REFLECTIVE REVIEW ABOUT THE TRANSVERSAL COMPETENCES OF THE BOLONIA PLAN: THE STUDENTS` VISION

Collado-Fernández, M.
Lara-Palma, A. M.
Tricio-Gómez, V.
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The model of the European Higher Education Area (EHEA) set up, the Bologna Plan, has taken out such a wide range of changes in the university way of teaching, such as the acquisition of competences in the student career.

The relevance that the transversal competences have got in the training of our students starts since the generic abilities given to the way of thinking, the target – cognition and reflexing generated for the useful capacities for the hole life. (Innovation, Creativity and Learning, 2012).

For the recognition of knowledge and competences, universities should attend the total amount of activities developed. One of this activities goes through the tutorials (Estatuto del estudiante universitario, BOE nº 318, 2010).

The generic or transversal competences can be applied in a wide range of posts and laboral situations helping the employment as an add value that serves for a purpose such as create new employments, and motivate for the development and professional progress.

Authors of this paper –belonging to the innovative group of research at the University of Burgos called GIDUT (University Tutorship)– have worked in the last years focused on the tutorial plan and the transversal competences.
OBJECTIVES AND TARGET

- To know the perspective of the student regarding the transversal competences that should acquire in the university training.

- To get the followings objectives specifics, to know the perspective of the students of:
  
  - First year of Degree in Informatics Engineering
  
  - First year of Degree in Chemistry
  
  - Last years of Degree in Food Sciences and Technology

- To improve the help of the professors in the tutorials.
The general procedure used is questionnaires of satisfaction of the students regarding the tutorials carry out and offered by the University of Burgos.

We have chosen a previous sample of transversal competences. They are common of the three Degrees at the UBU in the field of Sciences, Health Sciences, Engineering and Architecture: Degree in Chemistry, Degree in in Food Sciences and Technology and Degree in Informatics Engineering. (table 1).

<table>
<thead>
<tr>
<th>NAME COMPETENCE</th>
<th>Symbol</th>
<th>NAME COMPETENCE</th>
<th>Symbol</th>
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<tbody>
<tr>
<td>Autonomous Learning</td>
<td>C1</td>
<td>Creativity</td>
<td>C9</td>
</tr>
<tr>
<td>Capacity of analysis and synthesis</td>
<td>C2</td>
<td>Habilites for the personal relationships</td>
<td>C10</td>
</tr>
<tr>
<td>Capacity of the information management</td>
<td>C3</td>
<td>Initiative and innovation for new freelance business</td>
<td>C11</td>
</tr>
<tr>
<td>Capacity of management and planification</td>
<td>C4</td>
<td>Critical opinion</td>
<td>C12</td>
</tr>
<tr>
<td>Ethical behaviour and Social responsibility</td>
<td>C5</td>
<td>Solving Problems</td>
<td>C13</td>
</tr>
<tr>
<td>Knowledge of other foreigner languages</td>
<td>C6</td>
<td>Taking decisions</td>
<td>C14</td>
</tr>
<tr>
<td>Oral and writing communication in the mother tongue</td>
<td>C7</td>
<td>Work in groups</td>
<td>C15</td>
</tr>
<tr>
<td>Informatic Knowledge and TIC relative to the field of the career</td>
<td>C8</td>
<td></td>
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</tbody>
</table>
We have prepared general questionnaires that include 22 items that should be answered by the students. From all them we have also showed the four items that are close to the transversal competences of the student.

Specifically, these questionnaires of satisfaction of the students are design to detect the interest and the motivation of the students in the process of acquiring the competences and also the roll the current tutorials play.

Table 2 shows the items of the questionnaire and the value assigned to all them.

<table>
<thead>
<tr>
<th>Table 2. Questionnaire items and assigned evaluation</th>
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<tbody>
<tr>
<td>Item</td>
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<tr>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. Do you know the transversal competences that you are going to get in your academic training?</td>
</tr>
<tr>
<td>2. Your TAP tutor has informed you about the competences to acquire during your academic time at university?</td>
</tr>
<tr>
<td>3. In all the 15 transversal competences, which one do you think are more important for your training?</td>
</tr>
<tr>
<td>4. Select three transversal competences that you consider mandatory in your studies</td>
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</tbody>
</table>
Questionnaires
The elaborated questionnaires have been sent to students that are in three different levels of university careers that we have talked below. The sample comes from the last two academic years (2012/13 y 2013/14).

- In the academic year 2012-2013, the questionnaire has been done between students of the first year and third year of Degree in Chemistry and Degree in Food Sciences and Technology, respectively.

- In the academic year 2013-14 the questionnaire has been done with students of first year and fourth year of Degree in Informatics Engineering and Degree in Food Sciences and Technology, respectively.

Stages
- In the first stage, the questionnaire has been distributed between the students printed in one of the practical activities they develop in the second semester, being since half of May till June.

- In the second stage the questionnaires were done with the students during the first semester of the academic year. The average time of answers has been fifteen minutes.

- Once we have got the questionnaires, the last phase has been the creation of the data base for the answers got in the sample. The evaluation of the results allow us to detect the interest and the knowledge the students have got regarding the transversal competences and also the importance they give to the competences and those which are mandatory to acquire in their academic studies.
Do you know the transversal competences that you are going to acquire in your studies?

