RESEARCH ARTICLE

A STUDY OF GENERAL AWARENESS OF PROSPECTIVE TEACHER EDUCATORS TOWARDS AI(ARTIFICIAL INTELLIGENCE)

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Manuscript Info

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Abstract

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In recent years, artificial intelligence (AI) has significantly influenced the field of education by introducing various AI-driven tools. This research paper aims to explore the general awareness of prospective teacher educators regarding AI. The study specifically examines their level of awareness and compares the understanding of AI among M.Ed. students and Ph.D. course work students. The study was conducted using a survey method with purposive sampling, involving 100 teacher-educators, Ph.D. coursework students, and M.Ed. students from Chaudhry Charan Singh University campus. To measure their awareness of AI, the researcher developed an AI awareness scale consisting of 16 items. The results indicate that 15% of participants scored below the σ score, 17% scored above the σ score, and 68% fell within $\pm\sigma$ score.Findings suggest that the majority of participants have a foundational understanding of AI. However, there is a clear need for further training and professional development programs to enhance AI awareness among prospective teacher educators. While comparing the general awareness of Ph.D. coursework students and M.Ed. students applying t-test, the p value was significant at 0.0132 level that reveals Ph.D. coursework students have higher awareness towards AI in comparison to M.Ed. students.

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Introduction:-

" The creation of artificial intelligence is the most important event in human history"
Edward Fradkin:
Machine learning is an integration of artificial intelligence that enables machines to perform complex functions, which are commonly associated with human intelligence, in various sectors, including education. Because of the emergence of various AI tools, education is going through a rapid change that has never been before. Leveraging AI in education can create more personalized, effective and accessible learning outcomes as it has the potential to customize the students' learning routes that meet students' needs of speed, learning preferences by analysing students strengths and weaknesses.

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Teachers by embracing AI can get valuable insight into students progress andprepare lessons that fulfill their varying learning needs. This work is done by paying no span of time with AI tools in comparison to traditional teaching learning methods. This flexibility is not about comfort. It is about more productivity in the field of education, enhancing learning by inclusion of new concepts and simplifying complex tasks. This flexibility of learning keeps the students aligned to learn and motivated as they are ensured to learn at their own pace and get immediate feedback and real time assessment.

Artificial intelligence:
The term artificial intelligence was first coined by John McCarthy in 1956. Artificial intelligence refers to the simulation of human intelligence in machines that are programmed to think and learn like humans.

Literature review:-
Perception of prospective teachers on AI application in the educational field done by S. CathereneNithya in 2023,. The findings of the study indicates there is a substantial disparity in the perspectives of those who are considering applying artificial intelligence in the field of education.

A study on awareness of artificial intelligence tools among prospective teachers of Navakala district done by V. Parthiban and B.Jai Ganesh, the study aimed to investigate the awareness of artificial intelligence that helps in the teaching learning process among the prospective teachers. A survey method was utilised and 300 prospective teachers of Namakkal district of Tamil Nadu were selected as the sample. The researchers found in their study that prospective teachers of Namakkal district have a moderate level of awareness on AI tools.

Exploring Teacher Awareness of Artificial Intelligence in Education: A Case Study from Northern Cyprus (Guneyli et al.,2024). The study examines the level of awareness among teachers regarding AI in educational settings exploring howsocio-demographic characteristics, technology access and beliefs relate to awareness. The study involved 164 teachers of different levels.

Objectives of the study:
Objectives of the study are as follows:
1- To find out the general awareness of prospective teacher educators towards AI.(Artificial Intelligence).
2- To find out the differences in general awareness of prospective teacher educators pursuing Ph.d Coursework, and prospective teacher educators pursuing their M.Ed.
    regarding their awareness towords AI.(Artificial intelligence).

Hypotheses of the study:
Hypotheses of study are as follows:
1- Teacher educators pursuing Ph.D coursework, and prospective teacher educators pursuing their M.Ed course, do not differ significantly in terms of their awareness towards AI (Artificial Intelligence)
2- Prospective teacher educators' awareness towards AI is normally distributed on Normal Probability Curve.
4- Research Method of the Study -
    This study was based on the survey method of research. Analytical survey method of research was utilised to investigate the general awareness of prospective teacher educators towards AI.(Artificial Intelligence)

Population of the study:
Prospective teacher educators pursuing their Ph.D course work and prospective teacher educators pursuing M.Ed in all institutions affiliated to Chaudhry Charan Singh University, Meerut were the population of the study.

