DEFYING SOME DIFFICULTIES OF THE ASSESSMENT OF SEVERAL GENERIC COMPETENCES

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Abstract

A reference to concepts, procedures and attitudes and also to acquisition of capacities was frequent when people were interchanging opinions about the aspects that could be evaluated in a university-level student. Now, we speak in terms of competences: there are specific competences, generic competences~~,~~. Just trying to speak about them is a hard job; to obtain competences will represent an enormous challenge. It's important to mention the extensive difficulty to find a common definition of the word "competence". One of the many meanings is: the knowledge needed to do something, the knowledge needed to do something with people, the knowledge needed to do something with criteria, the knowledge of when and why is necessary to do something. Common elements to the numerous definitions are the references to: a set of conceptual knowledge, the procedures and the attitudes, feasibility in its learning with recurrent training, an explanation on its attainment in the action, its use in an efficient work and a necessary context.

Some of the reasons used for the work by the competences in the educative sphere are the overcoming of the design based on content, the integration of diverse intelligences, the advance towards a unification of the areas of the knowledge, the true connection with a final applicability of the education in the work. A formation in competences demands several experiences that integrate knowledge and the practical design to apply these experiences – including several (and/or many) of them -, selecting and preparing the diverse scenes that promote them. One of the objectives of the hands-on session is to explain and to discuss about this kind of experiences, practical designs and stages.

Even with all their limitations, the conventional tools have been useful for an evaluation of the degree of assimilation of the concepts and the capacities; nevertheless, the task is much more arduous - and with less explicit experience transmissible and transmitted - when a person moves in the reach of the evaluation in values and attitudes, and of the evaluation of the competitions located within a profile. In order to evaluate competences, the educational team defines evidences. This task must be done in team for many reasons. For example, the fact that many competences transfer the borders of the concrete territory in which an individual professor moves. The mentioned evidences will have to be pertinent, excellent, adapted and realistic.

Often, to elaborate a scheme of the knowledge associated to each competence will identify diverse possibilities to demonstrate the possession of this competence through its development in a practical frame. Nevertheless, some competences (or some groups of competences) can be resisted to the previous practice. Perhaps it would be possible to lodge here the ethical behaviour, the capacity to learn, the responsibility, the team work, the creative and enterprising capacity, the multiple attention to sustainability and the subjects around the communicative capacity. Also the evidences for this sort of competences are targeted issues in the debates.

Within the previous frame, the authors of this contribution have made tasks destined to the specification of several elements, in the work of the "CAU-AIDA" group of the professors of several universities , within the project #SEJ2007-65786 "Evaluation of competences of the university students in the face of

the challenge of the EEES: description of the current scenario, analysis of good practices and proposals of transfer to different environments" and can offer some results of their task that shows there are options to approach some assessments about many generic competences. The planned procedure is to expose briefly some experiences and the referred evidences, devoted to the assessment that can be transferred, concerning each of the above mentioned generic competences.

Workshop Topics
Is learning always evaluable?

I INTRODUCTION

A conversation concerning "competences" is a difficult one. There are several definitions of this word: the required knowledge with the aim of doing something with criterion about the moment, the reason and the need; the ability and the skills that students will want to obtain practising specific employments… An amount of common references appears: a system of procedures and attitudes, feasibility in its apprenticeship with the formation, an explanation on its achievement in the action, its use dedicated to an efficient work, a necessary context. Considered references are owed to Gerard [1], to Laurier [2] and to McDonald and others [3].

A set-up of skills demands to unify steps, realistic plans, practical designs, experiences and convenient phases

The educational team has to define evidences to assess skills. This task has to be made as a team because many skills transfer the borders of the specific territory in which an individual teacher is allocated. Evidences should be valid, pertinent, relevant, and available.

Using an outline of the knowledge and the comprehension associated to some generic skills, our team is seeing several possibilities to prove their possession, developing them in a practical frame.

II FOR THE EVALUATION

Taking in consideration the opinion of the teachers about work projected by competences, the collected data show that does not thrill is essentially the increase of work, and that the tasks increase due to the extreme certification linked to a number of processes; this does not have relation with the excellence of the labour of learning. A brilliant key is the true development of knowledge of the students.

The fundamental factors to select the competences are: the coherence with the used methods, the consistency with the field of knowledge, and particularly the institutional needs (related with the curricular design).

A quantity of resisted topics to the preceding practice of evaluation, and also with less transmitted explicit experience, is related with several generic competences: ethical behaviour, capacity to inform, responsibility, team work, creativity, entrepreneurial capacity, multiple attention to sustainability, ethics.

The verifications and the evidences supporting this category of competences are our subjects.

Our examination of some high-quality practices shows an astonishing contemplation: the good quality practice teams think that appraisal of competencies does not promote the deployment of a plan designed by competences.

The practical instruments of evaluation in the vein of PBL, simulation, practicum, portfolio, sustain and give support to the accumulation of different types of knowledge and to their understanding.

