How the University of Johannesburg Transformed Teaching & Assessment Efficiency Through PrepAI's Campus Ambassador Programme

The education sector is transforming and integrating AI because it has become more essential in today's scenario. PrepAI surpasses just being an AI tool, it represents a structured academic innovation solution that will transform teaching, assessment and faculty productivity in higher education.

Through the Campus Ambassador Programme on AI Readiness, PrepAI empowers universities to embed artificial intelligence into academic workflows to help educators automate assessments, efficiently prepare lectures, enhance grading and manage research documentation.

Ultimately, in 2024 the University of Johannesburg (UJ) came on board with PrepAI to grow AI readiness within the Department of Health Sciences for faculty to adopt AI confidently and to apply it meaningfully in teaching and academic professional practice.

Quick Snapshot

Institution: University of Johannesburg
Department: Health Sciences Programme
Programme: Campus Ambassador Programme on AI Readiness in Higher Education
Duration: 1 Week
Participants: 17 Faculty Members
Location: Johannesburg, South Africa

Challenges

Challenge 1: Time-Intensive Challenge Planning

Faculty members in the University of Johannesburg relied heavily on manual processes to prepare weekly lectures, summaries, and assessments. Professors have to develop structured teaching resources, like course outlines, lesson plans, tests, and more. It usually takes each faculty member 5–6 hours manually. This unnecessary load was a barrier to the following:

- Updating course content on a regular basis
- Using new teaching strategies
- Engaging in student discussions for longer periods

Challenge 2: Manual Grading Bottlenecks

First, making manual assessments in itself was a task, and once these assessments were generated grading them was another invincible task. At the University of Johannesburg, professors took 80+ hours grading exams per cycle. This feedback cycle makes students disengaged and lose their interest in learning. Manual evaluation of each response takes huge time an effort due leading to:

- Slow turnaround times for feedback
- Limited opportunities for timely interventions
- Increased faculty fatigue and workload

Challenge 3: Limited AI Readiness

The departments at the University of Johannesburg identified a significant gap in digital and AI readiness that had a direct impact on academic processes. Even though AI adoption was a strategic priority of universities, only 12% of professors had any prior exposure to using AI tools or digital technology. This unfamiliarity created a pronounced gap between the university's digital vision and faculty's day-to-day capacities. It all led to:

- Limited experimentation with academic workflows
- Minimal automation of repetitive tasks
- Low guidance and support system

Challenge 4: Hesitate to Adopt AI

While the professors at the University of Johannesburg was proactively going through a digital transformation in 2024, a number of faculty were still unsure about how to use AI in their academic practices. Faculty concerns were multifaceted, including technical, pedagogical, and ethical, which interfered with moving forward with AI networks. The professors were in dilemma because:

- Concerns about content accuracy and academic rigor
- Fear of losing academic autonomy or control
- Perception of AI as overly complex or technical

The Solutions

AI generator tools like PrepAI can easily draft assessments, tasks, and lessons in minutes, instead of hours. This tool allows professors to edit, draft, and write assessments from scratch. The automated question development can help professors draft tests that are reusable and can be made for different skill learners. With PrepAI professors can:

Faster Assessment Generation

Assessment making is a time consuming process. The professors at the University of Johannesburg had to format papers, build rubrics, and draft questions in different patterns. These delays led to slower learning cycles and reduced student motivation, especially in fast-paced programmes like health sciences. After implementing AI assessment generation tool like PrepAI:

- **Instant question generation:** PrepAI allowed faculty to create question banks, MCQs, HOTS items, case-based questions, and rubrics in minutes.
- **Accelerated grading:** AI-assisted evaluation reduced turnaround time from 10 days to 4 days, resulting in 60% faster student feedback.

AI Readiness Becomes Easy

It is quite possible that faculty at the University of Johannesburg had no time to get exposure to AI technologies, and only 12% felt confident experimenting with digital tools. This limited understanding created hesitation, as educators were unsure where AI could be meaningfully applied in lesson planning, assessment creation, or research. Without structured support, AI felt overwhelming, abstract, and disconnected from their academic routines.

