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Skills evaluation at the University: Experiences and reflections in two Geography modules

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Abstract

The goal of this text is to propose different innovative, skills-based assessment methodologies in two modules from different university degrees. In both cases, the complexity of the assessment was adjusted to both the institutional (as determined by Verifica –National Guide-and the Teacher's Guide) and social contexts (as determined by the students' prior knowledge, their interest in the subject and expectations) through the coordinated use of different techniques that obtained information about the knowledge, skills and attitudes of the students throughout the course. The aim of this article is to reflect on the assessment process and propose new approaches that are better suited to the new institutional and social context.

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1. Introduction

The recent reform of higher education in Spain was implemented in the pursuit of the European Higher Education Area (EHEA), which was conceived with the idea of putting students at centre of teaching activity, and taking competency acquisition and employability as the main goals of university education, and is outlined in Spanish law RD 1393/2007 of 20 October. A single format has been used in the creation of these new study plans, that outlined in the *Verifica* report, which covers all aspects related to the development of each programme, from the learning objectives to tutoring, skills and, of course, assessment.

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So we find ourselves in a new institutional context, one that is quite established at this point and one to which our assessment processes need to be adapted, because the old assessment protocols cannot be used to assess performance against the new, competency-based learning objectives (Fernández, 2010). We need to go beyond the old assessment culture in universities, based primarily on knowledge acquisition and assessed by means of written or oral tests, and move onto a more complex assessment method, which implicates both teachers and students, and assesses the learning processes rather than the learning outcome. If the idea is to develop competencies, and this means giving students the resources to be able to solve complex problems in the professional (and personal) setting, what we need to be assessing is their capacity to learn and keep on learning throughout their lifetimes. And for this we need new approaches to design, development and assessment (Erwin, 2003; Tejada & Ruiz, 2016).

The aim of this article is to reflect on the assessment process and propose new approaches that are better suited to the new institutional and social contexts. To do so we have looked at two modules from different degrees at the University of Valencia (Spain), though both from the social sciences, and even the same subject, Regional Geographical Analysis, within the field of Geography.

2. Reflections on the relevance of assessing learning at university level

Different conceptions of assessment abound in the literature, upon which it is worth reflecting in the pursuit of a suitable definition in different and determinant contexts. Following Monescillo Palomo (2000), the conception of assessment as a complex process of participative research, based on three phases throughout the learning process and on a set of agreed criteria, is the one that best suits the new conditions of the EHEA. It provides quantitative and qualitative information on both the process and the outcomes, which allows changes to be made throughout the duration of the course to improve the quality of the teaching-learning processes. It not only assesses learning outcomes, but everything leading up to it: the teaching process, the learning itself (the acquisition of theoretical and practical knowledge), and the personal, organizational and material factors involved in this process. The student is the end recipient of the results of this assessment, but not everything revolves around them. It is an on-going process in which the teacher is a provider of methodologies, activities, resources, as well as a means of assessing it all. This assessment is necessary for two basic reasons: one, to chart the achievements of the student and two, to identify any corrections they (or the teaching system) might need.

It is known that certain aspects elude the quantitative assessment of exams, making them difficult to analyze using this assessment tool. The approach popularly known as “continuous assessment”, currently in use at all levels of pre-university education, affords the possibility of developing a more comprehensive assessment process, which does not leave the teacher feeling as though teaching quality has been compromised or competencies lost. Many such assessment methodologies exist, among which that of the peer review stands out, for the participation it requires on the part of the student (Ibarra, Rodríguez, Gómez, 2010).

Given that competencies require the combined application of knowledge, skills and attitudes, a good approach would be to assess the process based on what a teacher has brought to a given learning block (module, lesson, subject), which includes knowledge and skills, and on the learning objectives the student has met throughout and by the end of said block and is able to demonstrate. As Tejada & Ruiz (2016) point out, competency assessment must take as its reference “real situations and/or work simulations from which authentic assessment tasks can be derived” (p. 27). The student must provide sufficient proof, that is, complete a minimum number of assignments to a minimum standard, in order to receive a pass, in such a way that the assessment reflects a student’s ability to solve complex problems in a professional setting. It would only be possible to carry out this kind of assessment adequately, and at a reasonable cost, if it were done so by means of a collegiate approach, that is, in cooperation with all of the agents involved (Tierno, Iranzo & Barrios, 2011).

