

Project - Digieduhack

# SABIDURIA

## Team 11 “TechMinds”

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## Solution

Higher education seeks for students to find their own route to learning, regardless of the branch of application. Likewise, technology has provided indispensable tools that facilitate our understanding and open the doors to new knowledge. That is why we propose to integrate a service called “Sabiduria”, which serves as an extension of Blackboard, allowing higher education students to receive feedback after the delivery of exams, where the application of skills such as: Quantitative reasoning is evident. , written competence, critical thinking and information management, of which the AI will be prepared to provide feedback based on a bank of answers provided by experts on the subject (teachers) where it will generate ten new questions with multiple attempts so that the student has the opportunity to practice on the questions where they need to improve. On the other hand, there will be an extension in the Virtual Classroom called “Sabiduria” where a “Performance Report” will be provided that shows the performance, in percentages, of the four competencies worked on along with advice or recommendations on the competencies that need to be prioritized. improved; This extension will have two versions, one for the student and another for the teacher. This proposal aims to use artificial intelligence to provide personalized feedback based on the four previously mentioned student competencies and make it easier for teachers to monitor their students' performance, in addition to receiving recommendations if necessary.

## Competency benefits when implementing this solution

Firstly, on the side of **critical thinking**, the importance of developing competency-based learning is emphasized, since there are different forms of thinking but they all share common thinking. Critical thinking is one of the most mentioned and present forms today, this implies being sensitive to society, social reality, etc.; especially within our society, since it dictates our way of thinking and acting (Bezanilla, 2018). For this reason, additional support is required within the feedback process that can influence the development of critical thinking in fundamental points such as greater clarity and specificity, because students are required to be objective with their own performance, forcing it to understand their strengths and weaknesses, allowing them to focus on areas of improvement, as well as allowing them to focus on the learning process and not just the final result (Pasten, 2021).

Secondly, we have **quantitative reasoning**. According to Liping Ma (2010), he commented on how it is a demanding intellectual activity, since it not only requires mathematical understanding, but also discipline, security and self-confidence in the domain of knowledge. This competence is of utmost relevance for the lives of individuals, their understanding and learning achievements, however, it is one of the least renewed competences, with tutors being one of the main protagonists of this event, since in many cases the calculation on reasoning;

Due to this, the importance of having additional support is emphasized to achieve important progress such as understanding the process towards the response, a new perspective on what has been learned and correcting errors before they become habits.

Thirdly, **written competence** is a complex process that is part of the linguistic system, it goes hand in hand with thinking and the development of metacognitive skills, from the perception of letters to the interpretation of the meanings of the text by the students. This competence arouses the interest of various disciplines within linguistic study (Riffo, 2014); Throughout this process, additional support would be essential to understand and improve your area of writing, style correction, improvement of grammar, structure, context, etc.

Finally, **information management competence** is a set of knowledge, values, skills and attitudes that are used to identify, discriminate and organize relevant information, as well as respect for the rights of authors through compliance with APA citations. (Jaramillo et al., 2011). In summary, "Sabiduría" seeks to position itself as a comprehensive tool that not only makes up for the lack of constant and personalized feedback, but also promotes the development of fundamental competencies for the academic and professional success of students and teachers. This proposal, by integrating artificial intelligence technology, is shown to be a significant advance that not only addresses a key need in the educational system, but also reinforces the crucial role of feedback in the university learning process.

**Prototype:** <https://docs.google.com/presentation/d/1s9aiR6PwDrPoof8I93umDZiyzXZPcQV-/edit?usp=sharing&ouid=116000307670682054109&rtpof=true&sd=true>

**Video in english:** [https://youtu.be/tp5j76qr\\_to](https://youtu.be/tp5j76qr_to)

**Video in spanish:** <https://youtu.be/v0bTLPSEHTM>