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FUTURE OF INITIAL TEACHER TRAINING LEARNING**

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# HIGHER EDUCATION PERSPECTIVES ON ETWINNING: THE FUTURE OF INITIAL TEACHER TRAINING LEARNING

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## Abstract

Teachers' collaboration networks in fostering Innovation and Communication Technology (ICT) are essential to promote 21st century skills. Teacher education forms part of the core mission of many universities and eTwinning can help accelerate this educational change needed in initial teacher training (ITT) reforms. eTwinning is part of the European Union's Erasmus+ programme, devoted to lifelong learning to promote collaboration between schools in Europe and enhance students' learning. This study discusses the perceptions of undergraduate and graduate college students about the impact of introducing eTwinning as a prospective pedagogical tool in ITT. Data for this study were collected via an online questionnaire distributed to 22 students actively participating in the eTwinning Teacher Training Pilot for Higher Education Institutions in Spain. Analysis of the responses revealed a number of beneficial effects on teachers training that facilitates constructive and successful collaborative learning. eTwinning participants experienced a greater motivation, improved academic achievement and language skills, and development of lifelong skills, such as cooperation and independent learning skills. The results suggest that eTwinning is a promising pedagogical tool in teacher training. The study concludes with a discussion of the challenges in the implementation with suggestions made for future research.

Keywords: eTwinning, teacher training, educational innovation, project-based learning.

## 1 INTRODUCTION

The educational platform eTwinning, originally designed in 2005 and introduced by the European Commission in the eLearning programme (2004-2006) as a tool for the development of technology literacy among teachers, has evolved into a massive community for schools in Europe. This fast-developing virtual environment has already produced over 55,774 projects involving over 437,543 teachers and 173,097 school centres [1]. It is a user-friendly, free, safe space in which teachers can locate colleagues from the European Union and other countries, namely Croatia, Iceland, Norway, Switzerland and Turkey, as well as other areas which can act as guest countries, to *twinn* their schools through the design and implementation of common projects for their students.

eTwinning participants, also known as *eTwinners*, report significant improvement in both motivation and academic achievement [2]. Besides, the voluntary nature of this cooperation naturally reserves its use for especially vocational and proactive educators and an estimated 95.2% participants willing to learn about technologies [3]. Accordingly, the confluences created through the online networks spread a good academic practice to a wide range of 21<sup>st</sup> century skills, ranging from those related to collaborative learning to the use of Innovation and Communication Technology (ICT). This helps the acceleration of school change and the evolution of educational systems through pedagogical innovation without a previously-planned theoretical orientation different from the identification of good practice [4]. Moreover, it promotes strategic alliances, partnerships, academic training, mobility and even job searching through the parallel *School Education Gateway* platform.

Due to all these beneficial effects, eTwinning training courses and seminars are becoming increasingly common among the different levels of non-university education, as its implementation for higher education studies has not been planned. As the lack of technological skills or the inexperience regarding task design and implementation prevent senior teachers from using the platform, instruction on its use in initial teacher training (ITT) seemed advisable for the consolidation of eTwinning in schools. Thus, younger teachers would be qualified users of the platform and would hopefully act as mentors, instructing their peers. Therefore, since the academic year 2012/2013, the European Commission has fostered this process in several higher education institutions in 15 out of the 37 countries of eTwinning, including the Universidad Rey Juan Carlos and Universidad de Castilla-La

Mancha in Spain, which include eTwinning as a component of their training for undergraduate degrees and Master's degrees in education programs.

## 1.1 Purpose of the Study

In order to evaluate the impact of the experience on the students of those institutions who received that training, a Likert scale-type online survey was conducted to measure their perceptions in terms of motivation, ICT skills, collaborative group skills, implementation and evaluation of real school practice and the derived sense of belonging and commitment to the educational community. All of these aspects are very much demanded in the European Higher Education Area (EHEA), so positive feedback from the students would be interpreted as a hint for the inclusion of eTwinning into ITT in Europe.

## 2 METHODOLOGY

### 2.1 Participants

A total of 22 students (3 males and 19 females) participated in the study. These students included prospective early childhood, elementary and high school teachers from institutions participating in the eTwinning Teacher Training Pilot for Higher Education Institutions in Spain during the academic year 2015 and 2016. The mean age for students participating in the study was 24.36 ( $SD= 6.58$ ).

