ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL
Available Online: https://assajournal.com
Vol. 03 No. 02. Apr-Jun 2025.Page#.2262-2276
Print ISSN: 3006-2497 Online ISSN: 3006-2500
Platform & Workflow by: Open Journal Systems

AI as a Teaching Partner: Redefining Educator Roles in the Digital Age

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Abstract
This study explores the role of teachers with the advent of AI integration in education. With AI increasingly impacting teaching, we must understand how teachers leverage such change and co-produce quality learning with AI. The aim of this study is to know the redefinition of teachers' role through appearances, problems and merits of AI usage and still help them to make the most of AI-aided environments. The approach is qualitative and is based on semi-structured interviews carried out with 10 teachers from diverse educational contexts. Purposive sampling was used to select the participants who provided a wide representation varied in term of teaching backgrounds. Key themes and insights were identified thematically through analysis of the data. The result of this research show that AI is transforming the role of educators from instructors delivering knowledge to facilitators, mentors and guides. Teachers understand both benefits and issues behind AI in the classroom However, despite positive views on AI, teachers struggle with too, in particular lack of necessary training and resistance to change but also they have moral and ethical concerns over privacy of data. The study also emphasizes that on-going professional development, collaborative learning communities, and teacher participation in AI design are crucial to the successful incorporation This research fills the gap and enhances the current knowledge related to the human-AI interaction in education, focusing on the educators' viewpoints. The results provide important implications for policy maker and school leader who is considering to help teachers integrating AI. Finally, this study also offers some perspectives on how AI could be an assisting partner to education, improving teaching and learning experiences overall.

Keywords: *AI, Teaching Partner, Educator Roles, Digital Age*

1. Introduction

The Artificial Intelligence (AI) revolution is transforming education across the globe. Now it is being used for grading, personalized learning paths, student query through chatbots, and classroom data management. These changes are reshaping the very way students are learning, and they are redefining the standard qualities of a teacher. It used to be that teachers were the ones who passed knowledge on to students. But in the digital era, teachers are supposed to shift

to facilitators and mentors and collaborative partners with AI tools (Holmes et al., 2022). As AI systems become more capable of handling many of the routine and administrative work, teachers now have more time to focus on higher-level tasks such as critical thinking, creativity and emotional care. In this transformation the teacher themselves takes up new roles which include understanding how AI works, the application of AI in teaching practice and how to support students to work responsibly with AI (Luckin, 2023). Yet even as AI gets a foothold in classrooms, many teachers are ill trained or unnerved by their new roles. This requires further study of how teachers can work with AI effectively and also on which skills and training teachers need to be successful in this new environment (Tang et al., 2022). This article seeks to investigate the ways that AI is emerging as a teaching partner and reconfiguring educators' labor and subjectivity in the digital age. It also examines the problems that educators are having and how teachers can be helped to adapt to these new changes.

1.1 **Problem Statement**

The Artificial Intelligence (AI) is increasingly utilized in schools and universities, there is a need for more clarity about the way in which it is shaping teacher roles. More broadly, many teachers do not know how to work with A.I. tools or how their responsibilities are evolving. Some are intimidated by AI, while others want to use it and just don't feel they have the right guidance or training. Such confusion can result in inappropriate use of AI in the classroom, or even the resistance to use AI in part (Tang et al., 2022). If they are not informed by clear research or strategies, educators might find it difficult to run to keep up with the pace at which AI is transforming education. Thus, the way of explaining to the AI as a counterpart, not as a rival, as well as how it can define the role of teachers should be redefined meaning are required to be investigated.

1.2 Research Objectives

1) To explore how AI tools are changing the roles and responsibilities of educators.
2) To examine the challenges and opportunities teachers face when working with AI in the classroom.
3) To suggest practical strategies for helping educators adapt to their evolving roles in the digital learning environment.

1.3 Research Questions

1) In what ways are the roles of educators being redefined due to the integration of AI in education?
2) What are the main challenges and benefits teachers experience when using AI as a teaching partner?
3) What approaches can be used to help teachers adapt and thrive in AI-supported teaching environments?

1.4 Rationale of the Study

Education is undergoing a seismic shift toward becoming digital, and AI has a large part to play in it. But no matter what technology is lecturing to students, it's not the same as a teacher's touch. Though AI can be a helpful tool for learning it's useful for automating tasks or finding efficiencies it can't provide children with emotional connection, moral guidance or sustained, deep critical thought. "Our teachers continue to perform an essential function in shaping the values, character, and creativity of our students. This is significant because it emphasizes the balance of technology and human involvement in education. Through its focus on how teachers

might collaborate with AI, this study contributes to a characterization of the human side of education that is not diminished, but enhanced with the aid of technology.

