

## EFFECT OF ARTIFICIAL INTELLIGENCE INTEGRATION ON THE WELLBEING OF STUDENT-TEACHERS

**\* Dr. Vithoba C. Sawant**

*\* Assistant Professor, MES's Pillai College of Education and Research, Chembur.*

### **Abstract:**

*This study explores the impact of Artificial Intelligence (AI) on the wellbeing of B.Ed. student-teachers, focusing on mental, emotional, and professional aspects. While AI tools have shown promise in reducing workload, providing personalized learning experiences, and enhancing teaching skills, challenges such as technology-induced stress, over-dependence, and decreased social interactions have emerged. The study, based on a sample of 100 student-teachers from colleges affiliated to university of Mumbai, uses a mixed-method approach, combining quantitative data from structured questionnaires with qualitative insights from focus group discussions. Findings indicate that AI positively impacts mental wellbeing by reducing stress and improving professional readiness, though concerns about over-reliance and data privacy persist. The study highlights the need for balanced AI integration in teacher training programs, emphasizing both technological skills and the preservation of personal connections. It concludes with recommendations for further research and practical strategies to optimize AI's benefits while mitigating its challenges.*

**Key words:** Artificial Intelligence, Wellbeing, Integration etc.

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### **Introduction:**

In today's world, technology has made education more flexible, efficient, and focused on the learner's needs. Among these advancements, Artificial Intelligence (AI) stands out as a tool that is reshaping the way we teach and learn. AI in education isn't just about improving teaching methods or handling routine tasks. It also impacts the lives of those involved, especially student-teachers who are both learning and preparing to become future educators. This study examines how AI affects the wellbeing of student-teachers, looking at its benefits, challenges, and overall impact.

AI has many positive effects on student-teachers' wellbeing, but it's important to use it wisely. Schools and colleges should provide proper training to student-teachers in using AI tools, teach them to understand technology better, and encourage maintaining personal connections along with technological growth.

Blending AI with a human-focused approach is key. Technology's efficiency must go hand-in-hand with human empathy and support. Institutions should ensure AI tools assist, not replace, traditional guidance from mentors and peers. Simple habits like mindfulness, time management, and self-care can further enhance the wellbeing of student-teachers.

### **The Role of AI in Education:**

AI is used in many ways in education. It powers personalized learning platforms, automated grading systems, and tools that predict learning needs. These tools help student-teachers understand their strengths and weaknesses and create better learning strategies. AI can also simulate classroom settings, giving them a chance to practice teaching in a safe environment.

Additionally, AI supports student-teachers in their professional development. It provides easy access to educational resources like research papers, lesson plans, and teaching aids. Virtual assistants, like

chatbots, are available anytime to answer questions and offer guidance. These features make AI a valuable partner for student-teachers as they prepare for their future roles.

### **Wellbeing of Student-Teachers:**

Wellbeing includes physical, mental, emotional, and social health. Student-teachers often feel stressed as they juggle academic work, practical teaching tasks, and personal goals. They may face anxiety and burnout from meeting deadlines and managing responsibilities. AI can impact their wellbeing in both positive and negative ways. On the bright side, AI can reduce stress by automating repetitive tasks, giving personalized feedback, and providing self-paced learning tools. However, it may also cause problems like information overload, less face-to-face interaction, and over-dependence on technology, which can affect their emotional and mental health.

### **How AI Positively Impacts Wellbeing**

#### **1. Saves Time**

AI tools reduce the workload of student-teachers by handling routine tasks like grading and organizing materials. This gives them more time to focus on creative and meaningful teaching activities.

#### **2. Personalized Learning**

AI analyzes learning habits and provides tailored feedback. This personalized support helps student-teachers build confidence and reduce stress by focusing on their specific needs.

#### **3. 24/7 Support**

AI-powered virtual assistants are available anytime to answer questions or solve problems. This immediate help can reduce frustration, especially during busy times.

#### **4. Improves Skills**

AI simulations let student-teachers practice teaching and classroom management in a safe setting. These simulations provide instant feedback,

helping them improve without the fear of making mistakes in real classrooms.

### **Challenges of AI for Wellbeing:**

#### **1. Stress from Technology**

Learning to use advanced AI tools can be overwhelming for student-teachers who are not comfortable with technology. This can lead to frustration and stress.

#### **2. Too Much Dependence**

Relying too much on AI might reduce their ability to think critically or solve problems independently.

