Education and technology are interconnected and are a significant part of modern life. Using technology in education makes learning and teaching more meaningful, advanced, and future-oriented. VR is an educational method increasingly used to enrich the learning process and enhance students’ interest and concentration by adding experiences that were not previously possible in education. Moreover, VR allows students to experiment with virtual tools in a hands-on fashion.[[1]](#footnote-1)

There are many accounts of students who, when learning with an empathetic teacher supportive of their progress in a constructive manner, successfully absorb knowledge related to their fields of study. However, in the VR domain there has been only scant research to date. An in-depth pedagogical examination of cases where teachers have created educational VR innovations is necessary. The current research seeks to fill this gap.

VR enables teachers, lecturers, and educators to deliver complex information in a visually attractive way. It is widely accepted that many students find it easier to learn when presented with the material visually, and that this method makes it easier for them to retain and recall information. Chen asserts that:

although VR is recognized as an impressive learning tool, there are still many issues that need further investigation, including identifying the appropriate theories and/or models to guide its design and development, investigating how its attributes are able to support learning, finding out whether its use can improve the intended performance and understanding, investigating ways to reach more effective learning when using this technology, and investigating its impact on learners with different aptitudes.[[2]](#footnote-2)

Her research provides insight into a theoretical instructional design framework, as well as an educational development framework for VR-based learning environments.[[3]](#footnote-3)

Pantelidis suggests that VR motivates students.[[4]](#footnote-4) The technology requires interaction and encourages active, rather than passive, participation. Some types of VR encourage or require collaboration and provide the social atmosphere to support it, such as using text input to communicate with other users in virtual worlds. VR enables the user to have a prolonged experience at their own pace, without the constraints of a traditionally scheduled classroom environment. It allows disabled people to participate in previously inaccessible learning environments, and it transcends language barriers. VR transcends language barriers and provides equal opportunity by enabling text-based communication with students of other cultures, even allowing users to role-play ‘within’ the world of the other.

1. Hee-Sook Ahn and Yoo-Mi Choi, “Development of Creative Writing Educational Contents Using Augmented Reality: Focusing on Story-retelling,” *Advanced Science and Technology Letters,* vol. 129 (2016): 213-218, Mechanical Engineering. [↑](#footnote-ref-1)
2. C. J. Chen, “The Design, Development and Evaluation of a Virtual Reality Based Learning Environment,” *Australasian Journal of Educational Technology*, vol. 22, no.1 (2006): 39-63. [↑](#footnote-ref-2)
3. Ibid., 39. [↑](#footnote-ref-3)
4. Veronica S. Pantelidis, “Reasons to Use Virtual Reality in Education and Training Courses and a Model to Determine When to Use Virtual Reality”, *Themes in Science and Technology Education*, vol. 2, no. 1-2. [↑](#footnote-ref-4)