instrument was one that could measure what it was supposed to measure (Sugiyono, 2012; Sürücü, 2020). In comparison, the reliability test of the instrument was used to determine the instrument's consistency in providing data. Therefore, a reliable instrument is one whose measurement results can be trusted because it has the same level of consistency and stability when repeatedly tested. (Ananda & Fadhli, 2018; Sürücü, 2020). The

validity test of this research used Pearson product-moment and the reliability test of this research used the Cronbach's Alpha formula.

The data analysis technique used in this study was descriptive statistical analysis, which involved determining the frequency. This statistical analysis involved calculating the percentage of each indicator containing several statements answered by the respondents. The determination of data percentages was done using the following formula (Daryanes & Ririen, 2020):

$$\text{Percentage} = \frac{\text{Total Score Obtained}}{\text{Maximum Score}} \text{ x } 100\%$$

The Result of the Validity and Reliability Test of Students' Perceptions Questionnaire

The validity test conducted in this study was construct validity. The data was analyzed using the product moment test based on SPSS Version 24 to obtain the r value. If the calculated r-value> table value, the questionnaire can be declared valid. The results of the validity test exploring students' perception of integrating Qalam AI and teacher competencies in reading instruction were as follows:

Table 3: Validity Test of the Questionnaire

Statement Items	r value (product-moment)	r table	Result
1	0.518	0.160	Valid
2	0.557	0.160	Valid
3	0.445	0.160	Valid
4	0.310	0.160	Valid
5	0.181	0.160	Valid
6	0.657	0.160	Valid
7	0.491	0.160	Valid
8	0.507	0.160	Valid
9	0.238	0.160	Valid
10	0.379	0.160	Valid
11	0.270	0.160	Valid
12	0.663	0.160	Valid

Based on the results of the product moment test presented in Table 3, with a sample size (N) of 150 and degrees of freedom (df) of (n-2) at a significance level of 5%, the calculated r table value is 0.160. Meanwhile, the Product Moment test in Table 3

showed that the calculated r-value > r table value. Therefore, each statement in the questionnaire can be declared "valid".

Next, the questionnaire in this study was tested for reliability to determine its level of consistency using Cronbach's Alpha formula based on SPSS version 24. The results of the reliability test exploring students' perception of integrating Qalam AI and teacher competencies in reading instruction are as follows:

Table 4: Reliability Test of the Questionnaire

Cronbach's Alpha	N of Items
.608	12

According to Arikunto (2012) as cited by (Daryanes & Ririen, 2020), The criteria for the Alpha value can be presented in the table below:

Table 5: Criteria for the Reliability Value of the Questionnaire

Value	Criteria
$0.80 < \alpha \leq 1.00$	Very high
$0.60 < \alpha \leq 0.80$	High
$0.40 < \alpha \leq 0.60$	Moderate
$0.20 < \alpha \leq 0.40$	Low
$\alpha \leq 0.20$	Very low

Looking at the Alpha values for whole items fall within the range of $0.40 < \alpha \leq 0.60$, Therefore, it can be concluded that whole items of the questionnaire were in a "highly reliable" status.

Students' Perception of Integrating Qalam AI and Teacher Competencies in Arabic Reading Skills

Based on the data obtained through the distribution of the questionnaire containing 12 statement items about integrating Qalam AI and teacher competencies in Arabic Reading Skills, the results can be presented as follows:

Frequency Data for Item 1

The data from the questionnaire results regarding the ease of learning Arabic reading skills with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 6: Frequency Data for Item 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	14	42,0	42,0	51,3
	Agree	63	48,7	48,7	100,0
	Strongly agree	73	100,0	100,0	
	Total	150	100,0	100,0	

Based on Table 6 above, the highest value was at criterion 4, with 48.7%. This indicated that students are strongly in agreement that the integration of Qalam AI and teacher competencies can facilitate the learning of Arabic reading skills.

Frequency Data for Item 2

The data from the questionnaire results regarding the acceleration of understanding Arabic reading skills with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 7: Frequency Data for Item 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	8	5,3	5,3	5,3
	Agree	70	46,7	46,7	52,0
	Strongly agree	72	48,0	48,0	100,0
	Total	150	100,0	100,0	

Based on Table 7 above, the highest value was at criterion 4, with 48.0%. This indicated that students strongly agree that integrating Qalam AI and teacher competencies can accelerate the understanding of Arabic reading skills.