- Around a 30% of the students do not know the transversal competences they should acquire through their academic training.
- Only the 9,1% of the students of first year of Chemistry and the 14,3% of students of third year and the 11,1% of the students of the fourth year know a lot about the transversal competences to be acquired.
- The worst result comes from the students of first year of engineering, as none of them know about the competences.

Seeing these results, we can say that there is a low interest and the low level of motivation of the students in the acquisition of the transversal competences.
RESULTS

**Does your TAP tutor inform you about the competences to acquire in your studies?**

- The second item gives a very high rate of white answers in first year of engineering (46.7%), high in first year of Chemistry (22.7%) and low in third year (8.2%) and fourth year (11.1%) of Science and Technology of Food of the population (40.9% in Degree of Chemistry and 53.3% in the Degree of Engineering).
- Also is important to point out that in the Degrees of Health Sciences, the quarter of the students say that the tutor has informed about the competences.
- By the opposite, none of the engineering students have been informed by their tutors; a reason about this last result could be that the questionnaire to this students was made in the first semester of the academic year, soon to stablish a relationship with the tutors.

All in all, our research group, GIDUT, continues considering interesting and mandatory to give a boost to this item and motivate the tutors in these Degrees at the UBU.
Select 3 transversal competences that you consider mandatory to acquire during your academic years

- 100% of the students of Health Science, almost all the competences are relevant.
- Students of Engineering, only six of the fifteen transversal competences are relevant.
- Students of Degree in Chemistry say that competences C6 (Knowledge of a foreign language) is relevant, C7 (Oral and write communication in the mother tongue) and C8 (Knowledge of informatics and TIC). The competence with highest validation is C6 (11%) and the lowest are C7 and C8, with a weigh of 1% in each of them. None of these students consider the competence C10 (ability in the personal relationships) is necessary to acquire.
- Students of Degree in Informatics Engineering consider that C2 (Capacity of analysis and summary), C8, C12 (Critical reasoning), C13 (Solving problems), C4 (Capacity of management and planification) and C6 (Knowledge of a foreign language) are obliged to be acquired. From the results is possible to detect that the students of this Degree give the same validation, with a weigh of (20%), to the competences C2, C8, C12 and C13; competences C4 and C6 are not so good considered and have got a lowest weigh in the amount of chosen (10%).
- Regarding the students of Degree in Food Sciences and Technology find a balance in the answers. Therefore, the competence more considered are C2 and C12, with weighs such as 12% and 15% respectively. Competences not so good evaluated are C8 and C9 (creativity) because the weighs are between 1% and 2% in both cases. Any student select as relevant competence C5 (Ethical compromise and social responsibility), and the competence C10 for the students of third year has got a minimum weigh (1%) and for the fourth year students is no relevant.

Having a view in all the results, we can point out that the competence Knowledge in Informatics and TIC is only good considered by the students of Engineering. Also is interesting to analyze why for the students of Degree in Chemistry, the competence Ethical compromise and social responsibility is good valued (although low weigh, only a mere 5%) in all the group selected.
RESULTS

From all the competences of this table, which do you consider more important for your education?

Knowledge in informatic and TIC (specifically in each study)

Critical reasoning

Solving problems
DISCUSSION

The GIDUT research group is focused in getting the target of help the university to improve the tutorials. This research has point out the level of satisfaction of the students regarding the transversal competences they should acquire and the level of information they share with the tutors. The questionnaires done have been answered by students of Degree of the University of Burgos. Degree in Informatic Engineering, Chemistry, in Food Sciences and Technology has participated.

Results getting from the questionnaires have let us to detect the interest and the motivation the students have in order to learn how to acquire the transversal competences and the roll the tutors play in the learning process. In general, we see a high lack of knowledge about the transversal competences they should acquire. Also we detect a low level of interest and motivation for getting them.

We consider that the information regarding the transversal competences shared with the tutor is poor. This result could be explained if we analyze the level of communication between students and tutor; the first years there is no too much communication and at the end of the studies it increases which explains the change in the point of view. Any student of Degree in Engineering receive information about the competences and the reason has been explained in the lines below. All in all, GIDUT Group value that it is mandatory to enforce this communication as part of the learning process of the students and suggest to establish a first contact at the very beginning of the academic year.

Between the three transversal competences students consider mandatory for their learning, we can point out that students of Sciences and Health Science consider all them relevant. Furthermore, Engineering students only select six competences out of the fifteen possible. The competence “Ethical compromise and social responsibility” it is not selected or in a very low range of students; this result will be the target of our focus for the next future studies.

In this paper we have analyze deeply inside the five competences more value by the students, such as: Capacity of analyze and summary, Knowledge of a foreign language, Knowledge in informatics and TIC and critical reasoning and solving problems.

As conclusion we set up that: as time pass by in the university levels, students are more capable to understand the importance of acquiring transversal competences such as capacity of analyze and summary. Not considering the level, students of Sciences validate with high levels of importance to the competence Knowledge in foreign language. Regarding knowledge in informatics and TIC, Engineering students are different from the students of Science and Health Science; the Engineers validate highest this competence. Students in general, and Health Science students in particular, appreciate as relevant the competences of Critical reasoning and solving problems.
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