

From Antiquity to AI: Revitalizing Socratic and Shastric Dialogue Pedagogy in Digital Learning Environments

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Abstract: Dialogic pedagogy, influenced by the Socratic method from Ancient Greece and the Shastric discussions in India, has traditionally represented the peak of critical engagement and intellectual depth. This study looks at how these ancient practices are being reimagined within today's learner-centric digital platforms. Instead of just copying the past, these platforms use AI-driven questioning and interactive forums to recreate the cyclical nature of classical discourse.

This study goes beyond simply comparing traditional face-to-face classrooms with today's digital-screen classrooms. It argues that, instead of merely mimicking the past, digital platforms are offering a new way for learners to construct knowledge collaboratively through a systematic and tech-based inquiry. The blending of ancient philosophy and contemporary strategies does not merely preserve ancient learning traditions; it offers a realistic and equitable solution for enhancing learner engagement around the world. This combination provides a real path forward for teacher education, connecting ancient wisdom with modern technology to make deep, inclusive learning a reality rather than just a dream.

Keywords: Dialogue Pedagogy, Shastric Traditions, Active Learning, Socratic Method, Digital Learning.

1. INTRODUCTION:

Throughout history, dialogue has been essential to education. It is a powerful way of creating knowledge, sharpening critical thinking, improving decision-making, and supporting overall intellectual development. In the past, major educational traditions such as the Socratic method in Greece and Shastric debates in India treated dialogue as a core part of learning. These weren't just lectures; they were active, back-and-forth exchanges that forced students to think critically and actually wrap their heads around a subject rather than just memorizing it. But despite how effective they are, these conversational methods often get pushed aside for one-way, passive teaching. This change has become more noticeable with the rapid growth of digital education and the increasing emphasis on technologically-driven classrooms.

In today's educational landscape, there is a growing need for teaching approaches that can preserve the essential pedagogical strengths of traditional learning while also making thoughtful use of technological advancements. Education cannot simply abandon the value of human interaction, discussion, and reflective thinking in the name of innovation. Instead, it must find ways to combine these long-standing strengths with the possibilities offered by modern tools. In this context, intelligent educational technologies create new opportunities to deepen classroom discussions, encourage collaborative inquiry, and make the learning experience more dynamic, interactive, and meaningful for students.

These tools are not meant to replace human interaction; rather, they can make it even more meaningful. Instead of reducing the human side of learning, technology can support it by helping students share perspectives, question ideas, and arrive at knowledge collectively.

At the same time, many modern learner-centered digital platforms already reflect the spirit of dialogic teaching. Peer discussions, classroom forums, and AI-driven questions all provide students with more opportunities to voice their opinions, respond to their peers, and learn through inquiry and exploration, rather than simply memorizing information.

This approach allows technology to inject a greater sense of vitality, engagement, and significance into the learning process.

2. Objective

This study aims to explore the conceptual continuity between classical Socratic and Shastric methods and modern constructivist digital pedagogy.

Theoretical Framework

This study is grounded in a cohesive framework:

- **The Socratic Method:** The Socratic Method is at the core of this study. The Socratic Method is a type of cooperative dialogue based on asking and answering questions to prompt critical thinking and draw out underlying ideas and presumptions (Delić & Bećirović, 2016).
- **Dialogic Pedagogy:** Dialogic pedagogy is defined as an educational approach that considers student disagreement and conflict not as disruptions within the teaching-learning process, but as important pedagogical openings for deeper learning (Patel, 2023).
- **Connectivism:** To adapt these methods for the 21st century, the study utilizes Connectivism, which argues that learning is the process of connecting specialized nodes, including people, databases, and AI, into a vast, searchable network (Siemens, 2005).

3. Literature Review

The research entitled “Socratic Method as an Approach to Teaching” (Delić and Bećirović, 2016) discusses how classical dialogue can be introduced into the modern classroom by shifting the focus from teacher giving answers to students asking questions. This research highlights a rearrangement of the classroom environment, from teacher-centric teaching to student-centric teaching, where the teacher acts as a guide rather than a lecturer. By using the Socratic Circle, students work together in a structured yet independent way to build meaning from a given text. The research concludes by stating how this approach can turn learning into a lifelong habit, helping students think and reflect for themselves and stay curious even beyond the classroom.

