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Assessing the Role of General Chemistry Learning in Higher Education

Margarida Figueiredo[a], José Neves[b,*], Guida Gomes[c] and HenriqueVicente[b,d]

aDepartamento de Química, Centro de Investigação em Educação e Psicologia, Escola de Ciências e Tecnologia, Universidade de Évora, 7000-671 Évora, Portugal
bCentro Algoritmi, Universidade do Minho, 4710-057 Braga, Portugal
cDepartamento de Informática, Universidade do Minho, 4710-057 Braga, Portugal
dDepartamento de Química, Escola de Ciências e Tecnologia, Universidade de Évora, 7000-671 Évora, Portugal

Abstract

The inclusion of General Chemistry (GC) in the curricula of higher education courses in science and technology aims, on the one hand, to develop students' skills necessary for further studies and, on the other hand, to respond to the need of endowing future professionals of knowledge to analyze and solve multidisciplinary problems in a sustainable way. The participation of students in the evaluation of the role played by the GC in their training is crucial, and the analysis of the results can be an essential tool to increase success in the education of students and improving practices in various professions. Undeniably, this work will be focused on the development of an intelligent system to assess the role of GC. The computational framework is built on top of a Logic Programming approach to Knowledge Representation and Reasoning, complemented with a problem solving methodology moored on Artificial Neural Networks. The results so far obtained show that the proposed model stands for a good start, being its overall accuracy higher than 95%.

* Corresponding author. Tel.: +351-934201337; fax: +351-253604471.
 E-mail address: jneves@di.uminho.pt