Virtual Reality: A New Design Methodology For Students

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Abstract: *Virtual Reality (VR) refers to as technology which is combination of virtual objects and real–world objects in environments, these technologieswill provide good and better platform to students for their better future studies than the manual material. The purpose of the studies is to accelerate learning and understanding of concepts of VR and 3D models. Due to the nature of various learning styles many students need to interact with 3D scenes to enhance various visualization skills.*

Keywords: *Virtual Reality (VR), Mobile learning, 3D spatial visualization, audio visual, learning styles.*

I.   Introduction:

VR is a technology which has combination of virtual objects and real world environments. VR used as an assistive system for preformation human tasks.The goal is to design students with new design methodologies driven byVR to best identify and frame problems to be solved, understand the context and situation and the right design solutions in a highly technology and evermore complex world.

Virtual Reality study investigates using VR to increase 3D spatial visualization skills for both online and face to face teaching of students demand. Each and everyone have their own learning styles:

II.   Learning Methodology:

VR and M-learning (Mobile learning) for students include visual and real world contexts, rather than by verbal information for good learning process. Interaction between teachers and students, real world problems and making their own decisions about learning gives architectural students the most satisfaction with virtual learning and M-Learning.

Learning style: Learningis a development of construction learning happens through social consultations of meaning, learning are occupied with authentic contexts. Visual learning and M-learning has been involving creativity and spontaneity learning.

Learning styles are classified into various categories:visual, physical, aural, verbal, logical, social, and solitary. The visual category, individuals use images, pictures, color and diagrams to learn. The physical category individuals learn by doing and performing practically. Aural category use sound to learn, recordings, rhythms and music. The verbal category, individuals use words to learn, reading aloud, speech and writing. The logical category individuals use logic and reasoning to comprehend a concept. Social these individuals learn best in groups and enjoy working with others. The solitary category includes individuals that enjoy working and learning alone. A student uses various learning style as they are comfortable in learning in their own style.

The 'Black–board' system of education is still used in many area of education. This traditional system, it is not efficient for learning for students. So, now a days Virtual learning and M-learning are various method used for learning students in classrooms as a tool to teach, it accelerates learning because it is an audio-visual method of learning. It is a basic methodology of human brain to absorb audio visual information more than textual information.

III.   Objective

The main objective of Virtual reality is to give an opportunity to students to experience as a design of research method and methodology in order to match the level of empathy developed by the researcher, in which the different types of media used for virtual reality. Empathy is related to the core of human centred design and thinking of design.

In Virtual reality (VR) various types of 3D objects are displayed in the real world .Head Mounted displays and 3D goggles etc. are some examples of virtual reality. The effect of virtual reality was also seen in pre-school /kindergarten children also enjoy the visual audio effect rather than the manual material. Flashcards with pictures and images were created. This application displays corresponding animals over the flashcards

when viewed by the camera of a handheld device. The application allows the simulation and interaction with 3D virtual animals. These cards contained static images of animals which started to move when seen through the camera on the device. Asresult children were responding to these types of device to enjoy their games. It has been oversee that now a days students or said to be young generation are moving towards video games.

The research methodology is a combination of quantitative and qualitative methods. As the result researchers has seen that their VR based application fostered more collaboration in the students and efficiency due to their experience with technology. The researcher proposes new emerging technologies, such as VR, and augmented reality (AR) as asupportive tool for creating and designing for the users environments people are designing.As a result that many schools, college and universities have to change the way they work had teach in order to fit with this technology and also need to use of digital technology for better development of students in future.

IV. Conclusions

The main advantage of virtual learning environment that students are more comfortable with the visual learning and M-learning and audio visual method will improve more aspects of learning technology with the easier manner and methodology used to increase their spatial visualization skills.

The Literature review and the results of this research study support the following methods of teaching visual and 3D display .Use of VR and M-learning styles to help students with an incorporated instructional method that address modality learning styles when teaching various visualization methods. The researcher has proven that its hypothesis, the VRof 3D spatial visualization and skills of students for online and face to face need to interact with 3D scenes to enhance visualization. Thestudent'srealise that Virtual reality provide them better understanding of their project than physical model or manual reading. Our aim is to help students for developing better 3D systems user manuals and interactive materials that will be efficient learning and training for students.

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