

E-Portfolio Implementations and Experiences

Didactical Functionalities of E-portfolio in Interdisciplinary Contexts

[doi:10.3991/ijet.v4i1.825](https://doi.org/10.3991/ijet.v4i1.825)

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Abstract—We propose to emphasize the opportunities of using e-learning instruments of teaching/learning in the high school education and to prove, from the perspective both of the teacher and of the trainer who offers courses of continuous education to adults, referring to this theme, the way in which there can be conceived and evaluated some digital curriculum products/e-portfolios, starting from a set of characteristics articulated on a series of criteria, such as relevance, accessibility, availability, attractiveness, flexibility, the open/generative character, participation/socialization

Index Terms—e-learning, e-portfolio, interdisciplinary project.

I. OPTIMISING COMMUNICATION BY USING NEW INFORMATIONAL TECHNOLOGIES – TRANS-DISCIPLINARY COMPETENCE

The new changes of today society prove that we witness the phenomenon of mass information on a large scale of professions, a phenomenon which cannot avoid the field of education. The science and the new information and communication technology (NICT) stand a major role in the present society in the school formal structure, without rethinking the educational system [1], through a new paradigm, which should be able to coherently accentuate the three educational dimensions, which are in a necessary mutually dependent relation: formal, non-formal, informal.

Having started from the premises that it is absolutely necessary to form transferable competences and being aware of the fact that it is imposed a **rethinking of the teaching-learning strategies**, we have reached the conclusion that the didactic approaches projected in an inter subject manner offer a more efficient and more rapid use of methods, procedures and didactic traditional or **modern methods /e-learning instruments**, finding a flexible and unbiased way of using them in the same didactic context.

A recent study, realised by specialists from the Faculty of Science of Education from the University of Bucharest (*The study presented is the first of this kind in Romania of such amplexness, having as theme the contribution of technology in modernizing the educational system*) [2] illustrates the students' interest in the informational technology and in communication, and their attitude towards using the computer in the **teaching - learning activity is majorly positive**. The students want to use the computer and the Internet for classes in different subjects (95.1%). Only 4.2% have manifested a negative attitude towards an increasing use of the computer for learning.

The research data emphasise the fact that 74.6% out of the questioned students (representative at the level of Romania which consisted of 5736 subjects – students (3953), teachers (1588) and headmasters (195) – from 199 schools, use often and very often the computer to inform and document themselves and learn in general, whereas 68.8% out of the students use the computer for games or communication. It must be mentioned the fact that, in general, the activity of using the computer for games and communication supposes only information which is outside the school curricula and that documenting in other fields of activity has a positive effect to form the background and to develop useful changeable skills in their professional life ¹.

Hereinafter, we propose a solution to reevaluate the NICT resources performed in the class in the last years, in order to demonstrate that we are in the stage of going beyond the limits of linear education and that the teacher's role is that of projecting motivating, collaborative learning experience, valuable for the student and, in this context, to become his **tutor**, through activities of observation, guidance and facilitation. Thus, the students will be able to reevaluate the opportunities of the new educational environment, to form their intellectual and spiritual skills in a consensus with expectation horizon or the society's expectations.

Our project was motivated by the results of a study on 100 students of ages between 11 to 14 and 15 to 18 which revealed the fact that, in certain teaching contexts, a student can be **inert** and not interested, and in others, he becomes **active, creative** and motivated to get involved in the teaching - learning process, an idea which should be viewed from the perspective of opportunities to turn to good account multiple intelligence and students' availability. “To know in order to do” becomes the **general objective** which coherently articulates our project, structured on two main components. [4]

The e-learning course **Techniques of writing the (non) literary text by means of ICT** (<http://roinfoeds.blogspot.com>) (integrated curriculum in the fields of language and communication-ICT) was projected for the classes of philology within the “Vasile Lupu” High School – an institution of vocational education. The course stimulates the students in continuous and efficient process of learning, favouring the development of key competences for life, of using new technologies for communication, organisational competences and cooperation and interpersonal relationships. The **contents** proposed are approached by **new strategies of efficient e-learning**

¹ http://www.elearning.ro/resurse/EvalSEI_raport_2008.pdf

such as learning on the basis of resources, collaborating learning, questioning learning, learning through an **interdisciplinary project** (individually and in groups).

The integrated curriculum *Techniques of writing the (non) literary text by means of ICT²* wants to emphasize the **pertinent and interpretative level**, the **cross subjects competence**, referring to **optimizing the oral and written communication by using new information technology**. The students are given different learning situations where we follow the progress of the abilities to conceive and elaborate, by means of ICT, (non) literary, oral and written texts which satisfy the **standards of textuality: cohesion, coherence, intentionality, acceptability, situating, intertextuality**.

