E-learning international courses within Forest Sciences program at UNIPD: potential and challenges for quality assurance

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Outline

1. Introduction
2. The experience of e-learning courses within the Forest Sciences programmes at the University of Padova
3. The special case of ECOSTAR e-learning course
4. Implications for quality assurance
5. Final remarks
1. Introduction

While in the past e-learning activities have been often delivered as a complement to the traditional frontal lessons, in the last decade, the role of e-learning courses in structuring the study curricula has been growing rapidly.

Main drivers:
- Increasing demand for higher education qualification
- Innovation in and increasing use of digital technologies
- Increasing demand of innovative and participatory-oriented teaching techniques based on involvement of students
- Increasing competition among Universities in attracting international students and getting higher international visibility (e.g., getting motivated students, more resources, reputation)
Introduction

Two main types of e-learning courses:

1) Interactive e-learning courses
- e-modules delivered in pre-defined weeks/periods
- students’ engagement
- teacher-student relationship
- collaborative learning
- final evaluation of students’ performance by the teacher
- more dynamic

2) MOOC
- e-modules always accessible/available (asynchronous or in continuum)
- (in general) no direct interactions between students-teachers
- (in general) final self-evaluation
- more static

Blended learning
(Source: Michael Power 2008)
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2. E-learning courses in Forest Sciences programs at UNIPD

General characteristics:
- Interactive e-learning activities (assigned tasks + individual/group work of the students + forums/online discussions (moderated-stimulated by the e-teacher)
- Moodle platform (open access)
2. E-learning courses in Forest Sciences programs at UNIPD

Our running courses:
- Since 2006: “Climate Change and Tropical Forestry: Monitoring and Policies” (6 ECTS) - EM MSc programs SUTROFOR & SUFONAMA
  ✓ ca. 20-25 students/year
  ✓ 2 e-moderators (1 teacher, 1 assistant)
- Since 2013: “Research Project Development and Methodology – Applications” (4 ECTS) - EM MSc program MEDfOR
  ✓ ca. 10-23 students/year
  ✓ 1 e-moderator (teacher)

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3. The special case of ECOSTAR e-learning course
(Erasmus+ Knowledge Alliance program)
(www.ecostarhub.com)  

Started in 2017, the e-course aims at guiding students and professionals to acquire high level entrepreneurial skills by working with private sector, to convert innovative ideas into successful business plans for impact investments, in the field of natural resources.

The special case of ECOSTAR e-learning course

- **4 partner Universities**
  - UNIPD, Italy
  - Polytechnic Univ. of Madrid, Spain
  - Univ. of Brasov, Romania
  - Univ. Manchester, U
- **15 e-moderators** (1 coordinator, 1 assistant coordinator, lecturers: initially trained for consistency in the approach)
- **150 learning hours/student** (30 direct online interaction with e-moderators/lecturers)
- **6 to 7.5 ECTS**
- **5 online e-modules + assignments**
The special case of ECOSTAR e-learning course

**Evaluation of participants’ performance:**

- **25% active online participation**
- **25% mid term evaluation (4.2)**
- **50% final examination (6.1)**

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**Module Title** | **Relevant learning outcomes** | **E-lesson** | **Activity** | **Timetable** | **Developer & E-Lecturer**
---|---|---|---|---|---
1. Are you evaluation friendly? | E-lesson platform; understanding course structure; relevance and value of e-lessons | Web surfing | 1 week - Monday 26/03 | Friday 03/04 | DEVELOPER: E-BADIA; EDUCATOR: E-LEOTHEMIS; 2 days + 1 day
2. Ecosystem services and products | Understanding regulatory frameworks; developing market placing forces | Web surfing and law reading | 1 week - Monday 23/10 | Friday 06/11 | DEVELOPER: E-LEO-COLE; EDUCATOR: E-LEOTHEMIS
3. Market niche | Market niche analysis: choosing a niche, finding service needs, and regional and sectoral differences | Web surfing and law reading | 1 week - Monday 23/10 | Friday 06/11 | DEVELOPER: E-LEO-COLE; EDUCATOR: E-LEOTHEMIS
4. The business idea | Defining the business idea, planning the business idea | Web surfing and law reading | 1 week - Monday 23/10 | Friday 06/11 | DEVELOPER: E-LEO-COLE; EDUCATOR: E-LEOTHEMIS
5. Let’s focus | E-COSTAR analysis (ERP) | Web surfing and law reading | 1 week - Monday 23/10 | Friday 06/11 | DEVELOPER: E-LEO-COLE; EDUCATOR: E-LEOTHEMIS
6. Final Examination | Final examination: development of business plan using the COSTAR model | Writing examination | 2 weeks - Monday 23/10 | Friday 06/11 | DEVELOPER: E-LEO-COLE; EDUCATOR: E-LEOTHEMIS

