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# Reimagining Discussion Pedagogy during Online Teaching with AI: Insights from School Teachers

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**ABSTRACT**

This shift in the education system, caused by the pandemic, is something unexpected; the online and offline teaching modes were integrated into the schools in Delhi, and it is being adjusted according to the needs of society and the environmental conditions. AI is the transformative force emerging in this transitional education system and shaping pedagogical tools and methodologies to improve teaching and learning outcomes. Discussion based pedagogy as a strategy which have long been a popular in teaching learning process, have now become pertinent again in offline as well as online classrooms. The tools like Google Discussion Board, Padlet, Mentimeter etc. are indeed helping to increase the interactions in such classrooms. This paper examines the teachers' views regarding the use of AI tools in pedagogy based on discussion during online teaching-learning process. The research questions focus on: (1) How AI tools enhanced discussion pedagogy influences students' critical thinking and subject understanding, and (2) What factors influences the effective use of such tools during the online teaching-learning process. Data was collected from teacher questionnaires that were submitted in the form of online google forms. From the findings, it was found that AI tools for discussion-based pedagogy bring about deeper levels of student engagement, which creates personalized learning experiences, real-time feedback, and collaborative knowledge building. However, unequal access to technology, loss of internet at times, and training of the teachers on using AI tools stood out as very critical factors which influence their efficiency.

**Keywords:** Artificial Intelligence (AI), Online teaching-learning, Discussion, Pedagogy.

## Introduction

The pandemic caused by COVID-19 has profoundly reshaped education globally, hastening the integration of online learning and teaching (Hodges et al., 2020). Virtual learning environments have given educators the chance to streamline their pedagogical approaches and learn to teach in new learning settings (Bao, 2020). But a big challenge in online education is supporting debates that help students think critically and creatively (Means et al., 2021). Studies have demonstrated that talking with others during learning helps students build their knowledge, construct arguments and use academic language properly (Laurillard, 2013). Even though online learning is very useful, a lack of face-to-face interaction often leads to less student participation. Therefore, creative solutions are needed to make sure discussions are still productive (Garrison et al., 2020). Artificial intelligence (AI) can greatly enhance how online discussions are taught. AI tools can provide personalized feedback, facilitate participation by students, as well as analyse textual interactions can refine discussion quality (Chen et al., 2021). Implementing AI-guided discussion can reimagine pedagogy for discussion in digital learning spaces. This study examines schoolteachers' opinions and experiences with AI tools in online discussions, emphasising their main advantages and providing useful suggestions supported by real evidence.

### Online Teaching -Learning

Ko & Rossen (2004) defined, online teaching as a means of conducting a course partially or entirely through the internet. These seven suggestions can help teachers succeed in online teaching: (1) motivate students to participate, (2) stimulate group efforts, (3) inspire active involvement, (4) provide quick feedback, (5) insist on spending time on learning, (6) let students know you expect their best and (7) respect their various learning methods (Stern, n.d). The term online learning describes a new way to deliver information using computers and the internet (Carliner, 2004).

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It is reported by some research that students in online classes feel they (1) can direct their learning, (2) interact with other students frequently and (3) can develop their own knowledge (Sloboda, 2005; Eastmond, 1998).

**Artificial Intelligence in Education**

Artificial Intelligence (AI) is revolutionizing the education sector, presenting teachers with new ways to improve teaching and learning processes. AI technologies are being increasingly incorporated by teachers to automate routine tasks like grading, feedback, and lesson planning. As a result, teachers are able to focus more on how students learn and on engaging students (Martínez-Muñoz et al., 2023). The fact that AI personalizes how someone learns is one of its greatest benefits for education. Since adaptive learning systems measure student progress in real time, they can provide content that matches each student's needs and help to improve their results and engagement (Luckin, 2018). There are some worries about using AI in the classroom. The use of ChatGPT for homework and tests has led educators to ask about academic honesty and the improvement of critical thinking (Martínez-Muñoz et al., 2023).

Also, important aspects for teaching such as emotional intelligence and social understanding, are not provided by current AI tools (Zawacki-Richter et al., 2019). Teachers are essential in helping students develop empathy, drive, and a sense of community—qualities that artificial intelligence cannot repeat. There are also concerns regarding ethics and accessibility. Data privacy, bias in algorithms, and unequal access to technology must be addressed so that AI tools do not further widen the inequalities in education. Professional development for educators have been indicated as necessary, not only to learn how to effectively use AI tools but also to learn how to navigate ethical situations and encourage students towards responsible use (Martínez-Muñoz et al., 2023). Education can be transformed by AI, but its effectiveness is conditional on careful integration that complements instead of substituting the human aspects of teaching. Teachers are still at the heart of this change as facilitators who personalize online teaching and learning environments.

