

Teachers Opinion on Usage of AI tools in Learning

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Abstract—AI in education' has dawned a new perspective in the field of education. It is portrayed as a thoughtful companion of teachers but is also warned about the potential risks it may pose in the teaching learning process. The instant variety of information that an AI generates outweighs the potential risks. The present study focuses on teachers' opinion on the usage of AI tools. The sampling technique used in this study was convenience sampling technique and survey method was employed to conduct this study. 77 teachers participated in the survey and the findings of the research revealed that there was no significant difference in the in-service teachers' opinion on usage of AI tools in learning with respect to their age group, qualification, major subject, using AI for learning, practice in using AI for teaching, practice in using them for academic work and awareness on pupils' use of AI tools. The findings emphasize the need to equip the teaching fraternity on the effective usage of AI in the field of education through regular training programmes.

Index Terms—AI in education, awareness on AI in education, in-service teachers, usage of AI in education.

I. INTRODUCTION AND NEED FOR THE STUDY

In this era of AI, where students' screen time is more than the study time raises a question whether intended learning outcomes are truly being achieved across all education levels. Introspecting this provides educators an alarming call on aligning the right strategies in making teaching-learning process meaningful, engaging and evolving the students into lifelong learners. The strategies of teaching are ever evolving and is dynamic. It is crucial for educators to be an adaptive facilitator in the education sector and align their teaching as per the needs of the society. For this to happen, it requires for a shift in the perception of teachers in adapting to the changes that emerges in the education sector.

Currently the scenario of technology-based learning has swiftly progressed towards AI powered learning. The present situation demands for an attention towards integrating AI in the teaching learning process. The phrase 'Artificial Intelligence' itself makes educators ponder on the negative effect it has created. The ethical issues, originality and dearth of critical thinking skills make educators pause and reflect if it is mandatory in a classroom scenario. Considering these genuine thoughts on AI, it is also crucial to be open minded on the aspects where AI is beneficial. This paper analyses the in-service teachers' opinion on the usage of AI in learning. It also highlights the need for tailored professional development programmes that cater different teaching learning aspects on need basis. This would pave way in creating a space in a classroom where the integration of AI thrives in a positive way that benefits the learners and the educators.

II. OBJECTIVE OF THE STUDY

The objective of the present study is to find out whether in-service teachers' opinion on usage of AI tools in learning differs with respect to their age group, qualification, major subject, awareness on pupils' use of AI tools, usage of AI for learning, teaching, and academic work.

III. REVIEW OF RELATED LITERATURE

Teachers have a positive approach in the usage of AI tools to scaffold students' scientific writing skills for STEM education. However, they are concerned about the possibility of the change in role of the teacher as well as the originality and accuracy of the content generated. On a positive note, teachers are open minded towards professional development training on the usage of AI, therefore they can coexist with AI

(Kim & Kim 2022). Galindo-Domínguez et al. (2024) in their study highlights how the digital competency of teachers depends on their favorable attitude towards the usage of using AI in education. Cabero-Almenara et al. (2024) in their study indicate that gender or age is not a significant factor that decides the acceptance and intention to use AI in education. The study also reveals that the teachers who believe in learner centered approaches showed a greater sense of acceptance in using AI in education than those who believe in teacher centered approaches.

The familiarity in the usage of AI among teachers of science group was significantly higher than that of the arts and humanities group and they showed a positive approach towards AI training. The alarming fact is that though the teachers are familiar with AI, the usage of AI in teaching was comparatively less (Kurshumova, 2024). In terms of trust in using AI-EdTech, there was no significant difference with respect to gender, age and level of education. Teachers' self-efficacy any understanding of AI increased their trust in using AI (Viberg et al. 2024)

Yim & Wegerif (2024) in their study identified that teachers have a positive attitude in implementing AI literacy to student in term of its usefulness and the ease of use of AI tools. It also highlights the need for individual's interest and confidence in using AI. There was a positive attitude towards professional development programmes that enhances their AI literacy. Teachers perceive a positive attitude in the usage of AI as it efficient and time saving in terms of designing lesson plan and activities. This provides ample time in reviewing students' work (Moura & Carvalho 2024).

Sadykova & Kayumova (2024) in their study highlighted the readiness of teachers in attending professional development programme related to AI that would have a positive impact in breaking the myths that surround it thereby increasing their confidence in using AI effectively. For AI to be adopted in schools, it is important to avoid extra workload, build teacher trust and ownership, provide support systems, and reduce ethical concerns, as these factors strongly influence teacher engagement (Cukurova et al. 2023)

IV. RESEARCH METHOD AND SAMPLING TECHNIQUE

As primary data was important for the study, the researchers selected survey method, which is one of the descriptive research methods. The convenient sampling technique has been used for this study as the sample frame was not available for the area selected for the exploration. The size of the sample was 77 in-service teachers working in schools located in Chennai city.

