**CALL FOR ARTICLES: ISSUE QWERTY, VOL 13, 1 – 2018**

**"Enhancing Multi-sensory and Handling-based Psycho-pedagogical Approaches Through New Technologies"**

**Scope**: the theme of this special issue is how technology can renew and enhance traditional psycho-pedagogical approaches, based on tangible educational materials. The aim is to collect interesting and innovative contributions about theoretical, methodological and applied aspects of ICT to promote learning, especially in children within the framework of Embodied and Situated Cognition.

**Guest Editors**: Michela Ponticorvo and Orazio Miglino (University of Naples “Federico II”)

Cognitive science has shown that human experiences are grounded in the body. This suggests that embodied experiences, involving the five senses and an active exploration of the environment, are crucial for learning. From this starting point, it is derived that learning and teaching are not merely cognitive challenges, but involve the whole body.

In worldwide primary school/formal learning context, widespread learning materials comply with this principle; consider as an example educational materials that come from the Montessori tradition or the Logic Block Box by Dienes. They are indeed effective and well accepted by teachers and children.

This wide variety of materials, manipulatives, favour active exploration and try to stimulate all children potentialities, fostering embodied learning and promoting a multi-sensorial experience. These materials include logic blocks, cards, teaching tiles, etc.

The outstanding spreading of ICT, mobile technologies and social media has affected all the fields of human interactions, including education. ICT technologies (cloud, adaptive tutoring systems, learning analytics, etc.) and the latest paradigms of human-computer interaction (touch-screen technology, RFID/NFC sensors, handwriting and speech recognition) can renew psycho-pedagogical practices which enhance curricular activities and facilitate skills and knowledge acquisition processes for children.

On the computer science side, human-computer interaction studies are developing innovative new interfaces where embodied and interactive learning can be implemented: manipulatives have become tangible user interfaces TUI (Ishii, 2008) for education.

Digital, augmented, virtual version of manipulatives have been proposed: Resnick and colleagues (1998) developed a new generation of digital manipulatives, computationally-enhanced versions of traditional children's toys which enable children to explore a new set of concepts, namely blocks, beads, balls, and badges. Zuckerman and colleagues (2005) proposed a computationally enhanced versions of manipulatives, derived from Montessori materials, in the form of enhanced building blocks: physical, modular interactive systems that serve as general-purpose modelling and simulation tools for dynamic behaviour.

From this perspective, Ponticorvo et al. (2017) suggest the use of digital technology to put together tangibles with traditional books, enriching both materials and making them a powerful tool. In other words, traditional materials become multi-sensory and handling-based materials.

Despite the dynamic scenario outlined above, relatively little study has been undertaken into how new technologies can transform traditional educational materials, which challenges arise, how different educational models and practice accommodate new technologies, how digital and physical materials can overcome the drawbacks of both, what effects technology produce on theoretical level etc.

Questions that might be addressed in this special issue could be (but are not limited to):

* How educational models are challenged by new technologies?
* How is technology reshaping learning environments?
* What methodological approaches can be adopted to understand the effect of technology on learning?
* How digital and physical application can be designed to foster learning in children?
* How individual educational pathways can be re-thought in the framework of digital and physical applications?
* What methodological models and tools can be used to assess learning in these new educational contexts?
* What kinds of psycho-pedagogical innovations can emerge from the integration of technologies and traditional practices?
* How can school learning be productively integrated within informal contexts by the means of technology?

All papers received will be blind-reviewed. We accept contributions in English.

Instructions for submitting an article can be found at the following web address  
<http://www.ckbg.org/qwerty/index.php/qwerty/about/submissions#onlineSubmissions>  
The articles must be written respecting the APA norms available at:  
<http://www.apastyle.org/>  
For information or requests, please contact: qwerty.ckbg@gmail.com

**Important dates:**  
• October 30th, 2017: submission of the papers  
• December 20th, 2017: notification of article acceptance (with any requested change)

**•** February 15th, 2018: final article due

• June, 2018: publication of the issue

|  |
| --- |
|  |