Frequency Data for Item 3

The data from the questionnaire results regarding the ease of determining Arabic text readings with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 8: Frequency Data for Item 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	15	10,0	10,0	10,0
	Agree	64	42,7	42,7	52,7
	Strongly agree	71	47,3	47,3	100,0
	Total	150	100,0	100,0	

Based on Table 8 above, the highest value was at criterion 4, with 47.3%. This indicated that students strongly agree that integrating Qalam AI and teacher competencies can facilitate determining Arabic text readings.

Frequency Data for Item 4

The data from the questionnaire results regarding the improvement in understanding Arabic reading skills with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 9: Frequency Data for Item 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	12	8,0	8,0	8,0
	Agree	70	46,7	46,7	54,7
	Strongly agree	68	45,3	45,3	100,0
	Total	150	100,0	100,0	

Based on Table 9 above, the highest value was at criterion 3, with 46.7%. This indicated that students agree that the integration of Qalam AI and teacher competencies can improve their understanding of Arabic reading skills.

Frequency Data for Item 5

The data from the questionnaire results regarding the addition of ease in understanding Arabic sentences with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 10: Frequency Data for Item 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	16	10,7	10,7	10,7
	Agree	71	47,3	47,3	58,0
	Strongly agree	63	42,0	42,0	100,0
	Total	150	100,0	100,0	

Based on Table 10 above, the highest value was at criterion 3, with 47.3%. This indicates that students agree that integrating Qalam AI and teacher competencies can add to the ease of understanding Arabic sentences.

Frequency Data for Item 6

The data from the questionnaire results regarding the addition of ease in determining the position of some words in Arabic sentences with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 11: Frequency Data for Item 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	19	12,7	12,7	12,7
	Agree	74	49,3	49,3	62,0
	Strongly agree	57	38,0	38,0	100,0
	Total	150	100,0	100,0	

Based on Table 11 above, the highest value was at criterion 3, with 49.3%. This indicated that students agree that the integration of Qalam AI and teacher competencies can add to the ease of determining the position of some words in Arabic sentences.

Frequency Data for Item 7

The data from the questionnaire results regarding the feeling of happiness in following the learning of Arabic reading skills with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 12: Frequency Data for Item 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	15	10,0	10,0	10,0
	Agree	65	43,3	43,3	53,3
	Strongly agree	70	46,7	46,7	100,0
	Total	150	100,0	100,0	

Based on Table 12 above, the highest value was at criterion 4, with 46.7%. This indicated that students are firmly in agreement that integrating Qalam AI and teacher competencies can make them happy with learning Arabic reading skills.

Frequency Data for Item 8

The data from the questionnaire results regarding satisfaction with following the learning of Arabic text reading with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 13: Frequency Data for Item 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	10	6,7	6,7	6,7
	Agree	65	43,3	43,3	50,0
	Strongly agree	75	50,0	50,0	100,0
	Total	150	100,0	100,0	

Based on Table 13 above, the highest value was at criterion 4, with 50.0%. This indicated that students are strongly in agreement that the integration of Qalam AI and teacher competencies can make them happy with the learning of Arabic reading skills.

Frequency Data for Item 9

The data from the questionnaire regarding the increase in motivation to follow the learning of Arabic reading instruction with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 14: Frequency Data for Item 9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	10	6,7	6,7	6,7
	Agree	69	46,0	46,0	52,7
	Strongly agree	71	47,3	47,3	100,0
	Total	150	100,0	100,0	

Based on Table 14 above, the highest value was at criterion 4, with 47.3%. This indicated that students are strongly in agreement that the integration of Qalam AI and teacher competencies can increase motivation to follow the learning of Arabic reading instruction.

Frequency Data for Item 10

The data from the questionnaire results regarding the increase in interest in following the learning of Arabic reading instruction with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 15: Frequency Data for Item 10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	19	12,7	12,7	12,7
	Agree	64	42,7	42,7	55,3

	Strongly agree	67	44,7	44,7	100,0
	Total	150	100,0	100,0	

Based on Table 15 above, the highest value was at criterion 4, with 44.7%. This indicates that students are strongly in agreement that the integration of Qalam AI and teacher competencies can increase interest in following the learning of Arabic reading instruction.

Frequency Data for Item 11

The data from the questionnaire results regarding the increase in activity in learning Arabic reading instruction with the integration of Qalam AI and teacher competencies can be presented in the following table:

Table 16: Frequency Data for Item 11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	22	14,7	14,7	14,7
	Agree	69	46,0	46,0	60,7
	Strongly agree	59	39,3	39,3	100,0
	Total	150	100,0	100,0	

Based on Table 16 above, the highest value was at criterion 3, with 46.0%. This indicated that students agree that integrating Qalam AI and teacher competencies can increase activity in learning Arabic text reading instruction.