“The Use of Socratic Method as a Teaching/Learning Tool to Develop Students’ Critical Thinking: a Review of Literature” (Zare, P., & Mukundan, J., 2015) examines the Socratic Method as a structured instructional tool to enhance critical thinking by moving away from traditional lecture method and rote memorization. In this approach, the instructor’s role is that of a facilitator who uses specific questions to help students construct original thoughts from their previous knowledge. This research also emphasizes that while Socratic questioning triggers higher-order productive cognitive procedures, a major chunk of skill improvement in this approach requires consistent practice over an extended period of time. Ultimately, this review concludes that the Socratic method effectively fosters critical thinking and improves students’ confidence.

In the research entitled “The role of dissent, conflict, and open dialogue in learning to live together harmoniously”, Patel (2023) argues that for students to learn how to live together in a diverse environment, schools must accept as well as embrace dissent and conflict, rather than avoid them. Patel also discusses that within the classroom, dialogic teaching means viewing student disagreements as chances to learn. Instead of making everyone agree, teachers can make use of such moments as pedagogical openings where students can explore different points of view. By practicing this, learners develop the necessary empathy and critical thinking needed to navigate the conflict between their own views and the common good. Finally, the study concludes that experiencing such difficult, open dialogues is the only way to prepare students for the complexities of real-world citizenship.

In the research entitled “Constructivist Teaching/Learning Theory and Participatory Teaching Methods”, Fernando and Marikar (2017) emphasize that both the dialogic and Socratic approaches are rooted in constructivist theory, which looks at learning as an “active experience” rather than just the passive reception of information. In this paper, they discuss a significant commonality between these methods - their reliance on the ‘question and answer’ technique as a medium of shifting the classroom environment from a teacher-led monologue to a participatory student-focused dialogue. In both these approaches, the teacher functions as a facilitator, making use of higher order questions which prompt the students

to 'apply, synthesize and evaluate' knowledge. This study concludes that through these approaches, knowledge is actively built by the learner.

4. Method: Research Gap

- Most of the existing literature treats classical pedagogy (Socratic and Shastric Dialogues) and digital learning environments as two separate domains. There, however, exists a gap in the integration of these two into a single teaching model.
- Since only 20 respondents were included in the study, this limits how broadly the obtained results can be applied in educational settings.

Sample

The sample consists of 20 educators – school teachers, university professors, any individuals engaged in teaching/academic instruction.

Tools

The research tools used in this study can be categorized into 2:

1. Data collection tool: The primary tool for this study was a structured survey questionnaire, consisting of 15 statements related to dialogic pedagogy and digital learning to measure educator perceptions, using a five-point Likert scale.
2. Data analysis and representation tools: Once the data was collected, it was represented mathematically using the formula for Mean as well as bar graphs.

Inclusion Criteria

Participants were included in the study if they:

- Were educators, faculty members, or individuals engaged in teaching or academic instruction.
- Had experience using digital learning platforms or technology in teaching.
- Completed the entire questionnaire consisting of Likert-scale items.
- Voluntarily agreed to participate in the survey.

Only responses that met these criteria were included in the final dataset used for analysis.

Exclusion Criteria

Responses were excluded from the study under the following conditions:

- Incomplete or partially submitted questionnaires.
- Duplicate responses from the same participant.
- Responses from individuals not engaged in educational or teaching contexts.
- Inconsistent responses that did not demonstrate meaningful engagement with the questionnaire.

Rationale for Sample Selection

This study explores how dialogic teaching methods can be used within digital learning environments. Educators are the most suitable respondents for this research. Teachers and academic practitioners plan lessons, select teaching strategies, and implement them in real learning settings. Their experiences provide valuable insights, such as:

- how question-based dialogue is used in teaching
- the effectiveness of digital discussion spaces for learning
- how technology can support inquiry, discussion, and debate.

By collecting responses from educators, the study gains thoughtful and practical insights into how traditional dialogic teaching methods can be adapted effectively to suit modern educational technologies.

Data Representation

The data gathered through the questionnaire were analyzed with the help of descriptive statistical methods and presented visually through bar graphs. The questionnaire included fifteen statements prepared to understand educators'

perceptions of dialogic pedagogy in digital learning environments. Responses were collected on a five-point Likert scale, where:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

The responses given by the twenty participants were then assigned numerical values according to the Likert scale. After that, the mean score, or average response, was calculated for each statement by adding together the numerical values of all responses and dividing the total by the number of respondents. In mathematical terms, the mean was calculated using the following formula:

$$Mean = \frac{\sum X}{N}$$

where $\sum X$ represents the total score of all responses for a particular item and N represents the total number of respondents.