1.5 Significance of the Study

For educators, school leaders, policy-makers and teacher educators, this study is significant. In doing so, it helps us better understand how teacher roles are evolving and what type of support will be necessary to help teachers keep pace with these changes. The results should be able to inform teacher education programs how best to update curricular to prepare teachers for AI-supported classrooms. It also extends scholarly discussions by providing further insights of human-AI collaboration in education. Overall, the study advances the vision of achieving a harmonious and efficient teaching personality, with human and AI tool cooperatively operating to serve the benefit of the students.

1.6 Limitations of the Study

This study sought to gain useful insights, it has several limitations. First, it may only capture teachers who are already teaching through AI or in schools that have access to new technology potentially not capturing teachers in areas less technologically developed. Secondly, as AI is rapidly evolving, the tools and techniques we covered will go out of date in the near future, making it more difficult for the findings to have a long shelf life. Finally, the study may employ qualitative methods interviews which limit generalizability to other educational contexts.

2. Literature Review

Artificial Intelligence (AI) in education has attracted considerable academic interest in the past few years. AI' capability to improve learning experiences, automate functions, and support educators, is leading to more and more studies about its effect on education (Zawacki-Richter et al., 2023). Early studies were centered on the 'good' of AI, those benefits that AI held for students such as personalized learning, adaptive assessment and intelligent tutoring systems (Holmes et al, 2022). Such research has emphasized there role of AI in supplying personalized tuition, in personalizing learning materials and in providing instant feedback (Luckin, 2023). But the body of research on AI as a teaching partner working alongside teachers instead of replacing them is still in its relative infancy.

The majority of studies have focused on how teachers can be assisted by AI to automate labor-intensive activities (e.g. grading or lesson planning) so that they can then concentrate on high-level pedagogical activities (Tang et al., 2022). Here AI was seen as a tool to speed things up, not a collaborator in the teaching process. Recent research, however, has started to address the evolving roles of teachers using AI as part of their practice. Scholars have recognized that AI may serve as an effective tool in the classroom; however, it may also result in a change in educators' roles (Holmes et al., 2022). For instance, teachers may need to develop data interpretation skills, technological literacy and make AI-based decisions (Luckin, 2023). And yet, there is a clear lack of clarity on how educators work is changing as they start working alongside AI in instruction. Existing literature has mainly emphasized the technological side of AI adaption in education, while paying little attention to the human element of AI adoption. More specifically, there has been little research on teachers' perceptions of their changing roles, the difficulties they encounter, and the tools they use to remain in control of the pedagogical situation while cooperating with AI. This void is a meaningful space of inquiry, as understanding the human-AI partnership will be critical

2.1 Existing Knowledge Gaps

AI in education is a mature area of research with some serious gaps. For one thing, the literature still largely views AI as a tool, not a partner. With the growing development of AI systems that can perform increasingly complex teaching tasks, the ways in which teachers can work with such systems, rather than merely be assisted by an AI, becomes essential to consider (Zawacki-Richter et al., 2023). Furthermore, many research works have concentrated on the student view -from the impact of AI on learning outcomes, engagement, motivation (Horvitz et al., 2020). In contrast, relatively little attention has been given to the way in which AI changes the role of the teacher in the classroom, and how teachers learn to work with new technologies.

Additionally, research has mainly discussed the inclusion of AI in developed countries, and less is known about how AI is being orientated in various educational contexts such as in developing countries or culturally different environments. It is essential to know how teachers from various areas and educational systems consider AI to be a partner in teaching, in order to develop internationally appropriate guidelines for AI integration. Finally, the majority of interest in the literature to date has been on the actual technical aspects of AI (i.e., the development of the algorithms, work on machine learning, or data processing), and there has been limited focus in the literature on the pedagogical considerations of AI in teaching. Some of these gaps are to be narrowed with the present study, which shifts the focus towards teachers and AI in the classroom, investigates the obstacles and opportunities that teachers experience for adapting their practices when collaborating with AI, and reflects on the challenges that the introduction of AI poses for teachers, proposing features of effective collaboration between humans and AI in teaching.

