

Improving spatial abilities and comprehension in Technical Drawing students through the use of innovative activities and augmented reality.

Abstract

Spatial abilities are essential not only for engineers but for those in many other professions such as medicine, archaeology and architecture. It has proven possible to improve these skills using sports or video games. An engineer must be capable of expressing ideas and understanding drawings, and for this, technical drawing and these abilities are an essential part of the learning process at the university.

Courses such as Graphic Expression aim to help the student to have better spatial skills. However, this is not always an easy task. Many engineering students do not have the experience and knowledge when they begin their studies, and so they face a number of difficulties in understanding lessons that are of a higher level. The study we are presenting proposes a series of innovative exercises that include augmented reality to help students develop their skills and improve their understanding. These exercises could be applied in the future to other age ranges and subjects such as mechanics.

Keywords: Graphic expression, engineering, teaching, augmented reality

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