

Supporting special education needs in the classroom using AI tools

EXECUTIVE SUMMARY

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Problem and context

Inclusive education in Italy mandates that all students—including those with disabilities or special learning needs—receive equitable access to education in the same classrooms as their peers. This legislation requires teachers to adapt instructional methods and assessments to accommodate a wide spectrum of learning profiles.

At Liceo Classico D. A. Azuni in Sassari, Sardinia, **Roberta Falchi**, a history teacher and SEN support educator, teaches students aged 18–19, including five with learning disabilities such as **dyslexia**, **ADHD** and **dysorthography**. Faced with the challenge of delivering rigorous academic content while meeting individualised needs, Roberta turned to **artificial intelligence (AI)** and digital tools to make her classroom more inclusive and accessible. Roberta implemented a blend of AI-powered applications and pedagogical strategies to adapt lessons, assessments and collaborative activities for her SEN students.

Overview of AI tools used

Roberta uses a variety of AI tools to support student learning:

- [Algor Education Maps](#) converts text and images into editable concept maps;
- [Natural Reader](#), [Eleven Labs](#) to generate text-to-speech to support auditory learning;
- ChatGPT and MagicSchool simplify complex text and adapt assessments using prompts tailored to specific learning needs;
- [CBoard](#) supports communication through pictograms and multi-language sentence construction;
- [Clipdrop](#) and [Scribble](#) are AI tools that facilitate visual learning through image manipulation and annotation;
- Heygen and Copilot help students create avatars and video monologues to bring creative projects to life.

Adapted assessments

Using AI, Roberta adapts classical literature and history tests for different SEN profiles. She gives prompts to ChatGPT explaining the diagnoses of students in her classroom and asks for recommendations on how to adjust:

- reading level and vocabulary,
- the format (e.g., from essay to multiple choice or guided outlines),
- the use of assistive tools (text-to-speech, typing instead of handwriting).

She considers each student's needs, be it autism, ADHD, dyslexia or giftedness, when designing assignments. She provides digital alternatives, extra time or multimedia options depending on individual profiles.

Project-based learning and creativity

In a creative writing project, a student with a learning disability used ChatGPT to draft a screenplay. Collaborating with peers, the student improved the AI-generated script by collecting feedback from classmates, demonstrating the value of peer input and iteration. Similarly, in a WWII history unit, students created avatars and monologues from historical perspectives, integrating GPT, DALL-E, and Eleven Labs to humanise and present their research.

Lessons learned

- Tools like ChatGPT and text-to-speech services can support students with various learning needs.
- Traditional assessments (e.g., Greek literature tests) often demand sophisticated cognitive, linguistic and motor skills. AI-assisted redesign can maintain content validity while making them accessible through format changes and assistive technologies.
- Roberta emphasises that AI should supplement—not replace—student effort, creativity or teacher guidance. It helps reduce barriers, not the learning process itself. This is illustrated in the screenplay activity with students, where students can practice collaboration and creativity skills. AI-generated material can often be the starting point to generate discussion, such as reviewing an AI-generated concept map.
- With the right tools and opportunities, SEN students can achieve impressive outcomes. They may follow different pathways, but they can arrive at the same learning goals.
- Understanding each student's profile and actively listening to their needs is essential. Tools must be paired with human sensitivity and adaptive pedagogy.
- AI tools allowed students to express themselves visually, aurally and interactively. This reduces anxiety and broadens engagement, especially in SEN learners.

This learning story illustrates how AI and inclusive teaching can work hand-in-hand to transform education for students with special needs. Through thoughtful tool integration, Roberta Falchi demonstrates how technology can break down barriers to participation, foster self-confidence and promote deeper engagement.



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