Ultimately, setting some basic principles for assessment that define and guide the teaching-learning processes is fundamental, because this kind of assessment requires information to be collected on the capacities, skills and competencies listed in the objectives being worked towards in the teaching-learning process. With these ideas in mind, in the following sections we will reflect an innovative assessment method in two practical case studies whose learning contexts and competencies differ.

3. Practical application: Two innovative means of assessment in Geography

The two modules proposed as case studies of innovative forms of assessment are European Geography, from the first year of the degree in Geography and the Environment, and Territorial Tourism Resources, from the second year of the degree in Tourism, both delivered at the Universidad de Valencia's Geography Department as modules that fall into the Regional Geographic Analysis area of knowledge.

Both modules are inherited from study plans existing prior to the educational reform, meaning they have been delivered with a similar content structure since before adaptation to the EHEA. The teaching staff in both courses has been more or less stable for many years, which has allowed them to improve and adapt the teaching process over time to cater to changing realities. Both are core modules (compulsory) and both are worth 6 ECTS credits, split between theory and practice in the same proportion (4.5/1.5 theory/practice). Additionally, both student groups are large, with around 100 students in each. Despite the apparent similarities, the differences are significant. The different means of assessment can be explained in the light of the differences.

3.1. Assessment in a basic-level general knowledge module: European Geography (degree in Geography and the Environment)

European Geography is a first-year module, among those classed as general knowledge. Its inclusion in the first-year study plan can be debated, since there is no justification at this level for a subject with a regional focus. Content should, arguably, be introductory in nature, designed to impart key concepts, terminology, and an idea as to the general object of study in Geography. However, without this basic knowledge, it is difficult not only to teach a subject matter that is not easily pinned down, and for which sufficient background knowledge is often lacking, but also for the student to take any of it in.

So this case study is a fundamentally descriptive course, where the objective is for the student to understand the geographic, economic, social and political characteristics of the old continent, paying particular attention to its environmental issues. This knowledge is not directly applicable in the professional life of the future geographer, except where he or she wanted to sit public exams to be able to teach at a public secondary school. Even then, although a core exam topic, they would never actually teach it as such, since it is not part of the curriculum at this school age. The practical application of this module, then, is minimal. However, the interest in real terms is considerable, since the workings of our immediate environment, the European Union and international relations with other countries are enormously significant and have a clear impact on our lives. Indeed, this is how it is seen by the students, who find refuge in this subject in a first year dominated by the learning of abstract concepts.

The idea is not to develop competencies directly, for these are acquired over the course of the degree as a whole, but rather for the student to acquire the knowledge, to understand the key concepts and processes and develop ability to solve complex problems that have no clear solution; that is, the first steps towards competency acquisition.

Assessment is carried out throughout the module (term), over the different phases which assess various qualities with a view to monitoring the evolution of the learning process and whether the objectives, known in advance by the student via the course guide and one-to-one tutorials, are being met by it (table 1).

We should point out that the means of assessment used for this module and the other descriptive modules within the degree as a whole are coordinated in advance. Similarly, the assessment methodology, along with the corresponding calendar and objectives, are coordinated with the students at the beginning of the course and entails an on-going work commitment on both sides. Furthermore, the basic competencies are clearly stated right from the start, so that the student understands what is being worked towards and the implications this has for assessment. Finally, the students are encouraged to see assessment as a participatory process, and to recognize the value of peer review and the relative importance of the final exam, imposed at institutional level and approved in the *Verifica* report (National Guideline).