Frequency Data for Item 12

The data from the questionnaire results regarding the increase in activity in following the learning of Arabic reading instruction with the integration of Qalam AI and teacher competencies can be presented in the following table:

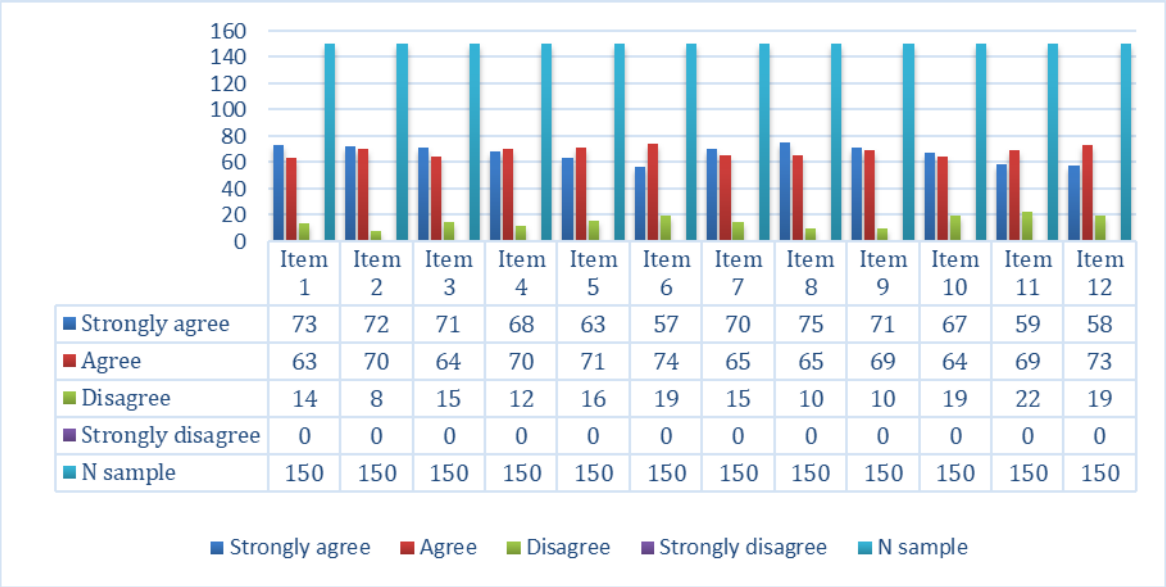
Table 17: Frequency Data for Item 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	0	0	0	0
	Disagree	19	12,7	12,7	12,7
	Agree	73	48,7	48,7	61,3
	Strongly agree	58	38,7	38,7	100,0
	Total	150	100,0	100,0	

Based on Table 17 above, the highest value was at criterion 3, with 48.7%. This indicated that students agree that the integration of Qalam AI and teacher competencies can increase in activity in Arabic reading instruction.

Based on the score data for each item obtained from 150 samples, the description of the scores for each item in the questionnaire can be seen in the following summary:

Diagram 1: Description Scores for Each Item



	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12
Strongly agree	73	72	71	68	63	57	70	75	71	67	59	58
Agree	63	70	64	70	71	74	65	65	69	64	69	73
Disagree	14	8	15	12	16	19	15	10	10	19	22	19
Strongly disagree	0	0	0	0	0	0	0	0	0	0	0	0
N sample	150	150	150	150	150	150	150	150	150	150	150	150

Descriptive Statistical Analysis of Each Indicator

Based on the results of each statement item in the questionnaire involving 150 respondents, it was necessary to analyze indicators to determine the level of agreement of integration Qalam AI and teachers' competencies in Arabic reading instruction. The indicators of students' perceptions of integrating Qalam AI and teacher competence in Arabic reading skills instruction were as follows:

Table 18: Indicators of Students' Perceptions of Integrating Qalam AI and Teacher Competencies in Arabic Reading Instruction.

