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2014 TEMPUS CRUNT MD: Developing Blended Learning University Course Using a Virtual Learning Environment-A Case Study

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DEVELOPING BLENDED LEARNING UNIVERSITY COURSE USING A VIRTUAL LEARNING ENVIRONMENT-A CASE STUDY

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Abstract: *This case study evaluates the challenges encountered in the Blended Learning development using Moodle Virtual Learning Environment in the context of TEMPUS CRUNT elearning inter-university network. The paper examines a variety of determinants that influence technology acceptance and successful implementation of the VLE in the educational field. The study begins with an examination of Moodle Virtual Learning Environment, which can provide course materials such as handouts, lecture notes and PowerPoint presentations to the students. Moodle can be used in more interactive ways, which require input from the students. Such as discussion forums, chat rooms, quizzes and assignment drop boxes. There are analyzed the technological factors influencing technology adoption including issues surrounding acquisition, management and support of a VLE in secondary and high schools. We explore teacher level factors of Moodle VLE acceptance and how teacher attitudes to such platform are developed. The findings show that there are specific technological, teacher level and school level factors influencing Moodle acceptance. They also show that teacher attitudes to the implementation of the Moodle in the school are tied to their attitudes and responses to national objectives in education and national strategies for reshaping learning. Although the number of distance courses has risen significantly over the last years, mixed modes of delivery, with face-to-face settings supported by online tools, remain the dominant form of online learning. There is clearly a need in the literature for greater exploration of flexible modes of learning, including e-tools, especially when teaching computational skills to engineering and university students. Moodle logs and statistics were examined along with documentation relating to this VLE.*

Keywords: *blended learning, TEMPUS CRUNT elearning inter-university network, e-learning designs, teacher education, managed learning environments, virtual learning environment, Moodle.*

1. INTRODUCTION

The usage of Learning Management Systems (LMSs) such as Moodle has been widely integrated in the higher education process. It is normally utilized as a supplemental learning platform to traditional learning education, which is known as blended learning environment or hybrid learning environment. Many universities have practiced and have been committed to blended learning approaches. The transition to a mixed mode learning environment at higher institution is related to four imperative reasons namely the rise of lecturer-student ratio due to the growth of students enrolment and low staff resources; course modularization that increases the pressure to share materials; information technology that satisfies user expectation and consumer expectation on educational technology in higher education institution. Learning engineering, applied sciences and technology is challenging to students in that they require thinking and visualizing scientific concepts. Due to the abstract concepts involve in engineering, applied sciences and technology, many students fail to visualize and translate the interplay between the scientific concepts at several levels. Support of educational technology has been developed and found to be very useful for teaching engineering, applied sciences and technology to large groups of students. In this context is necessary introduction of a Moodle learning on a first year engineering, applied sciences and technology programme in order to motivate and improve students' learning through virtual learning approaches. Students' feedback

revealed the appreciation on the flexibility of the system where they showed confidence in learning engineering, applied sciences and technology and less anxiety about the exams. Many research papers examined the interaction of first year undergraduates with Moodle system and it was found that students who were stimulated to use the online resources did better in their examination than those who were not. In general, the use of e-learning especially in higher engineering, applied sciences and technology education provides flexible learning environment that helps students to learn and improve their performance in engineering, applied sciences and technology especially in the freshman year.

2. BLENDED-LEARNING PEDAGOGICAL MODEL FOR TEACHING AND LEARNING THROUGH AN VIRTUAL LEARNING ENVIRONMENT (MOODLE)

2.1. Blended-Learning: Background and Definitions

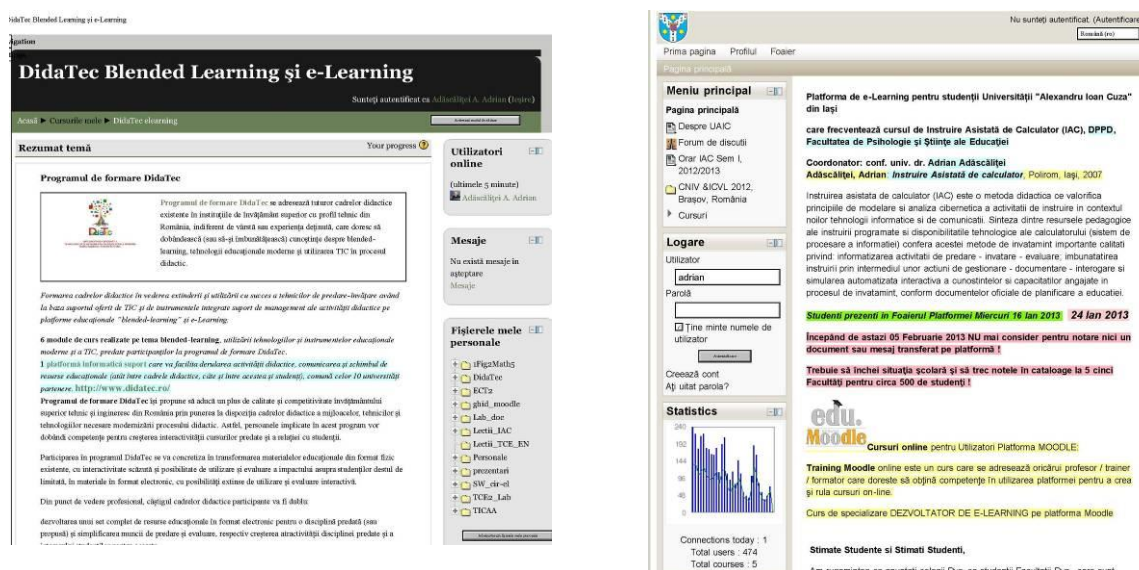
A topic-based, learner-centered curriculum has been designed to meet learners' needs and interests. Syllabus content has been developed taking account of the target learners' profile. This profile included information about learners' personal motivation to learn Computer-Aided Instruction (CAI). They also reported on their expectations for a Blended Learning (CAI) course and their perceptions of a good teacher.

