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Development of methodologies for reducing dropout in courses in the Exact Sciences

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This paper seeks to present new methodologies aimed at maintaining the number of students in the undergraduate programs in areas related to the exact sciences, with the intention of gradually increasing the quantity of qualified professionals who work in the areas encompassed by these courses. This line of research demonstrates its importance at a moment in which the dropout rate from undergraduate courses in these areas has been increasing at an alarming pace. This leads to a situation in which a lack of professionals has the effect on the labor market of making it necessary for unqualified candidates to take on positions in an area for which they have not been trained. We conducted data analysis based on questionnaires that included problems of basic mathematics and basic physics, given to students seeking degrees in the exact sciences. With the objective of identifying the greatest difficulties faced by students who took the tests, this analysis pointed to reasons that might explain the high dropout rate in these courses. By identifying some of these reasons, it is possible to develop tools and methodologies for reducing student dropout in these courses. The results of these questionnaires, which were analyzed with statistical software called IBM SPSS, provided data showing that, for example, 57% of participating students chose the course because they liked the area of study, which directly influences the posterior decision to abandon the course.

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Yes

Level for award
 (Hons, MSc,
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PhD

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