

Design quality e-learning

Topics

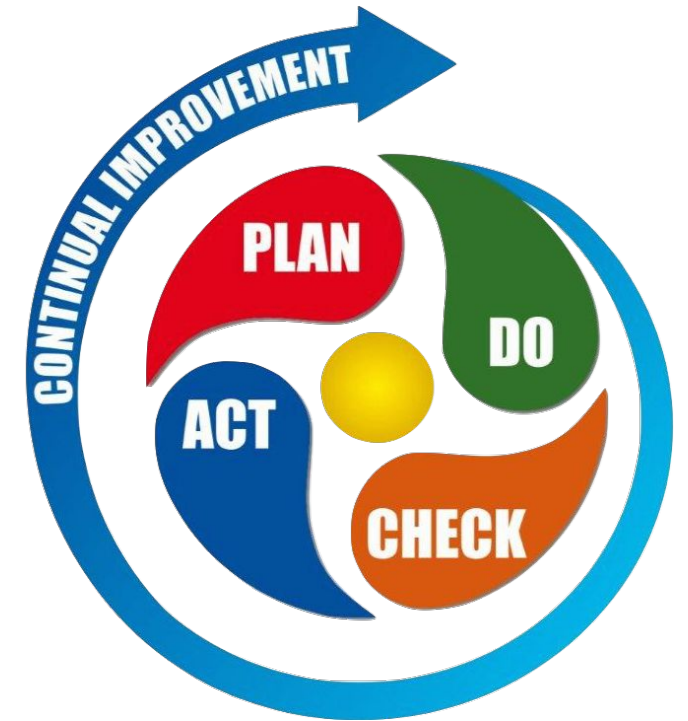
- Design quality e-learning
- The Deming cycle of distance learning material
- Lesson structure
- Lesson preparation and delivery
- Virtual class definition and potentialities
- Some example of virtual class software
- Aim of virtual class and students' involvement
- Syllabus structure
- Syllabus as a learning object to guide students

Objectives

- The objectives of the lesson are:
 - Understand the principal aspects to be considered for a quality e-learning
 - Understand how to prepare lessons specifically prepared for a distance fruition
 - Discuss the different possibilities offered by virtual classes
 - Understand how to create effective virtual class
 - Discuss the potentialities of a syllabus as a learning object

Design quality e-learning

- When designing learning objects for e-learning, we must always keep in mind these materials will be used by distance students
- The starting design must consider this aspect and the instructor should always try to put himself in the shoes of the student
- Surely, in this context, the experience helps to create good material but, as will be clear during the entire course, more than in traditional learning, in e-learning we should always be ready to modify our materials and approach
- As in an industrial point of view, we must apply a DEMING cycle for the continuous improvement of our approach



Design quality e-learning

For a standard discussion, we will discuss in this topic some fundamental material that are always part of an e-learning course:

- Lessons
- Virtual class
- Syllabus

Lessons

- Designing e-learning lesson, there is a significant importance of how the lesson is planned and laid out
- Always organize, like in traditional learning, your lesson with a precise scheme in which you start from general aspect to arrive to details
- What is important is try to anticipate questions and doubts that can arise from students
- In an e-learning lesson, it is fundamental to insert summary scheme and example to consolidate knowledge and solve doubt

Lessons

- At the end of the lesson, it is important to insert self-assessment that is important to permit students to evaluate what they have understood
- For self-assessment we can have reflection questions, multiple answer questionnaires, yes-no questions, etc.
- Depending on the LMS you are using, this function can probably be built-in in your system

Lessons

- Lesson planning can be a tedious process and make changes to existing lessons every year can take long time
- There are online apps and software designed to make the process of lesson planning much easier.
- First, we can find very easily, ready to use layout that permit a good readability of our lessons
- As clear, a clean and well readable lesson is important to not strain students

Virtual class

- A virtual classroom is an online learning environment
- Just like in a real-world classroom, a **student** in a virtual classroom **participates** in **synchronous instruction**, which means that the teacher and students are logged into the virtual learning environment at the same time.
- To enhance the educational process, applications may also provide students with **asynchronous communication** tools, such as message boards and chat capabilities.

