Sanal Dünyalarda Kullanılan Öğretim Stratejileri, Yöntemleri ve Teknikleri

Instructional Strategies, Methods and Techniques in Virtual Worlds

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EXTENDED SUMMARY

Purpose and Significance: To increase the effectiveness and efficiency of education in virtual worlds, it is important to know how instructional strategies, methods and techniques might be included into teaching-learning process. In this literature review study, instructional strategies, methods and techniques used in in teaching and learning process in virtual worlds and in which discipline and topics those eduation are being given in those environments were investigated. Thus, with this study, the educators who want to use virtual worlds for educational purposes, will be acknowledged about the basics of how and for what they might use the instructional strategies, methods and techniques in virtual worlds.

Method: In this study, document analysis which is a qualitative research method was conducted. At first glance 829 articles were obtained with "virtual worlds", "education" search. Among those, 55 experimental studies of which have a clear information and details of instructional methods and techniques used, were found to be suitable to this study. Data collection tool was a classification form about teaching strategies, methods, and techniques that was developed by the researchers. Documents used in this study were analyzed by content analysis method.

Results: Results showed that "discovery based learning" was the most used instructional strategy with the ratio of 38.8%. Research-Analysis with 35.3%, presentation with 25.9% were the following instructional strategies namely. Among the methods, lecture based method were being used with 24.7%. This method was especially used at the start of the courses, in introduction of the learning environment and as advance organizer of the content. The following instructional method was case based learning with 21.3%. "Demonstration" was the most popular instructional technique (23.9%) while the collaboration (21.7) was the second among the instructional techniques used in virtual worlds. Considering the fields which used virtual worlds medical education (18.2%) and information technologies (12.7%) were the most frequent ones.

Discussion and Conclusions: Virtual worlds provide a constructivist learning environments. Although there are various types of instructional strategies have been used virtual worlds, discovery learning is the most popular one among them. The structure of virtual worlds is suitable to discover knowledge and make synthesis. This fantastic world provides to create objects, locate information and visuals, and a social environment. Therefore, methods based on discovery learning are easy to be developed. On the other hand, lecture based methods are also used frequently in virtual worlds. Since, lectures are frequently used to introduce the virtual world and give basic information about the available and previous content, this ratio is higher than the other methods. Virtual worlds allow to develop learning environments for all kind of learning fields while medical education has the highest ratio. This might be caused from the requirement and importance of 3D visuals in medical education.