Guest Editor's Introduction

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Traditionally, e-learning was interpreted as a set of activities in virtual environments. Twenty years after appearing the use of e-contexts, hypermedia tools had been used in different ways and many researches were conducted in the field. In this issue the papers revisted a set of examples of such a variety of perspectives in which the authors use virtual environments in mathematics education.

In some papers, the construction of mathematical knowledge is analyzed in preservice or in service teacher training. Questions are raised about how e-screens could alter what we mean by learning mathematics, reflecting about hyperlearning. In other papers, building knowledge is the main aim. Among others, virtual environments were studied as teaching activities. Through online interaction (synchronous and asynchronous), apprentices (teachers, researchers and trainers) can build knowledge from a wide range of meaning that emerges from personal and contextual interaction, progressive inquiry, with different aims and discursive aspects, and ultimately makes practice more flexible and changeable. In such a framework, community of practice, reflection and inquiry are fundamental constructs to describe teaching learning improvements.

In all articles, theoretical frameworks and case studies were revisted and semantic analysis of written e-texts is the main methodology used to analyze the implications of online materials, interactions and activities.

To complete this issue, there are three papers that describe important aspects about the learning and technology. The article by Hodgen and Maureen's describes the mobile technology like the opportunity to learn; the second reaserch of Gaby Aguilar and Kenji Kaijir, explores the adaptative system and provides a new answer to challenges and complexity of assesment; the last research, by Montse Tesauro and Juan Puigalí, explores the outcome of learning with enviroment with technology.