COMPARATIVA DE RECURSOS INTERACTIVOS PARA EL APRENDIZAJE DE UN CIRCUITO ELÉCTRICO

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RESUMEN

El estudio compara recursos interactivos utilizados en la enseñanza de circuitos eléctricos, como el físico y el electrónico (1). Se analizan las características, ventajas y desventajas de cada recurso, con el objetivo de identificar cuál es más efectivo para el aprendizaje de los estudiantes en este campo (2). Se busca evaluar la efectividad de diferentes recursos interactivos, como simuladores virtuales, aplicaciones móviles y vídeos educativos, en el proceso de aprendizaje de circuitos eléctricos. Se examinarán aspectos como la usabilidad, la interactividad, la claridad de la información proporcionada y la capacidad para facilitar la comprensión de conceptos complejos. Se llevará a cabo una revisión exhaustiva de la literatura relacionada con el tema, así como también se realizarán pruebas con estudiantes de diversos niveles educativos para recopilar datos cuantitativos sobre la efectividad de cada recurso. El análisis de los resultados permitirá identificar las fortalezas y debilidades de cada recurso, así como también determinar cuál o cuáles son los más adecuados para mejorar el aprendizaje de circuitos eléctricos en diferentes contextos educativos. Los hallazgos de este estudio proporcionarán a educadores, diseñadores de materiales educativos y desarrolladores de tecnología educativa información valiosa para seleccionar y diseñar recursos interactivos más efectivos y adaptados a las necesidades de los estudiantes en el campo de los circuitos eléctricos. Además, contribuirá al avance en la investigación sobre el uso de la tecnología en la enseñanza y el aprendizaje de la ingeniería eléctrica y la electrónica.

Palabras clave: Aplicaciones, Tecnología, Ingeniería, Electrónica, Educativo

ABSTRACT

The study compares interactive resources used in the teaching of electrical circuits, such as physical and electronic circuits (1). The characteristics, advantages and disadvantages of each resource are analyzed, with the aim of identifying which one is more effective for student learning in this field (2). The aim is to evaluate the effectiveness of different interactive resources, such as virtual simulators, mobile applications and educational videos, in the process of learning electrical circuits. Aspects such as usability, interactivity, clarity of the information provided, and the ability to facilitate the understanding of complex concepts will be examined. A comprehensive review of the literature related to the topic will be conducted, as well as tests will be conducted with students of various educational levels to collect quantitative data on the effectiveness of each resource. The analysis of the results will make it possible to identify the strengths and weaknesses of each resource, as well as to determine which one or which are the most suitable to improve the learning of electrical circuits in different educational contexts. The findings of this study will provide educators, educational material designers, and educational technology developers with valuable information to select and design more effective interactive resources tailored to the needs of students in the field of electrical circuits. In addition, it will contribute to the advancement of research on the use of technology in the teaching and learning of electrical and electronic engineering.

KeyWords: Applications, Technology, Engineering, Electronic, Educational.

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