2.2 Theoretical Framework

This research is built on several central theories, choosing to investigate the changing role of humans and AI in education. One of the key theoretical frameworks that will inform this study is Social Cognitive Theory (SCT), especially with respect to Albert Bandura's ideas of self-efficacy and observational learning. SCT is based on the premise that human behavior is learned through the interaction of cognitive, behavioral and environmental components (Bandura, 1986). For the purposes of this research, the belief of educators in their ability to use AI effectively in teaching (self-efficacy), that will affect their intention to adopt AI tools and collaborate with them, would be important. In addition, teachers can observe and interact with AI tools, and even have their teaching practices informed by the responses of AI systems.

Another pertinent theory is the Technological Pedagogical Content Knowledge (TPACK) theory that places importance on the need for teachers to have the integration of technology knowledge, pedagogical knowledge and content knowledge (Koehler & Mishra, 2009). According to Mishra and Koehler (2006), TPACK assumes an in-depth knowledge and strong appreciation for the confluence of technology, pedagogy, and content in order for teachers to effectively implement technology. This theory is critical for understanding how teachers might be supported to meet the challenges of integrating AI into their teaching practices and changing their roles to become AI partners in the classroom.

Finally, the approach of Actor-Network Theory (ANT) will be taken into consideration, from which one can understand how technology and human act constitute networks that produce behaviors and practices (Latour, 2005). ANT also enables scrutiny of the ways that AI and educators all co-exist in the same network, that human and nonhuman actors can push and

pull at what comes out of teaching and learning. By integrating these theories, we will seek to understand how teachers mediate its role as they interact with AI, and how AI is more than a tool – a partner in their education. Its theoretical underpinning implies that the integration of AI entails a twofold technological as well as pedagogical shift, which is crucial to (comprehend) the new dynamics between teachers and AI.

The previous study on AI in education has offered good insights on the potential of a better education. But teacher's active role for the AI ecosystem is untapped. Our study would fill this gap by paying attention to how AI challenges the roles of teachers, where there are obstacles , and how teachers succeed/fail to be engaged in the new partnership. Using theoretical constructs including Social Cognitive Theory, TPACK and the Actor-Network Theory, the study aims to provide a deeper insight into how AI and teachers can interact to promote learning in the classroom.

3. Research Methodology

3.1 Research Design

This research used a qualitative approach, to address the changing role of teachers when incorporating AI. The purpose of the study was to gain an understanding of how AI is transforming the role of faculty and instructional staff and how it has created challenges and opportunities. Considering the intricate and subjective nature of the research problem, qualitative methods were considered appropriate to go beyond a surface understanding of participants' perspectives and experiences (Creswell, 2014).

3.2 Research Approach

The study was framed within a case study design, allowing for in-depth investigation of teachers' engagement with AI in their classroom context. A case study design is particularly suitable for qualitative research since it allows researchers to explore a particular phenomenon in a real-life context (Yin, 2018). Here the emphasis was on getting a sense of the material and pedagogical implications of AI as a teaching partner and how this drives the re-configuration of teacher roles. The in-depth exploratory nature of the case study enabled a collection of rich context-dependent data and it contributed to an understanding of how AI is changing the state of the educational world.

3.3 Data Collection Method

In order to gather the information for study the open ended questions were asked to teachers of education department university of Narowal through semi-structured interviews. The semi-structured nature of the interview style was selected as it allowed the flexibility of probing informant's perspectives and experiences while at the same time ensuring that all the crucial areas related to the research questions were addressed. In qualitative research, semi-structured interviews are a highly effective data-collection method, since it provides the researcher with the possibility to investigate topic areas thoroughly, seek clarification, and refine questions according to the nature of the participant's response (Kallio et al., 2016).

There were phone interviews with 10 subjects who were deemed to be a sufficient sample size for qualitative research in this area. The study's participants were chosen for their experience using AI in education which meant they would have valuable perspectives on the research questions. A purposeful sampling approach was adopted to ensure recruited participants were aware of the integration of AI in the classroom, and experienced first-hand its effect on their teaching practices.

3.4 Data Collection Instrument

The interview protocol was the primary instrument for data collection. The protocol also encompassed the following open questions for discussion that addressed the following issues:

1) Educators' perception towards AI as a teaching assistant.
2) What educators change when they have to teach with AI.
3) The issues and prospects of adopting AI as a tool in the teaching profession.

The interview questions were formulated on the basis of the existing literature on AI in education and of the theoretical framework on which the research was based. The protocol was piloted with two teachers to confirm clarity and relevance, and refinements were based on their feedback.

3.5 Procedure

Data were gathered at the Department of Education, University of Narowal. Estimate explanation. The participants had been previously informed regarding the aim of the study, voluntariness and their right for data protection. Interviews were arranged at the participants' own convenience, in a private setting, allowing for open and comfortable conversations. Interviews ranged from 30 to 45 min in length, to ensure the participants had ample time to express their opinions and experiences. All interviews were taped with the participants' permission and subsequently transcribed.

