

Design and application of complementary educational resources for self-learning methodology

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The main goal of this work is enhanced the student's self-learning in subjects regarding irrigation and its technology. Thus, the use of visual media (video recording) during the lectures (master classes and practicum) will help the students in understanding the scope of the course since they can watch the recorded material at any time and as many times they wish.

The study comprised two parts. In the first, lectures were video filmed inside the classroom during one semester (16 weeks and four hours per week) in the course "Irrigation Systems and Technology" which is taught at the Technical University of Madrid. In total, 200 videos, approximated 12 min long, were recorded. Since the YouTube platform is a worldwide platform and since it is commonly used by students and professors, the videos were uploaded in it. Then, the URL was inserted in the Moodle platform which contains the materials for the course.

In the second part, the videos were edited and formatted. Special care was taking to maintain image and audio quality. Finally, thirty videos were developed which focused on the different main areas of the course and containing a clear and brief explanation of their basis. Each video lasted between 30 and 45 min

Finally, a survey was handled at the end of the semester in order to assess the students' opinion about the methodology. In the questionnaire, the students highlighted the key aspects during the learning process and in general, they were very satisfied with the methodology.