2.2. Syllabus

A topic-based, learner-centered curriculum has been designed to meet learners' needs and interests. Syllabus content has been developed taking account of the target learners' profile. This profile included information about learners' personal motivation to learn Computer-Aided Instruction (CAI). They also reported on their expectations for a Blended Learning (CAI) course and their perceptions of a good teacher.

2.3. Online Tutor

As online tutors, teachers help learners build their confidence as they get used to working independently online. They post messages to the group as a whole—and to each student individually—to meet their need for support. They may post explanations to guide learners in more complex tasks, encourage them to communicate, do their individual assignments, and use all the platform tools they have at their disposal to facilitate their work. Tutors check and mark the online assignments, fill in learners' progress reports, and write feedback on their performance in their online portfolios. They continuously track learners' improvements and give encouragement when motivation begins to falter. They have to encourage learners to carry out their collaborative work tasks, which is usually difficult because of the students' different schedules and the fact that they are not used to working collaboratively to achieve language-learning tasks. Being teachers and online tutors has introduced beneficial qualitative changes in teachers' roles, but it has also meant a quantitative increase in the number of hours dedicated to learners. Teachers spend only 2 hours a week in face-to-face classes, but they spend a larger number of hours managing learners' work in the online environment.



Blended Learning developed at the „Gheorghe Asachi” Technical University of Iași (<http://moodle.ee.tuiasi.ro/>)

Blended Learning developed at the „Al. I. Cuza” University of Iași (<http://www.moodle.ro/uaic/>)

Fig. 1. Blended Learning developed at the „Gheorghe Asachi” Technical University of Iași and at the „Al. I. Cuza” University of Iași

3. CAI course (BLOnline)

3.1. The institutional and curricular context

The course can be described as follows:

- learning spaces: university seminar, e-learning platform, school classroom
- participants: students (e.g. learners as moderators or as student teachers), university professor, tutor, outside experts
- materials: video recordings, reader, textbook, learning modules
- methods: lectures, discussions, video-recorded classroom observations, reading tasks, learner diaries, mini-practices, e-interviews
- content: theory and practice

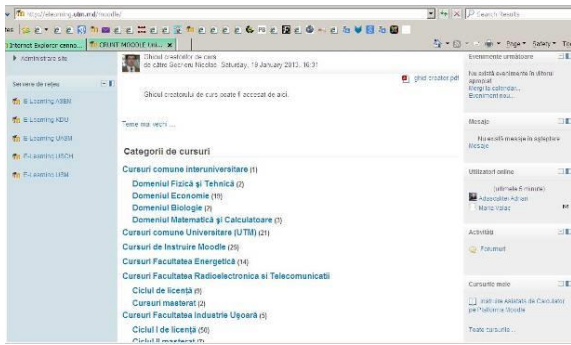
Students were organized (grouped) in the course according to their specialization:

Each student received as project work, to be realized by using VLE Moodle platform (www.moodle.ro/uaic/ platform), a web lesson to complement traditional lesson materials that Student has sustained in the pedagogical practice (Figure 1).

Each student must enroll and must participate in activities in a course conducted by another colleague of the group to which he belonged. A student is simultaneously a course creator and a participant in three courses realized by three colleagues who are part of his group.

After hearing the current lesson during the computer-assisted instruction, each student connects to the course version with the same title on the Moodle platform.

Content lessons from the CAI course (BLOnline): 1. The Design of Computer Assisted Education (CAI); 2. Learning and Teaching CAI; 3. Delivery technologies for teaching materials; 4. Blended Learning; 5. Virtual learning environments (VLE Moodle); 6. Structure and organization of courses delivered online; 7. Realizing CAI projects by using Interactive Multimedia Technologies.



Blended Learning developed at the „Gheorghe Asachi” Technical University of Iaşi (<http://elearning.utm.md/moodle/>)



Content lessons from the CAI course (BLOnline)

Fig. 2. Blended Learning developed at the Technical University of Moldova Chişinău, Moldova, (<http://elearning.utm.md/moodle/>)

Also, each student must understand the contents of study materials needed to carry out practical laboratory activities (seminar) material called Moodle VLE-use.

Theoretical materials for Laboratory Tasks are as follows:

1. Introduction to IAC course structure;
2. Strategies for instructional design
3. Techniques for using Internet services for information and communication;
4. Creating Educational Web Pages,
5. Making multimedia teaching materials,
6. Using learning management systems (LMS) for teaching (Moodle);
7. Developing learning communities (Virtual class).

Students must connect on the Moodle platform to both the CAI course and the Moodle VLE Laboratory.

In this Moodle VLE Laboratory supplement of CAI course students learn to manipulate Moodle features that will be used in creating web support for teaching lessons within their own disciplines.

3.2. Student blended learning course worked examples

Preparation of design and construction of Student Course work is conceived as a sequence of steps, according with e-learning instructional model.

We will mention only design, development, implementation, execution, and evaluation.

In the Design phase student learn ‘how’ to teach using BL. The outcome from analysis of the learning characteristics and needs of the learners is used to create a blueprint for the instruction, where the learner’s learning process, defining the learning approach, the structure of the information to be delivered (facts, concepts, processes, procedures, and principles), standards to be used, execution criteria, and achievement expected of the learner are specified.

Development phase describes the tools used to teach, the materials, strategies, event sequences, and necessary resources.

In shown examples where presented some of models used by our students in specific disciplines, as well as captured images from lessons realized on the Moodle platform.

Four hundred and ten students, enrolled in the “Al. I. Cuza” University in the 2013/2014 scholar year, represented the study’s experiential and control groups.