A. The objectives of the project

- **Forming the competences** of using ICT in the study of the Romanian language through:
- Using the communicative capacities, of netiquette rules, the legislation regarding the copy right and the use of the blog in different real situations.
- **Developing the electronic portfolio, (e-portfolio)**, with its three didactic functionalities (teaching, learning, evaluating) for the students and teachers if the vocational systems in order to apply it to target groups, to ensure a more efficient use of the ICT in the vocational education.

B. The specific competences aimed by the teacher of Romanian

- 1) To recognise and compare different types of structures in scientific, judicial-administrative and literary texts;
- 2) To understand effectively the meaning of messages communicated in the (written/audio/visual) media;
- 3) To write scientific, judicial-administrative, publicist and literary texts, by using ICT.

The ICT teacher will take into consideration the following specific competences:

- To discover Hard and Soft tools necessary in the written/audio/visual media;
- To develop abilities of using Hard and Soft tools necessary in the written/audio/visual media;
- To be aware of the specificity of the literary language in relation with other arts.

C. The learning contents

The learning contents are organised into two parts:

A. Language and communication (Functional Styles of the Language, Publicist Style/the Audio-visual, referring to the journalist genre – **news, interview, reportage, Gallup poll, the literary style**)

B. Informatics – the following contents are aimed:

- To access the information under all forms, in different stages: searching, receiving and

downloading, processing with Soft tools (text, images, graphics, sound, film, animation), producing information by using Soft tools

- To create the information by: **Gallup poll, interview, reportage, animation and advertising, literary blog, forum, chat, videoconference.**



Figure 1. Blog manager <http://roinfoeds.blogspot.com>

II. OPPORTUNITIES AND LIMITS IN EVALUATING THE E-PORTFOLIO

The diversity of the existing forms of information, its processing and communicating modalities force the teachers to diversify the area of dwelling on the subjects proposed (*The reading crisis among teenagers; The influence of written and audio-visual media on teenagers, Correctness and mistake in the written/audio/visual media, The challenges of the (non) fundamental writers, The damaging role of the (in) formative NICT³*) so that the elaboration and writing of the non-literary text by use of ICT should be a basic component of this course. By applying the evaluation based on multiple choice tests, to check the acquisition of the operational concepts, on written tests of recognising and analysing the stylistic particularities of certain (non)-literary texts, debates, interdisciplinary project (individual and in group)/e-portfolio, the students have been able to prove the abilities and the competences acquired at the high school level.

Beyond the inherent advantages/facilities of the WEB 2.0 tools used within this interdisciplinary course, the great challenge of rendering education virtually stands in evaluating the results and the performances of the training[5]. We are trying to demonstrate, from the teacher's perspective, the modality in which the (self)/(inter) evaluation of digital curricula products/e-portfolios can be achieved:

- **Evaluation tests** applied either during the course or at the end of a learning unit.
- **The BLOG instrument** cannot require the application of the initial evaluation method, but there is the stage evaluation (the partial one) and the final evaluation – which is compulsory and is done *in praesentia*. Both of them have been conceived as constructive situations of proper learning. Through the real or virtual teacher – student interactivity, the

² A course performed at the philology classes of the last 2 years of high school, for 2006-2008, by Elena Mănuță, Sevastian Alexandru Roxana Gavrițaș.

³ <http://roinfoeds.blogspot.com/2006/10/teme-propuse-pentru-studiile-de-caz.html>

evaluation proves to be a modality through which the student can become aware of the aspects which require reformulations, content and/or form modifications.

The evaluation of a blog/e-portfolio can be realised by using the (self) (inter) evaluation criteria grids. These evaluation instruments will refer to aspects that the e-portfolio emphasises:

- **Information, reflections, suppositions** under the form of texts, images, sound, film, animation and combination of these, all of them reflecting the student's culture;
- Working experiences and abilities by using ICT
- **Layout of the e-portfolio** dictated by the culture, artistic sense, talent and imagination of the student-author;

We can evaluate **each element**, by aiming at the evolution of their use from one stage to another, the **student's level of competence**, by relating his products to the objective proposed and to the **progress realised during the collection of the products. These methods can be combined.** Both the **development e-portfolio** and the **competence e-portfolio** [6] prove the level of development of certain abilities.