Sample Of the study:
In this study 100 students of Chaudhry Charan singh University Meerut campus, pursuing their Ph.D. course work and M.Ed. were the sample of the study.

Tool used for Data Collection:
The researcher developed a scale to measure the general awareness of prospective teacher educators towards AI (artificial intelligence) . The scale had 16 items. For reliability of the scale, test retest method was utilised. For

validity, the scale was sent to five experts. In experts opinions, all the items were related to the subject. No item was found other than the general awareness of prospective teacher educators towards AI.
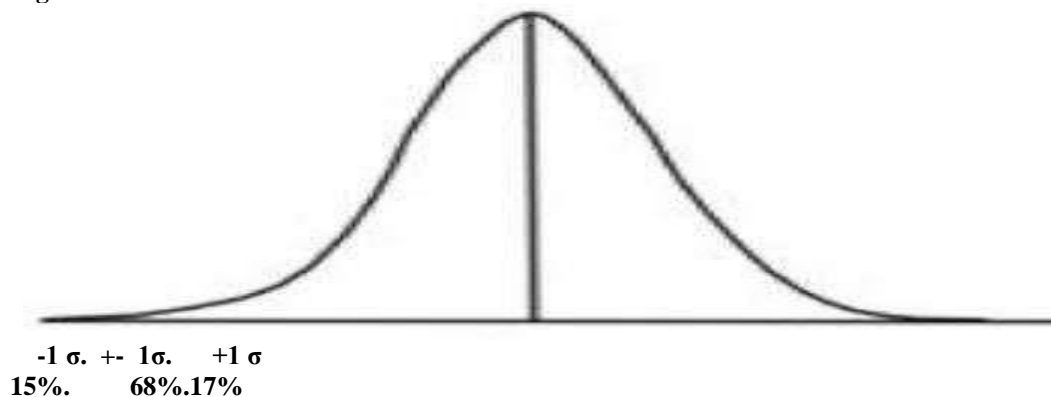
Data Analysis:
The collected data was analysed using normal probability curve technique and t- test.

Statistical Technique Used:
Normal probability curve distribution technique used in analysing the data of the Study. An independent t-test used to measure the difference between the general awareness of Ph.D. course work students and M.Ed students.

Result and Discussion:-

Figure 1

  -1 σ. +- 1σ.   +1 σ
15%.   68%.17%

The study revealed that 15% of prospective teacher educators are below -1σ score, 17% of prospective teacher educators score is above +1σand 68% of the students lie in between i.e. +-1σ score. By analysing the data, it can be said that data follows the NPC Distribution pattern.

To compare AI awareness between Phd and M.ed students an independent sample t-test was conducted

Table- 1. t- test to find the significant difference in the awareness of Ph.D students and M..Ed students towards AI (Artificial Intelligence)

	N	Mean	SD	t	df	p
Ph.D. Students	60	36.28	2.73	2.54	98	0.0132
M.Ed. Students	40	34.75	3.10			

It is clear from the data in the table that p value is less than 0.05. It is significant at 0.0132 level. It means prospective teacher educators pursuing Ph.D coursework has higher awareness towards AI in comparison to prospective teacher educators pursuing M.Ed.

While comparing the group of PhD students and M.Ed students both the groups generally follow normal distribution of NPC in their general awareness of AI. Ph.D students demonstrate a higher level of AI understanding with more students scoring above +1 Sigma score that is 28%. On the other hand M.Ed students have a slightly higher percentage in the lower awareness category that is 15%.

Conclusion:-

The study concludes that most of the prospective teacher educators have an average level of general awareness regarding AI, only a small proportion shows high or low levels. The awareness of AI is normally distributed.It means there is a requirement of including AI related workshops and training programs in teacher education.A significant difference was observed in general awareness regarding AI between Ph.D. coursework students and M.Ed. students,with Ph.D. students displaying a higher level of general awareness of AI. This indicates that the exposure to advance research, digital tools and technology oriented coursework impacts AI understanding.

In conclusion, there is a needto enhance AI literacy for the professional growth of teacher educators and for the modernisation of teacher education.

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