Are you AI-Ready?: Attitudes Towards the Use of Artificial Intelligence (AI)-Powered Tools in the Phases of Reading

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Abstract— This study was conducted to determine students' attitudes towards the use of artificial intelligence (AI) in phases of reading. The study presented the Grade 10 learners attitudes towards using artificial intelligence (AI) in phases of reading (pre-reading, while reading, and post-reading). To determine learners' attitudes a researcher-made checklist was used. The 30-item statements are divided into three parts corresponding to the three reading phases. This is to find out which among the statements the reading phases be more appropriate for them to use AI tools. Based on the findings and results of the study, the means of these three groups are not significantly different from each other, as they are included in the same subset at a significance level a of 0.05. The mean scores (3.5533–3.6567) fall within the range 3.40–4.19, which corresponds to "High" levels of attitudes toward the use of AI-powered tools.

Keywords— artificial intelligence (AI), level of attitudes, reading phases, pre-reading, while reading, post-reading.

I. INTRODUCTION

The increasing development of technological tools has led to advancements in the use of artificial intelligence (AI) in education. In the realm of education, AI tools offer significant potential to transform the learning experience of students through personalized learning, increased accessibility, automated tasks, and enhanced engagement. According to Hidayat (2024), the advancement of technological tools offers new learning experience for students and empower educators to focus on providing individualized support and fostering a deeper understanding of subject matter. The integration of AI in education creates a more equitable, effective, and engaging learning environment for all.

Reading is one of the most important of the four basic English learning skills (Guzel, 2021). It keeps our mind active, improve our vocabulary, and develop our communication skills. Through reading, we experience diverse perspectives, develop our empathy, opens doors to new world, and ignite our imagination. It is one of the skills that students need to develop to expand their knowledge and to better understand the world around us. According to Hicks (2023), reading benefits students. The more students read, the better they will read and the more successful they will be academically. Reading developed their vocabulary because they have a larger repertoire of words to choose from that it will enable students to become better creative writer.

There are three phases of reading such a pre reading, while reading and post reading. The pre-while-post reading activities gave many chances to the students to prepare themselves in reading the text. It has a great and positives influence in teaching reading as it allows students to understand and comprehend the text (Daulay et al., 2022).

The pre-reading phase is a basis for students to define a selection for the overall theme the major argument of the story. It is an activity that introduce to students to elicit or provide appropriate background knowledge to activate their schemata and arouse their interest when previewing the text to appreciate the text in a more meaningful and purposeful manner. While reading is a through reading activity for students to develop reading strategies, improve their control of the new words, and decode problematic text passages. It helps students to appreciate and comprehend while they are reading. Post-reading is an exercise that check students' comprehension and then lead students to a deeper analysis of the text. It tests students understanding to see new information in what they already know (Almacioglu & Torpak, 2009).

The rapid advancement in technological development transforming is various sectors, including education. The use of Artificial Intelligence (AI) technologies in reading becoming increasingly influential, offering personalized learning experiences, automated feedback, enhanced engagement, and improved comprehension.

According to Hariyanti et al. (2019) reading is one of the skills that students must possess in the 21st century as it is included in the literacy that mastery in reading is important. However, the integration of AI in reading

raises numerous questions about its impact on student learning, engagement, and attitudes. This study aimed to investigate the levels of Grade 10 students' attitudes towards the use of AI tools across different phases of the reading process, encompassing pre-reading, while-reading, and post-reading activities.

Specifically, it aimed to answer the research question: What are the levels of attitudes towards the use of AI tools in each phase of the reading process (pre-reading, while-reading, and post-reading)?

II. METHOD

This study used descriptive data analysis methods to determine the level of learners' attitudes towards the use of artificial intelligence (AI) tools in phases of reading (pre-reading, while reading, and post-reading). The respondents were 30 Grade 10 students of a public high school for school year 2024- 2025. A thirty-item researcher-made checklist divided into ten-item sections corresponding to the three phases of reading was utilized to collect the necessary data for the study. The checklist required the participant to put a check mark on the response of their choice. They were presented with five responses with corresponding equivalent as follow.

Weight	Description	Interpretation
5	Strongly Agree	If the item is experienced frequently from time to time
4	Agree	If the item is experienced by the respondents usually
3	Neutral	If the respondents experienced confusion
2	Disagree	If the item experienced by the respondents rarely
1	Strongly Disagree	If the item is never experienced by the respondents

To interpret the result on the level of students' attitudes towards the use of AI tools in phases of reading, the researcher used the scale below:

Scale	Description
1.00 - 1.79	Very Low
1.80 - 2.59	Low
2.60 - 3.39	Moderate
3.40 - 4.19	High
4.20 - 5.00	Very Low

The data gathered in this study were subjected to appropriate statistical tools using ANOVA. Mean and standard deviation were employed as descriptive statistics.

The mean is the total number of responses divided by the total number of items. This gives a central measure of the overall attitude level for each phase. Standard deviation is the measure of dispersion among all scores of distributions.

This is utilized to describe students' attitudes towards AI tools vary within each reading phase (pre-reading, while reading, and post-reading). While ANOVA is used to compare the mean attitude scores across three reading phases within the same group of students to determine if there are statistically significant differences in attitudes across the different phases.

