

# Impact of AI in Teaching Learning Experience

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## ABSTRACT

The topic of research study is based on “**The Impact of AI in Teaching Learning Experience**”. The study focused on how Artificial Intelligence is set to transform education creating more personalized, efficient and engaging learning experiences. Technology continues to evolve the possibilities to AI in teaching and learning are boundless, offering opportunities to support students and educators in new and exciting ways.

The study found that while AI holds great promise for enhancing the teaching learning experience, it must be integrated thoughtfully and responsibly. Educators and policy makers should address its limitations to ensure that AI benefits all students and complements rather than replaces, traditional teaching methods.

While AI presents opportunities to enhance the teaching and learning experience, teachers face significant challenges in adapting to and integrating this technology. Addressing these issues requires proper training support and careful consideration of the ethical social and technical implications of AI in education. While AI offers great potential for enhancing education students face several challenges in using these technologies effectively. Addressing these issues requires careful planning, ongoing support and a focus on ensuring that AI tools are inclusive ethical and aligned with the needs of all learners.

## IMPACT OF AI IN TEACHING LEARNING EXPERIENCE

Artificial Intelligence has transformed the teaching learning experience by introducing innovative methods to enhance education's efficiency, personalization and accessibility. It has become a driving force in reshaping how knowledge is delivered and absorbed.

### Personalized learning

AI enables personalized learning by analyzing individual student data, including strengths, weaknesses and learning patterns. Tools like adaptive learning platforms recommend tailored content ensuring students learn at their own pace. This approach fosters better engagement and retention.

### Smart Content and virtual assistance

AI powered tools create interactive and engaging content like digital text books, videos and simulations. Virtual assistance like chatbots offer 24/7 support answering student queries and guiding them through complex concepts. This enhances students' independence in the learning process.

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**Automated Administrative task**

AI streamlines administrative task for teachers, such as grading assignments, tracking attendance and creating lesson plans. This frees up time for educators to focus on more creative and impactful teaching methods.

**Global Accessibility**

AI Powered platforms break geographical barriers by offering quality education to students in remote areas. Language translation tools ensure diverse backgrounds to access educational resources.

**Enhanced classroom experience**

AI supports hybrid and blended learning models by integrating technologies like augmented reality (AR) and virtual reality (VR).

These tools make learning interactive, helping students better understands abstract concept.

**CHALLENGES OF USING AI**

Artificial Intelligence has certain limitations despite its advantages. We can understand these limitations through following:

- a. High implementation cost:** The integration of AI tools requires significant investment in technology and infrastructure, making it unaffordable for many institutions.
- b. Lack of human connection:** AI lacks human emotional intelligence and cannot replace the empathy and motivation provided by human teachers.
- c. Data Privacy and security:** The collection and storage of student data raise concerns about privacy and potential misuse. Educational institutions must ensure strict data protection measures.
- d. Digital drive:** Limited access to the internet and devices in rural or economically disadvantaged areas restricts the benefits of AI. This creates inequality in education.
- e. Dependency on Technology:** Over dependance on AI can reduce critical thinking and problem-solving skill in students. Technical failures on errors can disrupt the learning process.
- f. Teacher Training Requirements:** Teachers need proper training to effectively integrate AI tools into their teaching methods. Resistance change among educators can slow down adoption.

**SUGGESTIONS FOR STUDENTS USING AI IN LEARNING**

AI can be a powerful tool to enhance your learning experience when used effectively. Here are some practical suggestions for students to make the most of AI in education.

1. Utilized AI based platforms that adapt to your pace and learning style e.g. khan academy, un-academy, Coursera, duolings. Take advantaged of personalized study plans and recommendations to strengthen weak areas.
2. Engage with chatbots for continuous support, especially in subjects requiring practice such as math or coding.
3. Stay organized with AI tools use AI powered apps like notion, Trello or google calendar to manage study schedules and deadlines effectively. Tools like mind meister can help create mind maps for better concept organization.
4. Use virtual and augmented reality tools to explore subjects interchangeably e.g. anatomy apps for biology, VR simulation for history or science. These technologies make learning fun and practical.
5. Cross check facts and verify information generated by AI tools. Develop critical thinking to distinguish reliable information from errors or biases.
6. Use AI as a supplementary tool rather than a replacement for textbooks, teachers or personal effort. Balance AI usage

with traditional learning methods to build critical thinking and problem-solving skills.

