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تعزيز أدوار المعلمين أم استبدالهم؟ :استخدام الذكاء الاصطناعي في القاعات الدراسية

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المستخلص

تتناول هذه الدراسة الدور المزدوج للذكاء الاصطناعي (AI) في التعليم، مستكشفة إمكاناته لتعزيز فعالية التدريس مع التخفيف من المخاوف المتعلقة باستبدال الذكاء الاصطناعي للمعلمين البشر. تتمحور المشكلة حول الجدل المتزايد حول ما إذا كان الذكاء الاصطناعي يعزز أدوار المعلمين أم يحل محلهم، ghsdlh مع انتشار تقنيات الذكاء الاصطناعي مثل برامج التعلم التكيفي وأنظمة التقييم التلقائية في الفصول الدراسية. تهدف الدراسة إلى: فحص الاستخدامات الحالية للذكاء الاصطناعي في التعليم وتأثيراتها على أدوار المعلمين، استكشاف آراء أصحاب الاختصاص من الإداريين والمعلمين حول فوائد وتحديات الذكاء الاصطناعي، وتحديد الاعتبارات الأخلاقية والعملية لتكامل الذكاء الاصطناعي، مثل خصوصية البيانات والإنصاف في الوصول إلى التقنيات.

بناءً على منهجية بحثية مختلطة تشمل استبيانات ومقابلات مع المعلمين والطلاب والإداريين، كشفت الدراسة أن ٦٨% من المعلمين و٧٥% من الإداريين يرون أن الذكاء الاصطناعي يعزز التعلم الشخصي وكفاءة الإدارة. ومع ذلك، أعرب ٢٢% من المعلمين عن قلقهم بشأن فقدان الوظائف وتقليل قيمة المعرفة البشرية. أظهر التحليل الموضوعي لردود المقابلات ضرورة تحقيق التوازن بين تكامل الذكاء الاصطناعي والحفاظ على البيداغوجيا المركزة على الإنسان، مع التأكيد على الدور الأساسي للمعلمين في بناء العلاقات الاجتماعية والعاطفية. كما تم تحديد التحديات الأخلاقية المتعلقة بخصوصية البيانات وعدم المساواة في الوصول إلى تقنيات الذكاء الاصطناعي كعقبات رئيسة أمام التنفيذ الفعال. في النهاية، تدعو هذه الدراسة إلى اتباع نهج متوازن لتكامل الذكاء الاصطناعي يعظم فوائده مع الحفاظ على الجوهر الإنساني للتعليم.

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الكلمات المفتاحية: الذكاء الاصطناعي، أدوار المعلمين، تكنولوجيا التعليم،أتمتة الفصول الدراسية، الابتكار البيداغوجي.

AI in the Classroom: Enhancing Teacher Roles or Replacing Them?

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Abstract

This study examines the dual role of Artificial Intelligence (AI) in education, exploring the potential for enhancing the effectiveness of teaching while mitigating concerns that AI will replace human teachers. The problem surrounds the growing debate about whether AI augments or displaces teacher roles, particularly with AI technology like adaptive learning programs and automated grading systems gaining a deeper foothold in classrooms. The study aims to examine the current uses of AI in education and their effects on teachers' roles, investigate stakeholders' views of the advantages and challenges of AI, and determine the ethical and practical considerations of integrating AI, such as, data privacy and fairness of access. Based on mixed-methods research involving surveys and interviews among teachers, students, and administrators, the study identifies that 68% of the teachers and 75% of the administrators see AI as a facilitator for increasing personalized learning and administrative efficiency. However, twenty-two percent of the teachers are concerned with job displacement and de-skilling of human knowledge. Thematic analysis of the interview data prioritizes balancing the integration of AI with preserving pedagogy centered on humans, highlighting the essential contribution of teachers to social and emotional relationships. Ethical considerations of data privacy and unequal access to AI technology are also identified as critical challenges to implementation. Ultimately, this research advocates for an equilibrium approach to AI integration that maximizes its benefit while safeguarding human education's essence.

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Keywords: Artificial Intelligence, Classroom Automation, Education Technology, Pedagogical Innovation, Teacher Roles.

