

“BIOINFORMÁTICA NA SALA DE AULA”: WEBPAGE TO BOOST BIOINFORMATICS IN THE CLASSROOM

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RESUMO

Introduction: Bioinformatics has already proved to be a powerful didactic resource. Biology teachers' self-reflections about the reasons preventing them to integrate bioinformatics in educational practices reveal: the need of training, the lack of time and the scarce offer of resources in Portuguese. This study describes the design of the webpage “Bioinformática na Sala de Aula” aimed to scaffold teachers to integrate bioinformatics in their practices by meeting their reported needs.

Methodology: The webpage was designed taking into account the main constrains identified by teachers and focusing on scientific topics in which students' misconceptions were previously diagnosed. In this regard, activities' guidelines for teachers and students, Power Point presentations for teachers, supplementary information, tips and a discussion forum were developed and are available. The webpage has been continuously updated, in order to answer teachers' requests, and spread by partners such as Casa das Ciências.

Discussion: “Bioinformática na Sala de Aula” is a portfolio of resources validated as suitable didactic instruments and ready to be used in the classroom, saving teachers' time – activities handouts are in Portuguese and the topics approached are framed according to the Portuguese science curricula. The webpage is also a repositiorium of genomics and bioinformatics-related information for teachers, being a complete source of information. Communication channels between experts on bioinformatics for schools and teachers are also provided in the webpage for teachers to feel continuously supported. In the future, we expect to address the impact that the webpage has been having in promoting bioinformatics-based learning.

Palavras-chave

bioinformatics; curricula; self-reflection; training; webpage