3.6 Data Analysis

Data from the interview transcriptions were analyzed with thematic analysis, an established qualitative approach designed to develop, elaborate and report themes, or patterns in the data (Braun & Clarke, 2006). The study developed six steps in the analysis:

1. Immersion in the data through reading and re-reading the transcripts.
2. Developing initial codes by listing important features related to the dataset.
3. Theme hunting by organizing codes into larger categories.
4. Checking themes for reflection of data.
5. Theme definition and naming.
6. Writing up of the results, focussing on central themes in the analysis.

This method made it possible to observe patterns in educators' perspectives and experiences and to secure an understanding of how AI is influencing their positions in the classroom.

3.7 Benefit of this research design

There are several advantages of the qualitative method with semi-structured interviews for this study. First, it provided the interviewer with an opportunity to obtain in-depth information on what educators know experience and consider in relation to the integration of AI. This was especially appropriate for delving into our complex, multifaceted research topic, where technical and pedagogical aspects are involved. Furthermore, the semi-structured approach facilitated exploration of emergent themes that were not anticipated during the interview process, allowing access to a more developed portrait of participants' views. In addition, the case study method was beneficial in that it provided for a localized study of the influence of AI on practice. The study was able to offer detailed understanding that may be invisible in macro-level and generalized research because of its particular focus on teachers working at the University of Narowal.

3.8 Limitations

Although the selected method does provide valuable information about the research question, it has a number of drawbacks. One limitation was number of participants – 10 is small (even if individually statistically significant the findings may not be transferable to teachers or schools in general). Nonetheless, quality research emphasizes depth rather than generalizability, and the study captured a range of perspectives even at that sample size. A second problem was in the collection of the data which may have been biased. There are potential for unconscious biases in interpreting the participants' responses, but such a limitation is an inherent risk when the researcher also conducted the interviews and data analysis. Multiple rounds of coding were used to reduce this risk, where after a certain number of texts were coded, the findings were cross-validated to establish reliability and validity. This current research was performed from single institution and it cannot be the same as the consideration above. The findings may not be generalized to local educational circumstances, for example, areas where AI applications are less developed.

Data Analysis and Findings

The findings generated from the data gathered through interviews with ten participants were thematically analyzed manually to help bring out the main patterns as well as to generate the themes and related sub-themes based on the research purposes.

Research Question 1: In what ways are the roles of educators being redefined due to the integration of AI in education?

Theme 1: Transition from Information Providers to Facilitators of Learning

Sub-theme 1.1: Leading inquiry-based learning

"AI delivers the content, but I spend more of my time now on helping to teach students on how to think, critique, analyze." Participant-02

Sub-theme 1.2: Encouraging Thinking in Levels

"Instead of teaching just facts, I am now helping students apply, evaluate, and create with what AI has given them." Participant-04

Theme 2: Enhanced Role in Personalized Learning

Sub-theme 2.1: Evidence-based Student Assistance

"AI helps me see what a student knows and doesn't, so I can adjust." Participant-06

Sub-theme 2.2: Shaping the Personalized Curricula

"Now I learn in," Participant-08

Theme 3: Shift toward Emotional and Social Mentorship

Sub-theme 3.1: Emphasis on the Socio-Emotional development

"AI is not a great empathetic connector with students. I certainly see myself as more of a mentor now, especially in the emotional well-being department." Participant-10

Sub-theme3.2: Developing a Human Connection

"I am a humanizer in a digital classroom. I give what AI can't: empathy and personal contact." Participant-05

Theme 4: Increased Need for Technological Literacy

Sub-theme 4.1 Learn AI tools all the time.

"I've had to retrain myself to use and understand these AI systems." Participant-03

Sub-theme 4.2: Supporting Students in Navigating Digitally

"The way I am teaching it, I'm showing students not just content, but how to use these AI tools in an ethical and responsible way. Participant-06

Theme 5: Collaboration with AI as a Co-Teacher

Subtheme 5.1: Teaching Distribution

"AI takes care of repetitive tasks like quizzes and progress tracking, so I can concentrate on creative and strategic teaching." Participant-09

Sub-theme 5.2: Co-planning and Co-assessment in the Context of Flexibility.

"I now use AI for planning lessons, and I also let it correct tests, but I always check and interpret the results manually. Participant-01

Research Question 2: What are the main challenges and benefits teachers experience when using AI as a teaching partner?