V. RESEARCH TOOL

A four-point rating scale was developed to find out the in-service teachers' opinion on usage AI tools in learning. The first part of the research tool consisted of demographic details of the respondents such as age group, qualification, practice in using AI for learning, practice in using AI for teaching, practice in using AI for academic works and awareness on pupils' use of AI tools. The second part comprised 20 items to measure the in-service teachers' opinion on usage of AI tools in learning. AI tools are being used in many fields across disciplines at different levels. The researchers confined the study to explore few dimensions of use of AI applications such as develop creativity, enrich subject knowledge, enhance language proficiency, promote self-directed learning and Time saving. The statements for the rating scale were written on these dimensions. The respondents were asked to fill the data sheet as per their agreement with the statements on their opinion on usage of AI tools in learning.

VI. STATISTICAL MEASURES AND DATA ANALYSIS

The researchers used Analysis of Variance test (ANOVA) and independent t-test for inferential analysis. F-value, t-value and p-value were computed using Jamovi and MS excel. Alpha level (0.05) of significance was fixed to test null hypotheses.

VII. ANALYSIS AND INTERPRETATION

Table 1 t-test results on in-service teachers’ opinion on usage of AI tools in learning based

Sub groups		N	Mean Max: 80	S. D	t-value	p-value	Level of Significance
Age group	Below 35	40	52.27	6.45	0.50	0.62	0.05 Not Sig.
	Above 35	37	51.43	8.30			
Qualification	PG	15	50.87	5.57	0.59	0.56	0.05 Not Sig.
	UG	62	52.11	7.75			
Use AI for Learning	No	33	50.67	7.68	1.25	0.22	0.05 Not Sig.
	Yes	44	52.77	7.06			
Use AI for Teaching	No	30	50.53	7.41	1.28	0.21	0.05 Not Sig.
	Yes	47	52.72	7.28			
Use AI for Academic work	No	37	50.22	7.10	1.93	0.06	0.05 Not Sig.
	Yes	40	53.40	7.35			
Awareness on pupils’ use AI	Yes	43	53.40	7.35	2.09	0.40	0.05 Not Sig.
	Not aware	34	49.94	7.01			

From table 1, it is inferred that the in-service teachers’ opinion on usage of AI tools in learning does not differ significantly based on their age group, qualification, using AI for learning, practice in using

AI for teaching, practice in using them for academic work and awareness on pupils’ use of AI tools as the calculated p-values are higher than 0.05.

Table 2

F-test results on in-service teachers’ opinion on usage of AI tools in learning based on their Major subject

Source of Variation	SS	df	MS	F	p-value	Level of Significance
Between Groups	3.07	2	1.53	0.028	0.973	0.05 Not Sig.
Within Groups	4113.63	74	55.59			
Total	4116.70	76				

From Table 2 it is inferred that the in-service teachers’ opinion on usage of AI tools in learning does not differ significantly based on their major subject.

VIII. DISCUSSION AND CONCLUSION

The findings of the study reveal that there is no significant difference in the in-service teachers

opinion on usage of AI tools in learning with respect to their age group, qualification, major subject, using AI for learning, practice in using AI for teaching, practice in using them for academic work and

awareness on pupils' use of AI tools. This resonates with the study conducted by Cabero-Almenara et al. (2024) where they found that age is not a factor that increases or develops a positive attitude on the usage of AI in teaching learning process. Considering a global shift where AI is taking an upper hand in many sectors, classrooms are also a thriving space where AI has found its way in teaching learning process. This indicates how a positive approach towards AI integration in the teaching learning process will be beneficial. Teachers tend to develop a positive attitude if the problems that surround the usage of AI in education sector are addressed. The untapped potential like natural language processing, emotional recognition, predictive analysis etc which provides real time feedback to students when addressed will pave way for teachers to concentrate beyond curriculum like soft skills which are crucial in the development and enhancement of an individual (Jaiswal & Arun 2021).

Teachers are optimistic on the usage of AI, provided they are constantly equipped on its usage. Therefore, conducting professional development programmes will harness their potential skills in integrating AI effectively in their teaching learning process (Alshorman, 2024). When teachers are well informed and equipped on AI literacy, it might bring a shift in the perception of using AI for classroom practices. This is evident as teachers are open minded in attending professional development programmes on AI in education (Sadykova & Kayumova, 2024). As AI is an ever-evolving component, it is pivotal that need based training on the efficacy and integration of AI in different areas of teaching learning process like teaching, assessment and evaluation will bring about a shift in the perception of teachers in the usage of AI.

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