Fuzzy model as a tool for assessing the quality of postgraduate education in the light of the scenario constructed by Covid-19

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The COVID 19 generated a world crisis in several sectors. Among them, the educational field can be highlighted. The solution found was the remote learning in order to maintain the teaching regularity. COPPE/UFRJ was one of the institutions which adopted this measure so that the students could not only maintain their safety concerning the disease, but also to continue their postgraduate studies and research. The quality of life reflects the individual's historical, social and cultural moment [1]. One of the most desired aims amongst all public health politics considers the improvement of the life quality [2]. The pandemic has caused procrastination within all groups in terms of working activities as well as intellectual ones [3]. By analyzing the current scenario, this article presents an assessment of the remote learning quality regarding the perception of efficiency and how this change affected the students' quality of life within the intellectual dimension. With this in mind, the methodology used in the present article involved a qualitative and quantitative approach. In the first phase of the article, a bibliographical review was presented and it served as the theoretical foundation. In the second part, the quantitative approach was presented having as basis the *fuzzy* logic, with the use of the Mamdani method in the MATLAB program [4]. The *fuzzy* logic enables the analysis of dynamic models applied to reality. Therefore, it contributed to the assessment of the students' quality of life during the remote learning by means of collecting data from a questionnaire applied to students of the Production Engineering Program class at COPPE/UFRJ. The results showed that the teaching learning process needs to be improved in relation to the study material quality, teaching techniques and the development of the theory applied to practice. Despite the negative scenario provoked by the pandemic, the final value obtained by the defuzzification process, which was illustrated in Figure 1, considers that the teaching quality was ranked by the students as good, that is, it did not affect these student's quality of life.

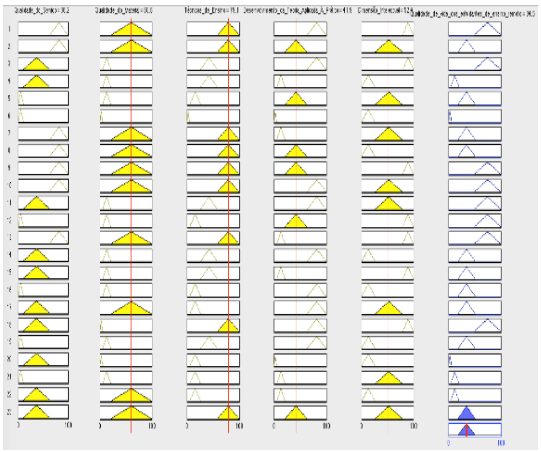

Figure 1. Result of the rules and defuzzification

Ultimately, it can be affirmed that, from the results achieved, this model can be considered a good assessment tool.

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