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Virtual class

Some example of software for virtual class:

Fidenia (<https://www.fidenia.com/>)

Italian online system for creation and management of virtual classes, for the development of social learning in schools, with e-learning functions, contents publication, assessment test, calendar and electronic register.

Edmodo (<https://www.edmodo.com/>)

Learning platform that allows you to manage your own class as a virtual group.

Virtual class

Some example of software for virtual class:

Schoology (<https://www.schoology.com/>)

Free online learning environment, with functions of LMS (Learning Management System) advanced, to promote collaborative learning, running on any device.

Wiggio (https://wiggio.com/?#tpl=home_0)

A system to create free and easy small business community, study and online collaboration, sharing materials, events, resources, integrated messaging and shared calendars.

Virtual class

Minimal requirements

- Internet access (ADSL or better);
- Internet Explorer;
- Last version of “Adobe Flash Player”
Audio Speakers
- Microphone
- Web-Cam

Virtual class

1. Define tools and objectives

- Not all skills can be developed with the same methodology: the key factor for an effective training is to identify the most appropriate teaching method and tools to achieve the objectives fixed.

2. Show all potentialities of virtual classroom

- You can use simulations and animations to explain and describe the contents to the students. The visual tools help store and then their learning.

Virtual class

1. Involve

- An effective virtual classroom includes sharing and exchange moments and interactions. Frequent high quality interaction, between teacher and student and among students, ensure their involvement in the classroom and a more rapid achievement of the objectives.

2. Support

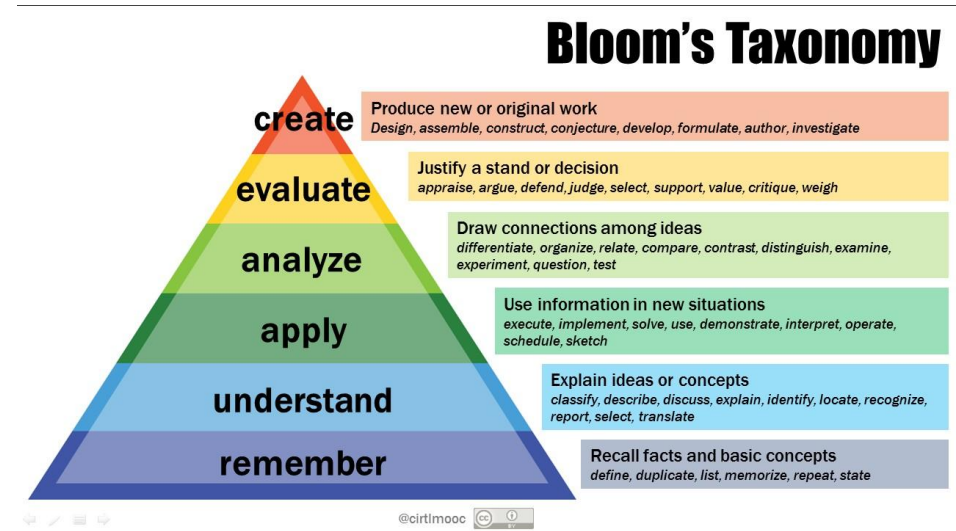
- It means not only providing teachers and students with an adequate technological infrastructure, but also including technical staff and tutors to facilitate the access and the use of the virtual class functionalities and potentialities.

Virtual class

The aim should be always the same: let students understand and learn. A more complete version of the aims is indicated in Bloom's Taxonomy.

Therefore, define your **performance goals** and **learning objectives**.

This will help guide you through the **design** and **development** of your virtual classroom **training strategy**, as you will be able to select the **learning materials**, **tools**, and **methods** that will serve these goals and objectives.



Virtual class

- Try to provoke discussion among students, if you want to boost their engagement.
- This will encourage them to interact with the subject matter and their peers.
- To trigger student discussion, you may want to integrate some form of online collaboration, such as Google Chat, Adobe connect chat, etc.
- Active student participation is key to a successful virtual classroom training experience.