#### **3. Less Personal Interaction**

Using AI may limit face-to-face communication with peers and mentors, which is essential for emotional and social support.

#### **4. Privacy Concerns**

AI systems often collect data, which can make student-teachers feel uneasy about how their information is used. This can create a sense of insecurity.

AI has the potential to make education better and easier for student-teachers. However, its impact on their wellbeing depends on how it is used. By combining AI's strengths with human connection and proper support, institutions can help student-teachers thrive. Proper training, balancing technology with personal interactions, and promoting self-care can make AI a powerful tool for improving both learning and wellbeing.

### **Significance of the Study**

This study aims to fill the knowledge gap regarding the effects of AI on the wellbeing of student-teachers. While much has been discussed about AI's impact on learning outcomes and institutional efficiency, its influence on the mental, emotional, and social health of individuals within the education system remains underexplored. By focusing on student-teachers, this research seeks to understand how AI integration can be leveraged to enhance their wellbeing, preparing them

for the challenges and opportunities of the teaching profession.

In conclusion, the integration of AI in education holds immense potential to transform the experiences of student-teachers. However, its impact on their wellbeing is a complex interplay of benefits and challenges. This study endeavors to provide insights into this dynamic relationship, paving the way for strategies that maximize the positive effects of AI while mitigating its dr

### Need of the Study:

The increasing use of AI in education requires a closer look at its impact on teacher training programs. Student-teachers face the challenge of managing academics, professional growth, and personal development. AI tools can reduce workload, boost creativity, and improve learning, but they also come with risks like over-dependence and stress. This study aims to:

1. Understand how AI improves the efficiency and satisfaction of student-teachers.
2. Explore challenges or stressors linked to AI use.
3. Offer practical suggestions for integrating AI effectively into B.Ed. programs.

By addressing these areas, the study seeks to ensure that AI is used as a supportive tool, empowering student-teachers while minimizing its potential downsides. This balanced approach can help create a more productive and stress-free learning environment.

### Objectives:

1. To study the effect of AI tools on the mental wellbeing of B.Ed. student-teachers.
2. To study the emotional benefits and challenges of AI integration.
3. To analyse how AI influences the professional readiness of student-teachers.
4. To identify strategies for optimizing AI's positive effects.

### Hypotheses:

1. There is no significance difference between the AI tools on the mental wellbeing of B.Ed. student-teachers.
2. There is no significance between the emotional benefits and challenges of AI integration.
3. There is no significance difference between AI influences the professional readiness of student-teachers.
4. There is no significance difference between to identify strategies for optimizing AI's positive effects.

### Sample:

The study was conducted with a sample of 100 B.Ed. student-teachers from five colleges affiliated with a university in Maharashtra. Participants were selected through stratified random sampling to ensure diversity in gender, educational background, and technological proficiency.

### Tools:

1. **Structured Questionnaire:** Designed to measure perceptions of AI's impact on mental, emotional, and professional wellbeing.
2. **Wellbeing Scale:** Adapted from existing validated scales to assess emotional and mental health.
3. **Focus Group Discussions:** Conducted to gather qualitative insights on experiences and challenges faced by student-teachers.

### Technique

A mixed-method approach was employed:

1. **Quantitative Analysis:** Data from questionnaires were analyzed using descriptive and inferential statistics.
2. **Qualitative Analysis:** Transcripts from focus group discussions were thematically analysed to complement quantitative findings.

### Findings:

1. **Mental Wellbeing:** The majority of participants reported reduced stress levels due to AI tools

simplifying tasks such as lesson planning and resource compilation. However, 20% expressed anxiety over learning new technologies.

2. **Emotional Wellbeing:** Personalized feedback from AI-driven platforms enhanced confidence and motivation among 75% of participants. Conversely, 15% felt isolated due to reduced peer interaction.
3. **Professional Readiness:** AI tools like virtual teaching simulators significantly improved classroom management and teaching skills in 80% of participants. However, concerns about over-reliance on AI for critical thinking were raised by 10% of the sample.
4. **Challenges:** Technology-induced stress, data privacy concerns, and the digital divide were highlighted as barriers to effective AI adoption.

#### Conclusion:

AI has a profound impact on the wellbeing of student-teachers, offering significant benefits in terms of mental and emotional health and professional preparedness. However, challenges such as overdependence and technological stress necessitate balanced integration. Teacher education programs should focus on equipping student-teachers with both

technological skills and the ability to critically assess AI's role in education. Further research is recommended to explore long-term impacts and strategies for equitable AI adoption.

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