For example, if responses to a particular statement consisted of several “Agree” (4) and “Strongly Agree” (5) selections, these values were added together and divided by the total number of participants to determine the average perception for that statement.

The results were then visually represented using three graphs to illustrate:

- the overall distribution of responses across the Likert scale
- the mean score for each survey question
- the perceived impact of dialogic pedagogy on key learning outcomes such as engagement, conceptual understanding, and critical thinking.

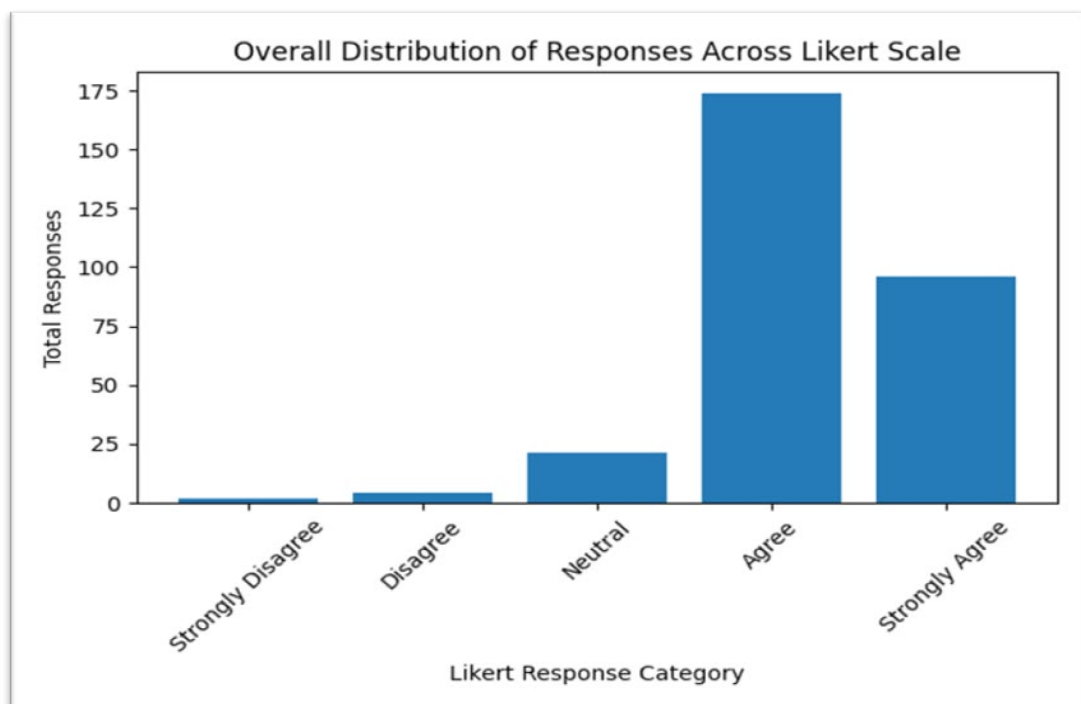


Figure 1 Overall Distribution of Responses Across the Likert Scale

Overall Distribution of Responses

Figure 1 shows how the responses were distributed across the five categories of the Likert scale. It is clear from the figure that most of the responses are concentrated in the Agree and Strongly Agree categories, which reflects a largely positive opinion among educators about the use of dialogic pedagogy in digital learning environments.

In contrast, only a small proportion of responses appear in the Disagree and Strongly Disagree categories, which suggests that very few participants viewed dialogue-based teaching approaches unfavorably. Overall, this trend reflects a strong level of acceptance of dialogic pedagogical practices and emphasizes their relevance in present-day digital learning environments.

