



CREATING INTERACTIVE LESSONS USING AI AND EDTECH TOOLS

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Abstract

Artificial Intelligence (AI) and Educational Technology (EdTech) are fundamentally transforming the teaching and learning process. Interactive lessons significantly increase students' active participation and enable truly personalized learning. This article provides a broad and in-depth exploration of the topic, covering modern tools, practical examples, research findings, the context of Uzbekistan, challenges, and future prospects. Studies show that AI-powered interactive lessons can increase student engagement by 20–40% and dramatically reduce lesson preparation time for teachers. At the same time, ethical, technical, and social challenges are also addressed.

Keywords: artificial intelligence, EdTech, interactive lessons, personalized learning, gamification, real-time assessment.

Introduction

Traditional lessons are often based on passive listening and fail to address the diverse abilities and needs of students. AI and EdTech tools solve this problem by enabling teachers to create fully interactive, adaptive, and engaging lessons in just a few minutes. These tools can analyze student responses in real time and adjust the lesson content accordingly.



In 2025–2026, platforms such as Curipod, MagicSchool.ai, Brisk Teaching, Eduaide.ai, Nearpod, Genially, Deck.Toys, and SendSteps.ai have become leaders in this field. Teachers simply enter the topic, and the AI automatically generates slides, polls, quizzes, word clouds, drawing activities, and gamification elements.

Key Tools and Their Capabilities (with Practical Examples)

1. Curipod

- **What it does:** Enter a topic and the AI instantly creates a complete interactive presentation including polls, quizzes, drawing activities, word clouds, and open-ended questions.
- **Example:** For the topic “History of Uzbekistan: The Era of Amir Temur,” students participate in real-time polls, mark locations on interactive maps, and receive immediate AI feedback on their written responses. Students can view and discuss each other’s answers.
- **Advantage:** Fully teacher-controlled (teacher-paced) and ensures every student’s voice is heard.

2. Brisk Teaching

- Turns Google Docs, Slides, or any webpage into interactive learning activities.
- **Example:** Upload a regular textbook page. Brisk automatically adds differentiated questions, drag-and-drop exercises, and personalized tasks. It creates simplified versions for struggling students and advanced challenges for high-achievers.

3. MagicSchool.ai



- Offers over 50 specialized tools: lesson plan generator, rubrics, differentiation tools, IEP (Individualized Education Program) creator, etc.
- **Example:** A biology teacher enters “Cell Structure.” The AI generates a complete lesson plan, worksheets, quizzes, and even a letter for parents.

4. Other Powerful Tools

- **Nearpod & SendSteps.ai** — Virtual field trips, real-time Q&A, integration with Google Arts & Culture.
- **Deck.Toys** — Converts any content into game-based learning paths with levels and unlock mechanics.
- **Genially** — Interactive infographics, timelines, and image hotspots.
- **Edpuzzle** — Turns videos into interactive lessons with embedded questions.
- **Diffit** — Automatically adapts any text to different reading levels.

5. General-Purpose AI (ChatGPT, Gemini, Claude) Used with good prompts, e.g., “Create an interactive lesson plan for 7th grade fractions including Quizizz links and Canva design suggestions.”

Step-by-Step Process for Creating Interactive Lessons

1. **Planning** — Define clear learning objectives (using Bloom’s Taxonomy).
2. **Content Generation** — Use AI to create text, images (Canva Magic Studio), and video scripts.
3. **Adding Interactivity** — Incorporate polls, quizzes, drawing, discussions, and collaborative activities.
4. **Personalization** — Implement adaptive branching (content changes based on student responses).
5. **Assessment** — Enable automatic grading and real-time analytics.



6. **Integration** — Connect with LMS platforms such as Google Classroom, Moodle, or Uzbekistan’s Ziyonet.

Practical Scenario Example (Mathematics, Grade 7 – “Fractions”) Teacher enters “Operations with fractions, Grade 7” into Curipod. The AI creates interactive slides with real-time polls (“Which operation is the hardest?”), drawing tasks (visual models), and instant AI feedback. Students answer using their phones or tablets while the teacher monitors everything from the dashboard.

Research Findings and Impact

- Student engagement and motivation increase by **20–40%** due to real-time feedback and gamification.
- Teachers save up to **50%** of lesson preparation time.
- Personalized learning particularly helps struggling students improve their results.
- The combination of gamification and immersive technologies (AR/VR) promotes deeper understanding.

In Uzbekistan, AI integration in education is growing. Many universities use Moodle, chatbots, and online testing systems. National strategies support digital education, although challenges remain in infrastructure and teacher training.

Challenges and Solutions

- **Data Privacy & Security** — Use platforms that comply with high security standards.
- **AI Bias and Hallucinations** — Always review AI-generated content.
- **Digital Divide** — Lack of devices and reliable internet (especially relevant in Uzbekistan).
- **Teacher Readiness** — Provide continuous professional development.



- **Ethical Issues** — Prevent plagiarism and maintain human connection in teaching.

Recommended Solutions: Start with small pilot projects, develop clear ethical guidelines, and teach students how to critically evaluate AI outputs.

Conclusion and Recommendations

AI and EdTech tools are powerful assistants in creating interactive lessons, but they do not replace the teacher — they enhance creativity, personalization, and efficiency. Their successful adoption can significantly improve the quality of education in Uzbekistan.

Practical Recommendations:

- Start with MagicSchool.ai or Curipod (both have free versions).
- Try one new tool every week.
- Involve students in co-creating lessons using AI.
- Work with school administration to improve digital infrastructure.

In the near future, agentic AI, voice agents, and fully immersive VR/AR lessons will become mainstream.

References (Selected)

- Official websites and 2025–2026 reports of Curipod, MagicSchool.ai, Brisk Teaching, and Nearpod.
- U.S. Department of Education reports on AI in education.
- International systematic reviews on Artificial Intelligence in Education.