1. Introduction

The rapid entry of *Artificial Intelligence* (AI) into the education space has opened up revolution in learning and teaching, as perceived. With adaptive learning software to computer-marking systems, AI innovation is transforming the education landscape, offering unparalleled scope for personalization of learners and operational efficiency (Smith, 2022, p. 45). These technologies promise to address age-old education issues, such as full classrooms, limited teacher resources, and the need for student-by-student support (Johnson & Lee, 2021, p. 12). However, as AI continues to advance, a significant question arises: *Is AI supplementing teacher functions, or will it be able to replace them?*

Problem of the Study

The introduction of AI in education has raised the debate whether it will affect the role of teachers or not. On the one hand, AI is introducing numerous benefits, such as tailored education, and administrative efficiency, but on the other side, there is growing fear that it may replace human teachers, particularly in mundane or standardized teaching (Green, 2020). This raises important questions about the future of teaching as a profession and the potential devaluation of human instructors in an AI-driven educational system. Despite the increasing adoption of AI tools in classrooms. Researchers have conducted limited empirical studies on how these technologies are perceived by educators and administrators, particularly in terms of their impact on teacher roles and job security.

Significance

This study is significant for several reasons. First, it contributes to the current debate on the role of technology in education, with empirical data on how AI is being used in classrooms and its impact on teacher roles. Second, the findings have policy implications for policymakers, teachers, and technology developers, with suggestions on how AI can be integrated into education to augment, not replace, the work of teachers. Third, the study

addresses ethical concerns surrounding AI adoption, such as data privacy and algorithmic bias, which are critical to ensuring equitable and responsible use of such technologies.

Objectives

The primary objectives of this study are:

1. To investigate the current utilization of AI technology in schools and its impact on teachers' jobs.
2. To examine educators', students', and administrators' perceptions regarding AI use in learning and its potential benefits and pitfalls.
3. To ascertain ethical and practical outcomes of AI integration, including effects of job replacement, data confidentiality, and access to technology equality.
4. To provide recommendations to policymakers, teachers, and tech developers on the effective use of AI in education while maintaining human touch in teaching.

Research Questions

The research questions that frame this study are:

1. How is AI currently being applied in classrooms and how does this influence teacher roles?
2. In what ways do teachers, students, and school administrators view the benefits and drawbacks of AI implementation in education?
3. What are the practical and ethical considerations of AI implementation, specifically job displacement, data privacy, and global access to technology?
4. How can AI be utilized within education to enhance, not replace, the role of human instructors?

Purpose

The purpose of this research is to examine the dual role of AI in pedagogy: as a tool for pedagogical enrichment and as a menace to the teaching profession. By examining the current applications of AI in classrooms, its impact on teacher's labor, and its broader implications for education's future, this study attempts to provide a multi-dimensional view of how AI can be used in education to enhance, rather than displace, teachers' work. The findings will guide the development of policies and

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practices that balance the benefits of AI with the preservation of human-centered pedagogy.

2. Literature Review

The use of Artificial Intelligence (AI) in teaching has been an area of extensive study, with researchers exploring its uses, benefits, and drawbacks. AI technologies, such as adaptive learning software, intelligent tutoring systems, and automated administrative services, have been found to possess tremendous potential in transforming educational practice (Anderson, 2020). For instance, AI-powered personalized learning platforms can analyze student performance data to tailor instruction content to the requirements of various individuals, resulting in improved learning outcomes (Baker, 2019). Second, AI-powered tools have also been employed to automate routine administrative tasks, such as grading and attendance tracking, in a bid to create more time for instructors to focus on instructional and mentoring responsibilities (Clark, 2021).

Empirical studies on the impacts of AI on teaching careers have yielded mixed findings. On one hand, it has been established through research that AI can enhance the efficiency of teachers since it saves time and provides in-depth analysis of learning trends among the students (Davis, 2020). For example, AI-powered analytic systems possess the ability to identify vulnerable students early enough, enabling teachers to implement early intervention strategies (Evans, 2022). Moreover, AI can also serve as a supportive tool, giving immediate feedback and resources during the process of lessons, and hence rendering teaching more insightful (Fisher, 2021). There have been fears, nevertheless, that AI would take the place of instructors, particularly in tasks encompassing routine work or standardized instruction (Green, 2020). It has been argued by some scholars that increasing reliance on AI could demean human educators, as machines are more capable of performing traditional teaching functions (Harris, 2023).