**RESULTS OF FINAL EXAMINATION**

- **COURSE EVALUATION BY STUDENTS**
  - Students 10 is an online term presentation

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**The special case of ECOSTAR e-learning course**

**5 modules + mid term assignment + final assignment**

Each module has 2 to 4 e-lessons

**Introduction:** to introduce the learning topic

**Spark:** to start the learning process (image, video, etc.)

**Objective:** to clarify the learning objective of the e-lesson

**Task:** to specify what the student has to do in order to pass the E-lesson. The fulfillment of the task is objective and verifiable. To complete the task the student has to:

- posts at least one message addressing the task within the defined deadlines;
- posts at least one comment to address contributions of fellows;

**Suggested resources:** to provide student with learning sources (web sites, articles, databases, etc.)

**Start and deadline:** to fix the start and end time of the E-lesson
The special case of ECOSTAR e-learning course

3/4

MAX TIME FOR A STUDENT 2-3 hours

How can you do it:
- Follow a mobile app
- Upload all your work to a cloud storage service
- Keep track of the progress and updates
- Create a detailed outline
- Use a project management tool
- Share updates with team members
- Set deadlines for each task
- Meet regularly with team members
- Celebrate small achievements

Task:
1. What are the advantages of using a mobile app?
2. Are there any challenges with keeping track of progress?
3. How can you effectively use cloud storage for project management?
4. What are the benefits of having a detailed outline?
5. What are the disadvantages of using a project management tool?
6. How can you ensure that deadlines are met?
7. What are the benefits of regular meetings with team members?
8. How can you celebrate progress?

The special case of ECOSTAR e-learning course

4/5

Participants:
- 171 involved participants & lecturers
- 156 enrolled participants
  - 67% students formally enrolled in a University (BS, MSc and PhD)
  - 33% non students (e.g., entrepreneurs)
- 135 active participants
- 69 participants who completed the e-course (51.1 %)
- 26 nationalities (9 EU countries)

Level of satisfaction (anonymous evaluation form):
- 93% of participants are satisfied, the e-course met their expectations
- 78% of participants think there is not much duplication/repetition of contents with other courses
The special case of ECOSTAR e-learning course

Why it is “a special case”, i.e. why it differs from other e-learning courses we regularly deliver?

• Target includes entrepreneurs and more in general persons not necessarily enrolled as students in a University study curriculum/program
• Coordinated by UNIPD, but delivered with the contribution of other partner Universities (e-moderators of groups)
• Relatively high number of participants

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4. Implications of these types of e-learning courses for quality assurance at UNIPD 1/2

Positive/potential

• **Diversification** of the courses offered by the University
• **Flexibility** of the e-modules’ schedule (time-complementing frontal lessons)
• Attraction of **high number of participants** from all over the world (visibility, resources)
• **More inclusive teaching techniques**, as suggested by our “Teaching4Learning@UNIPD” pedagogical specialized team, to increase the level of students’ satisfaction and performance
• **Easier involvement of experts/lecturers** from other Universities/organisations

Implications of these types of e-learning courses for quality assurance at UNIPD 2/2

Negative/challenges

• **Shorter/simplified scientific contents**
• **Need special skills** (e.g., qualified e-moderators, communication/video design and recording teams)
• **Need more resources** than traditional courses (ideally there should be 1 e-moderator/lecturer every 10-12 students)
• **Two different procedures needed:**
  ✓ for students: no attendance fees, transcript of records (ECTS registered)
  ✓ for non-students: 109€ + VAT (co-financed by ECOSTAR project; 52 self-paying participants), only a certificate of attendance issued by ETIFOR
• Currently, the **formal recognition of ECTS** and issuing of a certificate by UNIPD is **not allowed for non-students**
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5. Final remarks 2/2

• **Internal obsolete mechanisms/procedures/requirements of the University needs to be revised/updated to adapt to the new demand**

• **One MOOC in the MSc Forest Sciences will be developed soon at UNIPD**, with the aim of filling the knowledge gaps of those students who have not a forestry background at the Bachelor level

• **Communication experts** needed (for story-boards, videos, etc.) in strict collaboration with lecturers/professors
Thank you for attention!

Dipartimento TESAF  
www.tesaf.unipd.it

Spin-off ETIFOR  
www.etifor.com

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