These students who will obtain diploma from Department of Teacher Education are from following faculties:

1. fifty six Students from History,
2. eight Students from Romano-Catholic Theology,
3. sixty four Students from Philosophy,

4. two hundred forty Students from Letters and Languages,
5. forty four Students from Biology (Figure 3.).


<p>Sadava, Life: The Science of Biology 9e Student Centre (http://bcs.whfreeman.com/thelifewire9e/): Lesson 2: Small Molecules and the Chemistry of Life Flashcards Key Terms Animated Tutorials: Chemical Bond Formation Activity 2.1 Electron Orbitals Chapter 2 Interactive Summary Chapter 2 Suggested Readings</p>	
<p>Interactive Summaries Animated Tutorials Activities Interactive Tutorials Working with Data Experiment Links Flashcards Key Terms Suggested Readings</p>	<p>Biology online Lesson created by a Student</p>
<p>Example of Biology online Lesson</p>	<p>Biology online Lesson created by a Student</p>

Fig. 3. Lesson created by a Student from Biology

In the university year 2012 / 2013, four hundred and seventy four students from the same faculties participated in the blended course activities.

4. STANDARDS FOR BLENDED LEARNING TEACHERS

The International Association for K-12 Online Learning (iNACOL) released their National Standards for Quality Online Teaching. Online teaching is different than blended teaching—but so many of the standards apply directly to teaching in a blended or hybrid learning classroom.

What skills do you need to have to teach in a blended or hybrid classroom?

1. Meet your state professional teaching standards or have academic credentials in your instructional area. You need to know the content you will be teaching. And you need to know how students learn.

2. Have or get technology skills. You will need to know some basic application skills, like word processing, spreadsheet and presentation software, internet browsers, email applications. You will also need to know how to use discussion forums and chat-tools effectively. If you are using a Learning or Lab Management System (LMS), you will need to know it well. And make sure you know basic troubleshooting skills, like how to mute audio or change student passwords. Plenty of resources are available online to learn how to use the tools—and your school most likely provides professional development opportunities in these areas too.

3. Encourage students to interact, work together and be active participants in both the online and face-to-face portions of the class. You will need to facilitate and monitor student

interaction and build a community of learners. Your warm and inviting classroom skills will transfer into the computer portions – but you may have to consciously work at them.

4. Be a leader who provides clear expectations and regular feedback. Your communication skills will help your students, as will your strong leadership.

5. Use technology in an ethical and safe way. Your students will look to you as a guide for how to act ethically and what rules to follow. You must make sure they understand the consequences for improperly using the technology tools—as well as provide instruction on the differences between proper and improper technology use.

6. Be a student in an online or blended classroom. Being a student changes your perspective and allows you to better anticipate the problems your students may encounter.

7. Respond to students with special needs. Your students will have a varying set of talents and skills. You need to be comfortable with a wide variety of strategies to help them learn, including adjusting activities and addressing skills levels.

8. Create valid assessments. Your assessments need to be fair, reliable and consistent – and they need to cover the content they are designed to measure.

9. Deliver and assess progress of standards-based learning goals. Assessments should be authentic and allow students to show their understanding, rather than isolated testing, and should be continuous.

10. Use data from assessments to modify instruction. As your students are learning, you will need to be able to switch gears and respond to the way they understand. Sometimes students will not develop deep understanding immediately, and you will need to change your delivery to help them develop deep understanding.

11. Give opportunities for students to pre-assess and self-assess. Students can help you find out if they are ready for the course content and delivery. And with your help, they can independently define learning goals and monitor their own progress.

12. Work with your colleagues. You are not alone. You will need to work with a team of colleagues and develop networks with other instructors involved in blended learning.

For the detailed standards and performance scale, see iNACOL's National Standards for Quality Online Teaching.

4.1. Example of an engineering, applied sciences and technology courseware structure

ENGINEERING, APPLIED SCIENCES AND TECHNOLOGY

Name of the case: Engineering, applied sciences and technology

University, department & Country: Technical University “Gh. Asachi” Iaşi / Technical University of Moldova Chişinău, România/Moldova, Faculty of Electrical Engineering, România / Moldova

Study context (level of studies, topic): Bachelor-level introductory course in engineering, applied sciences and technology

Target group: Second-year students specializing in engineering and having engineering, applied sciences and technology as minor specialization subject

Description: The aim of this course is to introduce the basic principles of engineering, applied sciences and technology and give an overview of the most important scientific and technologic concepts. The practical section introduces the principle techniques used in engineering and applied science.

Objectives of the course: This course briefly revises the basic of engineering, applied sciences and technology.

Syllabus: Lesson structure. The scientific literature: primary and secondary sources, patents. Bibliographic search.

Laboratories and/or exercises: Laboratory experiments, mini project, exercises

Pedagogical approach: Because of the high level of abstraction of the subject matter it is difficult to implement active learning methods (like discussions, role plays and online collaboration) in this course. This is why the course is mainly based on individual assignments.

As an E-learning environment, the Moodle VLE forum is used for discussions about the practicum experiments. The students have an opportunity to compare their results and discuss why some experiments were successful and others were not.

The students must write a written term paper that will be peer-reviewed by the fellow students. Every review must have a different approach.

Use of technology: Most of the functionalities of Moodle VLE LMS are used in the course: blog, discussion forum, individual and group portfolios, quizzes, and wikis. Computers were also necessary for presentations and getting literature.

In order to pass the course successfully, the students had to use the free modeling software, which was possible to download from e-learning environment Moodle VLE.

Text-, video- and software installation files are provided on CD-ROM for each student who does not have fast access to the Internet.

The students had a possibility to ask the instructor for technical help, the Moodle VLE user manual was also helpful.

