



Chapter 6

AI–Powered Student Assessment in Higher Education: Enhancing Accuracy, Feedback, and Personalization


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ABSTRACT

AI is transforming student assessment in higher education, offering solutions to limitations of traditional methods. It enables personalized, efficient, and data-driven

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evaluation through automated grading, adaptive learning platforms, and analytics tools. While case studies show improved outcomes, ethical concerns like bias must be addressed. Responsible AI implementation can enhance assessment practices, promoting educational equity and excellence. Institutions adopting AI should set clear goals, involve stakeholders, and maintain ethical safeguards.

1. INTRODUCTION

1.1. Brief Overview of AI in Education

Artificial Intelligence is changing how education works (Holmes & Tuomi, 2023). It helps teachers and students by making learning more personal and efficient (Baker & Smith, 2023). It uses tools that can adjust lessons based on how each student learns. These tools make it easier for students to stay on track and improve their skills.

In 2025, many schools and colleges use smart systems to guide students through lessons (Chen & Rodriguez, 2024). These systems track how students answer questions. They then decide what topics the student needs to study next. This way, each learner moves at their own pace. Some tools also help teachers by checking essays, spotting copied work, and giving quick feedback.

Some chatbots can answer student questions at any time. This gives support outside the classroom. Other tools help during online exams. They watch students through webcams and check for any unusual actions (Johnson et al., 2024; Miller et al., 2023). This helps keep exams fair.

AI also helps students with special needs (Davidson & Harper, 2024; UNESCO AI Education Report, 2024). Some programs turn speech into text for hearing-impaired students. Others read out text for students who have trouble reading. Some tools can also translate lessons into different languages.

The main goal is to help students learn better and give teachers more time to guide them. These tools do not replace teachers. Instead, they make it easier for teachers to focus on helping students grow. As we use these systems more, we must be careful. We need to make sure they are fair and that they respect student privacy.

1.2. Importance of Assessment in Higher Education

Assessment is an essential part of higher education. It helps both students and teachers understand how well learning is taking place. Without assessment, it is hard to know if students are meeting course goals or developing important skills.

A good assessment shows what students have learned. It also highlights areas where they are struggling. This helps teachers adjust their lessons to meet student

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