Theme 1: Time Efficiency vs. Learning Curve

Sub-theme 1.1: Rapid Execution of Task Workflows

"Grading and lesson planning take only half the time now, which allows me to focus more on teaching." Participant-02

Sub-theme 1.2: The initial struggle with technology

"AI was hard to get at first, it was like learning a new language, to get it, to use the tool in a productive way," Participant-04

Theme 2: Improved Learning Outcomes vs. Over-Reliance

Sub-theme 2.1: Increased Student Involvement

"When AI is used, students are more engaged . it's interactive and often more customized relative to their pace," Participant-06

Sub-theme 2.2: Potential for Languid Learning

"Some students are over reliant on AI to answer, which hinders their own critical thinking power and creativity." Participant-08

T**heme 3: Rich Data Insights vs. Data Privacy Concerns**

Sub-theme 3.1: Monitoring of the Real-Time Performance

"I can tell immediately who's struggling and can act quickly on that." Participant-10

Sub-theme 3.2: Fear of information misuses residents' personal information.

"I struggle every day with whether AI is handling the data it collects in an ethically and secure fashion." Participant-01

Theme 4: Emotional Disconnect vs. Teacher Relevance

Sub-theme 4.1: Limitation of AI on Emotional Intelligence

"AI doesn't know if a child is feeling anxious or had a rough day. That's where I step in." Participant-03

Sub-theme 4.2: Fear of Losing Their Jobs

"There's this quiet fear .what if AI replaces us in the end?" Participant-05

Theme 5: Increased Professional Empowerment vs. Institutional Pressure

Sub-theme 5.1: Enhanced Decision Making Supported by AI

"Even though I know it's not your guy's decision, as a consumer, the fact that a program is using my life to generate these insights, and none of these insights are reach out to a dr., the involved party not wanting to disclose their relationship it is just all around shady." Participant-07

Subtheme 5.2: Push to Deliver with New Tech

"At times, I feel like I need to become a tech expert overnight, which can be overwhelming." Participant-09

Research Question 3: What approaches can be used to help teachers adapt and thrive in AI-supported teaching environments?

Theme 1: Continuous Professional Development

Subtheme 1.1: Hands on Training Workshops

"We require ongoing practical training, not just seminars that happen one time." Participant-02

Subtheme 1.2: Individualized Teacher Learning

"We teachers need, like our students, training that matches our own skill levels and the subjects we teach." Participant-04

Theme 2: Peer Collaboration and Mentoring

Sub Theme 2.1: Community of Practice

"Subscribing to my tech-savvy colleagues has helped me grow without being judged." Participant-06

Sub-theme 2.2: Peer Coaching Initiatives

"My peer mentor facilitated my adjustment to AI-supported teaching." Participant-08

Theme 3: Institutional Support and Policy Making

Sub-theme 3.1: Unambiguous Application Instructions

"Institutions need to offer clear guidance on what the ethical and practical use of AI is." Participant-01

Sub-theme 3.2: Motives to innovate

"If you reward teachers who investigate and implement AI in a creative way, it might stimulate motivation." Participant-03

Theme 4: Developing AI Literacy and Ethics

Sub-theme 4.1: Awareness of AI Potential and Boundaries

"We need to understand not just how to use AI, but also its limitations, so we can use it judiciously." Participant-05

Sub-theme 4.2: Training on Ethical Use.

"Teachers need to understand and teach students responsible and fair use of AI tools" Participant-06

Theme 5: Integration of Human-AI Partnership Models

\Sub-theme 5.1: Shared Workflows

"Let AI do what it's best at automation and let's focus on what we do best empathy and inspiration." Participant-08

Sub-theme 5.2: Reflective practice by AI Feedback

"I started using AI feedback to review my teaching and to improve continually" Participant-10

This study identified a number of key changes in pedagogical positioning. First, a marked shift was noted in their roles from being primarily dispensers of knowledge to becoming facilitators of learning. Respondents also noted that as AI systems increasingly delivered didactic content, their efforts were now more concentrated on creating environments that support inquiry based activities and students' critical thinking and creativity. In addition, teachers felt augmented in personalized learning where data analytics driven by AI could help identify specific student needs and enable teacher evidence-based intervention and personalized content design. Presbyterian Another new function was that of emotional and social guidance. Teachers stressed the reduced

capability of AI to deal with students' emotional welfare and their changing position as emotional mentors and human contacts in technology-enhanced classrooms. And Teachers had to be more tech-savvy; too, we had AI coming into the picture. Teachers also indicated the importance of being life-long learners in terms of new AI platforms and tools as well as teaching students the responsible and ethical way of navigating digital spaces. Finally, the results highlighted the symbiotic relationship inherent in the teacher-AI relationship, where AI acts as a co-teacher by taking the daily mundane work off the educators, allowing them to be more creative in lesson planning and in pedagogical innovation.