Blending method: The engineering, applied sciences and technology course is partly Web-based, a significant amount of learning activities takes place in Moodle VLE Learning Management System. It is suitable for the students who study at university, but also for people whose work is connected with this subject and they need some extra knowledge. Participation in the course requires knowing a lot of facts and it is also important to have abstract thinking and a good memory.

The course is a combined course, there are two hour lectures (introductory, materials were in learning management environment Moodle VLE), three hour seminars (presentations and other students' reviewing) and practicums (in engineering, applied sciences and technology it is not possible to do engineering, applied sciences and technology practicums in a Web-based format).

The learning resources are mainly in *.pdf format or PowerPoint presentations. A lot of colorful illustrations, schemes, diagrams were used – it makes printing difficult for students. Students receive a CD-ROM with video materials.

Outcomes and evaluation results: In order to get marks, the students must take two short Web-based tests (10%), one short term paper (10%), and they must prepare a presentation (10%). In addition students must defend their laboratory protocols (15%) and to do a written test about the laboratory protocols (15%) and finally must do a school-based written test (40%). Active learning in the Moodle VLE environment might have a good influence on the students' grades.

Links to additional information and references: <http://elearning.utm.md/moodle/>, <http://moodle.ee.tuiasi.ro/> and <https://www.moodle.ro/uaic/>,

user: ****

password: ****

5. CONCLUSIONS

The program presented here is the result of Iaşi "Al. I. Cuza" University and "Gh. Asachi" Technical University of Iaşi blended learning project (with the support of Moodle Romania) and *TEMPUS CRUNT elearning inter-university network* project to innovate pedagogical practices using ITC technology. As a starting point, we advocated to a tertiary education learners' needs analysis with the hope to create a pedagogical model to more efficiently meet those needs. We then engaged in the selection of ICT resources for Blended Elearning Theoretical Fundamentals, in syllabus and

courseware materials design and development, in teacher training envisioning ways to creatively put theoretical principles into practice, in devising and developing balanced tests to objectively and coherently assess the communicative goals set. At the same time, we designed, created and judgmentally evaluated the pedagogical materials, supervised technical implementation, and managed the utilization of the system of our end users. The project provided student teachers the opportunity to assume new roles: to become CAL (Computer-Aided-Learning) material designer and developer, script writer, manager and producer of media resources, work flow manager, online tutor, manager of the language learning environment, and mediator to open communication channels with a multidisciplinary team.

The blended-learning pedagogical model implemented combines: (a) Learners' independent work with CAL tasks for developing language skills in a network-based interactive multimedia environment, (b) online tutoring in web portfolios, (c) online interaction with global/local community, (d) online and face-to-face tutoring by CAL teacher-tutors, (e) face-to-face classes with CAL teacher-tutors.

BLOnline is a blended course, in which students work 80% of the time in the virtual classroom and with their tutors. The students work on weekly online activities in online teams.

The laboratories are face-to-face and students have the option to also attend a weekly in-person tutorial. Lab debriefings, test prep, and an International student debate activity use a web videoconference system just introduced at the university. Each of these activities is intended to actively engage students in their learning and to give students at a distance equal access to all course resources. Other online components include weekly discussion questions, simulations, video clips, Tweets, and wikis. All teams work together in blogs.

The instructional design encourages student interaction and analysis. The student centered approach helps students develop socializing, presentation, and analytical skills. Engineering, applied sciences and technology was specifically chosen to demonstrate the applicability of online teaching for the *hard sciences* and for *first-year students* with limited computer and Internet skills. A common complaint from science faculty is, "Online may work for social sciences, but it does not work for the hard sciences." This course is designed to dispel this myth.

BLOnline is the model for the university. To assist faculty to grasp the educational approach and how to use the educational technology and the Net as a learning tools, the project has created a video *Teacher Handbook*, This video documents all course components, as well as research results and student comments.

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CONFERINȚA CRUNT 2014

BUNELE PRACTICI
DE INSTRUIRE ONLINE



24-27 septembrie 2014
Universitatea Tehnică a Moldovei

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Thématiques en sciences appliquées et sciences
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"Good training practices of e-learning/online", CRUNT-2014,
Chișinău, 24th to 27th September 2014

Blended-Learning: Background and Definitions

Learning as combined, mixed, blended or integrated?

L'apprentissage mixte (French)

Integriertes Lernen (German)

Blandað nám (Icelandic)

Blandet læring (Norwegian)

Blandat lärande (Swedish)

Sulautuva oppiminen (Finnish)

Aprendizaje semipresencial

(Spanish)

Kombinované vzdelávanie

(Slovenian)

смешанное обучение (Russian)



Apprendimento misto (Italian)

Aprendizagem combinada

(Portuguese)

Învățare mixtă (Romanian)

Vegyés képzési forma (Hungarian)

Nauczanie mieszane (Polish)

Harmanlanmış öğrenme (Turkish)

*...but in most countries, just say
blended learning – and you will be
better understood*

This case study evaluates the challenges encountered in the Blended Learning development using a Virtual Learning Environment in two universities in the city of Iași - Romania:

- ◆ the „Al. I. Cuza” University (<http://www.moodle.ro/uaic/>) and
- ◆ the Technical „Gheorghe Asachi” University (<http://moodle.ee.tuiasi.ro/>).

The paper examines a variety of determinants that influence technology acceptance and successful implementation of the VLE in the educational field.

The study begins with an examination of Moodle Virtual Learning Environment, which can provide course materials such as handouts, lecture notes and PowerPoint presentations to the students.

Moodle can be used in more interactive ways, which require input from the students.

Such as discussion forums, chat rooms, quizzes and assignment drop boxes.

There are analyzed the technological factors influencing technology adoption including issues surrounding acquisition, management and support of a VLE in secondary and high schools.

We explore teacher level factors of Moodle VLE acceptance and how teacher attitudes to such platform are developed.

The findings show that there are specific technological, teacher level and school level factors influencing Moodle acceptance.

