World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences Vol:18, No:12, 2024

Empowering Learners: From Augmented Reality to Shared Leadership

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Abstract: In early childhood and preschool education, play has an important role in learning and cognitive processes. In the context of a changing world, personal autonomy and the use of technology are becoming increasingly important for the development of a wide range of learner competencies. By integrating technology into learning environments, the educational reality is changed, promoting unusual learning experiences for children through play-based activities. Alongside this, teachers are challenged to develop encouragement and motivation strategies that empower children to act independently. The aim of the study was to reveal the changes in the roles and experiences of teachers in the application of AR technology for the enrichment of the learning process. A quantitative research approach was used to conduct the study. The data was collected through an electronic questionnaire. Participants: 319 teachers of 5-6-year-old children using AR technology tools in their educational process. Methods of data analysis: Cronbach alpha, descriptive statistical analysis, normal distribution analysis, correlation analysis, regression analysis (SPSS software). Results. The results of the study show a significant relationship between children's learning and the educational process modeled by the teacher. The strongest predictor of child learning was found to be related to the role of the educator. Other predictors, such as pedagogical strategies, the concept of AR technology, and areas of children's education, have no significant relationship with child learning. The role of the educator was found to be a strong determinant of the child's learning process. Conclusions. The greatest potential for integrating AR technology into the teaching-learning process is revealed in collaborative learning. Teachers identified that when integrating AR technology into the educational process, they encourage children to learn from each other, develop problem-solving skills, and create inclusive learning contexts. A significant relationship has emerged - how the changing role of the teacher relates to the child's learning style and the aspiration for personal leadership and responsibility for their learning. Teachers identified the following key roles: observer of the learning process, proactive moderator, and creator of the educational context. All these roles enable the learner to become an autonomous and active participant in the learning process. This provides a better understanding and explanation of why it becomes crucial to empower the learner to experiment, explore, discover, actively create, and foster collaborative learning in the design and implementation of the educational content, also for teachers to integrate AR technologies and the application of the principles of shared leadership. No statistically significant relationship was found between the understanding of the definition of AR technology and the teacher's choice of role in the learning process. However, teachers reported that their understanding of the definition of AR technology influences their choice of role, which has an impact on children's learning.

Keywords: teacher, learner, augmented reality, collaboration, shared leadership, preschool education

Conference Title: ICES 2024: International Conference on Educational Sciences

Conference Location : Auckland, New Zealand **Conference Dates :** December 02-03, 2024