

STUDENTS' DIFFICULTIES IN BIOCHEMISTRY LEARNING ANALYZED THROUGH AN ON LINE ACADEMIC DROP-IN CENTER

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The biochemistry discipline integrates the curriculum of all graduation courses on the Biological Area and is a basis for other disciplines. The students' difficulties in this discipline are already widely recognized. To investigate these difficulties, we created a drop-in on line service that has two purposes: (1) To give support to students' learning by answering their questions and solving their problems whenever they appear and (2) to analyze the questions presented, as a strategy to diagnose the most prevalent difficulties. After two semesters of this service on line, 217 questions were received and answered. There were few conceptual questions being the majority related to problems and exercises. The most frequent questions dealt with cell metabolism (54,4%), mainly lipid metabolism and aerobic metabolism; basic concepts (11,5%) such as about amino acids and buffer, protein structure (8,3%) and enzymes (7,8%). These percentages are correlated to the number of hours dedicated to each subjects in the disciplines. The main-difficulties founded were: integration of metabolic processes in different tissues, induction of energy reserve oxidation, reciprocal regulation between glycolysis and gluconeogenesis. We suppose that the lack of laboratory practice difficults the learning of basic concepts. A more in-deep analysis will be necessary to investigate the causes of the pointed difficulties.

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Key words: biochemistry education, drop-in on line, learning difficulties.