

Guest Editorial Preface

Special Issue on Interaction Design in Educational Environments: Augmented Teaching by Technology, Part 2

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This Special Issue includes extended versions of some of the papers presented in the 4th Workshop on Interaction Design in Educational Environments, which was held in Albacete in 2016. Educational environments have been improving while new technologies have arrived to the market.

Novel technologies and applications provide educators with new methodologies and tools that allow them to introduce effectively new educative activities in the classroom. Therefore, improving the user interaction is one of the aspects that can increase the student's performance inside of the learning process.

The next paragraphs outline the articles included in this special issue, which has a special focus on presenting educational environments that have been enriched with technology.

Stamatios Papadakis, in his article entitled “Is pair programming more effective than solo programming for secondary education novice programmers? A case study”, shows that pair programming is more efficient than the solo programming, both on facilitating and supporting students' learning and understanding of basic programming concepts, as well as on improving students' attitudes toward programming.

The article “Interactivity Technologies to Improve the Learning in Classrooms through the Cloud”, by Habib M. Fardoun et al., presents a system aimed to eliminate the technical limitations to facilitate communication and a real learning process by monitoring and evaluating the students and teachers.

Nicholas Zaranis and George M. Exarchakos present a study that shows that teaching and learning through ICT has a positive effect on learning solid geometry concepts, in an article entitled “How ICT Affects the Understanding of Stereometry among University Students”.

In the article “Comparing the effectiveness of using ICT for teaching geometrical shapes in kindergarten and the first grade”, Nicholas Zaranis investigates if information and communications technology (ICT) helps to improve first grade and kindergarten students' basic geometry achievement.

Stylianios Mystakidis and Eleni Berki present the article “The Case of Literacy Motivation: Playful 3D Immersive Learning Environments and Problem-Focused Education for Blended Digital Storytelling”, which shows the pedagogical design used and presents the socio-technical development.

José-Manuel Sáez-López et al., in the article “Interactive Videoconferencing in Educational Settings: A Case in Primary Education”, analyze the use of interactive videoconferencing in classroom practice.

Mário Melo and Guilhermina Lobato describe the principles and features of the instructional model that is suitability for the teaching and learning of complex knowledge and skills, in their article entitled “The effects of 4C-ID model approach on acquisition and transfer of knowledge about electric circuits”.

All the articles in this Special Issue present a step forward in the application of novel technologies and tools in educational environments. Both authors and editors hope the different contributions presented in this Special Issue can be useful in the improvement of the user interaction in educational environments.

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Guest Editors

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