The findings also show that teacher attitudes to the implementation of the Moodle in the school are tied to their attitudes and responses to national objectives in education and national strategies for reshaping learning.

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Blended-Learning Course Syllabus

A topic-based, learner-centred curriculum has been designed to meet learners' needs and interests.

Syllabus content has been developed taking account of the target learners' profile.

This profile included information about learners' personal motivation to learn Computer-Aided Instruction (CAI).

They also reported on their expectations for a Blended Learning (CAI) course and their perceptions of a good teacher.

Blended-Learning Course Syllabus

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3. Delivery technologies for teaching materials;
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5. Virtual learning environments (VLE Moodle);
6. Structure and organization of courses delivered online;
7. Realizing CAI projects by using Interactive Multimedia Technologies.

Theoretical materials for Laboratory Tasks are as follows: 1.

Also, each student must understand the contents of study materials needed to carry out practical laboratory activities (seminar) material called Moodle VLE-use.


1. Introduction to IAC course structure; 2. Strategies for instructional design 3: Techniques for using Internet services for information and communication; 4. Creating Educational Web Pages, 5. Making multimedia teaching materials, 6: Using learning management systems (LMS) for teaching (Moodle); 7: Developing learning communities (Virtual class).

Students must connect on the Moodle platform to both the CAI course and the Moodle VLE Laboratory.

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Each student must enrol and must participate in activities in a course conducted by another colleague of the group to which he belonged. A student is simultaneously a course creator and a participant in three courses realized by three colleagues who are part of his group.

 Sunteți autentificat ca Adăscăliței Adrian (leșire)
Română (ro) ▾

Prima pagina Profilul Foaiet

Pagina principală


Platforma de e-Learning pentru studenții Universității "Alexandru Ioan Cuza" din Iași care frecventează cursul de
Instruire Asistată de Calculator (IAC), DPPD, Facultatea de Psihologie și Științe ale Educației
Coordonator: conf. univ. dr. **Adrian Adăscăliței**


**Pentru a vă înscrie la Cursul IAC (elearning, blended learning) trebuie să respectați cerințele impuse de Profesor și să solicitați Cheia de Înscriere Titularului de Curs !
În cazul în care NU respectați normele impuse la înscriere, solicitarea Dvs. va fi automat anulată !**

Adăscăliței, Adrian: Instruire Asistată de calculator, Polirom, Iași, 2007

Instruirea asistată de calculator (IAC) este o metoda didactica ce valorifica principiile de modelare si analiza cibernetica a activitatii de instruire in contextul noilor tehnologii informatice si de comunicatii. Sinteza dintre resursele pedagogice ale instruirii programate si disponibilitatile tehnologice ale calculatorului (sistem de procesare a informatiei) confera acestei metode de invatamint importante calitati privind: informatizarea activitatii de predare - invatare - evaluare; imbunatatirea instruirii prin intermediul unor actiuni de gestionare - documentare - interogare si simularea automatizata interactiva a cunostintelor si capacitatilor angajate in procesul de invatamint, conform documentelor oficiale de planificare a educatiei.



 Orar IAC Sept 2013/Ian 2014 86.4KB Document PDF
Orar IAC Sept 2013/Ian 2014 (Adrian Adăscăliței, conf. dr.)

 Finalizare activitate curs IAC 2013/2014
Finalizare activitate curs IAC 2013/2014

În perioada 02 Dec 2013--22 Dec 2013 verifici conspectele (15 pagini scrise de mână).

Cadou de Moș Nicolae ! Până pe 06 Dec 2013 inclusiv studenții pot solicita spațiu de curs virtual.

Până la data de 30 Dec 2013 fiecare student are obligația de a finaliza cursul virtual !

În perioada 03 ianuarie 2014 -- 19 ianuarie 2014 evaluez cursul realizat de fiecare student și pun notele la Secretariatul / Decanatul Facultăților (Fiecare curs este evaluat 1 una singură dată).

Trebuie să închei situația școlară și să trec notele în cataloage la 5 cinci Facultăți pentru circa 500 de studenți !



Sunteți autentificat ca Adăscăliței Adrian (ieșire)

Prima pagina Profilul Foaier

Pagina principală ► Cursurile mele ► IAC 2013-4

Activează modul de editare

Anunțuri Importante

Your progress ?

Instruire Asistata de Calculator Către Studenții de la Fac. de



Adascalitei Adrian: Instruire Asistată de Calculator

Programa Analitică IAC

Introducere_IAC.wmv

Introducere IAC

Glosar cu termeni specifici e-Learning și Instruirii Asistate de Calculator

EduTECH Wiki este un sit pentru Tehnologii Educaționale și domeniile conexe și este găzduit și realizat la TECFA, la Universitatea din Geneva.

Revista IEEE privind tehnologiile de învățare (TLT)

IEEE Education Society

Universitatea din Craiova. Exemplu de materiale didactice online

Adăscăliței, Adrian: *Instruire Asistată de calculator*, Polirom, Iași, 2007

Instruirea asistata de calculator (IAC) este o metoda didactica ce valorifica principiile de modelare si analiza cibernetica a activitatii de instruire in contextul noilor tehnologii informatice si de comunicatii. Sinteza dintre resursele pedagogice ale instruirii programate si disponibilitatile tehnologice ale calculatorului (sistem de procesare a informatiei) confera acestei metode de invatamint importante calitati privind: informatizarea activitatii de predare - invatare - evaluare; imbunatatirea instruirii prin intermediul unor actiuni de gestionare - documentare - interogare si simularea automatizata interactiva a cunostintelor si capacitatilor angajate in procesul de invatamint, conform documentelor oficiale de planificare a educatiei.

Pentru eventuala gazduire a unei discipline pe platforma MOODLE, vizitati va rog situl

In curs de actualizare !!!