Theme analysis identified a twofold experience, perceptions of opportunities and constraints. On the other hand, AI greatly improve time efficiency by automating administrative tasks (e.g., grading, lesson planning), that allows for teachers to dedicate more time to direct instruction. However, the first stage of AI being adopted was thought of as somehow difficult, not least because of the long learning curve and technological climate the operatives had to undergo. Respondents also witnessed a lift in student engagement and overall achievement through the ability of AI to personalize content delivery. However, fears have been expressed in relation to whether, despite the significant advantages of utilizing AI, there are also potentially risks of students becoming too reliant on AI as a tool and, thus, impairing their ability to develop their critical independence and creativity. A second key topic is the trade-off between insightful data and privacy. Although real-time performance tracking via AI facilitates interventions at the right time, there were concerns about the ethical use of student data and the security of the student data. Emotional disconnection was another important problem as AI does not have emotional intelligence; however, teachers emphasized their role to keep track of and deal with the emotional side of students. In addition, although the integration of AI was found to empower professionals through making data-based decisions, some professionals reported feeling pressure from their institutions to quickly embrace changes, sometimes without support, and felt stress and insecurity about their jobs.

The research unlocked a number of strategic interventions. There was a strong belief that CPD was necessary, especially providing "hands-on" workshops and personal training plans to match the knowledge and skills of existing teachers and their subject areas. Peer work and mentoring were also found to be key enablers of the move to AI supported teaching. All parties highlighted the importance of the non-judgmental forum for shared learning that communities of practice and peer coaching offered. Support from institutions in providing clear, practical, and ethical guidelines to make use of AI in educational contexts were also identified as a major facilitator. Rewarding innovative teaching of AI integration was also proposed as a way to drive teacher motivation and engagement. The need for AI literacy and ethical education was highly recommended, participants requested for a full fledge learning including the technical as well as the responsible and fair use of AI tools. Lastly, the fusion of human-AI collaboration paradigms was suggested as a long-term strategy. Participants highlighted the significance of distinguishing responsibilities of AI and teachers with respect to automation where the AI should take care of any automation job while the teachers concentrate on empathy, inspiration, and reflection which can rely on the AI-generated feedback. As a whole, these results highlight the transformative potential of AI in education, but also the continued, essential human role of the teacher in providing ethical, effective, emotionally responsive learning environments.

5. Discussion

Artificial Intelligence (AI) becoming embedded within educational environmental context, influencing the rethink of traditional teachers' role, as well as pedagogical responsibilities and institutional practices. This research aimed to investigate how AI is reshaping the roles of educators, the gains and the growing pains when working with AI, and the enablers that help to form productive teacher–AI partnerships. Discussion This description is underpinned by a structured thematic analysis of qualitative interview data embedded in the theoretical concepts of Social Cognitive Theory (SCT), Technological Pedagogical Content Knowledge (TPACK) and Actor-Network Theory (ANT) and linked to the research questions and literature gaps.

5.1 Reimagining the Role of Educators with the Integration of AI

One of the most important results from this study is the change in teacher's professional identity and teaching practice in connection with AI-based solutions. Teachers are now not seen as simply sources of information, but rather, they are seen as guides to learning, mentors for critical thinking, and emotional anchors for their students. This transformation also corresponds well with the TPACK framework, that emphasizes the significance of integrating content knowledge, pedagogical knowledge and technological pedagogical knowledge.

Teachers said AI has taken over many menial teaching jobs, like grading, teaching the content and making tests. So now, we can let the teachers spend time on facilitating discussion, creating critical thinking exercises, and helping kids figure out how to make use knowledge in meaningful ways. As one participant put it, "AI comes up with the facts, but I help students to understand and work with those facts in actual real-world conditions." Additionally, self-efficacy is emphasized in the SCT as a person's belief in his or her capability to change. Teachers' perception of self-efficacy to use AI effectively led them to more creative adoption patterns. Participants also learned by observation; many felt that seeing colleagues adopting AI tools and succeeding encouraged them to try similar tactics. This change was mainly driven by the environmental factors that overall comprised in institutional support and peer collaboration.

In the field of education, the relationship between human and non-human actors within the education ecosystem is further conceptually explored within Actor-Network Theory (ANT). Educators described AI as a co-teacher or partner — not just a tool. This is a shift in the classroom setting, now both instructor and AI impact educational results. For example, one teacher said, "I plan lessons differently now that I know some of the feedback or diagnostics can be addressed by AI.

