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Annual Survey
Insight Report:
Use of Al in
Team-Based
Learning (TBL)

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01 Executive Summary

Artificial intelligence (AI) is rapidly reshaping higher education, creating both opportunities and challenges for educators. Its growing influence has direct implications for Team-Based Learning (TBL), and InteDashboard seeks to identify its impact with our annual Use of AI in TBL survey.

Building on the 2024 baseline study, the 2025 survey tracks shifts in attitudes, adoption rates, and emerging practices. In addition to the original 18 questions, four new items were introduced this year to capture deeper insights. To analyze results, the InteDashboard team leveraged ChatGPT, supplemented by manual refinements to preserve nuance and context.

Key Findings

- Increased Al Impact on Importance of TBL: In 2024, 45% agreed that Al increased TBL's importance; in 2025, this rose to 63%. We believe that educators view TBL as a safeguard for developing essential "Al-proof" skills, including teamwork, higher-order thinking, and applied problem-solving.
- Higher Al Adoption Rate: Daily use of Al tools grew from 0% in 2024 to 13% in 2025, while the share of educators who never use Al dropped from 33% to 21%. This reflects a shift, with Al moving from experimental use toward routine integration in teaching practices.
- Expanded Use Cases and Custom Al Tools: Respondents are adopting Al for increasingly sophisticated applications, such as developing and adapting custom GPTs and integrating Al more systematically into teaching practices.



• Growing Optimism About Student Impact: Although 48% remain uncertain, one in four educators reported positive effects of AI on student collaboration and participation. Optimism is tempered by concerns about the risk of overreliance, highlighting the need for structured oversight.

Challenges

Despite rising adoption, barriers remain significant. Half of the respondents cite uncertainty about how AI can enhance learning as one of the top barriers. Institutional support is inconsistent, with one in four respondents reporting no policies or resources to guide adoption. Reliability issues, such as inaccurate or fabricated AI outputs, undermine trust and require careful verification. The greatest concern, however, is student overreliance. Educators fear that dependence on AI-generated content may erode reasoning and critical thinking.

Conclusion

Far from being diminished, **TBL** is made more essential by AI: it provides the human-centered balance—teamwork, reflection, and critical thinking. Institutions investing in training, policies, and student readiness will be best positioned to leverage AI's benefits while protecting educational quality.

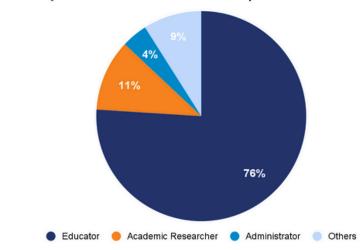
To utilise AI responsibly while safeguarding learning integrity, institutions should:

- 1. Upskill educators with targeted professional development.
- 2. Establish clear policies for ethical, consistent Al use.
- 3. Embed digital literacy into curricula to prepare students for responsible engagement.

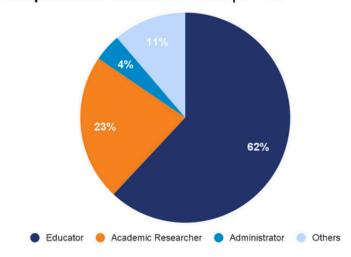
The sections that follow provide a deeper analysis of respondents' experiences and actionable recommendations to help institutions navigate this transformation responsibly.

02 Demographics





2025 Respondents' Academic Roles | n = 61

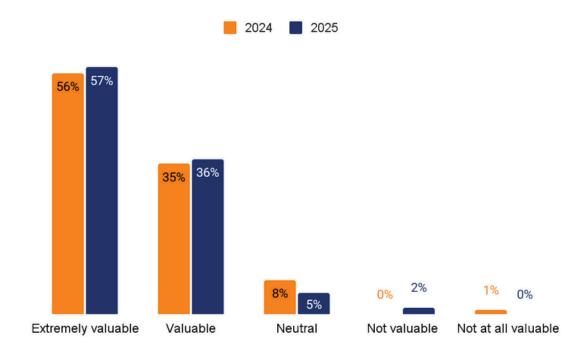


The makeup of the respondents' demographics in 2025 is similar to that of 2024. The majority of respondents are educators, followed by academic researchers.