### 2.2 Procedure

At the end of the eTwinning experience, participants were asked to contribute in the study by taking the online survey to assess overall perception of their eTwinning experience at the Universidad Rey Juan Carlos and the Universidad de Castilla-La Mancha. E-mail invitation messages were sent out to all students actively participating in the eTwinning Teacher Training Pilot, highlighting its purpose and benefits of the study. Participation and responses were completely voluntary and anonymous.

### 2.3 Instrument and Data Analysis

The instrument used for this study was a questionnaire designed by the primary investigators. This questionnaire was reviewed by a group of teachers' educators and then pilot tested. The final version of the survey instrument consists of 28 items that include demographic items and items included for forthcoming analyses. Scale items 6-25 were coded using a five-point Likert scale ranging from 'Strongly disagree' to 'Strongly agree'. For our analyses, 'Strongly disagree' was coded as 1, 'Disagree' as 2, 'Neutral' as 3, 'Agree' as 4, and 'Strongly agree' as 5. Descriptive statistics were calculated via means, standard deviations and percentages, using the Statistical Package for Social Sciences (SPSS 22.0).

## 3 RESULTS

Prospective educators' perceptions towards the eTwinning experience are presented in Table 1. Preliminary analysis of students' eTwinning experience suggests that eTwinning should be included in Initial Teacher Training Institutes (84.4%) since it improves participants' decision making skills (86.4%) and promotes cooperation and acquisition of key competences (81.8%). In fact, eTwinning participants experienced a greater motivation (90.9%) and considered eTwinning as a tool to increase teaching involvement and motivation (86.3%).

Generally speaking, an enriched students' academic improvement could be seen by most participants actively involved in eTwinning projects. Additionally, students showed significantly more positive attitudes towards independent learning skills. Participants believe eTwinning projects promote students' autonomous learning (72.7%) through intercultural collaborative work. In addition, data revealed a number of beneficial effects on prospective teachers training that facilitates constructive and successful collaborative learning.

Table 1. Descriptive statistics of prospective educators' responses.

Question items:	Mean (n=22)	SD (n=22)
6. <i>My eTwinning experience has reinforced my sense of belonging to the educational community.</i>	3.64	0.953
7. <i>My eTwinning experience has shown me real school practice.</i>	3.64	0.002
8. <i>I have experienced the potential of digital tools in the classroom.</i>	3.32	1.171
9. <i>My group decision-making skills have improved.</i>	3.18	0.795
10. <i>My leadership skills have been reinforced.</i>	3.32	0.839
11. <i>My preparation for project-based learning has improved.</i>	3.55	0.963
12. <i>The schedule for the project has been efficiently handled.</i>	3.41	0.854
13. <i>I am aware of the challenges posed by eTwinning projects and I know how to successfully face them.</i>	3.73	0.985
14. <i>I intend to develop eTwinning projects when I work as a teacher.</i>	3.91	0.684
15. <i>eTwinning is an advantageous tool for the multicultural classroom.</i>	4.18	0.588
16. <i>eTwinning reinforces the acquisition of key competences.</i>	3.95	0.575
17. <i>eTwinning fosters autonomous learning.</i>	3.86	0.640
18. <i>I have perceived great involvement among my peers / students.</i>	3.00	0.873
19. <i>I have been able to use my prior knowledge to design an eTwinning project.</i>	3.45	1.011
20. <i>I have improved my assessment techniques.</i>	3.23	1.020
21. <i>eTwinning projects can improve student motivation.</i>	4.14	0.560
22. <i>eTwinning projects can improve teacher motivation.</i>	4.05	0.722
23. <i>There is evidence that eTwinning projects lead to improvements in academic performance.</i>	3.50	0.913
24. <i>I believe eTwinning should be used at schools.</i>	4.14	0.640
25. <i>I believe the handling of eTwinning must be taught at Schools of Education.</i>	4.32	0.716

#### 4 CONCLUSION

The feedback from students was highly positive regarding the introduction of eTwinning as a pedagogical tool in prospective teachers training. Most participants believe that eTwinning should be integrated not only into higher education classrooms but also into K-12 classrooms. Although many different approaches can be taken to integrating eTwinning projects into the classroom, one must consider the challenges in its implementation. eTwinning may provide one viable option to place students and their activity at the center, but the role of educators must change by necessity [5]. To further improve the effectiveness of eTwinning projects, measures should be taken to use this promising pedagogical tool in most teacher training institutions and analyze its impact in the EHEA.

#### ACKNOWLEDGEMENTS

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