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THE EFFECTS OF USING MINECRAFT TO TEACH CHILDREN ABOUT SPACE

Abstract

The environment in outer space is very different from the environment on Earth. It is, therefore, necessary to train beforehand in order to operate in space. Special machines and simulators are needed to do this, and they are very expensive. Space training is therefore out of reach for children like us. The hurdles are so high that it is difficult to get such children interested and keep them interested. Therefore, we tested whether the sandbox game "Minecraft" (Mojang Synergies AB) could solve this problem. First, we conducted a test and questionnaire survey about knowledge and interest in space, asking participants to play Minecraft with modifications leading to space experiences. Then, the participants were re-tested to evaluate Minecraft's effectiveness. Minecraft's virtual space is low-cost and can be experienced and cultivated by anyone, including children. It can also be linked to VR to provide a more realistic experience. It is believed that training children from an early age can improve their knowledge and skills. Making children feel closer to space can also increase the number of people interested in working in space in the future. Besides, the created world (in Minecraft) can be accessed from all over the world, and children across the globe can collaborate to create something. In this paper, we will introduce actual cases and effects. In the future, we also plan to further investigate the possibility of space development training in teams led by children.