Recomandări metodologice pentru Lecția Virtuală !

Temele pentru Examenul la disciplina IAC

Tema pentru Examen pentru Studenții de la Fac. de ...: Conspect Portofoliu Forum

Două exemple de Conspect pentru IAC

Resurse Metodologice pentru Proiect Lecție IAC





Cuvânt Introdusiv la Disciplina

Bine ați venit ca Student la Curs Demo Moodle care evidențiază Caracteristicile Platformei



Finalizare activitate curs IAC 2013/2014

Discuții și întrebări inițiate de elevi către clasă și Profesor !

Acest forum este folosit de către Elevi și Profesor pentru a discuta despre orice problemă care se referă la activitatea didactică !

Discuții și întrebări inițiate de Elevi către clasă și Profesor !

Adrese web pentru cursuri gratuite MOODLE

Platformă pedagogică în Limba Franceză, Universitatea Paul Verlaine, [Exemplu curs universitar Engleza pentru Presă \(Media\)](#)

Concepte Interactive in Biochimie

Vizualizarea Fișierelor

Resurse și Activități în MOODLE Exemplu Lecție Biologie

Tractul Digestiv

Mader/Biology, 10/e – Chapter Outline

- 34.1 Digestive Tracts
- 34.2 Human Digestive Tract
- 34.3 Digestive Enzymes
- 34.4 Nutrition

1 Cuprinsul detaliat al Lecției Your progress ?

2 Obiectivele Lecției Digestive Tracts Learning Outcomes

Prezentare Dinamică PPT a Lecției 13.5MB Prezentare Powerpoint
Prezentare Dinamică PPT a Lecției

Glosar Biologie clasa IX-a
Glosar Biologie clasa IX-a

Organs of Digestion
Organele digestiei

Elev vde filmul și apoi răspunde la Test / Chestionar !

Lucrare de Laborator Virtual

Student blended learning course worked examples:

Preparation of design and construction of Student Course work is conceived as a sequence of steps, according with e-learning instructional model.

We will mention only design, development, implementation, execution, and evaluation.

In the Design phase student learn 'how' to teach using BL. The outcome from analysis of the learning characteristics and needs of the learners is used to create a blueprint for the instruction, where the learner's learning process, defining the learning approach, the structure of the information to be delivered (facts, concepts, processes, procedures, and principles), standards to be used, execution criteria, and achievement expected of the learner are specified.

1. fifty six Students from History (Figure 2),
2. eight Students from Romano-Catholic Theology (Figure 3),
3. sixty four Students from Philosophy (Figure 4),
4. two hundred forty Students from Letters and Languages (Figure 5),
5. forty four Students from Biology (Figure 6).

Development phase describes the tools used to teach, the materials, strategies, event sequences, and necessary resources.

In following examples we present some of models used by our students in specific disciplines, as well as captured images from lessons realized on the Moodle platform.

Sadava, Life: The Science of Biology 9e Student Centre

(<http://bcs.whfreeman.com/thelifewire9e/>):
Lesson 2: Small Molecules and the Chemistry of Life

Flashcards

Key Terms

Animated Tutorials: Chemical Bond Formation

Activity 2.1 Electron Orbitals

Chapter 2 Interactive Summary

Chapter 2 Suggested Readings

Interactive Summaries

Animated Tutorials

Activities

Interactive Tutorials

Working with Data

Experiment Links

Flashcards

Key Terms

Suggested Readings

Example of Biology online Lesson

Pagina principală | Cursuri | Cursuri Studenti Medicina | Biologie | Biologie 1232 | Ajutor | Căutare

Forum știri

Limba, organ al gustului. Nasul, organ al mirosului

1. Elevul va vizualiza obiectivele lectiei apoi va deschide prezentarea dinamica si glosarul.
2. Vizualizeaza filmul.
3. Raspunde la intrebarile din fisă de lucru.

- Obiectivele lectiei
- Prezentare dinamica a lectiei
- Limba, organ al gustului. Nasul, organ al mirosului
- Limba, organ al gustului. Nasul, organ al mirosului - VIDEO
- Concluzii
- Limba, organ al gustului. Nasul, organ al mirosului - FISA DE LUCRU

Pielea - organ tactil, termic, dureros si de presiune



The diagram shows a cross-section of human skin. The outermost layer is the EPIDERMA, which contains a hair (Piel) and a pore (Por de transpiratie). Below the epidermis is the DERMIS, which contains sebaceous glands (Glanda sebacee), a hair follicle (Follicul pilos), and blood vessels (Vene and Artere). The deepest layer is the HIPODERMA, which contains sweat glands (Glanda sudoripara). Labels on the right side of the diagram identify the EPIDERMA, DERMIS, and HIPODERMA. Labels on the left side identify the Glanda sebacee, Follicul pilos, Vene, Artere, and Glanda sudoripara.

- la omul adult are o suprafata de 1.5 m²

Biology online Lesson created by a Student

Figure 6. Lesson created by a Student from Biology

Teaching History with Technology
<http://www.worldhistoryteacher.org/>
<http://thwt.org/>
<http://www.hyperhistory.com/>
Lesson: Europe's World Supremacy, 1871-1914
http://glencoe.mcgraw-hill.com/sites/3333366666/student_view0/chapter16/
Lesson Overview
Learning Objectives
Primary Sources, Maps and Images
Timelines
How to Create a Lesson in Moodle 2
<http://www.packtpub.com/article/how-create-lesson-moodle-2>

românești: Țara Românească și Moldova.

