



"Farmaling": Implementación y adaptación de una plataforma virtual de simulación para la docencia de Biología Molecular y Biotecnología [

2023

text (article)

Analítica

After a period of unprecedented changes in worldwide education, both schools and universities have adopted distance and virtual teaching methods, forcing the tools that educators use for their courses to evolve. Present and future global crises require advanced scientific solutions, so preparing students for scientific and technical careers has never been more important. Tools that offer simple and virtual solutions with few requirements (an email address and internet connection) are essential for teachers to effectively communicate their knowledge and experience to their students. This study implements a virtual platform for Molecular Biology and Biotechnology (www.benchling.com) as a didactic tool, focusing students learning on problem solving and collaboration. This cloud-based platform is used to design, record, and analyze experiments. Adapted as a virtual learning tool, it can help emulate the scientific process without being in the laboratory, allowing the student to become familiar with each step of an experiment, from the initial design to data analysis and documentation of the process in electronic notebooks. While virtual solutions are not a substitute for hands-on experience in the lab, the familiarity with the experimental process that these platforms bring has key benefits that extend well beyond the classroom. Its use facilitates homogeneous access to materials and information, facilitates asynchronous learning, teamwork, reduces the risk of exposure to hazardous substances in the laboratory to students without previous experience, it offers abundant opportunities for exploratory learning, and provides a set of transferable skills for the student's next professional or academic steps. f

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Editorial: 2023

Tipo Audiovisual: farmaling biología molecular biotecnología innovación plataforma virtual divulgación farmaling molecular biology biotechnology innovation cloud-based platform divulgation

Documento fuente: RESCIFAR Revista Española de Ciencias Farmacéuticas, ISSN 2660-6356, null 4, N°. 1, 2023, pags. 95-106

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Lengua: Spanish

Enlace a fuente de información: RESCIFAR Revista Española de Ciencias Farmacéuticas, ISSN 2660-6356, null 4, N°. 1, 2023, pags. 95-106

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