

EDEN 2009 ANNUAL CONFERENCE

Innovation in Learning Communities

What did you invent for tomorrow?

EDEN 2009 Annual Conference

Gdansk Music and Congress Centre
Gdansk, Poland

10-13 June, 2009

BOOK OF ABSTRACTS

Edited by

Alan Tait and András Szűcs

on behalf of the European Distance and E-Learning Network

European Distance and E-Learning Network

EDEN 2009 Annual Conference Gdansk, Poland

Published by the European Distance and E-Learning Network

Editors:

Alan Tait
András Szűcs

Editorial co-ordination:

Anna Wagner

EDEN Secretariat, c/o Budapest University of Technology and Economics
H-1111 Budapest, Egrý J. u. 1, Hungary
Tel: (36) 1 463 1628, 463 2537
E-mail: secretariat@eden-online.org
<http://www.eden-online.org>

Principal Conference Sponsor



Local Organising Committee:

Stanisław Wrycza – Department of Business Informatics, University of Gdansk
Tomasz Żelazny – The Foundation for the Development of Gdansk University
Dorota Wawryn – Gdansk Convention Bureau

The support of Marshall of Pomorskie Voivodeship Jan Kozłowski and the
Mayor of the City of Gdańsk, Paweł Adamowicz is highly appreciated.

Copyright © 2009 European Distance and E-Learning Network and the Authors

All Rights Reserved

No part of the material protected by this copyright may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or by any storage or retrieval system, without written permission from the copyright owners.

ISBN 978-963-87914-2-9

THE USE OF COMPETITION AND CREATIVITY AS KEY DRIVER TO PROMOTE SCIENTIFIC CULTURE AMONG STUDENTS

*Alberto Colorni, Susanna Sancassani, Simona Azzali, Alessandra Tomasini
Centro METID – Politecnico di Milano, Italy*

The pedagogical value of game generally speaking, has been extensively argued since the past by several studies of educational scientists (Fröbel, 1826; Decroly, 1921). This conception is based on the idea that young people owns great expressive and creative capabilities and that education, that often involved positive competitive interaction, is able to motivate young people to learn, involving them in knowledge process consistent with their interests and abilities. These kind of activities put at stake imagination and creativity and lead students to actively learn having fun together with their classmates. In this reality, competition, if proposed as further game element, could raise the quality participation of young people to didactical activities and enable collaborative learning processes in which everyone can give its personal contribution to the construction of knowledge seen as a great social game. Moreover, children and teens own several different languages and codes to express themselves that cannot be identified only with formal linguistic skills (oral and written) if we will not lose them (C. Edwards, L.Gandini, G. Forman, 1995).

The integration of elements that provide competitive and collaboration activities is therefore a key factor on which to invest in the construction of learning courses, mainly because they aim at stimulating the creativity of young people in developing new expressive languages. This is even truer in the reality in which Centro METID operates: a science university center that aims at supporting the dissemination of scientific knowledge within school. Investing on competition and on creativity spur through the use of new languages is particularly successful in engaging and trying to interest in technical and scientific subjects a kind of users (mostly students between 11 and 19 years). From this point of view, it is necessary to pay special attention to the choice of language and format: on one hand the addition of a work load raises the risk of drop-out among the participants, to the other dealing with critical content, generally regarded as hard and heavy, needs to highlight the practical use and to improve pleasantness and involvement aspects. Formats should be flexible and varied, must integrate different tools and activities, should provide interaction and collaborative learning moments among users, they must leave the traditional books language and be closer to students reality offering new solutions designed to make content and process more engaging and interesting. This is the point at which it is necessary to tie a series of online tools that can facilitate the development and dissemination among students. One of the solutions that we have followed to achieve these goals has been to focus on didactic formats mainly based on the logic of competition (or contest) and cooperation: language and tools have been declined in individual or team competitions in single or class rankings, in expert panels and popular juries, in prizes quiz and final awards, all designed to assimilation of concepts, but also the involvement and socialization.

Using the right mix of game, competition and cooperation led to a high level of involvement and commitment of students, not only by increasing the specific knowledge but also developing a conscious and critical approach towards the scientific knowledge and its potential. In many cases, our expectations were exceeded in terms of commitment, time and enthusiasm and – not least – quality of results.

Regarding motivations two indications have emerged:

- with students with a high intrinsic motivation (for example, “excellent” students) are especially important the quality of materials, language, the cooperative/competitive activities;
- if there is a lack of intrinsic motivation, it is much more effective focusing on competition dynamics, for example using prize competitions and final awards, making the most of the classroom cooperation dimension, encouraging contributions modes also very different and alternative than normally required at school (for example in the theater play the variety of activities such as writing dialogues, costumes, shooting, etc.).

As for the educational goal:

- if the main objective is to develop knowledge and skills, it becomes crucial to choose language and interactive activities, individual or collaborative, providing for the more structured materials;
- when the goal is to spread scientific culture and encourage students, it is better to use unstructured materials included into a well-designed learning path, with a prizes contest. Materials made available are important to develop curiosity and independence and to build rooted and conscious knowledge.