No	Indicators	Items Total	N = Items X Respondents
1	Ease of learning	3	450
2	Material comprehension	3	450
3	Students satisfaction	2	300
4	Interest and motivation	2	300
5	Learning activity	2	300

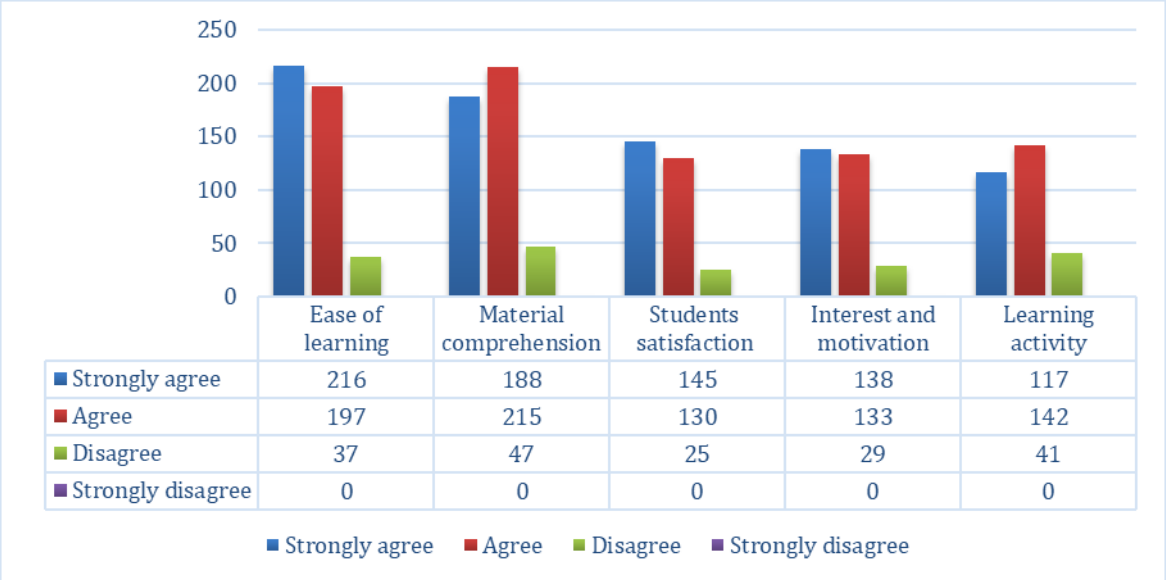
Based on Diagram 1 above regarding the description of scores for each item in the questionnaire, the descriptive statistical analysis results for each indicator can be presented as follows:

Table 19: Descriptive Statistical Analysis For Each Indicator

Score	Indicators				
	Ease of learning	Material comprehension	Students satisfaction	Interest and motivation	Learning activity
Strongly agree	216	188	145	138	117
Agree	197	215	130	133	142
Disagree	37	47	25	29	41
Strongly disagree	0	0	0	0	0
N total	450	450	300	300	300

Table 19 above shows the description of scores for each indicator obtained from each item in the questionnaire distributed to 150 respondents. Then, the description scores for each indicator can be presented in the following diagram:

Diagram 2: Description Scores for Each Indicator



Based on Diagram 2 regarding the description scores for each indicator, it showed that: 1) The highest score for the indicator "ease of learning" was in the "strongly agree" category, indicated students strongly agree that the integration of Qalam AI and language competencies could facilitate Arabic reading instruction; 2) The highest score for the indicator "material comprehension" was in the "agree" category, indicated students agree that the integration of Qalam AI and language competencies

could ease understanding in Arabic reading instruction; 3) The highest score for the indicator "student satisfaction" was in the "strongly agree" category, indicated students strongly agree that the integration of Qalam AI and language competencies could provide satisfaction in Arabic reading instruction; 4) The highest score for the indicator "interest and motivation" was in the "strongly agree" category, indicated students strongly agree that the integration of Qalam AI and language competencies could enhance students' interest and motivation in Arabic reading instruction; 5) The highest score for the indicator "learning activity" was in the "agree" category, indicated students agree that the integration of AI Qalam and language competencies could provide satisfaction in Arabic reading instruction.

These results reinforced several previous studies that indicated AI technology has significant benefits in education, including Arabic language instruction. However, due to the complex nature of the Arabic language system, learning Arabic should not solely rely on AI technology, which may make errors at times. Human competence was needed to validate the results of an AI technology analysis. This aspect distinguished this study from several previous studies by integrating Qalam AI and teacher competencies in Arabic reading instruction.

Conclusion

The results of this study showed that integrating AI Qalam AI and teacher competencies in Arabic reading instruction was very useful. The findings are supported by the participants' responses to statements related to the evaluation outcomes, including ease of learning, material comprehension, student satisfaction, interest and motivation, and learning activity. This study concluded that integrating artificial intelligence based on Qalam AI and a teacher's competencies can be used in Arabic reading instruction. The limitation of this study is that it only focused on the aspect of reading skills. Therefore, future researchers can discuss the design development for Arabic writing skills based on Qalam AI and teacher competencies. Since this Qalam AI can be utilized in reading and writing evaluations, it offers a comprehensive approach to Arabic language skills.

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