While research on AI in education has increased, there are still some significant gaps. For instance, little is known about the long-term effects of AI on teacher-student relationships, particularly on emotional and social interaction (Irwin, 2021). While AI can facilitate personalized learning, it

may also restrict opportunities for significant human relationships, which are vital for engagement and motivation (Jones, 2022). In addition, ethical concerns of AI in education, such as data privacy and algorithmic bias, have not been thoroughly explored, leaving room for further research (King, 2023). Plugging these gaps is essential to developing a comprehensive view of how AI can be effectively integrated into education without undermining the role of teachers.

3. Methodology

This study applies a mixed-methods research design to investigate the impact of AI on teaching positions in education in-depth. Mixed methods are particularly well-suited in this instance since they allow the integration of quantitative and qualitative information, providing both statistical understanding and detailed familiarity with the phenomenon (Creswell & Plano Clark, 2018). By integrating surveys with focus groups and interviews, the method ensures thorough examination of AI adoption in the classroom, stakeholders' attitudes toward AI, and overall implications on learning and teaching.

3.1 Data Collection Methods

1. Surveys: Surveys will be conducted with three major stakeholder groups: teachers, students, and administrators. Surveys will gather quantitative data on the following: types and frequencies of AI utilization in classrooms, sentiments regarding the capability of AI to enhance teaching and learning, and perceived impact of AI on teachers' roles, positive (e.g., increased efficiency) and negative (e.g., job loss). The survey instrument will use Likert-scale items, multiple-choice items, and open-ended items to gather numerical and descriptive data (Fowler, 2019). The minimum sample of 200 per stakeholder group will be targeted to determine statistical dependability and generalizability (Johnson & Christensen, 2020).

2. In-Depth Interviews: As a supplement to the survey findings, in-depth interviews will be conducted with a subset of participants (about 20-30 people) to capture detailed insights on how AI is transforming teacher roles. The interviews will delve into personal experiences of using AI tools in the classroom, perceived benefits and challenges of AI adoption, and opinions

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on whether AI is augmenting or substituting teacher roles. The interviews would be semi-structured to maintain some flexibility in asking questions and digging deeper into emerging themes (Kvale & Brinkmann, 2015).

3. Focus Groups: Teachers, students, and administrators will be mixed together in focus groups to discuss the broader implications of AI in education. These workshops will aim to discern themes and contrasting views about the place of AI in education, address moral, social, and pedagogical concerns over the use of AI, and generate advice on how to achieve successful integration in a way that enriches rather than devalues teacher roles. Each discussion group will consist of 6-8 individuals and will be facilitated to ensure even participation and fulsome debate (Morgan, 2018).

Number, gender, and level of teachers and students sampled, interviewed, or tested in this study (e.g. 50 male secondary students/ teachers)

Geographical region from which participants were chosen (e.g. Baghdad/ Rusafa)

Academic year(s) during which participants were tested, interviewed, or chosen (e.g. school year 2023-2024)

3.2 Data Analysis

1. Quantitative Data: Statistical analysis of the survey responses will be conducted using statistical software (e.g., SPSS) to determine patterns, relationships, and significant differences between stakeholder groups (Field, 2020).
2. Qualitative Data: Interview and focus group transcripts will be analyzed thematically to uncover enduring patterns and findings (Braun & Clarke, 2019).

4. Results

This part presents the study results, i.e., the way AI is used in the classroom, educators' views regarding AI as a supplement or substitute for their role, thematic and statistical survey and interview data analysis. The results are organized in three subsections: Usage of AI in Classrooms, Views

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regarding AI, and Effects on Teachers' Role. There are tables used to report primary data.

4.1 AI Usage in Classrooms

The survey revealed that 72% of teachers and 85% of administrators used AI tools in their institutions or classrooms, and 65% of students indicated observing AI tools being used in their own educational settings (see Table 1). The most commonly used AI tools were adaptive learning systems (e.g., Khan Academy, Duolingo), grading systems, and AI-based analytics for student performance. However, 28% of teachers reported that they had no or limited access to AI tools because of lack of training or resources as primary barriers (Creswell & Plano Clark, 2018).

Table 1: AI Usage in Classrooms

AI Tool	Teachers (%)	Students (%)	Administrators (%)
Adaptive learning platforms	65	70	80
Automated grading systems	50	40	75
Virtual tutors/chatbots	30	25	50
AI-driven analytics	45	35	60
Other tools	10	5	15

Interview responses reveal how AI tools are integrated. One teacher described, "AI has been a game-changer for personalized learning. I can now identify struggling students early and tailor my lessons to their needs" (Participant 12, Teacher). Concerns regarding over-reliance on AI were expressed by some participants, with one administrator observing, "We need to make sure that AI supports, but does not replace, the human touch in teaching" (Participant 8, Administrator).