III. RESULTS

Table 1 results for 30 variables (R1–R30) show a mean of 3.61, indicating a moderately high average score on the scale used. The standard deviation of 0.19 and variance of 0.14 suggest low variability, meaning responses are closely clustered around the mean, indicating consistency among participants.

Table 1. Survey result from 30 variables

Variables	Mean	Std. Deviation	Variance
R1-R30	3.61	0.19	0.14

One-way ANOVA test is used to analyze the differences among three groups (df between = 2) based on a dependent variable. The table presents the "Sum of Squares" for between-group variation is 1.896, while the within-group variation is 918.620, leading to a total of 920.516. The F-statistic is 0.925 with a p-value of 0.397, indicating no statistically significant differences between the group means at the 0.05 significance level.

Table 2. *Significant Difference in the Level of Attitudes towards the Use of AI in the Pre-, While, and Post-Reading*

ANOVA					
data					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	1.896	2	.948	.925	.397
Within Groups	918.620	897	1.024		
Total	920.516	899			

Table 3. *Multiple comparisons of a dependent variable labeled "data" across three levels (Pre, While, and Post).*

data		
Scheffea		
levels	N	Subset for alpha = 0.05
		1
Pre	300	3.5533
While	300	3.6433
Post	300	3.6567
Sig.		.458
Means for groups in homogeneous subsets are displayed.		
a. Uses Harmonic Mean Sample Size = 300.000.		

Table 4. *Level of attitudes towards the use of AI-Powered Tools in Phases of Reading*

Multiple Comparisons						
Dependent Variable: data						
Scheffe						
(I) levels	**(J) levels**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
Pre	While	-.09000	.08263	.553	-.2926	.1126
	Post	-.10333	.08263	.458	-.3059	.0993
While	Pre	.09000	.08263	.553	-.1126	.2926
	Post	-.01333	.08263	.987	-.2159	.1893
Post	Pre	.10333	.08263	.458	-.0993	.3059
	While	.01333	.08263	.987	-.1893	.2159

Table 3 presents the mean differences between the groups, the standard error, significance values (Sig.), and the 95% confidence intervals for the mean differences. None of the comparisons have a significance value (Sig.) below the typical alpha level of 0.05, indicating that the differences between the group means are not statistically significant. The "Homogeneous Subsets" section also shows that all three groups are within the same subset, further confirming that there are no significant differences among them.

Scale: 1.00-1.79 "Very Low"; 1.80-2.59 "Low"; 2.60-3.39 "Moderate"; 3.40-4.19 "High"; 4.20-5.00 "Very High".

Table 4 indicates that the means of these three groups (3.5533, 3.6433, and 3.6567, respectively) are not significantly different from each other, as they are included in the same subset at an alpha level of 0.05. The mean scores (3.5533–3.6567) fall within the range 3.40–4.19, which corresponds to "High" levels of attitudes toward the use of AI-powered tools.

The significance value (Sig.) is 0.458, which is much higher than the standard alpha level of 0.05, confirming that the differences between these group means are not statistically significant.

IV. DICUSSION

The findings of this study highlight a high level of positive attitudes toward the use of AI-powered tools across all phases of reading (Pre, While, and Post). This consistency in attitude reflects the perceived utility and relevance of AI tools in supporting reading tasks, regardless of the phase. The high attitude scores suggest that AI-powered tools may be effective in addressing users' needs during the entire reading process. This could include tasks such as understanding content (Pre-reading), engaging with material (While-reading), and reflecting or summarizing (Post-reading). Nurdina (2018) concluded that before, during and after reading had a significant effect on students' reading comprehension.

The lack of statistically significant differences (Sig. = 0.458) implies that AI tools are equally valued in all phases of reading. This finding may suggest that users perceive these tools as versatile and adaptable across different tasks, without a preference for specific phases. Moreover, AI-based personalised reading platforms are particularly effective, as they can provide tailored learning experiences to individual students based on their reading level and interests (VanLehn et al., 2019).

The results of the current study revealed that learners acknowledged AI's role in reading since it provided content that enhanced their comprehension and vocabulary bank and helped them obtain new data. Hsiao and Chang (2023) also had a similar finding after investigating how learners perceived learning experiences with AI-powered tools in online English courses in high school English classes. These results may also reflect a growing acceptance of AI in education and personal learning contexts. Participants may see these tools as reliable, accessible, and innovative aids that streamline reading processes.

V. CONCLUSION

In conclusion, this study provides valuable insights into the positive reception of AI-powered tools in reading activities. Emphasizing their widespread applicability and positive reception in learning environments. By offering reliable, accessible, and innovative solutions, these tools are paving the way for more efficient and effective reading processes. Their adaptability to diverse educational contexts showcases their potential to revolutionize the way learners interact with texts and acquire knowledge.

However, while the current study affirms the value of these tools, it also points to the need for further research. Future investigations could delve deeper into how AI-powered reading tools can be fine-tuned to address specific user needs and contexts. Exploring these nuances would ensure that the tools cater to a broader spectrum of learners, promoting inclusive and personalized learning experiences. By identifying and addressing any existing limitations, researchers can help maximize the tools' potential in various educational settings.

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