**Discussion Based Pedagogy in Online Teaching**

With discussion pedagogy, knowledge is developed through group conversations that follow the principles of dialogic learning. In the opinion of Arends (1997), discussions are the main way for individuals to share their ideas. Interactive discussion is central to discussion-based pedagogy which is guided by the principles of dialogic learning. A number of studies have looked into how discussion supports teaching and can help students learn different concepts, for example, problem-solving and critical thinking. Online teaching and learning have allowed this pedagogy to use digital tools for conversations that happen both in real time and at students' own pace.

Even though face-to-face talks are helpful to build strong speaking skills and develop a good classroom atmosphere in many situations, they are still not perfect. A good example is that in face-to-face talks, just one person is able to speak at once. To help all students participate in group conversations, teachers may unintentionally limit the chance for students to explore a topic together and engage in thoughtful discussions. Although most people think of online chats as mostly social, they can also be a useful teaching tool that enables students to interact and share ideas beyond the classroom. Instructors can enhance their lectures in the classroom with online chats, which will boost student participation. In order to promote introspection, the kinds of discussion questions that are asked are equally crucial. The instructor can create discussion questions based on six areas identified by Bloom's Taxonomy: knowledge, comprehension, application, analysis, synthesis and assessment are the six processes. The knowledge domain is concerned with basic facts that do not require much thought, but the higher domains require learners to assess the information (Bloom, 1984). The success of a healthy online discussion largely depends on the teacher's role in guiding the discussion. Most students in this study believed that online discussion was a good platform for learning and thinking which could help them practice critical thinking.

A number of reviews on asynchronous online discussion are available and underline that interaction among students is the main advantage of forums for learning. Omar et al. (2012) looked at how ESL learners engaged in discussion on Facebook. The findings revealed that ESL learners reacted positively to discussing topics on Facebook and it was thought that this could raise their confidence and lead participants to ask well-formed questions that encouraged more thought on the subject. Williams and Lahman's (2011) research showed that online conversations can develop students' critical thinking. The study showed that having online discussions encouraged students to better connect with the lesson. Because students were more interested, their thinking processes improved which boosted their

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critical thinking. In this context, the teacher's perform shifts from imparting traditional knowledge to facilitating a discussion. The best moderators ask wide-ranging questions, allow for many opinions and lead discussions that include everyone. Research reveals that teachers can make discourse better by acting at the right time without dominating the class (Zhang, Zhao, & Zhou, 2022). Teachers can improve their lectures and get students more involved by using online discussions as part of their teaching.

### AI-Enhanced Discussion Pedagogy

AI is helping online education by supporting critical thinking, increasing student involvement and boosting approaches to conversation in the classroom. Using chatbots and natural language processing systems, teachers can have more conversations, receive insights and give reactions right away (Zawacki-Richter et al., 2019). These technologies support students' learning by personalising the way information is given to them (Holmes et al., 2021). AI in analytics helps teachers spot student engagement and identify what students need more assistance with (Chen et al., 2021). Even so, challenges to using AI in discussion pedagogy appear as bias, privacy related issues and risking dependence on automated solutions (Nguyen et al., 2020). AI helps online discussions, but social and teaching presence should still be supported by having humans involved (Carroll, Lang, & Connolly, 2024). This research examines what influences teachers' use of AI-enhanced conversations and their views on them. Developing ways to use AI in education which link technology and good teaching skills needs knowledge of both areas.

### Research Questions

The study focuses on how teachers reconsider using discussion pedagogy during online sessions that rely on AI. It is important to understand how artificial intelligence technologies can support meaningful conversations because they are used more often in education. To encourage students to get more involved, think critically and better grasp the material, the study is focused on how educators apply AI-enhanced talks. Also, it looks at the important aspects teachers should keep in mind when using AI-based discussion strategies online.