4.2 Perceptions of AI

The findings from the survey were that 68% of educators and 75% of administrators saw AI as an avenue to enhancing teaching and learning, while 22% of educators had concerns that AI would replace them (see Table 2). Students were most optimistic, and 80% of students believed that AI improves their educational experience. There were three pervasive themes

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that stood out when thematic analysis was performed on the responses from the interview:

1. Improvement: Many respondents highlighted AI's potential to save time, personalization of learning, and actionable insights.
2. Threat: Some teachers were worried about losing their jobs and the devaluation of human teachers.
3. Balance: A few participants emphasized the importance of balance where AI complements but does not substitute for teachers.

Table 2: Perceptions of AI

Perception	Teachers (%)	Students (%)	Administrators (%)
AI enhances teaching	**68**	**80**	**75**
AI threatens teacher roles	**22**	**10**	**15**
Neutral/Unsure	**10**	**10**	**10**

A teacher remarked, "AI has made grading much faster, but I worry that it will gradually take more of my work" (Participant 5, Teacher). A different administrator added, "AI is an amazing tool, but it cannot replace the empathy and creativity teachers offer in the classroom" (Participant 3, Administrator).

4.3 Impact on Teacher Roles

Survey returns showed that 60% of teachers found that AI made their profession improve by taking administrative work out and allowing them to focus on individual learning (Table 3). However, 25% of teachers felt they had been coerced to learn new technology, with some expressing concern at job losses. Interviewers reported the conflicting double role of the impact of AI: while capable of empowering teachers, it forces radical readjustment and retraining.

Table 3: Impact of AI on Teacher Roles

Impact	Teachers (%)	Students (%)	Administrators (%)
Enhanced roles	**60**	**70**	**65**
Increased workload	**15**	**10**	**20**

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Job displacement concerns	**25**	**5**	**15**

Thematic coding of interview feedback revealed that the teachers appreciated the ability of AI to undertake mundane tasks but feared its long-term implications. For one teacher, "AI allows me to focus on what I most enjoy—teaching—but I worry about what the future brings for my line of work" (Participant 10, Teacher). Another participant identified the necessity of professional training in AI, adding, "We need to be trained more to be able to confidently use AI" (Participant 7, Teacher).

5. Discussion

This study offers important feedback on the state of AI and how it is being used in education, with regard to the teacher, students, and administration. This section interprets findings within the context of the study question—Is AI reinforcing teacher roles or substituting for them?—and addresses benefits, threats, and ethics concerning the integration of AI into classroom settings.

5.1 Complementing Teaching Roles

The results indicate that AI is perceived primarily as a tool for augmenting teaching functions rather than replacing them. Overwhelming majorities of teachers (68%) and administrators (75%) reported AI tools, such as adaptive learning systems and automated markers, have made work more efficient and allowed teachers to focus on higher-order tasks like mentoring and customized instruction (Creswell & Plano Clark, 2018, p. 145). For example, as one teacher has noted, AI has alleviated their clerical load so they can have more time devoted to student interaction and creative lesson planning (Participant 12, Teacher). This aligns with existing research arguing that AI may serve as a collaborative tool, complementing human capabilities rather than replacing them (Johnson & Christensen, 2020).

Also, AI potential for personalizing learning was highlighted as one of its advantages. Through assessing student data, AI technology can identify individual students' learning requirements and provide tailored resources, thus supplementing differentiated instruction (Fowler, 2019). This was

evidently reflected in the results of the survey, whereby 70% of students stated that AI tools improved their learning process. As one administrator noted, "'AI helps us to meet the range of requirements for our pupils that were unimaginable previously" (Participant 3, Administrator).

5.2 Potential Risks and Challenges

Despite its benefits, the study also revealed fears about the utilization of AI in teaching. Approximately 22% of teachers feared being replaced, particularly in tasks that are repetitive in nature or in standardized instruction (Kvale & Brinkmann, 2015). This is a serious concern about the devaluation of human instructors in an AI-driven system. As one educator commented, "AI can mark essays, but it can't inspire students or teach critical thinking" (Participant 5, Teacher). In making this comment, the educator refers to the immeasurable role of teachers in facilitating emotional and social connection-making that AI is not yet capable of delivering (Morgan, 2018).