5.2. Benefits and Challenges of Partnering with AI

Benefits of AI implementation recognized by the respondents were time efficiency, individualized learning, evidence-based teaching, and less administrative work. Through AI, teachers can understand how their students are performing at any given time, fill learning gaps and adapt instruction. This is consistent with the SCT tenets that behavioral conduct is a result of interplay between cognitive processes and environment. But problems did arise. There were also worries students would become too dependent on AI, stifling independent thought and creativity. The teachers mentioned the necessity to be cautious about a balance between AI support and cognitive load. "They feel lost when they see so many instructions," one participant commented, "and they stop thinking and simply follow the AI's suggestion." It's our job to take them beyond that."

There are also ethical considerations, especially regarding privacy and bias in data. Teachers wondered about the transparency of A.I. algorithms and the security of student data. Much of the literature has decided to assess the technical effectiveness of AI; this study has demonstrated the urgent necessity that comes from pedagogical and moral frameworks to discussing AI use. Emotionally disconnecting was also an issue. It is not possible to mimic AI the empathy, emotional intuition or relationship depth a human teacher possesses in the classroom. The focus on affective aspects of learning, as SCT suggests, is relevant here: the emotions of the students are often dependent on social interaction. Teachers also had concerns about job displacement, emphasizing the need for professional confidence and for policy guidance that positions AI as an aid rather than threat. Fear of this happening combined with a lack of training can reduce self-efficacy and deter effective integration of AI.

5.3. Strategies for Supporting Teachers in AI-Supported Classrooms

The participants emphasized the need for continued tactile professional development which would be relevant to their unique teaching situation. Workshops that use live classroom examples; trial and error and learning with peers were considered most successful. This demonstrates the focus of TPACK on situated use, and that of SCT on observational learning. Teachers also demanded transparent institutional policies, ethical guidelines, and infrastructure support. They made the case for an ecosystem in which AI tools support curricular objectives and ethical values. It is ANT's principle that institutions should think about teachers and AI as co-agents in affecting educational results. Peer support was highly impactful and was identified as a key facilitator. Teachers reported feeling self-efficacious when they were in teach communities that provided them with resources, strategies, and other teachers' experiences. This collaborative culture promotes a shared belief in efficacy and innovation. And the other major strategy was building AI literacy not just how to operate this thing, but what are the values and pedagogical aspects. Teachers emphasized the need to know AI's capabilities and weaknesses in order to steer students in the right direction. "What A.I. can't do is equally important as what it can do," one teacher said.

5.4 Synthesis and Theoretical Integration

This research contributes to the conversation about AI in education by changing the perspective away from student-centered outputs and towards teacher-centered experience. It fills the gap in literature by:

1. Framing AI as a collaborative teaching partner, not a subordinate tool.
2. Highlighting the emotional, ethical, and pedagogical dimensions of AI use.
3. Exploring teacher perspectives in a non-Western setting, thus allowing a more international reach.

Incorporating SCT, TPACK, and ANT together, this study provides a multi- facet understanding of the impact of AI on teaching. SCT underscores the mutual influence of belief systems and the environment in teacher behavior. TPACK emphasizes the importance of situated technological integration. ANT offers a way of seeing artificial intelligence and teachers as co-actors in distant educational networks. Inadequate AI mix and education: Need for a pedagogical and ethical shift Conclusion: Enabling AI integration in education does not depend on technological infrastructure, but more on pedagogical and ethical shift. It's teachers who must be empowered, not replaced, by AI. This research is a reminder that the future of education is in

thoughtful human-AI partnerships, where they each bring their own and unique strength in the learning process.

5.5 Conclusion

This study offers an in-depth investigation of how AI is influencing the role of teachers, the challenges and benefits teachers experience through using AI with teaching as well as strategies required to assist teachers in thriving in AI- empowered teaching contexts. Via qualitative interview, five major themes were extracted from each research questions and provide significant points about dynamic teacher-AI relation.

First, there has been a substantial change in the role of educators with the introduction of AI. Teachers are less the sole determiner of knowledge and moving into roles which emphasize, facilitation, coaching, and directing targeted, customized learning. AI is an assistant that should help teachers to take care of admin and administrative stuff, deepen students' engagement, give immediate feedback and help them to be free to concentrate on the development of student creativity and quality, social-emotional learning, higher-level learning. This is in line with the changing nature of teaching, where AI is not looked at as a substitute but rather a companion to complement what teachers are already doing to drive better student outcomes.