The partial evaluation supposed:

- To check the level of acquisition of certain knowledge and to form the working abilities in the ICT in order to write (non) literary texts, so that the demands of the modern forms of communication and work for a possible journalist should be achieved;
- The level of knowing the basic informational techniques (processing texts, Internet search, e-mail address) and understanding the principles that govern the use of ICT in education;
- The analysis of the modality of using new ICT forms of communication and basic knowledge concerning the effective legislation about the author's rights and the netiquette rules, acquaintance with the software necessary for the chosen forms of communication.

The group verification was realised through Gallup poll too, <http://roinfoeds.blogspot.com/2006/11/sondaj-de-opinie.html>, the questions expressed our concerns about the theoretical and practical background, and they also suggested the further approach.



Figure 2. Gallup poll
 Question: WHY DON'T TEENAGERS READ ANYMORE ?

Each of the 49 e-portfolios realised within this course respect a pre-established structure, indicated by the teachers, so that the evaluated products should represent development/presentation e-portfolios: About me/Profile, *My Mates*, *Formal/Non-formal activities* (journalistic activity, cultural activity). <http://normalistii.isgreat.org/?p=186>



Figure 3. The journalistic blog

The final by-annual evaluation <http://roinfoeds.blogspot.com/> was realized through individual presentation of the BLOG e-portfolio by each student, in front of the evaluating commission and of their mates, a presentation followed by (self)(inter)evaluation through technical, design and idea debates of the BLOG e-portfolio.

At the end of the two years in which we developed the integrated course "Techniques of writing non literary texts by means of ICT", we consider that through the learning active-participating and cooperating activities, we have managed to develop in our students the skills of the 21st century. These skills have been pursued both through the method of the Project, a method promoted by the INTEL Teach Programme and applied as teachers of Master Intel Teach of SIVCO Romania

The individual portfolios of our students represented the most important source to realise the e-portfolio of presentation of our school, thus making an association between the learning activities, representative in a formal structure and the ones developed in an informal structure. Our students have become aware of the connection between the pedagogical training from school and life reality, the individual e-portfolio becoming in the 21st century, a necessary instrument for the initial and continuous training, as Mr Serge Ravet4 mentions.

III. CONCLUSION

Obviously, such an approach supposes two stages, which are mentioned by Gabriela Avram, professor at the University of Limerick, Ireland.

The first stage claims/requires the movement of the class in a virtual environment and adapting the classical process of teaching and learning to the artificial environment. The second stage definitely requires changing the student's vision, the teacher's role being that to determine the student to understand the opportunities of the collaborative process and of self conducted and responsible learning.

<http://www.learningfutures.eu/2009/01/about-eportfolio-definitions.html>

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Hereby, the direct and indirect beneficiaries, students and teachers who will take part in this project, will fully understand that in the present educational context, the active and motivated learning through interdisciplinary experiment alone can ensure a higher ranking for education within these important perspectives: to know in order to do and to understand.

ACKNOWLEDGMENT

The authors of this paper wish to thank Mr Michael E. Auer, Managing Director IAOE, for the appreciations; their entire gratitude, for constructive suggestions, to Mr. Serge Ravet, the coordinator of the e-Portfolio section where our paper was presented, within ICL Villach Austria, 2008.

REFERENCES

- [1] M. M.F. Costa, „Science Literacy and Development in the European Union”, in *Proceedings of the 3 International Conference on Hands-on Science*, Costa MF, Dorrio BV (Eds.); 2006 September 4-9; University of Minho; Braga, Portugal, p. 517.
- [2] E. Noveanu, D. Potolea (coord.), *Informatizarea sistemului de invatamant: Programul SEL. Raport de cercetare evaluativ EVAL SEL 2008*, Ediura Agata, 2008, Bucuresti, pp.26-29.
- [3] E. Mănuță, P. Gheorghiu, A. Sevastian, “Opportunities and Limitations of the Interdisciplinarity in Possible (Non) (In) Formal

Contexts”, in *Proceedings of the 3 International Conference on Hands-on Science*, Costa MF, Dorrio BV (Eds.); 2006 September 4-9; University of Minho; Braga, Portugal, p. 560. (<http://www.hsci.info/hsci2006/index.html>)

- [4] C. Cuceș, *Informatizarea educației*, Iasi, Editura Polirom, 2007, p.143.
- [5] I. Radu, “Elemente de docimologie didactică”, în vol. M. Ionescu, I. Radu (coord.), *Didactica modernă*, ed. a II-a revizuită, Cluj-Napoca, Editura Dacia, 2001, pp.221-222.

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This article was modified from a presentation at the International Conference of Interactive Computer Aided Learning ICL2008, September 24 - 26, 2008 in Villach, Austria. Manuscript received 02 February 2009. Published as submitted by the authors.