

## Manual for the use of Videogames and Apps in education

### Videogames for teachers: From research to action

#### **Chapter 9 - Gamification and self-directed learning: main strengths and challenges in the use of mobile Apps in education and permanent learning**

##### **Abstract:**

A major aspect of the new digital environment in which we live and in which the future evolution of educational sciences lies, is the radical change not only in the text used for teaching (the textbook that becomes an interactive text, of which videogame is currently the most complete form) but also in the context within which it is situated.

The network of books, which in the past represented this context (with libraries intended as places to explore and bibliographies considered as navigation tools, with all the critical and scientific apparatus related), becomes a network of hyper-textual and multimedia microcosms active in the cloud, intended as a widespread network of "suspending" knowledge.

The most important peripherals of this semiosphere are nowadays - and will increasingly be in the future - the mobile ones, which through various dedicated Apps have a direct, continuous, interactive and responsive access.

The main character of this new context is to consist of self-learning processes, which are focused on the learner-user rather than the author-teacher. This situation completely changes the traditional relationship between knowledge and learning; or - more precisely - between the moments of elaboration-archive-transmission of knowledge in the circular process of learning. This educational dynamic has many strengths but also many risk factors.

The challenge is to be able to manage its problematic aspects. In summary, it is necessary:

1. to proceed to the gamification - preferably mobile - of the contents, after having subdivided them into Learning Objects easily reusable according to the fundamental principles of the e-Learning;
2. to set up "universal" connection points between these Learning Objects, creating indexed paths of didactic contents (according to the different projects) usable as "maps" freely practicable in every direction;
3. to provide moments of internal verification, that gives access in succession - not necessarily linear - to the phases of the learning process, as it happens in the open screenplay of videogames.

This is of course effective not only in school but also in lifelong learning, and today there are already several effective reference models.



2017-1-ES01-KA203-038370



Co-funded by the  
Erasmus+ Programme  
of the European Union

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.