

Methodologies and Intelligent Systems for Technology Enhanced Learning

This volume presents recent research on Methodologies and Intelligent Systems for Technology Enhanced Learning. It contains the contributions of MIS4TEL 2015, which took place in Salamanca, Spain, On June 3rd to 5th 2015.

Like the previous edition, this proceedings and the conference is an open forum for discussing intelligent systems for Technology Enhanced Learning and empirical methodologies for their design or evaluation

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Methodologies and Intelligent Systems for Technology Enhanced Learning

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In terms of anxiety, given the reduced number of patients, we could not find a statistically significant difference between patients that read and didn't read the educational material. However, given the reduced number of enrolled patients and the p-value close to the significance, we can still consider the result as encouraging.

Our future work will focus on improving the app usability according to the evaluation results and extending the experiment regarding anxiety by enrolling a larger sample of patients.

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Influence of Gaming Activities on Cognitive Performances

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Abstract. Playing games is an important voluntary activity that promotes cognitive, social and emotional development. In addition to traditional games, the advent of new technologies has favored an explosion of computer games, very popular among children. Against this background, the authors report their investigation regarding the effect of gaming activities on the cognitive performances of 7–11 years old children. The aim of the research was to analyze if both computer and traditional games had a positive influence on cognitive performance in childhood. 67 students participated in the study. The BNYN 5–11 neuro-psychological test battery and an experimental questionnaire to detect the using habits of boards and technological games were used. Our findings highlighted that both the traditional and technological stimulation resulted effective in improving the cognitive performances of children.

Keywords: Cognitive performances, board games, technological instruments.

1 Introduction

Playing games is an important voluntary activity that promotes cognitive, social and emotional development. It is intrinsically motivating and it represents a powerful mediator for learning throughout a person's life [10]. At school, playing games helps students adjust to its environment, thereby fostering engagement, and enhances children's learning readiness, learning behaviors, and problem-solving skills [7]. However, the characteristics of playful activities changed in the last decade, becoming increasingly complex. More precisely, the advent of new technologies has favored an explosion of computer games, which are extremely appealing to children and adolescents. Considering the educational function of playing games [9], the fast diffusion of computer technology has also proposed many changes in the field of learning [1]. Indeed, nowadays, computer is a supportive cognitive tool for learning, to achieve specific pedagogical goals [12]. On the other hand, the design of technological tools has become a source of study for educational researchers and instructional designers investigating how various aspects of game design may support cognitive performances. For example, it is observed that adventure games encourage inferential and proactive thinking [8]. Some studies also suggest that computer game training enhances cognitive performance on tasks other