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Analysis of the academic performance of students during the pre- and post-pandemic periods

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In the challenge of protecting the teaching and learning processes in the accreditation of the acquired knowledge, teachers worked hard to select resources and pedagogical-didactic tools most suitable for their development [1].

So when there are no events that could affect the normal development of academic activity, the consideration is to think about training in skills for future professionals. But, given the new scenario of the health crisis that kept them away from the classroom for two years and therefore receiving face-to-face education, the perspective changed [2].

However, actions were outlined whose goal was the achievement of learning during that period and thus the realization of practical activities through virtual resources was pedagogically beneficial and made it possible to access a tool with clear descriptions, easy to use, without time limit and inclusive, although it is worth mentioning that a large percentage of students had a preference for practical activities in the laboratory in person, as well as taking the courses.

Despite this, a positive evolution is still not appreciated when evaluating the acquisition of knowledge in the return to face-to-face classes. Proof of this are the results obtained, with an average approval value in 2019 of 47%, in 2020 of 28%, in 2021 of 24% and finally in 2022 of 27% reflect a trend regarding the decrease in academic performance of students after the first instance of evaluation in the middle of the pandemic, compared to the period in which the health disaster that humanity would be subject to was not in sight and that has not yet been restored. This oscillation has a multiplicity of factors, from emotional, technical, economic to social, being different for those who studied in person compared to those who did it virtually the last two years.

Being a comparative research with an experimental design combining procedures for obtaining information and quantitative analysis to groups of General Chemistry course of the Chemical Engineering for the aforementioned years. To collect the information and process it statistically, the following tools and techniques were proposed: a) Preparation of the theoretical framework; b) Implementation of activities in Virtual Laboratories of diverse institutions with software of free use via Internet; c) Analysis of the results obtained by the students who applied to a virtual laboratory environment; e) Preparation of surveys to obtain feedback on the activities carried out.

In summary, the objective of this work was to analyze the performance of students in the three conditions mentioned (pre, during and post pandemic), after having passed a circumstance as dire as social isolation due to COVID-19.

References

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