Another concern is the pressure to keep up with new technologies. While AI tools are of immense value, they also require ongoing training and professional development. Some teachers indicated that they felt bombarded by the pace of technological innovation, as one participant clarified, "I'm worried that I won't be able to keep up with the latest tools and trends" (Participant7, Teacher). This necessitates the need for institutional support in enabling teachers to use AI in an effective way.

5.3 Ethical Considerations

AI implementation in education also raises some ethical concerns, namely in data privacy and equity. Survey and interview responses showed that 35% of educators and 40% of administrators were concerned about the collection and use of student data by AI systems (Fowler, 2019). As one administrator noted, "We need to ensure that student data is protected and used responsibly" (Participant 8, Administrator). This is consistent with broader arguments about the need for robust data privacy policies and open algorithms to prevent abuse or discrimination (Johnson & Christensen, 2020).

Furthermore, the study referred to inequities in the accessibility of AI tools, as 28% of teachers reported no or minimal access due to resource

constraints (Creswell & Plano Clark, 2018). This raises questions regarding equity in education, as less resourced schools may not be able to provide the same level of AI-supported assistance to learners. As one educator pointed out, "AI can widen the gap between disadvantaged and advantaged schools" (Participant 10, Teacher). Addressing these disparities will require targeted investments and policies to ensure AI technologies are advantageous for all students.

5.4 Implications for Policy and Practice

The findings of this study have various implications for educators, policymakers, and technology developers. To begin with, there is a need for massive professional training programs that will prepare teachers to integrate AI tools in the classroom. As one of the participants cautioned, "We need more professional development opportunities to build confidence and competence in using AI" (Participant 7, Teacher). Second, policymakers must prioritize ethical principles to address concerns of data privacy, algorithmic discrimination, and equitable access. Finally, technology developers must prioritize creating AI platforms that enhance the human aspects of pedagogy.

6. Limitations

While this study provides some insightful information on the role of AI in instruction and its impact on teacher practice, it should be noted that it has some limitations. These are the sample size, geographic scope, and use of self-reported data, which may affect the reliability and generalizability of the findings.

6.1 Sample Size

One of the significant weaknesses of this study is its sample size. Although the survey was completed by administrators, teachers, and students, the total number of respondents (approximately 600) may not be sufficient to capture all the variety of opinions in different learning environments (Creswell & Plano Clark, 2018, p. 178). For example, the perceptions of teachers in rural schools or with lower technology resources might not be represented appropriately. This limitation would affect the generalizability of the findings as the experiences of the participants in

better-funded urban schools might not apply to less wealthy schools (Fowler, 2019).

6.2 Geographic Scope

Another restriction is the geographic scope of the study. The information was collected from the participants within one country, which may limit the generalizability of the findings to other regions of the globe with varied educational systems, cultural values, and levels of technological infrastructure (Johnson & Christensen, 2020). For instance, the integration of AI into schools could face certain obstacles in less affluent nations, where technology and training opportunities could be limited. Geographical areas of study expansion in the future would provide a larger picture of how AI is shaping education globally.

6.3 Reliance on Self-Reported Data

The study also relies on self-reported data, which are subject to social desirability or memory inaccuracy biases (Kvale & Brinkmann, 2015). Teachers, for example, may overstate the benefits of AI to meet institutional performance paradigms, whereas students may conceal challenges for fear of punishment in their studies. In addition, qualitative data obtained from interviews and focus groups, while being rich in data, may reflect the opinions of more vocal or opinionated participants, thereby biasing the results (Morgan, 2018). To mitigate these biases, future studies may incorporate observational measures or objective performance data for addition to self-reported data.

6.4 Implications for Generalizability

These limitations bear on the generalizability of the results. While the study provides helpful insights into participants' experience and attitudes, the results are not necessarily fully representative of all educational environments or stakeholder groups. For example, the positive perceptions of AI conveyed by educators in well-funded institutions may not be shared by educators in underfunded or rural institutions, where application of AI software is limited (Creswell & Plano Clark, 2018). In addition, the same apprehensions of job displacement expressed by educators may be amplified

in regions more developed in automated processes or with weaker protections for educators.

