

Extract of the paper “Thermography as a method of acquiring competences in Physiology. Application case for hand blood flow control”

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Abstract

The present work proposes a methodological structure as part of the learning of the circulatory system. For this, the application of thermal stress is used, by immersing the hands in cold water to visualize the reperfusion of the hands. Learning, based on the visualization and analysis of thermographic images, allows the acquisition of specific competences at the university level. In graduate studies such as physiotherapy and nursing, the use of virtual tools and materials that allow the acquisition of skills and technical knowledge is essential for the job performance of future professionals. The application of this methodology is proposed in practical sessions of subjects in the area of knowledge of Physiology, to demonstrate and facilitate the understanding of the circulatory system. This approach is framed within the discipline of virtual laboratories since the virtual materials generated can be used for the acquisition of skills and practical competencies, as well as for the evaluation of competencies in e-learning courses. In this way, by recording a pedagogical video that shows a short practice, 5 minutes long, it is possible to establish the necessary knowledge bases to expand them later. This material is easily implementable in any learning management system.

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Keywords

Educational innovation; ICT; E-Learning; Engineering; Thermography; Circulatory physiology

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