1. Statul vlaho-bulgar al Asăneștilor
2. Contextul intern și extern al formării statelor medievale
3. Transilvania de la voievodat la principat.
 - a) Cucerirea Transilvaniei
 - b) Organizarea Transilvaniei

- Formarea statelor medievale- pagină Wikipedia
- Lecție - Formarea statelor medievale românești
- Lecturi suplimentare: Istoria românilor- Constantin C. Giurescu



Constituirea statelor medievale românești

- Formarea statelor medievale românești
- Contextul intern și extern al formării statelor medievale românești
- Formarea statelor medievale românești
- Formarea statelor medievale românești-prezentare în Power Point 1 SMS Prezentare Powerpoint
- Biblioteca digitală a României, DecoRomanica

History: lesson examples

Lesson created by a Student from History

Figure 2. Lesson created by a Student from History

McGrath: Christian Theology: An Introduction, 5th Edition

<http://bcs.wiley.com/he-bcs/Books?action=index&bcsId=5839&itemId=1444335146>

A Lesson contains:

Quizzes requires Microsoft Office Viewer

Quiz Keys

Power Points requires Microsoft Office Viewer

Additional Docs

List of Engaging with text

The screenshot shows a Moodle course page. The browser address bar displays the URL: <https://www.moodle.ro/uaic/course/view.php?id=4>. The page title is "Curs: TRC Antohe S Con". The navigation menu includes "Edit", "View", "Favorites", "Tools", and "Help". The course content is organized into sections: "Prima pagina", "Profilul", and "Foaier". The main content area includes a "Forum ştiri" section with the title "PROGRAMA ANALITICA religie romano-catolic". Below this is a "Temă 1" section with the title "Lecția nr. 1" and the subtitle "Lecția nr. 1 - Adevărurile teologice apărute de primele concilii ecumenice: Niceea, Constantinopol I, Efes, Calcedon". There is also a "Misterul Trinității" section with the subtitle "Doctrina Trinității". At the bottom, there is a "Proiect de lecție clasa a VII-a" section with the subtitle "Acest plan de lecție l-am realizat pentru practica pedagogică, la elevii de clasa a VII-a." and the text "Lecția se numește 'Adevăruri teologice apărute de primele concilii ecumenice: Niceea, Constantinopol I, Efes, Calcedon'". A file icon is visible next to the text "Plan de lecție 94.5Kb Document Word".

Romano-Catholic Theology example of additional online material to lesson

Lesson created by a Student from Romano-Catholic Theology

Figure 3. Lesson created by a Student from Romano-Catholic Theology

Lesson: Reason and Experience. It contains Handouts

<http://www.routledge.com/cw/alevelphilosophy/>
PowerPoints Presentations

- comprehension questions to test core knowledge
- discussion questions to deepen understanding
- ‘going further’ sections for advanced study
- cross-references to help students make connections
- helpful summaries and a glossary.

Vocabulary Flashcards

Quizzes on Reading

Link to Blog

Downloadable Logical Toolkit

Downloadable Writing a Philosophy Paper

Glossary of Philosophical Terms

Example of Philosophy web Lesson

The screenshot shows a Moodle course page for Philosophy. The page title is "Lecție tip Blended Learning". The content includes a list of resources: "Antrepronariat", "Proiect de lectie", "Instrumente necesare studierii pietii", "Power Point", "Glosar", and "tema pentru acasa". Each resource has a set of icons for navigation and actions. The page also features a search bar, a navigation menu, and a breadcrumb trail.

Student Lesson in Philosophy

Figure 4. Lesson created by a Student from Philosophy

Student Companion Site for
Troika: A Communicative Approach to Russian
Language, Life, and Culture, 2nd Edition
[http://bcs.wiley.com/he-
bcs/Books?action=index&bcsId=6426&itemId=0470646
322](http://bcs.wiley.com/he-bcs/Books?action=index&bcsId=6426&itemId=0470646322)

Lesson 4: Where is the post-office?

Textbook Audio Files [requires WinZip](#)

Self Tests

Typing Tutor Activities

How to Install a Russian Homophonic Keyboard*

Oral Exercises [requires WinZip](#)

Lab Audio Files [requires WinZip](#)

Interview Video *

Cultural Video*

Flash Cards*

Grammar Activities*

[Letters and Languages](#)


Lectie destinata clasei a-V-a B nivel A2

Colegiul National Bogdan Petriceicu Haedou


Tip de lectie: lexic (achizitie de noi cunostinte)

Les etapes: (Etapele)


- Apprendre les aliments
- La nourriture aux français
- La nourriture roumaine

 Presentare- La nourriture (mancarea) 1.0MB Presentare Powerpoint

 Presentare Lectie 15.4KB Word document

 Fiche de travail

 Exercices 142.2KB Word document

 J'aime les fruits


 Devoir Online

Figure 5. Lesson created by a Student from Letters and Languages

CONCLUSIONS

The program presented here is the result of Iași "Al. I. Cuza" University and "Gh. Asachi" Technical University of Iași blended learning project (with the support of Moodle Romania) to innovate pedagogical practices using ITC technology.

As a starting point, we advocated to a tertiary education learners' needs analysis with the hope to create a pedagogical model to more efficiently meet those needs.

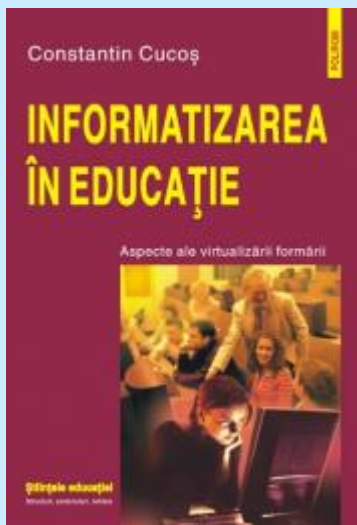
We then engaged in the selection of ICT resources for Blended Elearning Theoretical Fundamentals, in syllabus and courseware materials design and development, in teacher training envisioning ways to creatively put theoretical principles into practice, in devising and developing balanced tests to objectively and coherently assess the communicative goals set.