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Time and again day after day situations do not allow the evaluation of significant aspects connected with attitudes, some procedures, and not few skills. Logistical problems and available resources promote the acceptation of these methods.

The consideration of transversal competences at the scientific and technical institutions of university education is able to be developed in a quantity of experiences in the area of the attitudes. Several people suggests regarding competences: a connection with a movement in the organization of the relationships among subjects, the movement from a vision of short deadline in one of long deadline, the change from the action *in* the classroom to the action *from* the classroom, the change from the communication as a path to the communication as a path and an object and..., the change from the individualized work to the shared and cooperative work...

The configuration of the European Higher Education Area (EHEA) has highlighted the enormous requirement to contrast a number of aspects of teaching-learning activities at the institutions of higher education in favour of the introduction of some new-fangled habits in relation to the educational actions inside the universities. In this circumstance, the idea of competence has taken on a novel significance. Related to the junction of the structures that will permit the consistency of the consideration of the qualifications in the careers all over, a general advance to the attainment of some concrete skills becomes more and more essential. The description of competencies is actually one of the benchmarks in the curriculum and also the procedimental strategies. As a determined facet of education, competences become more consolidated; the evaluation will have to become adapted to this structure.

The European Higher Education Area (EHEA) alters many instructive concepts and numerous actions. Just at the beginning of the educational processes, already the preparation of the set of courses is basically planned on competencies profiles. Afterwards, about the practical aspects, the knowledge of the student is more based on the student-based learning. Just ending the studies, the graduates have to leave ready to generate a significant and an independent learning process which allows the achievement of the solution of many troubles during whole time of their existence.

In order to accomplish the preceding aims, some proposals are readily accessible to situate in concert the authentic knowledge of different subjects (conceptual/theoretical, procedural/technical/practical, attitudinal) and allocate and distribute the use of that knowledge in different contexts.

It is appropriate to loan consideration to the treatment that the conception of the competence receives from different universities that work with relevance in the structure of the EHEA. It is also correct to attempt to think about the concept of attitude as something essential as a component of the competence. The competences are tied to an identifiable and evaluable complex set of grouped knowledge. The aspects related with attitudes are mattering but, due to their nature, at the same time there are some difficulties for their evaluation, at least with instruments and traditional strategies.

In EHEA a great alteration in global methodology is necessary. Evaluation is surrounded by the methodological process, it is one part of the methodological process, but it is not its central part …

This innovative phase of the EHEA is able to be less productive and unsuccessful if it does not modify the assessment practice, a necessary constituent. The competency evaluation has to be an individual defy, but basically a collective defy.

Some teachers do not use in their courses, an evaluation of competences. The quintessence of the reasons is:” I am waiting. I am expecting the apparition of the institutional reform (EHEA) ", "I am not felt as a prepared teacher for this variation".

The group has investigated the academic structure of competency assessment in order to contribute to the direct change of the assessment practices. Also the group has composed points of view of the professors from the Catalonian universities concerning the competency assessment, by means of several data collection techniques. At the same time the group has selected several good practices of assessment in order to deeply appreciate them. The methodological approach is based on detailed interviews, questionnaires for the students and the teachers, and the examinations of documents (learning programs, evaluation instruments and others).

Our study combines quantitative methods — opinion poll — for the explanation about the up to date circumstances and the qualitative methods — deep interview, investigation of documents— oriented in the direction of the analysis and understanding of good quality practices in competencies assessment. One phase describes the assessment practices in use nowadays at Catalan public universities, and the views of the professors classified by knowledge areas.

III SUPPORTING NEW STRATEGIES

In different dates and locations, the World Federation of Engineering Organisations (WFEO) and the Associated International Organizations help to make conferences, congresses , symposiums, updated workshops, which consider before mentioned topics. They also give some prizes about engineering and education. For instance,

2009 WFEO Medal of Excellence in Engineering Education - 23rd to 25 March

2009, Kuching, Sarawak, Malaysia,
International Conference on Engineering and Education in the 21st Century
(ICEE 2009) Institution of Engineers Malaysia (IEM)

April/May 2009 Tunis (Tunisia)
Train-the-trainers workshop
World Justice Project, The American Bar Association

2nd to 4th March 2010, Barcelona, Spain
II International Conference on Ethics and Human Values in Engineering (ICEHVE´10)

Our work team is connected with the VMO Unit (an Associated of WFEO).

Our task is correlated with some purposes of ICEHVE´10.

IV CONCLUSIONS

The study is pertinent to the field of assessment and enlightens some concerned aspects. It is applicable. It goes further than the pure description. It studies assessment instruments effectively used. Inside the case, many professors have been asked to evaluate the instruments and to point the coverage that the instruments allow to assess, referred to the different types of learning (conceptual knowledge, practical knowledge and attitudinal knowledge) and, especially, the integration of these types of learning

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