

A WIKI WEB SITE ORIENTED TO SUPPORT INTERDISCIPLINARY TEACHING COLLABORATION AT THE UNIVERSITY OF VALENCIA

J. Gabriel Molina, María F. Rodrigo, Tomas Bonavia, Jaime Sanmartin

Universitat de València (SPAIN)

*Gabriel.Molina@uv.es, Maria.F.Rodrigo@uv.es, TomasBonavia@uv.es,
Jaime.Sanmartin@uv.es*

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Abstract

We present a teaching experience based on the development of a wiki website oriented to support the interdisciplinary collaboration between students and teachers of two subjects in the Psychology degree of the University of Valencia: Statistics and Work Social Psychology. The choice of the wiki technology was based on the ease with which pages can be created in a collaborative way and updated in real-time, which fitted our main purpose of improving the joint work between the professors involved in this experience as well as the communication with the students. According to students and teachers' assessment, this experience has had a positive effect on the significant learning of the contents of both subjects. Moreover, it has had an important role in motivating students, encouraging them to value statistics as an integral part of the research process and as an important element of their training as psychologists.

Keywords: teaching of statistics; collaborative learning; interdisciplinary approach; wiki.

1 INTRODUCTION

The reform of the higher education system that European Universities are currently undergoing has involved a shift from an interest in learning contents to an interest in students acquiring specific competences, which can be of different types and can affect their personal and professional development at different levels. According to MEC's [1] proposal, competences are a combination of knowledge, skills (intellectual, manual, social, etc.), attitudes and values that will prepare graduates to successfully confront problem solving or intervene in a matter in a specific academic, professional or social context. There are two types of competences: generic competences related with people's comprehensive training, and specific competences related with the specific training for the given profession. For the Degree in Psychology, which the authors teach, these competences appear in the *White Paper* corresponding to this degree [2] and, for the specific University case, in which we undertake our teaching activity, these competences are specified in the corresponding Programme of Studies [3].

One matter that is closely linked to students acquiring these competences is the introduction of new teaching methodologies that encourage active learning strategies, this being one of the pillars supporting the spirit of the *Bologna process*. Along these lines, and within the Programme of Studies of the University of Valencia's Degree in Psychology, the use of teaching methods is considered, such as role-playing, case studies (both real and simulated), preparation of reports, problem-based learning and cooperative learning by using interdisciplinary groups. The cited interdisciplinary collaboration experiment in the Degree of Psychology, and the collaboration set up in other degrees [4,5], have evidenced some important consequences resulting from their application: (a) it implies coordinating teachers' efforts, which helps enrich the objectives and knowledge deriving from different parts; (b) it helps evidence any overlapping or gaps in contents among course subjects; and (c), it helps reveal the relation among some course subjects and others, thus smoothing the effect of systematic compartmentalisation that students do in these subjects. Apart from the aforementioned effects, the experiment with groups of various course subjects performing combined activities will be appropriate to develop some of the generic competences of the Degree in Psychology, particularly that which refers to "capacity to work in interdisciplinary teams".

2 OBJECTIVES

With all this in mind, we, the authors, decided to set up an adaptation experiment to the European Higher Education Area (EHEA) whose main object was to improve the teaching-learning process among students studying the Statistics (EST) and Social Psychology at Work (PST) subjects as part of the Degree in Psychology. After several meetings with the teachers involved, we decided on how to design this interdisciplinary teaching experiment as a series of points, which are described below.

Firstly, we indicate that this proposal vacillated between the application of two teaching strategies which both the literature reviewed and the Bologna Process-related guidelines suggest to be especially adequate for encouraging active learning, and for helping acquire certain specific competences and, importantly, generic competences. We refer to the following:

- Work in interdisciplinary teams: in our case, the teachers and students from the EST and PST subjects.
- The use of real data and problems which were collected, processed and analysed by PST and EST students, but with different objectives in mind.

Apart from some of the specific competences of both subjects, the intention was to encourage the development of the following generic competences as stipulated in the Degree of Psychology, which affect students' comprehensive training:

- Capacity to organise and plan.
- Oral and written communication capacity in one's native tongue.
- Knowledge of the computer studies relating to the study area.
- Problem-solving capacity.
- Capacity to work in teams and to efficiently collaborate with other people.
- Capacity to work in interdisciplinary teams.
- Skills in interpersonal relationships.
- Critical reasoning.

When evaluating the acquisition of these competences, we considered the following evidence for learning for the students of both the subjects involved: (a) PST: preparing a scientific poster and its presentation in class and to students studying Statistics; (b) EST: preparing a statistical report that would include not only the outlined research questions, but the results of the considered statistical analyses for their verification and interpretation.

3 UNDERTAKING THE ACTIVITY

Three teachers, and authors of this article (the first two teach the EST subject, while the third teaches PST), participated in this interdisciplinary collaboration experiment, which took place during the first four-month period of academic year 2009/10. Regarding the location of both these subjects in the University of Valencia's Psychology studies, EST is an annual subject taken in the first course, while PST is taught during the first four-month period of the third course.

