Advancing Collaborative Creativity in the context of Greek Teachers’ In-Service Training in Environmental Education

Maria Daskolia, Environmental Education Lab
University of Athens, Faculty of Philosophy, Pedagogy and Psychology
Panepistimiopolis, Illisia 15784, Greece
mdaskol@ceed.uoa.gr

Niki Lambropoulos, London South Bank University, 1 Dale Grove N12 8EE, London, UK
lampropn@lsbu.ac.uk

Panagiotis Kampylis, University of Jyväskylä, Scholar of the Greek State Scholarship Foundation,
P. O. Box 35, FIN– 40014, Jyväskylä, Finland
panagiotis.g.kampylis@jyu.fi

Abstract: This paper presents the research design of a case study aiming to enhance Greek environmental educators’ competence in collaborative creativity through online training. The study, which is part of an on-going research project, entails the design of an e-learning course, the development and evaluation of a collaborative creativity framework called *Hybrid Synergy* and an associated tool to support it, and the identification of specific patterns related to the participants’ engagement with the provided e-learning activities.

Introduction

The integration of Information and Communication Technologies (ICT) in education is now apparent in the collaborative social technologies that provide different media for communication, collaborative learning and training (Lambropoulos, Kampylis, Papadimitriou et al, 2008). According to UNESCO (2002), countries need to keep pace with technological development and the changing competencies reflected in the curriculum and teachers’ training. In this context, e-learning platforms have now widely been used to support teachers’ professional development on national and international levels.

In Environmental Education (EE), despite the fact that ICT are gradually recognised as important tools, and current trends indicate the need for more online EE learning environments (Liarakou & Gavrilakis, 2008; Daskolia, Kynigos & Gounari, 2008), opportunities for teachers’ online training are virtually very scant, especially in Greece. However, the challenge is not just to provide some e-learning possibilities for in-service teachers in EE, but to organise content, activities and learning environments, through the use of appropriate technological and pedagogical frameworks, in order to promote teachers’ thinking and practice required for educating students into an environmentally relevant and sustainable way of life.

*Collaboration* and *creativity* constitute, for example, integral processes of both individual and collective attempts to successfully address and resolve current environmental problems as well as to apply the aspired sustainability terms in everyday life. That is why they are regarded as core competencies to be developed in young people through EE (Flogaitis, 2006).

According to recent studies (Kampylis, Berki & Saariluoma, 2008; Dimos, 2006), Greek in-service and prospective teachers, consider EE among the school subjects that allow students to manifest their creative thinking, by acknowledging that it (i) promotes the students’ active engagement in their personal learning, (ii) makes extensive use of explorative learning frameworks and procedures, (iii) provides students with opportunities to get involved in meaningful activities, (iv) establishes a playful and encouraging learning atmosphere, (v) improves collaboration, and (vi) adopts interdisciplinary and multidisciplinary approaches to the study of environmental issues (Dimos, 2006). However, teachers feel not well-trained enough and quite bewildered on how to “teach” such competencies (Kampylis et al, 2008).

An overview of the study

The rationale for this study was anchored in the previous remarks. The study is part of an on-going research project being designed and conducted by the *Environmental Education Lab* (Faculty of Philosophy, Pedagogy and Psychology, University of Athens) which aims: (a) to explore the appropriateness and effectiveness of an online training course for Greek teachers involved in EE; (b) to employ collaborative creativity techniques specifically developed for their teaching practice in EE, and (c) to observe and analyse patterns of their new knowledge co-construction anchored in collaborative creativity.

More specifically, the project is conceived to involve:
The design of an online in-service training course for Greek teachers involved in EE.
- The development of a collaborative creativity framework to enhance the participants’ new knowledge co-construction.
- The development of a new associated tool to support the suggested collaborative creativity framework.
- The evaluation of all the suggested frameworks and interventions.
- The identification of any principles derived from the implementation of the suggested frameworks and employed tools.

The e-learning environment was designed on Moodle, a widely used open source e-Learning Management System (eLMS), aiming to enhance the participating teachers’ creative thinking and collaborative learning as much as to facilitate their communication and interaction within an e-learning community. Moreover, we combine collaborative creativity and collaborative e-learning in a coherent, easy-to-use and practical framework we call Hybrid Synergy (Lambropoulos et al, 2008), aided by an associated tool (HySynergyTag). This tool aims to support the teachers’ argumentation and collaborative new knowledge construction by shedding light on its structure and at the same time allowing direct observation and analysis of the participants’ interactions.

The online training is to last one week; this week is divided in three stages, a social, a didactic and a collaborative one, to facilitate participants’ engagement with collaborative creativity in an e-learning context. This can be achieved by developing self-organized and vicarious learning skills, having proved to be of great importance in collaborative e-learning communities (Lambropoulos, 2008).

The research questions revolve around the effectiveness, added value and applicability of the suggested Hybrid Synergy framework and the HySynergyTag tool. More specifically, the study aims to explore in what ways and to what extent:

- a) the suggested online course on collaborative creativity will contribute to the Greek teachers’ professional development;
- b) the participants in this online course will utilise the suggested Hybrid Synergy framework;
- c) the suggested HySynergyTag tool will improve teachers’ collaborative creativity;
- d) the participating teachers will feel confident to apply the suggested frameworks to their everyday educational practice in EE;

Consequently, the present study involves the following frameworks (Figure 1):

In this case study both quantitative and qualitative methodologies are to be used for data collection and analysis, such as the log files provided by the Moodle eLMS, pre-post questionnaires, online discourse analysis anchored in Hybrid Synergy, and data provided by the HySynergyTag. More particularly, the utilisation of the message-tagging HySynergyTag tool for observation and analysis of the underpinned Hybrid Synergy structures has the following methodological advantages, among others:

- (a) it can support dialogue management to provide explicit control of the argumentation procedure, for both the e-tutors and e-learners, in order to support decision making when working collaboratively in EE projects;
- (b) it can facilitate the type of interactions needed to promote collaborative work and co-build clear propositions;
- (c) it can allow the e-learning participants to quantitatively evaluate their performance when working towards specific outcomes; and
(d) it can provide quantitative and structured qualitative data for further analysis.

Epilogue
This project is a pilot study within the authors’ ongoing research on Greek teachers’ professional development through online training on collaborative creativity in the context of EE. It is aligned with the current European initiatives for creativity and innovation (e.g. European Parliament, 2008), and its findings may have significant implications for educational policy-making, research and practice related to EE teachers’ in-service training and professional growth.

References


