

IMPLEMENTATION OF PBL METHOD IN PRE-SERVICE CHEMISTRY TEACHER TRAINING AT JAGIELLONIAN UNIVERSITY IN KRAKOW – A CASE STUDY

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Pre-service teacher training in Poland is regulated by standards developed and enforced by the Ministry. Its prevalent critique centers around the dominance of theoretical knowledge at the expense of practical skills for future teachers. In situations where their educators – usually university lecturers – might find it challenging to alter the established standards mandated by the ministry, employing effective teaching and learning methods becomes paramount.

Problem - Based Learning (PBL), designed to replicate scenarios akin to professional work, emerges as a particularly beneficial solution. Notably, at the Faculty of Chemistry, PBL has been implemented in the "Basics of Education" course, both in traditional face-to-face sessions as well as in the e-learning format. Using this method, topics such as student achievement evaluation, teaching in a multicultural classroom, use of ICT in education, and student motivation were discussed. Comprehensive evaluations were conducted, encompassing assessments of student group work, individual and group surveys, as well as self- and peer-assessment sheets.

The research yielded insights into the advantages and limitations of that instructional approach, culminating in recommendations for the forthcoming academic year [1]. Among the strengths were high student engagement and the exploration of knowledge from sources unconventional for chemical education, such as interviews with school teachers or students from other countries. A challenge was the lack of experience in applying this learning method, uneven levels of collaborative skills, and the need to build an atmosphere of mutual trust that allows for honest self-assessment and peer-assessment of students.

1. I. Maciejowska, PBL as a method used in pre-service chemistry teacher training [in:] University education of future science teachers, Kraków, Publisher, 2021, 65-82.
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