03 Perceptions of Alin TBL

Perceived value of TBL for students today



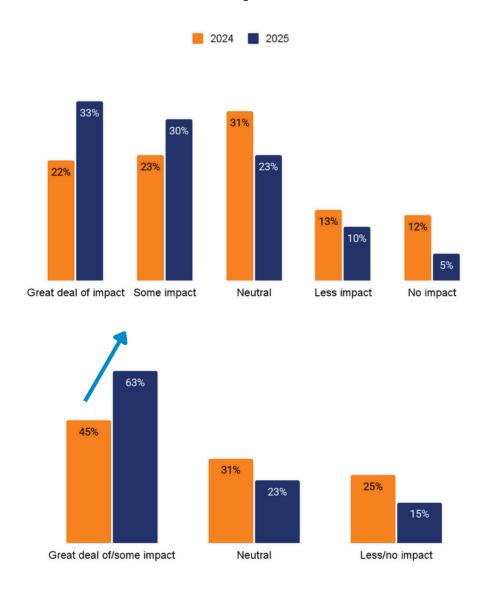
Most respondents still indicate a strong endorsement of TBL's value for students, with most responses in the positive range.

Combined neutral and negative respondents have dropped slightly from 9% to 7%.

We suspect educators appreciate TBL for its ability to promote collaboration, enhance critical thinking, and improve information retention, making learning more engaging and effective.



Impact of AI on the Importance of TBL



The proportion of respondents who believe that AI will impact the importance of TBL has increased the most (rising from 45% to 63%).

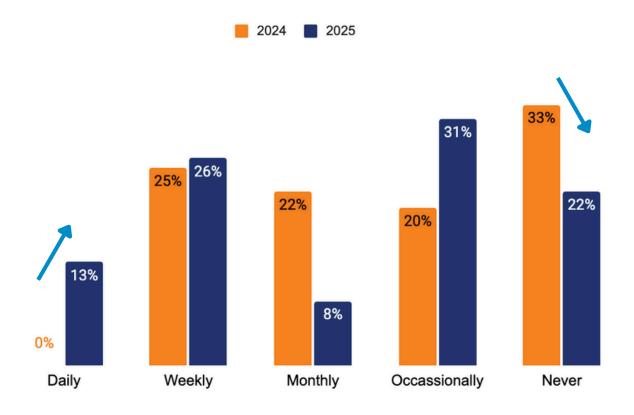
We speculate that educators and institutions are reexamining their methodologies in an Al-enabled world.

We believe that TBL promotes essential and irreplaceable skills such as teamwork, problem-solving, and higher-order thinking, that are essential for an Al-enabled world.



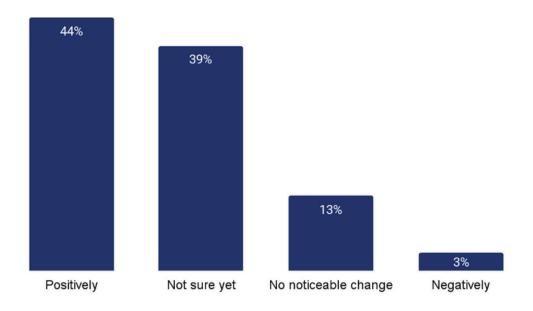
04 Current Usage and Practices

Al Tool Usage Frequency



The data shows more respondents now regularly use AI, making it a core part of their workflows. This trend indicates that educators and institutions are becoming increasingly comfortable with AI, transitioning from minimal to consistent adoption.

Al and teaching effectiveness in TBL*



The largest group of respondents indicated that AI has enhanced their teaching effectiveness in TBL. However, the presence of a large group who are still uncertain about AI's impact suggests an opportunity for additional research and training.

Interestingly, there is minimal negative feedback.

^{*} This is a new question in 2025. There's no comparable 2024 data.



Categories of tasks educators are using AI for in 2025

We ask respondents on how they're currently using AI tools in their teaching practices. We then fed their responses to ChatGPT, which helped us to summarize their responses into the following categories. While the categories remain consistent with 2024, the respondents' usage has grown more advanced.

1

Question and Test Creation

Educators use AI to streamline assessment creation and enrich case studies while improving readability and clarity for better accessibility.

3

Content Development

Educators use AI to streamline course planning, assignment creation, and instructional design. 2

Student Engagement and Learning Activities

Some educators encourage students to use AI for creating research summaries, formulating questions, and evaluating sources.

4

Research and Inquiry

Educators use AI to help students improve grammar, writing structure, and academic skills by providing feedback and guidance for clearer, more polished work.

How educators' use of AI has advanced in 2025

"It has been a game changer. The hardest task for using TBL is to come up with good questions and good case studies. Al makes it so much easier."