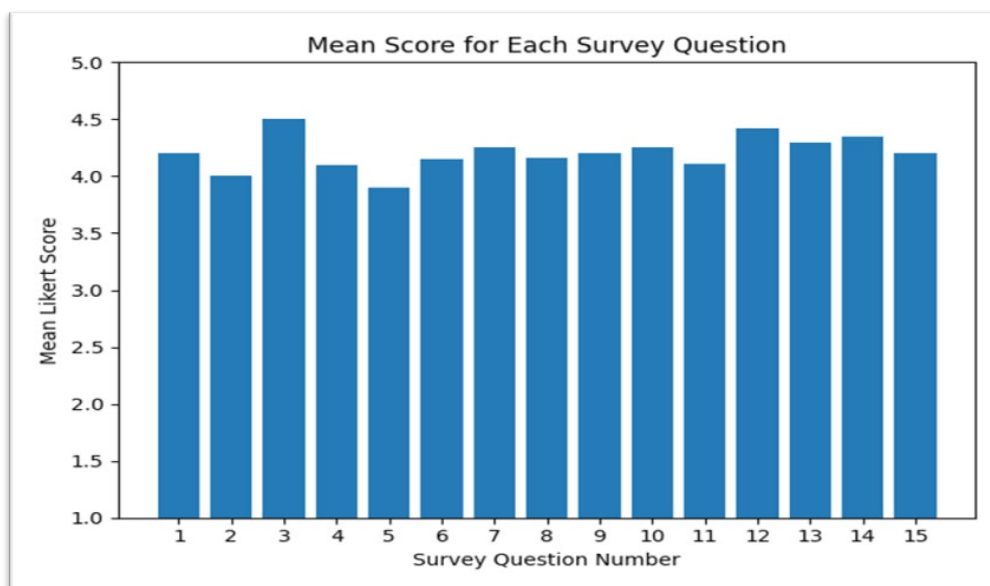


Figure 2 *Mean Score for Each Survey Question*

Mean Score for Survey Questions

Figure 2 illustrates the mean score for each of the fifteen survey questions. The mean values were calculated using the formula:

$$\text{Mean} = \Sigma X / N$$

where ΣX represents the sum of all responses for a given item and N represents the total number of respondents.

This figure shows that the majority of the questions recorded mean values above 4.0, which corresponds to the “Agree” category on the Likert scale. This indicates strong agreement among respondents regarding the effectiveness of dialogic teaching methods, the role of technology in facilitating discussions, and the value of inquiry-based learning environments.

The consistency of high mean scores across the survey items suggests that educators widely recognize the benefits of integrating dialogic teaching practices with digital learning platforms.

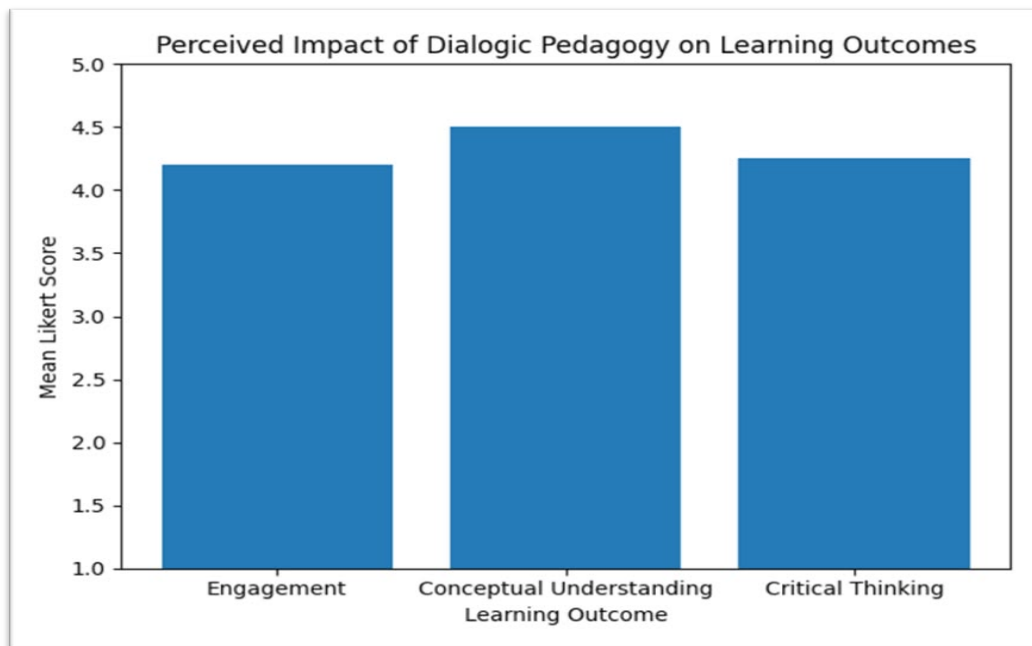


Figure 3 *Perceived Impact of Dialogic Pedagogy on Learning Outcomes*

Impact on Key Learning Outcomes

Figure 3 shows how respondents perceived the effect of dialogic pedagogy on major learning outcomes such as student engagement, conceptual understanding, and critical thinking. The mean scores indicate that participants generally agreed that dialogue-based teaching supports these areas of learning in a positive way.