3.2. Assessment in a module with a clear professional orientation: Territorial Tourism Resources (degree in Tourism).

The Territorial Tourism Resources module from the degree in Tourism is a second-year course, meaning that students already have prior knowledge on the Geography of Tourism and other related subjects. As with the other case study, this module takes both a theoretical and practical approach, but here the professional competencies are very clearly defined in the course guide. Therefore, although a knowledge of the terminology and theory underpinning the evolution of the tourism space is essential, the practical element accounts for much of the workload, especially given that part of the theory comprises approaches to a basic professional competency: the creation of a catalogue of tourism resources in a given region or destination. The students work in groups throughout the academic year to compile said catalogue (whose size and scope should be reflective of a module worth 6 credits); a visit is made with the professor to the selected destination (each group chooses a territory from among those proposed by the professor); and the class meets for one hour a week to learn and apply a specific methodology, and to analyze its phases and its results. At the end of the course students give an oral presentation, and come together in larger groups to compare results and reflect on the differences, including between the same destinations.

Table 1. Assessment phases and objectives in “European Geography”.

Phase: week of course	Assessment technique	Means of evaluation	% of final grade	Assessment objective (relation to competencies in Course Guide)
1	Written exam with open and closed questions	Right or wrong	0	Prior theory knowledge
5-15	Log or workbook of exercises (practical examples)	Teacher-guided peer review	30	Knowledge, skills and attitudes
3-8	Group assignment (3 to 5 people). Proportionate in scope to the time and work conditions. Subject to be chosen from among those suggested by the teacher.	Progress monitoring via weekly tutorials	10	Attitudes
3-10	Right/wrong type progress tests at the end of each didactic unit	Right or wrong. Self-assessment	10	Knowledge
12	Oral presentation	Lecturer portfolio and portfolio agreed for classmates (peer review)	10	Skills
15	Exam with theory (basic knowledge) and problem-solving questions.	Assessment of student's ability to summarize and apply the knowledge acquired	40	Knowledge, skills and attitudes

Source: Author's own work

Assessment also includes two seminars based on scientific papers: following a class debate based around set questions, a written analysis must be handed in which outlines the reasoning and justifications for the proposed answers. This is joined by the assessment of the practical assignments carried out in class (one hour a week), based on specific exercises that must be completed in class and handed in according to deadlines agreed between the professor and students, as well as a short-answer exam at the end of the course, which students must pass in order to pass the subject as a whole. This exam assesses only theory knowledge, primarily specific terminology and basic knowledge (table 2).

Table 2. Assessment phases and objectives in “Territorial Tourism Resources”.

Phase: week of course	Evaluation Technique	Means of evaluation	% of end grade	Assessment objective (relation to Competencies in Course Guide)
4 and 8	Debate on a scientific reading proposed by the lecturer	Peer review. Feedback from lecturer	10	Knowledge and skills (ability to summarize, correct use of terminology, etc.)
2-14	Group work (3 to 5 people). Topic to be chosen from among those proposed by the lecturer	Peer review and progress monitoring in the form of weekly tutorials	40	Knowledge, skills and attitudes
3-10	Right/wrong type progress tests at the end of each didactic unit	Right or wrong. Self-assessment	10	Knowledge
12	Oral presentation	Lecturer portfolio and portfolio agreed for classmates (peer review)	10	Skills
15	Exam with theory questions	Right or wrong	30	Knowledge

Source: Author's own work

It should be noted that the results of the innovative assessment in both subjects have been improving since it was implemented 6 years ago, generating satisfaction in students.

4. Conclusions

Assessment needs to be a process, like the teaching/learning process, that takes place over time and measured against very clear objectives that all parties are aware of, accept and consider realistic in advance. The assessment process is difficult and, at times, laborious, especially when the size of the group exceeds certain limits. Both the teaching-learning process and assessment need to evolve to incorporate the idea of key competencies, leading to better educational quality. By way of conclusion, we offer from experience some basic principles that can help in the design of a coherent and innovative assessment process:

- Almost always carried out at the level of the module, assessment should be coordinated with other subjects and professors.
- It is vital that a joint approach be taken to the teaching-learning and assessment processes (holistic).
- The end goal is the assess competencies, to the extent they correspond to the scope and context of the module in question.
- Assessment must be part of process by which the student learns, meaning feedback of results and the chance to learn and improve are essential.
- The characteristics of the assessment, in particular the criteria and calendar, must be clear and communicated to all those involved.

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