Perspectives on the difficulties and advantages in using AI, found by the study, were the following. On the one hand, teachers like the personalized lessons AI allows, the time it saves on admin and the capacity to monitor the pupils' progress in real-time. Yet challenges, including poor training, a pushback against tech changes, ethics, and job loss fears, continue to dominate. These results are in line with the lack of consistency in the literature (e.g., Ozden, 2016; Siakas, 2018) where research has target mainly on students' perceptions around AI with minimum focus on teachers. The study identified some key strategies in response to the question of how to prepare teachers in AI-supported environments. "Another essential factor was a culture of continuous professional development, shared learning communities, and leadership structure to support teacher self-efficacy and confidence in doing AI in the classroom. Involving teachers in the creation and customization of AI tools and in hands-on training was also considered important in order to make sure the integration of AI would actually support teaching practices. These results are in accordance with Social Cognitive Theory (SCT), which also attached significance to the role of self-efficacy, observational learning and positive feedback to foster teachers new technologies use.

Theoretically, the research uses a number of principles to explain the changing teacher-AI relationship. The theoretical foundation of SCT emphasizes that the belief in their own ability is a key determinant of teachers' use of AI applications and TPACK emphasizes the importance of effectively incorporating technology into pedagogy and content across these different domains. Actor-Network Theory (ANT) is also important, inasmuch as it draws attention to the network connection of human actors (teachers) and non-human actors (AI systems) and how these two shape and influence the educational. This study addresses significant gaps in the literature through the educator perspective, an aspect largely ignored in AI adoption research. It helps to reinforce the point that AI can transform learning, not by replacing teacher but by supporting them - enabling them to adapt to the different needs of each of their learners."

Future direction of research in this direction should involve inventorying longitudinal studies on the long-term effects of AI mediation on teachers and students evolution and devising

AI tools to foster: not only cognitive, but also emotional and social aspects in teaching. Cross-cultural studies are also needed to explore the AI adoption in different educational environments especially in developing countries. Further, there are ethical questions and conflicting policy considerations that need to be explored to ensure fair and equitable utilization of AI technologies and protection of privacy and fairness. As we continue to investigate these areas, we can continue to advance our understanding of how AI can complement educators to be most effective in their roles, resulting in a collaborative, human-centered approach to teaching and learning in a digital age. This research further builds on and adds to this debate on the use of AI in education, providing a base, on the one hand, for future research in the field, and, on)the other, possible directions that the implementation of AI in classrooms around the world can follow. Thoughtfully and contextually deployed, AI can transform educational outcomes in fundamental ways and teachers will be central to the way in which these opportunities are leveraged.

Recommendations

According to the findings of this study, a number of suggestions can be proposed to promote the proper use of the AI in education and make the educators ready to the AI-supported education environments. These recommendations are intended to tackle the problems teachers are experiencing, maximize the opportunities AI provides, and make sure AI is a support, not a replacement, for teachers in the classroom.

1. Improve the Training of Teachers: A lack of proper training and understanding of how to best use technology in the classroom was one of the key challenges identified by these teachers. Thus, investing in long-term and all-encompassing in-service training programs that can enable teachers equipped with AI tools in confidence is very much necessary. These initiatives, however, need to pay more attention to not only AI technical knowledge but pedagogical models of using AI in education. Artificial intelligence training should be hands-on, enabling teachers to tinker with AI tools in their real classrooms.
2. Facilitate Collaborative Learning Communities: To create an environment that encourages the adoption of AI, schools need to be advocating for more collaborative learning communities where teachers share their successes, struggles and strategies with implementing AI in the classroom. You can also create communities where educators can learn from each other's successes and struggles. Collective workspaces will also help combat resistance to change, as by working with the AI (and the AI they are collaborating with), the employees can see the value that AI contributes to the whole.
3. Developing teacher self-efficacy through transformational leadership: Fostering teachers' self-efficacy in AI integration is important for successful implementation. Education leaders must provide a culture that allows for experimentation yet minimizes the fear of failure. Leaders need to provide teachers with ongoing support time to reflect; feedback; and opportunities to talk about ways in which to improve. And encourage a growth mindset of educators towards AI, as a friend not a monster, so that fears of job replacement and reluctance to change can be discourages.
4. Promote AI for Affective and Behavioral Learning: Systems should leverage the emotionally and socially supportive properties of learning to design AI technologies. With AI enabling customized learning experiences for cognitive development, it is

important to design AI that caters to students' emotional intelligence, and social engagement.

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