To facilitate preparation tasks and access to the material needed to perform this interdisciplinary activity, we created a web space at the *Wiki de Análisis y Proceso de Datos en Psicología* (<http://apdap.wetpaint.com>) (*Wiki Data Analysis and Processing in Psychology*), a wiki setting implemented in the *ForWiki* project framework (development and adaptation of training materials by integrating Web 2.0-based resources in a wiki system). This is financed within the DOCENTIC sub-programme as part of the call for University of Valencia innovative educational projects grants. A wiki is a collaborative web site that is interactively edited by several users -in our case, by the teachers involved in this experiment- and consulted by anyone over the Internet; that is, by students who could access the site located in our wiki space to read or download all the materials relating to the undertaking of this practical experiment. Any interested reader can access it at <http://apdap.wetpaint.com/page/Practica+transversal> and can view the cited wiki. Figure 1 provides an image of one of the pages of this wiki web site, which aims to support our interdisciplinary activity, after having been translated into English using the Google online translation service.

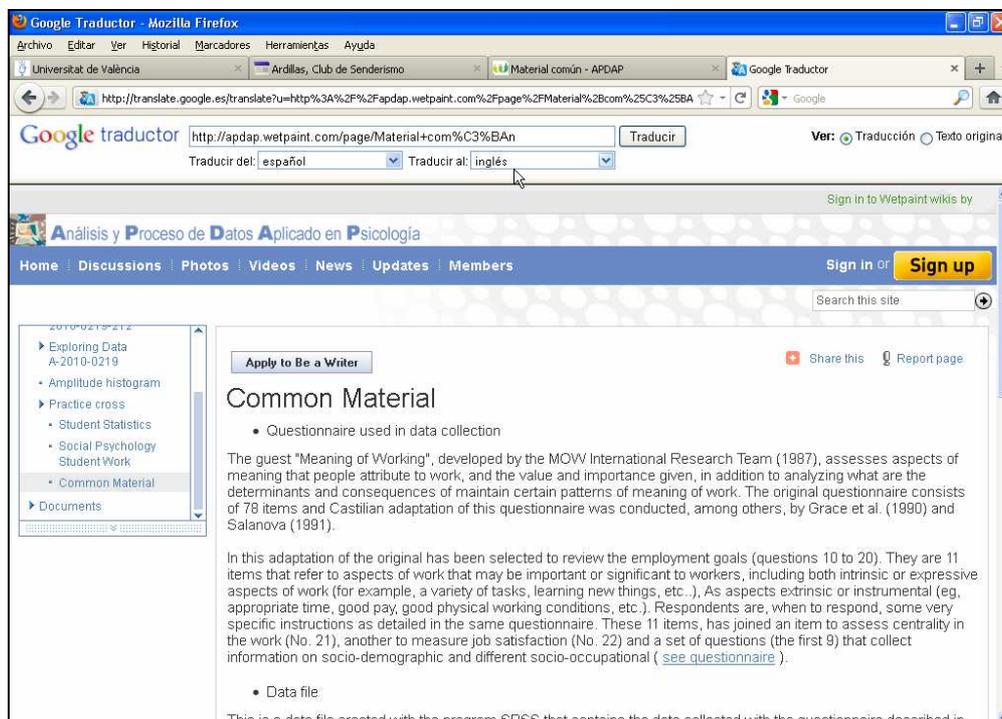


Figure 1: Image of the wiki web site developed by the authors as part of an interdisciplinary teaching experiment carried out.

4 DISCUSSION

This work presents an innovative teaching experiment, developed in the Faculty of Psychology at the University of Valencia, whose main characteristics are interdisciplinarity in terms of its approach, and the use of a wiki web site to execute it. This experiment has evidenced that there are very interesting collaboration spaces among the various areas of knowledge involved, and that certain computer science tools can be of valuable help in this collaborative activity. This educational experiment has doubtlessly been motivated by the educational context in which Spanish Universities are currently immersed, which involves the search for new learning contexts.

By way of conclusion, this collaboration experiment between two Psychology subjects has improved the learning of each subject as it incorporates contents from the other subject. In parallel, it has had a significant, dynamic effect on the students studying both disciplines as it breaks away from the traditional relationship between teachers and students. More specifically, working in a collaborative computer-based setting, such as a wiki web site, has combined teachers' objectives and efforts, has facilitated students' participation in this educational project, and has also helped them to perceive that this is indeed a shared, interdisciplinary experiment.

It is our intention to continue with this interdisciplinary practice in successive academic courses. Moreover, the work reflected in the developed wiki setting is a basis upon which we can continue to work and to improve this combined activity. On the other hand, one aspect that should be reflected in future implementations of this interdisciplinary practice is that of having a research design available which enables us to obtain empirical evidence of the benefits obtained from learning (e.g., introducing a control group).

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