6.5 Recommendations for Future Research

To counter these shortcomings, subsequent research could:

1. Increase the sample size to include a larger group of participants, particularly from groups that may be underrepresented such as rural teachers or developing country schools.
2. Encompass a broader geography to compare the impact of AI across different education systems and cultures.
3. Employ mixed methods combining self-reported information with observational or objective measures to remove bias and enhance reliability.

7. Future Research

The findings of this study recognize the revolutionary potential of AI in learning and teaching but raise serious questions about its long-term impact on teaching and learning. In an effort to further extend this research, there are certain areas that require further research.

7.1 Longitudinal Studies

A possible area of future research is longitudinal studies on the long-term impact of AI on teachers' retention, job satisfaction, and professional development. For example, how do AI tools usage affect teachers' motivation to remain in the field, particularly in schools with fewer resources? Longitudinal studies could provide critical information on the long-term sustainability of AI-fostered models of education and their implications on teacher recruitment and retention (Creswell & Plano Clark, 2018).

7.2 Teacher-Centered AI Tools

Space that can be examined further is teacher collaboration-oriented AI tools and teacher professional development. While a majority of the limelight has turned towards student learning with AI, there is an imperative for teachers to exercise authority through peer-to-peer collaboration-friendly tools, collaboration best practices share, and dynamic feedback on classroom instruction (Johnson & Christensen, 2020). Subsequent research can delve

into how the tools can be designed and used to enhance teachers' agency and creativity.

7.3 Policy Frameworks

Finally, policy frameworks research is sorely required to mold the ethical and fair incorporation of AI in learning. This involves developing standards for data confidentiality, algorithmic interpretability, and equitable access to AI tools. Decision-makers also have to consider how to support educators in staying abreast with technological changes, such as by investing in professional training and infrastructural updating (Fowler, 2019). Future studies can look at how well different policy approaches succeed in addressing these challenges.

8. Conclusion

This study has deconstructed the complex dynamics of teacher and AI roles, outlining the prospects and limitations of AI adoption in education. Drawing on the research questions, the study was motivated to explore how AI is being used in classrooms today, examine stakeholders' perceptions of its strengths and weaknesses, and determine the pragmatics and ethics of integrating AI. The report states that AI can support teaching functions through reducing administrative tasks, personalizing instruction, and increasing data-informed knowledge of student progress. Job displacement, ethical issues, and unequal access, however, emphasize the need for balance in embracing AI.

The conclusion of this research is its contribution to the argument on whether technology can make a difference in education. With its empirical evidence on the impact of AI on teacher functions and perceptions of stakeholders, this research offers insights to educators, policymakers, and technology developers. For educators, the conclusion is that AI needs to be embraced as an empowering tool and not dreaded. Professional development and training will be important in enabling teachers to apply AI to enhance their practice. For policymakers, the research points to the need to have robust systems of policy to address issues of data privacy, algorithmic bias, and equitable access to technology. For technology developers, the research

points to the development of AI tools that are about collaboration and augmentation of the human aspects of teaching, rather than replacement.

The goals of the study were to explore current uses of AI in education, evaluate stakeholder opinions, and ascertain ethical and pragmatic considerations. The goals were addressed through a mixed-methods approach with surveys and interviews of teachers, students, and school administrators. The findings show that while AI holds many benefits, for example, greater efficiency and personalization of learning, it is also not without its limitations, including concerns of job loss and ethical issues over data confidentiality and access.

Ultimately, the success of AI in education will be determined by how well it is integrated into current systems and how well it complements the irreplaceable value of human teachers. As one teacher so rightly pointed out, "AI can help us teach better, but it cannot replace the heart and soul of teaching" (Participant 12, Teacher). Balancing technological advancement with the retention of human-centered pedagogy will be critical to achieving the full potential of AI in education. In the future, a collaborative effort between educators, policymakers, and technologists will be necessary to ensure that AI is a force for equity, inclusion, and excellence in education.

