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## Effect of artificial intelligence on teachers and students' life

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**Abstract**

*The primary purpose of the study explores the impacts that Artificial Intelligence (AI) tools have on the day-to-day lives of both teachers and students. AI is changing the education sector by supplying sophisticated teaching tools, personal learning apps, and automating numerous tasks. For teachers, employers AI technology does most of the tasks needed in the classroom, making it easier for them to work, and improving their teaching methods. Students also receive AI tools that make learning more enjoyable and easier. On the other side, teachers and students must recognize the challenges that the over reliance of AI poses especially with personal interaction in learning. In this paper, we discuss the advantages and the disadvantages that AI has brought in education.*

## Introduction

The processes of teaching and learning have been transformed by the development of Artificial Intelligence (AI). AI is useful for teachers in preparing lessons, grading students' work, and managing classes. Moreover, students are also using AI to learn independently through personalized learning methods. Learning and teaching with the aid of AI is becoming easier, enjoyable, and more effective. However, we must be cautious as overreliance on AI can lead to passive thinking. This research will demonstrate the ways AI can assist both teachers and students and the problems it may cause.

## Purpose of the Research

To study how does Artificial Intelligence affects teachers' teaching and students' learning performance.

## Review of Literature

**2016** – Luckin et al. Teachers are assisted by AI in terms of automating tasks and providing teachers with insight into making quality decisions.

**2019** – Holmes et al. Emphasized the personalization of students' learning with their pace and manner.

**2020** – Selwyn Was concerned about AI ethical issues such as privacy, bias, and limited teacher-student interaction.

**2021** – Chen et al. Disclosed that learning tools based on AI enhance the involvement of students and academic outcomes.

**2025-**Merino-Campos discovered that AI "significantly optimize education results by adapting content and feedback to learner requirements.".

## Objectives of the Study

- To find out how teachers **change the way they teach** and **manage their work** when they use AI tools.
- To observe how students' **interest, understanding, and test scores** change when they learn through AI tools.

## Hypotheses of the study

- There is no significant impact of Artificial Intelligence on teachers' teaching methods and work efficiency.
- There is no significant impact of Artificial Intelligence on students' learning experiences and academic performance.

## Variables: Independent variable

Use of AI in education. **Dependent variable**: For teachers: Teaching methods, Work efficiency. For students: Learning experience, Academic performance

**Procedure for Data Collection**

- **Prepare Tools:** Create a **Yes/No questionnaire** and an **interview schedule** with basic questions on AI's impact.
- **Sample Selection:** Select **20 teachers and 30 students** using **stratified random sampling**.
- **Distribute Questionnaire:** Share the **questionnaire** via **Google Forms** or in print.
- **Conduct Interviews:** Ask **Yes/No questions** from the interview schedule in short one-on-one sessions.
- **Data Collection:** Collect responses from the **questionnaire** and **interviews**.
- **Analyze Data:** Analyze **Yes/No responses** and note patterns from interviews.

**Formula**:    **Percentage of Yes    = (Number of Yes Responses/ Total Responses) ×100**

**Percentage of No=(Number of No    Responses/ Total Responses) ×100**

**Findings Based on Hypothesis**

- **H₀: There is no significant impact of Artificial Intelligence on teachers' teaching methods and work efficiency.**

**Finding**

- 80% of teachers reported that AI tools have improved their teaching methods and increased work efficiency.
- 75% of teachers noted that AI helps in time-saving and reduces repetitive tasks.

**Interpretation**

The data suggests that AI does have a significant positive impact on teaching methods and work efficiency, indicating that the null hypothesis can be rejected.

- **H₀: There is no significant impact of Artificial Intelligence on students' learning experiences and academic performance.**

**Findings**

- 70% of students reported an improved learning experience due to personalized AI tools.
- 60% of students indicated that AI-based platforms have helped them better understand complex subjects and improved their performance.

**Interpretation**

The results show a significant positive effect of AI on students' learning outcomes, leading to the rejection of the null hypothesis.

**Summary**

The study found that AI positively impacts both teachers and students. Teachers reported improved efficiency and teaching methods, while students experienced better and personalized learning. Thus, both null hypotheses were rejected.

**Suggestions**

- Use AI tools regularly in teaching and learning.
- Train teachers and students to use AI effectively.
- Combine AI with traditional teaching for better results.

- AI can improve teaching efficiency and personalize student learning, so it should be integrated into education with proper training.

**References**

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