1. How do AI tools improve classroom discussions to help students think critically and understand subjects better?

2. What factors make AI tools effective for discussions in online teaching?

3. How do teachers feel about using AI tools in online classroom discussions?

4. What challenges do teachers face when using AI for discussions in online teaching?

5. How can AI tools be used to make online discussions more engaging and meaningful for students?

## Methodology

This study used a mixed-methods approach to examine schoolteachers' views on online discussions. Online Google Forms with open-ended and close ended questions were used to gather data, and online classroom observations were included. Best and Kahn (1993) state that using questionnaires enables researchers to build rapport, make study goals clear, and make sure participants comprehend the questions. Open-ended questions, which helps collect varied and unexpected responses, were incorporated into the questionnaire to capture teachers' actual views. Best and Kahn (1993) state that using questionnaires enables researchers to build rapport, make study goals clear, and make sure participants comprehend the questions. Open ended questions, which helps collect varied and unexpected responses, were incorporated into the questionnaire to capture teachers' actual views. This added originality and depth to the research. Self-reported data, however, could occasionally represent socially acceptable answers rather than real classroom procedures. Online classroom observations were also carried out to examine teachers' in-person interactions and discussion techniques in order to overcome this constraint. 15 teachers were selected for the data collection from the elementary classes, 5 teachers each from class-VI, VII &VIII. Data were collected through virtual classroom observations and open-ended questionnaires. The researchers observed two online classrooms observation of each participant's teachers, therefore a total of 06 online classes were observed.

### Analysis & Findings

The information gathered from teacher questionnaires and online classroom observations was analysed with the help of grounded theory. This method helps in the identification of major themes and patterns from qualitative data.

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Thematic analysis was employed to analyse the data, proceeding through steps like familiarization, coding, identification of ideas, grouping similar responses, and interpretation of findings (Galloway & Jenkins, 2005). This method helped ensure that the information gathered from the questionnaire answers and classroom observations was systematically arranged and analysed. The design, implementation, and student engagement of AI-supported discussions have been studied from the perspective of the teachers. The results emphasised AI's potential advantages and drawbacks in learning online.

Discussions were facilitated by AI technologies, although issues with adaptations, student participation, and technical difficulties were also noted.

The study's conclusions show that participants have a comprehensive understanding of online

discussion techniques and have important insights into virtual learning settings. According to

survey data, 62.3% of teachers agreed that online discussions are beneficial, especially in post-

pandemic learning environments.

- 64.5% of teachers found online discussions highly effective for remote learning
- 58.7% believed discussions enhanced student engagement
- 61.2% recognized the potential for immediate feedback and concept construction
- 59.8% appreciated the flexibility of student-led participation

Observation of the online classes brought to light important insights regarding the nature of

online discussions. While most teachers saw themselves as facilitators rather than traditional teachers, they frequently highlighted the transformative power of digital platforms in fostering student connections by using different platforms mostly google discussion board. They also mentioned problems related to the internet which sometimes caused discussions to become disjointed. Even with these problems, most teachers saw that AI-based discussion tools help create a fun and interactive way to learn. The outcomes suggest that AI should be added carefully to discussion pedagogy to ensure that conversation between teachers and students is not overpowered by technology. More AI tools need to be explored by the educators for modifying discussion pedagogy as per the demand of online teaching and learning in the current scenario.

## Conclusion

This study emphasises how AI-enhanced discussion pedagogy in online instruction has the potential to revolutionise the field, especially in the wake of the pandemic. Teachers stated that with features like real-time feedback and adaptive responses, AI tools help students engage more deeply, foster critical thinking, and enable personalised learning (Holmes et al., 2021; Chen et al., 2021). The use of Google Discussion Board, Padlet and Mentimeter helped more students join in and work together on learning, confirming that discussion-based teaching works well in online classes (Arends, 1997; Cheong & Cheung, 2008).

While 62.3% of teachers thought online discussions were effective, they also stressed the significance of the teacher's role in moderating and scaffolding discussions to ensure meaningful interactions, according to findings from teacher questionnaires and classroom observations (Zhang, Zhao, & Zhou, 2022). They encouraged us to create questions that encourage students to think and match the higher-order thinking skills in Bloom's Taxonomy (Bloom, 1984).

Although AI has helped, researchers noted that teachers require training in how to use AI, some students may not have access to devices or the internet and there have been technical problems (Nguyen et al., 2020; Martínez-Muñoz et al., 2023). Furthermore, making sure AI is used ethically in classrooms is required because of worries about private data, biased algorithms and overuse of automation (Zawacki-Richter et al., 2019).

Although AI can help with online debates, its overall value depends on a skilled instructor who guides, follows and humanises online classes. Carroll, Lang and Connolly (2024) believe that AI should work with social and teaching

presence, not replace them, in online education. AI tools are best when they support dialogues and discussions, so it's necessary to integrate technology with pedagogy when using them.

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