

# Module 1. Recording, editing and blending educational videos: OBS, OpenShot Editor and EdPuzzle

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## Module 1A. Recording and editing quality videoclips

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Recording educational video clips is becoming a more useful tool within tertiary education. Video clips can be used as an external support for face-to-face lessons but also for organizing a flipped classroom. Recording is not so difficult, but some guidelines about how to record and edit clips are necessary in order to produce quality videos. There exist different software for this purpose, both with license and license-free.

### Objectives

The goal of this module is to present some guidelines about quality standards in educational videos, and to introduce OBS, a free software to record videos.

### Contents

- General guidelines about quality videos
- Specific guidelines about educational videos
- How to record videos with OBS: combining layers, presentations, voice, image, etc.
- How to edit videos with OpenShot Editor: reducing, enlarging quality, removing fragments, adding effects, etc.

## **Methodology**

This module will be developed through an online seminar. At the end of the seminar participants will be asked to produce a video clip and to revise others' videos.

## **Module 1B. Blended and flipped learning**

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Enriching the clips by embedding questions and quizzes is a useful practice for blended learning. Blended learning includes flipped learning but also covers other types of active learning that are not necessarily flipped. What defines a good blended learning based on video clips? How to enrich the clips to produce a responsible and active learning?

## **Objectives**

The goal of this module is to provide tools for enriching educational videos by using different type of questions, and to provide guidelines about what type of activities are suitable for flipped/blended-learning.

## **Contents**

- General ideas about blended and flipped learning
- How to enrich our videos, by adding questions, with EdPuzzle (free registration)
- Feedback and feedforward in blended learning.

## **Methodology**

This module will be developed through an online seminar. At the end of the seminar participants will be asked to enrich a video clip and to revise others' videos.

## Module 2. Interactive tools for online teaching and assessment

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### Module 2A. eXeLearning as a tool for creating digital content

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eXeLearning is an editing environment specially designed for **creating educational content** (see <http://exelearning.net/>). It does not require to have an extensive knowledge of languages such as HTML or XML. eXeLearning uses standard formats (like IMS or SCORM) widely used in learning management systems such as Moodle. eXeLearning is an intuitive and easy to use tool that allows teachers to create and publish a complete variety of educational content (text, images, clips, tables, sounds, GeoGebra applets, etc.) on web pages or online learning environments. It works without an Internet connection.

### Objectives

The aim of this module is to present the eXeLearning environment. After this module, the students should know the principal characteristics of the eXeLearning environment, distinguish the main advantages and disadvantages of this tool, be able to create educational content using the basic functions of eXeLearning, and export and import such content in a learning management system such as Moodle.

### Contents

1. Introduction to the use of eXeLearning.
2. eXeLearning download and installation.

3. eXeLearning work environment and structure.
4. Creation and editing of digital content using design instruments or iDevices (textual information, non-interactive activities, interactive activities, non-textual information), own design instrument, and text editor.
5. Export content created with eXeLearning.
6. Upload eXeLearning content to a course in Moodle.

## Methodology

This module will be developed through an online seminar. Instructions will be provided combined with practical exercises through which participants will have the opportunity to create their own educational content.

### Module 2B. R as a tool for creating randomize test models exportable to Moodle

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R is an open-source software that can be freely used and extended. Furthermore, it does not require a local installation using its online environment RStudio Cloud. Rexams (see at <http://www.r-exams.org>) is a package for R that provides a tool **to automate the process of generating exams**. The design of the exams is based on dynamic exercise **templates** that can be used to create different versions of the same exercise. Moreover, using these templates the exams can be exported in different formats such as PDF for classical written exams and files that can be imported in learning management systems like Moodle.

## Objectives

The aim of this module is to present the Rexams tool to generate exams from exercise templates. After this module, the students should be able to write templates of dynamic exercises and to use these to generate exams for Moodle environments.

## Contents

1. Introduction to RStudio and Rmarkdown to generate exams.

2. Rexams package and question overview: multiple-choice, single-choice, numeric, text answers and combinations of these.
3. Generate exams using Rexams for Moodle based systems.

### **Methodology**

This module will be developed through an online seminar. Examples of exams will be reviewed together with instructions to help the participants to develop their own exams.