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Learning Sustainable Development using Game Based Virtual Reality

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Abstract

Education for sustainable development (ESD) is one of the key UN development strategies, which aims to encourage countries integrate its teaching and learning in their curricula, since it promotes competencies like “critical thinking, imagining future scenarios and making decisions in a collaborative way” [1]. To ensure that students benefit from this education, there is general consensus that teaching methods need to focus on collaborative [2] and experiential learning [3]. This can be challenging to achieve during a pandemic, or in countries with transitional economies [4]. Since Glasgow has received global recognition as a sustainable city and will be the host city for the COP26 event, we aim to showcase our innovative approach in teaching solar energy systems design using a game-based virtual reality approach. Our approach enables students to immerse themselves in a collaborative and virtual environment, which is safe for both the students and their teachers. By creating this virtual environment, teachers can also ensure that students focus on the topic at hand and avoid unnecessary distractions.

References:

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