Syllabus

For **those not expert** on distance learning, there are some fundamental differences between this approach and the traditional:

- Students have no interaction with instructors
- Students must organize their work autonomously

... and this an important “handicap” to be considered!

Syllabus

- One of the most important problem for academic institutions is the large dropout experienced especially during first year
- The motivations beside this are various
- Surely, one limitation experienced by students is in the difficulty in creating an autonomous study method

Syllabus

- Moving from secondary school to university, students pass from a completely guided study to an autonomous method and time schedule
- Those not ready for this passage can have serious problems that can become real stumbling blocks
- The result of this difficulty is the high dropout during first year

Syllabus

- The solution is in the creation of specific tools able to guide students during their study
- The first, and probably the most effective, solution we can adopt is the creation of a detailed program that drives step by step students
- This is essentially the idea beside a detailed syllabus

Syllabus

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Syllabus

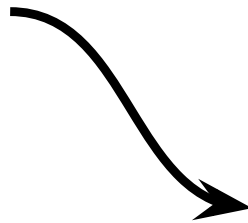
The first part of the syllabus must include:

- Course name;
- Pre-requisites (mandatory or suggested);
- The hours of: lessons, virtual classes and other e-activities;
- The hours of suggested study at home;
- The instructors of the course or subject.

Syllabus

After these preliminary information we must go in the specific of the course with:

- Course Description
- Learning objectives
- Course structure



Final aim of the
course and
description of the
macro-arguments
forming didactical
duties

Syllabus

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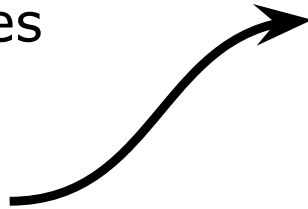


Abilities acquired at the end of the course defined using Bologna process standards

Syllabus

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- Course Description
- Learning objectives
- Course structure



Internal division in modules or didactical units with the timing indication of each single part

Syllabus

- This first parts of the syllabus are fundamental to let students understand all the information about course, output ability, time schedule and didactical duties.
- Trying to satisfy the needs of the students, now we must include a clear “suggested” guide to efficiently study this course
- In USGM, as always, we divide our courses into modules and for each module we suggest to our students the «recomended» time to study this module

Syllabus

Topical Outline and Schedule	
DATE	Weeks 1-2 - Module I: E-Learning Evolution
Learning activities	<p>The Module E-Learning Evolution is composed the following activities:</p> <ul style="list-style-type: none">• Course presentation<ul style="list-style-type: none">a) Argumentsb) Objectivesc) Structure• E-Learning, from the beginning to now<ul style="list-style-type: none">a) The first distance coursesb) Computer Based Trainingc) Web Based Training• From ten year ago to nowadays<ul style="list-style-type: none">a) Recorded face-to-face lessonsb) MOOCs, SPOCs and other massive courses• Modern E-Learning Solutions<ul style="list-style-type: none">a) Video Lessonsb) Green Screenc) Student centered learning• E-Learning concept<ul style="list-style-type: none">a) The role of the teacherb) The role of the tutorc) Students interaction• Virtual Class<ul style="list-style-type: none">a) Open Discussion on Module I arguments

- **Topic**
 - a) Arguments 1
 - b) Arguments 2
 - c) ...

Suggested duration for the module

Syllabus

- This division is important because often our students are in front of a “flat” sample of lessons
- This can confuse them not giving the possibility to clearly identify the “blocks” that compose the course
- Obviously, the durations inserted into the syllabus are averages

Conclusions

- When designing e-learning materials, we must always keep in mind we are preparing something to be delivered to students not physically present in class
- This means that we must be able to anticipate questions and doubts providing to students all information
- Experience helps a lot in preparing this material but we must always be ready to modify material for a continuous improvement
- Some suggestions have been showed for the preparation of the most commonly used material: lessons, virtual classes and syllabus