CONCLUSIONS

At the same time, we designed, created and judgmentally evaluated the pedagogical materials, supervised technical implementation, and managed the utilization of the system of our end users. The project provided student teachers the opportunity to assume new roles: to become CAL (Computer-Aided-Learning) material designer and developer, script writer, manager and producer of media resources, work flow manager, online tutor, manager of the language learning environment, and mediator to open communication channels with a multidisciplinary team.

The blended-learning pedagogical model implemented combines: (a) Learners' independent work with CAL tasks for developing language skills in a network-based interactive multimedia environment, (b) online tutoring in web portfolios, (c) online interaction with global/local community, (d) online and face-to-face tutoring by CAL teacher-tutors, (e) face-to-face classes with CAL teacher-tutors.

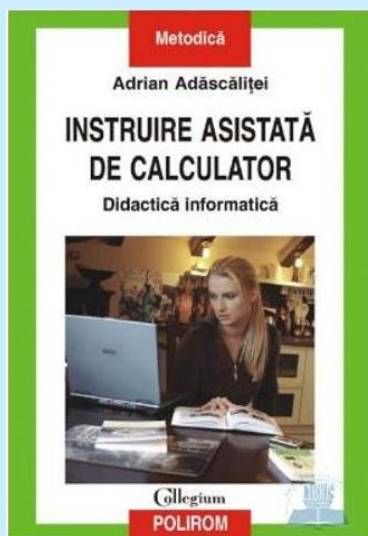




Constantin Cucos: Informatizarea in educatie. Aspecte ale virtualizarii formarii

Cucos, Constantin.

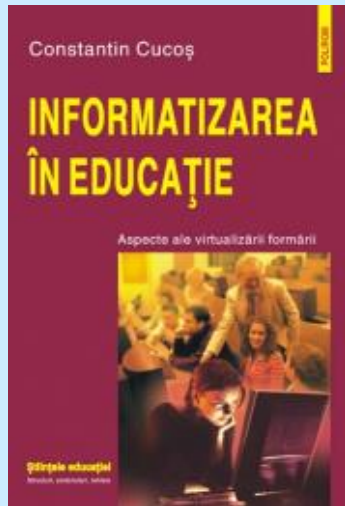
"Informatizarea în educație." *Aspecte ale virtualizării formării*,
Editura Polirom, Iași (2006).



Adrian Adascalitei: Instruire asistata de calculator. Didactica informatica

Adăscăliței, Adrian. "Instruire asistată de calculator."
Editura Polirom, Iași (2007).



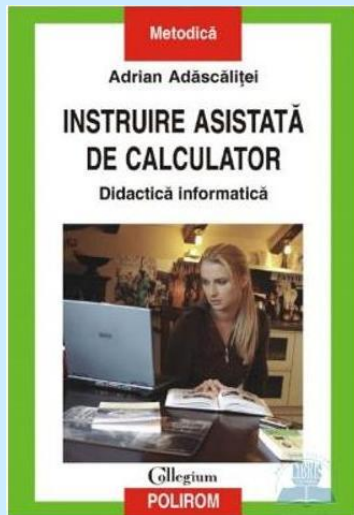


Cucuș, Constantin. "Informatizarea în educație." *Aspecte ale virtualizării formării*, Editura Polirom, Iași (2006).

„Revoluția informatică” a schimbat din temelii modelul clasic de transmitere a cunoașterii. Cartea este prima lucrare pedagogică dedicată tratării în extenso a noii paradigme din educație, în consens cu perspectiva informatizării, și răspunde actualelor restructurări din programele de învățământ, inclusiv cerințelor privind formarea cadrelor didactice. Este prezentată întreaga tipologie a situațiilor educaționale care implică utilizarea tehnologiilor virtuale pentru a ameliora calitatea învățării, prin facilitarea accesului la resurse și servicii, precum și a schimburilor și a colaborării la distanță.

Cuprins: Virtualizarea educației – determinări, fundamente, perspective • Mondializarea și informatizarea procesului educativ • Cybercultura și avatarurile învățării în era internetului • Către un nou mediu de învățare: comunitatea virtuală • E-learning-ul și resursele sale formative • Educația deschisă la distanță – o ipostază a virtualizării educației.





Adăscăliței, Adrian. "Instruire asistată de calculator." Didactica informatica. *Editura Polirom, Iași* (2007).

Instruirea asistata de calculator (IAC) este o metoda didactica ce valorifica principiile de modelare si analiza cibernetica a activitatii de instruire in contextul noilor tehnologii informatice si de comunicatii. Sinteza dintre resursele pedagogice ale instruirii programate si disponibilitatile tehnologice ale calculatorului (sistem de procesare a informatiei) confera acestei metode de invatamint importante calitati privind: informatizarea activitatii de predare - invatare - evaluare; imbunatatirea instruirii prin intermediul unor actiuni de gestionare - documentare - interogare si simularea automatizata interactiva a cunostintelor si capacitatilor angajate in procesul de invatamint, conform documentelor oficiale de planificare a educatiei.

Cuprins: IAC, e-learning si tehnologia de instruire • Teoriile fundamentale ale proiectarii instruirii • Clasificarea programelor de instruire asistata de calculator • Scenarii de desfasurare a instruirii asistate de calculator • Rolul si functiile indrumatorului in IAC • Realizarea materialelor de studiu pentru IAC • Metodologia de concepere, proiectare si realizare a programelor de instruire asistata de calculator • Interactiuni. Comunicatii mediate de calculator si navigabilitate • Modelul unui centru de invatamint IAC (online, e-learning) • Elemente de proiectare si standardizare a resurselor pentru e-learning



UNIVERSITATEA TEHNICĂ A MOLDOVEI

CRUNT 2014

BUNELE PRACTICI DE INSTRUIRE ONLINE

Culegere de articole

24-27 septembrie

Chișinău 2014

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