"I created a custom GPT to help students do the pre-class work and do mock quizzes to prepare for the RATs. I also experimented using AI to generate RAT questions with mixed results."

"I utilize a TBL GPT that I created to give me guidance for iRAT/ tRAT questions and application exercises. I feed it the pre-work materials that I have created and my lecture slides that I pair with my TBL session. Typically this gives me a decent starting point but I do a significant amount of editing due to inaccuracies and topics that I feel are most clinically relevant. Once the module is final. I utilize the **GPT** to **create additional** facilitation questions."

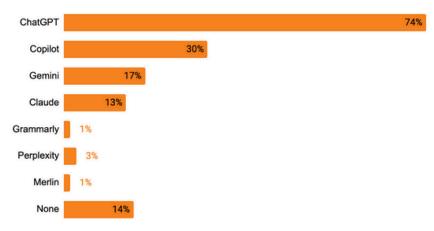
In 2024, educators engaged with AI tools cautiously, frequently awaiting institutional guidance to determine appropriate use. In the current year, however, adoption has become markedly more advanced. Educators are employing sophisticated prompt strategies, developing and adapting custom GPTs, and integrating AI more systematically into instructional design and teaching practices.



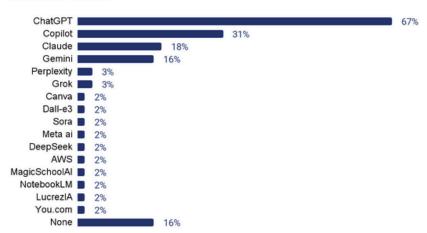


Al Tools and Applications in TBL Environments





2025 Al Tools



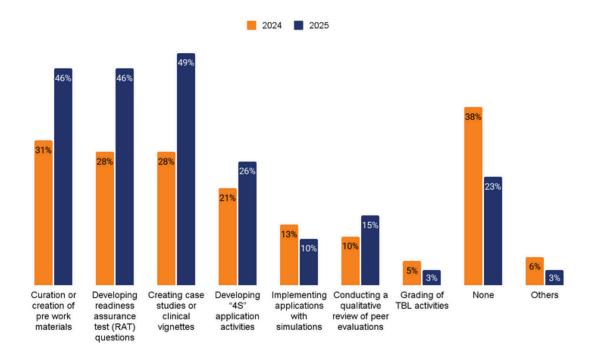
ChatGPT, Copilot, Gemini, and Claude continue to be the most widely used AI tools among educators. At the same time, there is now a broader range of AI tools being adopted, reflecting a growing willingness to explore different technologies to support teaching and learning.

^{*} Respondents can select more than one option in this question.





2025 Integration of TBL Activities



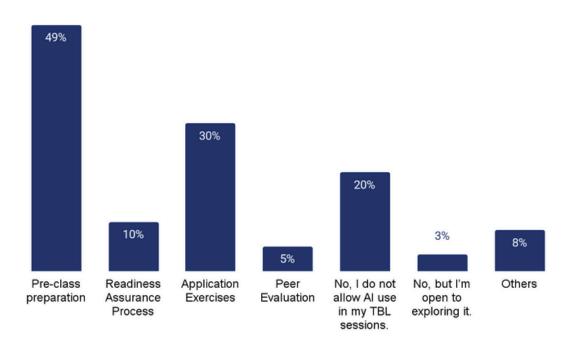
Al is used in all parts of the planning process for TBL implementation. The top three areas continue to consist of Prework curation, Readiness Assurance Test (RAT) question development, and case study/application creation.

The proportion of respondents reporting no use of AI has dropped by 40%, indicating that more educators are now integrating AI into some aspect of TBL.





Where educators allow students to use AI*



Nearly half of the respondents overwhelmingly view AI primarily as a tool to support students' study preparation.

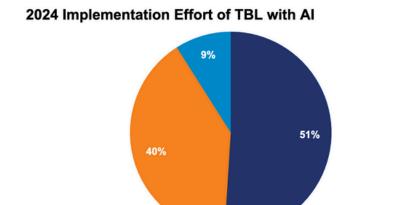
While the use of AI in application exercises is growing, it remains cautious, suggesting that integrating AI thoughtfully into team tasks could help unlock greater in-class value.

Ultimately, decisions about where and how students are permitted to use Al within TBL are highly contextual; instructors must determine appropriate uses based on their specific classes, desired learning outcomes, and institutional policies.

