

Flipping the Classroom to Gain Time: A Pedagogical Innovative Model

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ABSTRACT

This article describes the European project GainTime developed in the educational field. The objectives of the project concern the development of professional and pedagogical competences among teachers and trainers. It intends to enhance learning through the use of Information and Communication Technologies and increase the access to Open Educational Resources (OER) with the aim to combine higher levels of excellence and attractiveness with increased opportunities for all. To attain the objectives, an online course that teaches teachers on how to innovate in their classroom, specially using flipped classroom and games supported on OER, will be developed. The target of the project is secondary education. In order to identify the best practices in Portugal concerning the use of flipped classroom and games as well as creative classroom, a questionnaire was administered and results are presented. Furthermore, the handbook regarding the master model developed as well as the online courses are also presented.

KEYWORDS

Development of Training Courses, Educational Methods, New Innovative Curricula, Open and Distance Learning, Pedagogy and Didactics

1. INTRODUCTION

More and more, the need to change the pedagogical educational approach is visible. A clear demand to learn throughout life is present in several European official documents. For instance, according to the document of the Thematic Working Group 'Teacher Professional Development' "Supporting Teacher Educators for better learning outcomes" (European Commission, 2013b) one of the most important goals for the EU is to encourage teachers to continue developing and extending their pedagogical competences throughout their careers because they can have a significant impact upon the quality of teaching and learning in school. This idea is also present in the document 'Opening Up Education' which underlines as one fundamental objective for Europe, to foster teachers' competences and methods for digital teaching, in order to support the development and the availability of Open Educational Resources (OER). In fact, OERs enable to connect classes through digital contents, but also to enhance the pedagogical competences of teachers with the purpose of modifying the role of the digital technologies in educational institutes (European Commission (DG EAC), 2013b). In

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the same document it is possible to read that 70% of teachers in EU acknowledge the importance of lifelong learning and of a specific training on the teaching and learning methods through digital instruments. Yet, only 20-25% of students have motivated and competent teachers at digital level and most of them use ICT mainly to prepare the didactic activities, instead of using it for working with students during lessons (European Commission, 2013b).

The EU lacks critical mass concerning didactic contents, digital methodologies and best practices in specific sectors. The risk for Europe is to lag behind other regions in the world, such as the USA and some Asian countries, where there are meaningful investments in strategies based on ICT so as to re-define education and training (European Commission (DG EAC), 2012). Schools in Europe need innovative teachers, able to improve their pedagogical competences, to carry out actions aimed at open up the learning contexts that combine direct and online lessons, in order to enhance the students' motivation and the effectiveness of learning (European Commission (DG EAC), 2013b).

One possible solution for this problem is, on one hand, to help these teachers to continuously learn and, on the other hand, to create the opportunity to help them to develop the necessary skills and offer them the tools and approaches that will allow them to become up to date and competitive in the learning environment.

In order to contribute to this discussion, a project is being carried on in Europe – GainTime - <http://gaintime.eu/project/>. This project responds to this urgency for Europe: to develop professional and pedagogical competences among teachers and trainers enhancing the Information and Communication Technologies (ICT) uptake in teaching and learning, through the support of learning and access to Open Educational Resources (OER) in the education and training fields with the aim of combining higher levels of excellence and attractiveness with increased opportunities for all. This project also wants to help teachers to revise and strengthen their professional profile and improve the attainment of young people, particularly those at risk of early school leaving and with low basic skills, developing a methodology focusing especially on the use of ICT. In line with the Communication from the Commission (European Commission (DG EAC), 2014) “Rethinking Education: Investing in skills for better socio-economic outcomes”, the project aims to develop, test and implement an innovative approach for teachers that promote the development, testing and implementation of innovative practices in the field of education. Another objective is to develop tools for the professional development of teachers using ICT tools, very effective for the management of creative classes.

In order to attain these objectives, the consortium of the project will promote the flipped classroom approach and will develop the necessary tools and methodologies to help teachers to develop the skills necessary to apply this methodology in their own classes. This flipped classroom is not a completely new methodology. In fact there are references to it in ancient Greece, with Socrates and Plato. It has also been used for a long time in the Humanities and Law (Berret, 2012). Although it is not new, it is not completely mastered by all teachers, specially using ICT. And there are still a lot of teachers that would like to use it but do not know how to apply it.

In this article, we present the flipped classroom methodology. We discuss its benefits and structure. Then we present the project, its objectives, expected results and what has been done so far in order to contribute to this discussion. In particular, we present results obtained with a questionnaire administered in Portugal to identify the best practices concerning the use of flipped classroom and games as well as creative classroom. We also describe the handbook regarding the master model developed as well as the online courses are also presented. The GainTime project is a good case of application of one particular educational approach in Europe, aiming to promote the educational success, lifelong learning among teachers and digital inclusion for the competitiveness in European society.

2. FLIPPED CLASSROOM MODEL

The formalization of flipped classroom as a pedagogical model happened in 2004 by Jonathan Bergmann and Aaron Sams, two Chemistry teachers who worked together at Woodland Park High

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