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Real Challenges, Real Learning: The Role of Teachers in Challenge-Based Learning



Challenge-Based Learning is an educational methodology that places students in the face of real-world problems while transforming the role of educators. Pedagogical approach, technology integration, industry connection, and student support and development are key aspects to incorporate into teaching to achieve effective and enriching learning.

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This article introduces us to an innovative way of teaching and learning: Challenge-Based Learning (CBL). This educational methodology places students in the face of real-world problems, aiming to develop key skills, such as critical thinking, creativity, and teamwork. But what role do educators play in this type of learning? This is what the authors of this study set out to explore and analyse the strategies used by teachers to make CBL an effective and enriching learning experience.

As part of the D-EMIND project, the research team reviewed 20 studies published between 2013 and 2023 in major academic databases such as Web of Science and Scopus. To ensure rigorous analysis, they followed a method known as PRISMA, which guarantees reliable and well-structured conclusions. After examining the studies, the researchers identified four key areas where educators could make a difference: pedagogical approach,

technology integration, industry connection, and student support and development (Galdames-Calderón, Stavnskær Pedersen & Rodriguez-Gomez, 2024).

Regarding the “pedagogical approach”, teachers move away from the traditional role of “knowledge transmitters” to become guides. This means they help students learn independently, work collaboratively, and find creative solutions to the problems presented to them. Moreover, CBL promotes active learning, in which students take the central stage in their own learning process.

Another key element is “technology integration”. The digital world is becoming increasingly prominent, and CBL leverages tools, such as online platforms and digital resources, to enrich learning experiences. This not only makes the process more dynamic but also prepares students for professional environments where technological skills are essential.

The “industry connection” also plays a fundamental role. Through collaboration with professionals and companies, educators can present real-world challenges that link what is learned in the classroom to the workplace. This enables students to not only learn theory, but also apply it to practical situations, gain experience, and improve their employability prospects.

Finally, the authors highlight the importance of “support and development”. Here, educators play a key role in motivating students, fostering their autonomy, and helping them overcome any challenges they might face. It is also crucial for teachers themselves to receive ongoing training to adapt to this new way of teaching and to be well-prepared to guide their students effectively.

While CBL offers many benefits, it also presents some challenges. One of the most significant is the shift in mindset required of both educators and students. Many are familiar with traditional educational models and may have doubts or resistance towards a methodology that demands greater participation and creativity. This study shows that CBL not only prepares students to tackle real-world problems, but also transforms the role of educators, turning them into facilitators who help create active and collaborative learning environments. However, it is worth noting that more research is needed to understand better how to optimally implement these practices.

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