The responses show that this approach helps students participate more actively in class, understand ideas more clearly, and think in a more analytical and reflective manner. These results connect well with the Socratic and Shastric traditions, both of which emphasize learning through questioning, discussion, and thoughtful reflection.

Overall Data Interpretation

When the findings are viewed together, the graphical analysis suggests that teachers hold positive views about the use of dialogic pedagogy in online learning environments. The pattern of responses, along with the consistently high mean scores, shows that participants see dialogue-based teaching strategies as effective in increasing student engagement, improving conceptual understanding, and promoting critical thinking. Overall, these results support the view that combining traditional dialogic pedagogical approaches with modern digital technologies can help create learning environments that are more interactive, thoughtful, and intellectually enriching.

5. Data Analysis

The data analysis clearly shows that the respondents generally hold a positive view of dialogic pedagogy in digital learning environments. The graphs make this trend quite visible, as most of the responses for the different statements fall under the Agree and Strongly Agree categories, while only a very small number appear in the Disagree and Strongly Disagree categories. This suggests that educators see dialogue-based teaching as a meaningful and effective approach for today's learning contexts.

The mean scores also support this overall finding. Most of the statements related to inquiry-based learning, classroom dialogue, and technology-supported questioning received mean scores above 4.0 on the Likert scale. This shows that educators largely believe digital learning environments can be useful spaces for encouraging thoughtful discussion, questioning, and deeper understanding.

The analysis also points to the positive effect of dialogic pedagogy on important aspects of learning. According to the participants, dialogue-based teaching helps increase student engagement, improves conceptual understanding, and

strengthens critical thinking skills. These findings reflect the basic ideas behind the Socratic method and Shastric dialogue traditions, both of which place great importance on questioning, reasoning, and reflective conversation as essential parts of the learning process.

The study's findings suggest a strong opportunity to create more engaging and intellectually stimulating learning experiences by combining traditional dialogic teaching methods with modern digital learning environments. The high mean scores and response patterns show that educators recognize the value of blending traditional teaching philosophies with new learning technologies.

6. Findings

The findings of the study indicate that educators, on the whole, have a favorable opinion of the use of dialogic pedagogy in contemporary digital learning environments. The descriptive statistical analysis showed that the mean scores for most of the questionnaire items were above 4.0, suggesting that the participants generally agreed with the statements presented in the survey. This reflects a shared belief among educators that dialogue-based teaching methods can play an important role in making students more actively involved in the learning process, helping them develop a clearer understanding of concepts, and encouraging them to think more critically and reflectively.

The study also clearly shows that educators do not see digital technology as a substitute for dialogic teaching, but rather as a valuable support that can strengthen and extend it. According to the participants, tools such as digital platforms, discussion forums, and technology-assisted questioning can create more space for meaningful academic interaction among students. These tools also help encourage collaborative inquiry by allowing learners to share ideas, respond to one another, and engage more actively in discussion and exploration.

These tools can help keep discussions active, give students more opportunities to express their ideas, and support a learning environment where questioning, exchange of views, and deeper engagement become possible.

When viewed together, the findings strongly support the main idea of the study that classical dialogic traditions, such as the Socratic method and Shastric debate practices, are still very important in education. The results show that these traditional approaches have not lost their value in today's time. Instead, they can be carefully changed and used in ways that fit modern needs. This means that digital learning environments can help continue these dialogic traditions in a way that is useful, meaningful, and suitable for present-day teaching and learning.

7. Limitations

Although this study offers valuable insights, it has a number of limitations:

- ❖ The small sample size of the study limits how broadly the results can be applied in educational settings.
- ❖ The study focuses solely on educators' perspectives, thereby excluding student feedback or classroom observations, which could offer a more holistic study of dialogic pedagogy in practice.
- ❖ Rather than concentrating on particular technological platforms or tools, the study examined digital learning environments in a broad sense.