7. Be mindful of sharing personal information while using AI platforms choose reputable tools that prioritize data security and adhere to privacy policies.
8. Avoid using AI tools for unethical practices like plagiarism or cheating. Focus on using AI to improve understanding and learning rather than shortcuts.
9. Collaborate with educators to learn how to integrate AI tools effectively into your studies. Share feedback about AI tools to improve their adoption in the classroom.

### **SUGGESTIONS FOR TEACHERS USING AI IN TEACHING**

AI offers immense potential to enhance teaching methods, personalized learning and streamlines administrative task. Here are practical suggestions for teachers to effectively incorporate AI into their teaching practices.

1. Leverage AI- powered platforms e.g. google classroom, Edmodo to customize lessons based on students learning styles and progress. Identify struggling students using AI analytics and offer tailored support to address their weaknesses.
2. Use AI tools to automate grading attendance tracking and report generation. Tools like grade scope and Turnitin can save time and increase efficiency. Free up more time to focus on students' engagement and lesson planning.
3. Integrate AI driven apps like Kahoot, Quizz and virtual labs to make lessons more engaging and interactive.
4. Use AI tools that facilitate group projects and collaboration, such as Microsoft teams or stock. Enables students to work on AI based simulations and problem-solving task together.
5. AI-powered platforms like smart sparrow and class craft can provide instant feedback to students, helping them identify and correct mistakes in real time. Analyze AI generated reports to offer constructive feedback and adjust teaching strategies.
6. Regularly explores new AI tools that align with your teaching goals and subject area. Participative in professional development programs, workshops or online courses to learn how to effectively use AI in education.
7. Ensure all students have access to the necessary devices and internet for AI based tools. Provide offline alternatives or blended learning strategies to minimize the digital divide.
8. Teach students about the ethical implications of AI and the importance of responsible usage. Monitor AI usage to prevent misuse, such as plagiarism or over reliance on automated solutions.
9. Use AI to enhance not replace the human connection in education. Continue to provide emotional support, membership and motivation that AI cannot replicate.
10. Use AI tools for trusted providers that comply with data protection laws. Educate students and parents about data privacy and ensure transparency regarding how AI tools handle their data.
11. Experiment with AI to identify the most effective tools and approaches for your classroom. Use insights from AI analytics to innovate teaching methods and create an inclusive learning environment.

**CONCLUSION**

AI is revolutionizing education, making it more adaptive, efficient, and inclusive. It personalizes learning and enhances student engagement.

AI has the potential to transform teaching by making it more personalized, efficient and engaging. Teachers who embrace AI responsibly can empower students, improve learning outcomes and enhance their own effectiveness. By balancing AI integration with empathy and creativity, educators can create a future-ready classroom.

While challenges exist, a balanced approach combining AI with traditional teaching can bridge educational gaps.

AI has the potential to shape the future of learning in a meaningful way.

**REFERENCES**

1. "Artificial Intelligence in education: Transforming learning and teaching" by Dr. Deeksha Saraswat – Assistant Professor, School of Education, Adamas University, India.
2. "The Impact of Artificial Intelligence on Learning Outcomes" by S. S. R. Iyer and S. S. Rao (2020) - Journal of Educational Computing Research
3. "AI in Education: A Review of the Literature" by M. A. W. Zamani and M. A. Hassan (2019) - Journal of Educational Technology & Society
4. "Teaching and Learning with Artificial Intelligence: A Systematic Review" by Y. Zhang and Y. Chen (2020) - Journal of Educational Technology Development and Exchange
5. Artificial Intelligence in Education: A Guide for Educators" by R. W. Selwyn (2020)
6. "Teaching with Artificial Intelligence: A Guide for Teachers" by M. A. W. Zamani and M. A. Hassan (2020)
7. "AI in Education: A Critical Perspective" by S. S. R. Iyer and S. S. Rao (2020)
8. "Artificial Intelligence in Education: A Report by the National Academy of Education" (2020)
9. "AI in Education: A Report by the OECD" (2020)
10. "The Future of Education: How Artificial Intelligence Will Change the Way We Learn" by the World Economic Forum (2020)
11. "AI in Education: A Guide for Educators" by Microsoft (2020)
12. "Teaching with Artificial Intelligence" by IBM (2020)