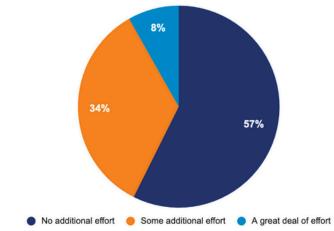
^{*} This is a new question in 2025. There's no comparable 2024 data.



Effort of Implementing TBL with AI



2025 Implementation Effort of TBL with AI



No additional effort Some additional effort A great deal of effort

Most respondents feel that the overall effort required to implement TBL remains about the same, whether or not AI is used, with the majority indicating a neutral stance. Yet, interestingly, in later parts of the survey, many participants highlighted time-saving as one of the key benefits of using AI tools.

This suggests that while AI can streamline certain tasks, its positive impact on time savings may be offset by the additional effort needed to learn how to use these tools effectively and to check for potential biases, errors or discrepancies.





Benefits of using AI in TBL*

1

Efficiency & Time-Savings

Al reduces preparation and grading effort, allowing instructors to spend more time focusing on teaching.

3

Resource Discovery & Idea Generation

Al acts as a searchable "brainstorming" partner and provides up-to-date references to support lesson planning.

2

Content & Assessment Quality

Using AI improves the depth, clarity, and rigor of questions, cases, and assessments.

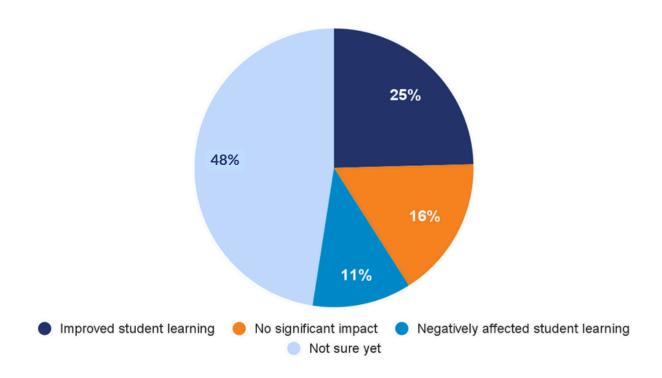
4

Engagement & Pedagogical Enhancement

Al boosts student buy-in, encourages higher-order thinking, and enhances feedback and collaboration within TBL.

^{*} This is a new question in 2025. There's no comparable 2024 data.

Al's Impact on Student Learning*



Uncertainty remains the dominant sentiment, with more than half of respondents still unsure about Al's impact on student learning.

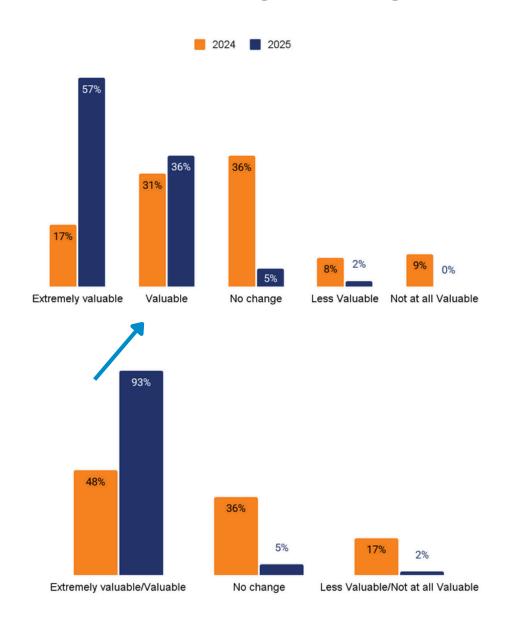
This suggests that in-class integration of AI tools is still limited; many faculty members use AI primarily for preparation tasks but have not yet experimented with applying it directly in their classrooms.

As a result, they may not see the direct impact of AI on student learning and engagement, underscoring a clear need for more guidance and support on how to implement AI effectively during TBL sessions.

^{*} This is a new question in 2025. There's no comparable 2024 data.