- **Live AI readiness training:** Faculty were guided through real academic use cases, lesson planning, assessment creation, grading, and research summarization.
- **Confidence uplift:** AI adoption confidence increased from 12% to 84% after hands-on mentorship.

Increased Confidence in Adopting AI Technologies

Faculty were apprehensive about integrating AI due to concerns around accuracy, ethics, data privacy, and alignment with academic standards. Many perceived AI tools as overly technical or feared they might undermine academic autonomy. This hesitation slowed down by using AI assessment generator like PrepAI that helped them in:

- **Ethical, structured orientation:** Faculty learned safe, compliant, and academically aligned ways to use AI responsibly.
- **Simplified workflows:** Practical demonstrations showed that AI enhances, not replaces, faculty expertise, easing concerns and improving trust.

The Implementation

These challenges were effortlessly settled by PrepAI. PrepAI worked with the University of Johannesburg's Department of Health Sciences via its Campus Ambassador Programme, which is a coordinated one-week programme that allows professors to engage with AI while being supported as they learn and transfer the developments into their practice. PrepAI implement:

Live Training Session:

Professors participated in instructor-led sessions that demonstrated practical AI applications across teaching, assessment, and academic research. These sessions helped educators clearly understand where AI fits into higher education workflows.

Hands-on workshops for creating, assessments, and grading rubrics using AI tools

During interactive workshops, faculty worked directly on their own course content. They learned to convert textbooks, PDFs, and curriculum documents into structured lesson plans, generate diverse question types, and create standardized grading rubrics, all using AI.

Access to free licenses of PrepAI and partner AI software for experimentation

Professors received temporary access to PrepAI and additional partner tools, giving them the freedom to explore AI capabilities independently. This trial environment allowed faculty to practice, experiment, and build confidence in using AI as a tool.

Ongoing mentoring and performance tracking for faculty participants

PrepAI provided continuous guidance to ensure smooth adoption, answer queries, and support implementation. Faculty received feedback on their AI-generated materials, recommendations for workflow improvements, and performance tracking to measure progress throughout the programme.

Results that Enhanced Faculty Efficiency

43% Faster Lesson Planning

Before the programme, faculty spent an average of 5.4 hours per week preparing lesson plans and lecture materials. With PrepAI, lesson planning time reduced to 3.1 hours, enabling educators to:

- Allocate more time to interactive teaching
- Personalize learning content for diverse student needs
- Improve overall classroom preparedness

60% Faster Assessment Creation & Feedback Turnaround

Assessment cycles that previously took 10 days, from question creation to grading and feedback, were reduced to just 4 days. This accelerated workflow allowed faculty to:

- Provide students with timely, data-driven feedback
- Reduce administrative workload
- Improve assessment quality and consistency

72-Point Increase in Faculty Confidence Using AI

Faculty confidence in using AI tools rose dramatically from 12% to 84% within a month. This shift reflects:

- Higher comfort with AI-powered teaching workflows
- Increased adoption of automated content creation
- Stronger willingness to experiment with digital tools

19% Increase in Student Engagement

Student engagement scores (survey-based) improved from 68% to 87%, indicating:

- Higher participation in class activities
- Improved interest due to dynamic, AI-enhanced learning materials
- Better alignment between teaching content and student learning preferences

Why Technology Is Now Essential in Higher Education?

The University of Johannesburg after implementing PrepAI as a solution into their academics provided us a feedback:

"Before this programme, I used to spend entire weekends preparing lecture slides. Now, AI helps me structure, visualize, and refine them within hours - giving me more time to focus on student discussions."

Prof. N. Mthembu, Department of Health Sciences, University of Johannesburg After integrating PrepAI solution into their academics

It has become essential to adopt technology because technology is no longer an enhancement, it is the foundation for future-ready, high-quality education.

Book Your Faculty AI Readiness Workshop Today

Empower your educators with the tools, training, and confidence needed to thrive in an AI-enabled academic ecosystem.