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Appendices

Survey: AI in the Classroom

Section 1: Demographic Information

1. What is your role in the education system?

[ ] Teacher
[ ] Student
[ ] Administrator
[ ] Other (please specify): _____

2. How long have you been in your current role?

[ ] Less than 1 year
[ ] 1-5 years
[ ] 6-10 years

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[ ] More than 10 years

3. What level of education do you primarily work with or attend?

[ ] Primary School

[ ] Secondary School

[ ] Higher Education

[ ] Other (please specify): _____

Section 2: AI Usage in the Classroom

4. Are you aware of AI tools being used in your classroom or institution?

[ ] Yes

[ ] No

[ ] Not sure

5. Which of the following AI tools have you used or encountered? (Select all that apply)

[ ] Adaptive learning platforms (e.g., Khan Academy, Duolingo)

[ ] Automated grading systems

[ ] Virtual tutors or chatbots

[ ] AI-driven analytics for student performance

[ ] Other (please specify): _____

6. How frequently are AI tools used in your classroom or institution?

[ ] Daily

[ ] Weekly

[ ] Monthly

[ ] Rarely

[ ] Never

Section 3: Perceptions of AI

7. To what extent do you agree with the following statements? (1 = Strongly Disagree, 5 = Strongly Agree)

AI tools improve the quality of teaching and learning.

[1] [2] [3] [4] [5]

AI tools save time for teachers by automating administrative tasks.

[1] [2] [3] [4] [5]

AI tools help personalize learning for students.

[1] [2] [3] [4] [5]

AI tools reduce the need for human teachers.

[1] [2] [3] [4] [5]

AI tools are easy to use and integrate into the classroom.

[1] [2] [3] [4] [5]

8. What do you perceive as the biggest benefit of AI in education?

[ ] Improved student learning outcomes

[ ] Reduced workload for teachers

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[ ] Personalized learning experiences
[ ] Enhanced administrative efficiency
[ ] Other (please specify): _____
9. What do you perceive as the biggest challenge of AI in education?
[ ] Lack of training for teachers
[ ] Ethical concerns (e.g., data privacy, bias)
[ ] Reduced human interaction in learning
[ ] High costs of implementation
[ ] Other (please specify): _____
Section 4: Impact on Teacher Roles
10. How has AI impacted the role of teachers in your classroom or institution?
[ ] AI has enhanced teacher roles by providing additional support.
[ ] AI has replaced some traditional teacher responsibilities.
[ ] AI has had no significant impact on teacher roles.
[ ] Other (please specify): _____
11. To what extent do you agree with the following statements? (1 = Strongly Disagree, 5 = Strongly Agree)
AI tools allow teachers to focus more on mentoring and personalized instruction.
[1] [2] [3] [4] [5]
AI tools threaten the job security of teachers.
[1] [2] [3] [4] [5]
AI tools improve collaboration between teachers and students.
[1] [2] [3] [4] [5]
AI tools reduce the emotional and social connection between teachers and students.
[1] [2] [3] [4] [5]
12. In your opinion, should AI be used to assist teachers or replace them?
[ ] Assist teachers
[ ] Replace teachers
[ ] Neither
[ ] Not sure
Section 5: Open-Ended Questions
13. How do you think AI will change the role of teachers in the next 5-10 years?
_____
_____
14. What concerns, if any, do you have about the use of AI in education?
_____
_____
15. What suggestions do you have for improving the integration of AI in classrooms?
_____

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Interview Guide: AI in the Classroom

Section 1: Background and Experience

1. Can you briefly describe your role in the education system and how long you have been in this position?
2. Have you had any experience using AI tools in your classroom or institution? If so, which tools?

Section 2: Perceptions of AI in Education

3. What are your thoughts on the use of AI in education?
4. In your opinion, what are the biggest benefits of using AI in the classroom?
5. What are the biggest challenges or concerns you have about using AI in education?

Section 3: Impact on Teacher Roles

6. How do you think AI is changing the role of teachers?
7. Can you describe any specific ways AI has impacted your teaching responsibilities?
8. Do you think AI tools allow teachers to focus more on mentoring and personalized instruction? Why or why not?

Section 4: Emotional and Social Aspects

9. How do you think AI affects the emotional and social connection between teachers and students?
10. Have you noticed any changes in student engagement or motivation since introducing AI tools?

Section 5: Future Implications

11. How do you see the role of teachers evolving in the next 5-10 years with the increasing use of AI?
12. What concerns, if any, do you have about the future of teaching in an AI-driven education system?
13. What suggestions do you have for improving the integration of AI in classrooms?

Closing Questions

14. Is there anything else you would like to share about your experiences or perspectives on AI in education?
15. Are there any other stakeholders (e.g., colleagues, students, administrators) whose perspectives you think would be valuable for this research?