Value of AI in Enhancing Learning Outcomes



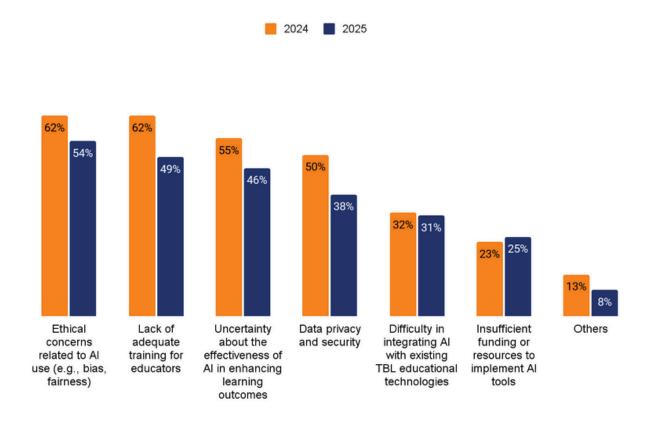
There has been a sharp increase in the perceived value of AI for enhancing learning outcomes, with more respondents now viewing AI as extremely valuable. This is a sign of growing confidence and successful adoption of AI tools.

At the same time, skepticism appears to be declining as the number of respondents who see no change or a negative impact has dropped significantly in 2025. This suggests that greater exposure to and experience with Al are helping to shift perceptions in a positive direction.



05 Challenges of Al Adoption

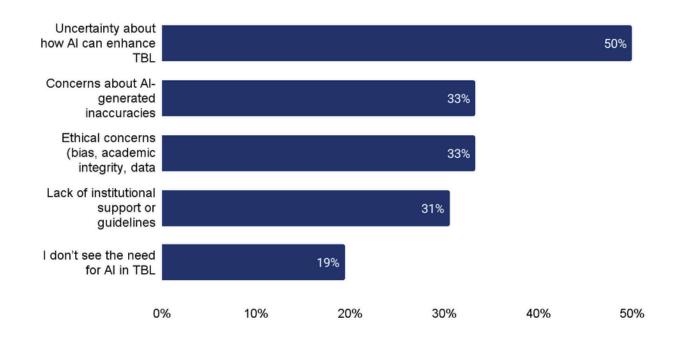
Concerns and challenges educators face



The challenges of implementing AI have remained largely the same across both years, highlighting the need for institutions to establish clearer policies and guidelines to support effective and consistent use of AI in TBL.



Reasons for not using AI during TBL sessions*



Knowledge gap is the biggest reason why respondents are reluctant to use AI tools during TBL sessions. Half of respondents cited uncertainty about how AI can enhance TBL, underscoring an urgent need for targeted training and guidance.

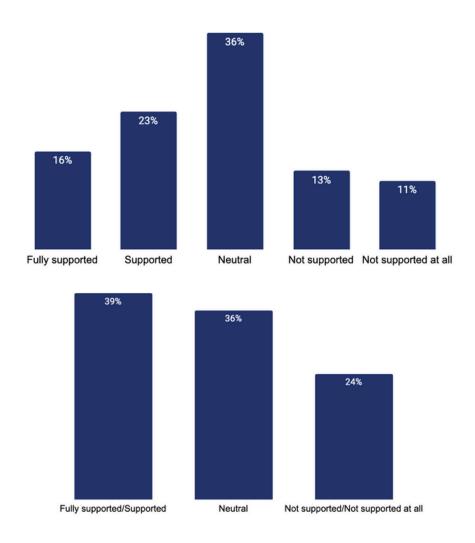
Systemic and ethical concerns persist; issues such as limited institutional support, potential AI inaccuracies, and broader ethical considerations make up a significant portion of the barriers.

Successful adoption will require not only practical know-how but also clear policies, trusted systems, and alignment with academic standards.

^{*} This is a new question in 2025. There's no comparable 2024 data.



Extent of Institutional Support*



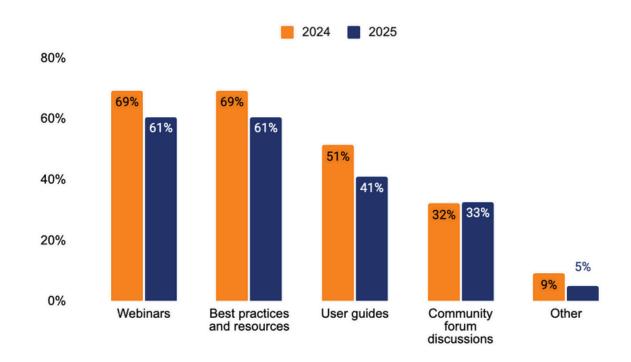
While 39% of respondents report having a good institutional support for using AI, the second largest group remains neutral, and about one in four respondents still feel under-supported.