8. Implications for Teacher Education and Digital Pedagogy

- ❖ First, they show that dialogue-based teaching plays a key role in increasing student engagement and helping learners think more critically. This means teacher education programs should give more attention to practices like classroom discussion, collaborative learning, and thoughtful questioning.
- ❖ Second, the study also highlights the need for teachers to be confident in combining digital tools with dialogic teaching. As online and blended learning continue to become a regular part of education, teachers should be trained to use digital platforms in ways that support active participation, meaningful interaction, and deeper learning.
- ❖ Third, the study indicates that digital tools can help reconnect modern classrooms with traditional teaching practices such as Shastric dialogue and the Socratic method. When these classical approaches are combined with present-day technology, they can make learning more interactive, reflective, and

intellectually meaningful.

- ❖ Finally, educational institutions should aim to create digital learning environments that encourage discussion, cooperative inquiry, and AI-supported questioning. Such environments can deepen students' understanding of the subject and encourage them to take a more active and thoughtful role in learning.

9. Conclusion

This study began with an important question: do traditional dialogic methods like the Socratic and Shastric approaches still have value in today's technology-filled classrooms? Based on the experiences and responses of educators, the answer appears to be yes. Rather than becoming outdated in the digital age, these classical approaches are finding new relevance and purpose in modern teaching and learning.

The study makes it clear that meaningful learning still grows through questioning, discussion, reflection, and the exchange of ideas. These elements remain central to the learning process even today. When supported by digital tools like online discussion forums and technology-based questioning, they can become even more effective by encouraging greater participation, giving students more time to think, and helping them engage more deeply with what they learn.

One of the main insights from the study is that progress in education does not always require replacing traditional methods. Often, it involves reshaping and adapting them to suit present-day classrooms. The successful use of classical dialogic approaches alongside digital tools shows that teaching can still be centred on meaningful human interaction while also benefiting from technology. This suggests that the future of education may lie in blending traditional wisdom with modern practices in a balanced way.

At the same time, the study acknowledges certain limitations. While the findings are encouraging, they are drawn from a small group of participants and are based mainly on self-reported responses from educators. For this reason, further research involving direct classroom observation and student perspectives would provide a deeper and more well-rounded understanding of the issue.

In the end, the study shows that effective teaching is not only about using advanced tools, but about using them with clear purpose and care. When dialogic teaching is blended thoughtfully with digital methods, it can create learning environments that are interactive, reflective, and intellectually engaging. Maintaining this balance between traditional teaching practices and modern technology may be essential for helping students learn well and prepare for a rapidly changing world.

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Appendix

From Antiquity to AI: Revitalizing Socratic & Shastric Dialogue Pedagogy in Digital Learning

This survey is designed to gather insights on how dialogic teaching, rooted in Socratic and Shastric traditions, is being enacted through contemporary digital learning platforms. We are interested in your experiences with dialogue-based instructional strategies, technology-mediated inquiry, and their impact on engagement and learning. Participation is voluntary and responses will remain confidential and anonymous. Collected data will be used for academic research.

1. Name

2. Designation

3. Years of Teaching Experience

4. 1. Dialogic teaching methods enhance student engagement in my courses.

Check all that apply.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

5. 2. Contemporary digital platforms support inquiry-based teaching more effectively than traditional LMS tools.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

6. 3. Question-driven dialogue improves students' conceptual understanding.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

7. 4. Guided questioning activities I use reflect classical Socratic inquiry in instruction.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

8. 5. My use of structured reasoning and debate reflects principles from Shastric dialogue traditions.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

9. 6. Digital tools enable sustained and meaningful academic dialogue beyond regular classroom hours.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

10. 7. Technology-supported questioning tools help scaffold student thinking and reflection.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

11. 8. Technology assists me in designing effective discussion prompts for learners.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

12. 9. These strategies encourage equitable student participation in discussions.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

13. 10. Students demonstrate improved critical thinking when dialogic strategies are implemented.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

14. 11. Blending traditional dialogic methods with AI-augmented tools has enhanced my instructional effectiveness.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

15. 12. Dialogic teaching strategies significantly improve students' depth of understanding of course concepts

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

16. 13. I find it feasible to integrate dialogue-centered teaching approaches within digital learning environments.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

17. 14. Technology-mediated discussions help students articulate their reasoning more clearly.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

18. 15. Integrating classical dialogic traditions (such as Socratic questioning and structured debate) into digital instruction enhances overall learning outcomes.

Check all that apply.

- ☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

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