

„e-Didactica. Procesul de instruire in mediul online”- Colecția Sinteze de Pedagogie

(“e-Didactics. The training process in the online environment” – Synthesis of pedagogy collection)

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Specific Details

The book “e-Didactics. The training process in the online environment” (420 pages, ISBN: 978-606-048-366-3) was published in 2021 in the collection Synthesis of pedagogy at Didactica Publishing House, in Bucharest, Romania.

Contextualization

The pages of this volume present the main conceptual benchmarks of e-Learning, the specifics of possible teaching strategies to be used in the online environment and the main digital tools available. Through the approached topic, the authors aimed to provide teachers with relevant theoretical and praxiological landmarks, as a support for the development of digital skills and the improvement of educational practices in the online environment.

The crisis caused by the Coronavirus pandemic has placed the teaching process in the online space, but the use of these technologies has not started and will not end with this crisis. The need to improve digital education is pressing for reasons related to our existence in the information society.

We are witnessing the development of educational services and the formation of virtual learning communities, which requires rethinking teaching approaches. In order for education to meet the current training requirements of the younger generation, it is necessary in particular: to expand these services, to train teachers to be able to use information resources,

to design effective activities and learning experiences in the online environment.

Due to the ever-increasing use of new technologies in the training process, the beginning of the 21st century was marked by attempts to revise the didactics issue, considering that the reconceptualization of traditional didactics is important in light of rethinking its role in the digital age. The new e-Learning didactics was called e-Didactics, a didactics of ICT integration in education.

The educational message of the book

The main educational message of the book is that (according with definition of IEEE Education Society and IEEE Computer Society, <https://ieeedusociety.org/publication/ieee-tlt>): “learning technologies and their applications cover, including but not limited to the following topics: innovative online learning systems; intelligent tutors; educational games; simulation systems for education and training; collaborative learning tools; learning with mobile devices; wearable devices and interfaces for learning; personalized and adaptive learning systems; tools for formative and summative assessment; tools for learning analytics and educational data mining; ontologies for learning systems; standards and web services that support learning; authoring tools for learning materials; computer support for peer tutoring; learning via computer-mediated inquiry, field, and lab work; social learning techniques; social networks and

infrastructures for learning and knowledge sharing; and creation and management of learning objects".

e-Didactics has a number of specific features that make it conceptually different from classical didactics. The application of ICT in education requires a paradigm shift, from traditional teaching to use of learning technologies. The focus is on the design, development and implementation of distributed interactive multimedia teaching materials in effective web-based learning environments, and the use of information and communication technology.

The content of the book

The book is structured by twelve chapters, each chapter is designed by one or more authors.

- 1. E-Learning and Blended Learning in the Information Society (Ion Albulescu).**
- 2. Teachers' Digital Competences (Ion Albulescu).**

The preparation of teachers for blended and online teaching should contain:

A. Online Teaching Skills

In order to master new knowledge and competences Instructors have to understand:

Teaching online vs. teaching face-to-face (similarities and differences);

Online teaching skills (Pedagogical; Technical; Administrative);
Self-assessment activity.

B. Instructional Design Models and Theories of Learning

Instructional Design is a specific subject for online learning.

Learning theories (from behaviourism, cognitivism, constructivism and connectivism) will be identified in relation to common instructional design models such as: ADDIE (Analysis, Design, Development, Implementation, Evaluation); Gagne's Nine Events of Instruction.

- 3. School Curriculum: Content Management in the Virtual Space. Online Learning examples of good practice and Experiences. Lavinia Nitulescu, Cristina Ispas**

- 4. Design of e-Didactics strategies used in online training. Horațiu Catalano**

- 5. Online Collaborative Learning, Mirela Albulescu**

- 6. Combining Learning Theories with Online Education: Methodology and Technology, Daniel Andronache, Marius Bănuț**

- 7. The Online Learning and Training Design, Dana Opre**

- 8. The Use of Social Networks in the Online Training Process, Constantina Catalano**

- 9. Methodology of Using ICT Resources and Tools in the Online Training Process, Horațiu Catalano, Maria Scuturici, Oana Moldovan**

- 10. Evaluation of Students in Online University Education, Cristian Stan**

- Formative Evaluation

- This part of the evaluation is presented in every phase of the ADDIE model.

- Summative Evaluation

- Opportunity to receive feedback from the learner.
- If necessary, revisions are made at this point.

The Formative Evaluation was conducted for each individual stage of the process, and the resulting feedback information was immediately integrated into process revisions for that stage.

The Summative Evaluation was performed by collecting feedback from users and incorporating their suggestions.

- 11. E-learning Evaluation, Anca Simion**

Assessment in Online Environments

Strategies for planning assessments, grading student work and providing effective feedback in online learning environments are presented.

Teachers should master: Place and Purpose of Assessment (Fig. 4): Assessment in Constructive Alignment; Formative and Summative Assessment; Assessment Tools and Activities; Effective Feedback through Grading Rubrics: Characteristics of Effective Feedback; Grading Rubrics.

- 12. E-twinning Learning Community, Gabriela Illeana Crisan.**

Strategies for building a sense of community among online learners and activities based on social learning theory to ensure successful educational experiences are essential. Methods for developing online social presence and identifying strategies and activities for developing and maintaining supportive online communities are compared.

Teachers should know how to: define Online Learning Communities: Function; Identity; Participation; Interaction Online Learning Communities and Online Classes/Collaboration: Using Ice-breakers/Intros in Online Spaces; Learner/Peer Feedback; Group Assignments; Strategies to Develop Successful Online Learning

Communities: Modeling; Articulation; Coaching; Exploration; Reflection; Scaffolding.

The book is aimed at both current and future teachers in Universities, High Schools and Schools, as well as Students and Pupils. The book can be used as a teaching guide, as it contains and provides examples of good practice.

Communication Strategies in Online Environments

Teachers should master tools and strategies enabled them to communicate effectively with students in the online environment. They will review how they can apply the Community of Inquiry model to increase cognitive, social and teaching presence, as well as tips and techniques for planning and moderating effective online discussions. Teachers have to know how to design a communicative learning activity to increase interactivity in the online environment.

Teachers should learn and understand the following subjects: Online Courses as “Communities of Inquiry”:

What is Community of Inquiry; Cognitive, Social & Teaching Presence;

Types of Asynchronous Communication: Meaningful Online Discussion; Discussion Board/Forum Facilitation;

Types of Synchronous Communication: When to Use Synchronous Communication;

Preparing for a Synchronous Session. The community of inquiry model consisted of three core elements of an educational experience: Teaching presence, cognitive presence, and social presence.

The book presented in a strong pragmatic vision the illustrative results of recent scientific studies.

Conclusions regarding the relevance of the book

Both Students and Teachers (Professors) will use this book in the Blended Teaching and Learning Methods. The integration of online laboratories (both Virtual and Remote) in the Science, Technology, Engineering, and Sciences (STEM) training process, the use of Virtual Learning Environments (VLE), the inclusion of Open Educational Resources (OER) are the strategies for the future.

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