Many are still unsure about their institution's AI policies, which may have contributed to this uncertainty. As institutions gain more clarity and develop clearer guidelines for AI use, this should help strengthen the support available to faculty and encourage more confident adoption.

^{*} This is a new question in 2025. There's no comparable 2024 data.



Professional Development Support Needs



As our survey highlights, academic leaders and educators continue to value professional development opportunities such as webinars, best practice resources, and user guides to strengthen their understanding of AI tools.

Recognizing this need, InteDashboard is advancing the conversation around AI in Team-Based Learning (TBL) by offering timely, practical, and evidence-based support through AI-focused workshops and resources designed specifically for TBL.

Through our vibrant InteDashboard TBL community, we are bringing together the academic leaders, educators, instructional designers, and learning technologists—providing not only tools and guidance, but also a strong peer network to explore and advance the use of AI in TBL.



Deeper AI Use in TBL—and the Call for Balanced Strategies

"My current concerns are that many students are using Google Al during open resource AEs (as well as in clinic), and they are not exploring what they find further. I want to support their safe use of AI, but also build their clinical reasoning skills to be able to assess if the information provided by Al is accurate and appropriate and then resolve the problem if it's not. I am having a hard time figuring out how to encourage safe use but also to push them not to accept Al generated patient care recommendations as 100% correct each time."

"The IRAT has always been done in a controlled environment but I now have to be more vigilant to notice students using AI - not a big deal - but what is sad for me is when I see students using AI in the tRAT and AE phases. For me, it feels like they are bypassing the real benefit of TBL but I suppose there may be some hidden benefits that I am not fully aware of. It is a good example of the greater disruption of AI in education."

"I wouldn't mind finding out more about the potential to collaborate in developing new Al features for TBL."

In 2024, most respondents saw Team-Based Learning approach as either "AI-proof" or avoided AI due to limited guidance and uncertainty. By 2025, greater accessibility of AI tools and growing institutional experimentation has shifted perceptions, leading to broader integration by both students and faculty. Respondents are more open to shaping new AI features, while emphasizing the need for balanced strategies that safeguard learning outcomes.



06 Conclusion

Summary of Findings

1

Increased AI Impact on importance of TBL

More and more educators (from 45% in 2024 to 63% in 2025) are recognizing impact of AI on TBL's value.

3

Expanded Use Cases and Custom Al Tools

With more educators using AI, their expertise and scope of usage improved with more moving beyond experimentation into practical application.

2

Higher Al Adoption Rate

Daily use of AI tools rose (<u>0%</u> in 2024 to 13% in 2025) while the number of educators who never use AI declined (<u>33% in 2024 to 21% in 2025</u>), indicating deeper integration into teaching workflows.

4

Growing Optimism About Student Impact

While <u>uncertainty remains</u> (48%), more educators believe AI has improved student learning and engagement (25%) compared to those who see negative effects (11%), signaling cautious optimism.



Existing Challenges

1

Knowledge Gaps Among Educators

Top barrier to AI adoption is uncertainty about how AI can enhance learning (50%), highlighting a need for targeted training.

3

Al Accuracy and Reliability Issues

With the increased usage of AI tools, educators emphasised challenges in needing to heavily edit AI-generated content due to inaccuracies.

2

Institutional Support and Policy Clarity

1 in 4 educators do not have support from their institutions. There's a lack of clear policies, trusted systems, and academic alignment for Al use.

4

Concerns over Students' Al Usage

The new phenomenon of students accepting Algenerated recommendations without critical evaluation raises concerns about diminished reasoning and problem-solving skills.

Call to Action

Upskill Educators

Institutions should prioritize targeted training and professional development to close existing knowledge gaps around AI in TBL.

By equipping educators with the practical skills and confidence to use AI tools effectively, they will be better prepared to integrate AI in ways that enhance collaboration, deepen student engagement, and improve learning outcomes.

Define Clear Guidelines

Work collaboratively across departments and institutions to develop clear, ethical, and practical policies for AI use in TBL. Well-defined guidelines will help maintain academic integrity, address ethical

concerns, and ensure that Al supports, rather than undermines, student engagement and learning.

Empower Responsible Usage of AI tools among students

Provide students with the tools and strategies they need to critically assess Algenerated content and use it thoughtfully within their learning.

By fostering responsible and reflective AI use, institutions can help students develop stronger critical thinking skills and ensure that AI supports, rather than replaces, meaningful learning and collaboration.





Questions? Contact us.



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2024 AI in TBL Deck 2025 AI in TBL Deck