

# HANDY OR PRACTICAL STUDENT. OBJECTIVE: TO PASS OR TO LEARN

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## Abstract

With the introduction of the European Higher Education Area and the development of the "Bologna" method in learning certain technological subjects, a pilot assessment procedure was launched in the "old" plan to observe, monitor and analyze the acquiring knowledge of senior students in various academic courses.

This paper is a reflection on culture and knowledge. Will students accommodate to get a lower score on tests because they know they have a lot of tooltips to achieve their objectives?. Are their skills lower for these reason?.

Keywords: knowledge, learning, Bologna, academic record.

## 1 INTRODUCTION AND OBJETIVES

With the introduction of the European Higher Education Area and the development of the "Bologna" method in learning certain technological subjects, a pilot assessment procedure was launched in the "old" plan to observe, monitor and analyze the acquiring knowledge of senior students in various academic courses.

This study aims to assess civil engineering students' knowledge of technology subjects comparing historical data and different training procedures; the classical term tests and final examination vs. continuous assessment.

## 2 METHODOLOGY

The experience was based on the analysis of averages obtained by the populations examined in the official June call (ordinary exam), including half term tests and official September call (extraordinary exam), from 1999 – 2000 year and its comparison with the results of experimental pilot tests (continuous assessment) that took place from 2007 – 2008, 2008 – 2009, 2009 – 2010 and 2010 – 2011.

Evaluation in these last courses allowed students to prepare notes of the subject and its complement; to write a research paper of some of the course contents; assist to technical visits organized within the department; a field trip the week before Easter holidays; practices in the laboratory, to mention those activities that allowed a more continuous assessment of each student, rather than the two partial examinations in February and June.

This idea was consistent with the concept of European credit as a measure of the workload for a full-time student. This requires changes in learning and study habits, as well as changes in teaching techniques in the classroom. The first big question arises, is this positive and efficient at the university with the volume of students we have?

Usually the credit measured the number of hours of a teacher in the classroom, being equivalent to 10 hours = 1 credit. However, the European credit includes the pilot experiences described above. Academic attendance activities are covered by (theoretical and practical classes), hours of study, those dedicated to the achievement of individual and group papers, those employed in projects drafting, attending seminars or tutorials; those required for preparation and realization of tests and exams, a long etcetera hard to compute and of subjective assessment. The second remarkable question, is this efficient and real?

A European credit comes to be between 25 to 30 hours, having agreed to the Technical University of Madrid, to be equivalent to 27 hours of student work. The total number of European credits established in the curriculum for each course is 60 ECTS.

With these previous ideas and key issues that change the habits of study and the teaching techniques, perhaps, are the data the best evidence of the work done, providing more than ten years of statistics which facilitate making decisions by readers without taking a clear position.

### 3 RESULTS AND CONCLUSIONS

The initial observation of the statistics (figures 1 and 2) responds to the fact that the average practically matches between students who were studying these subjects at the beginning of the century with half term exams (June official call), compared with continuous assessment.

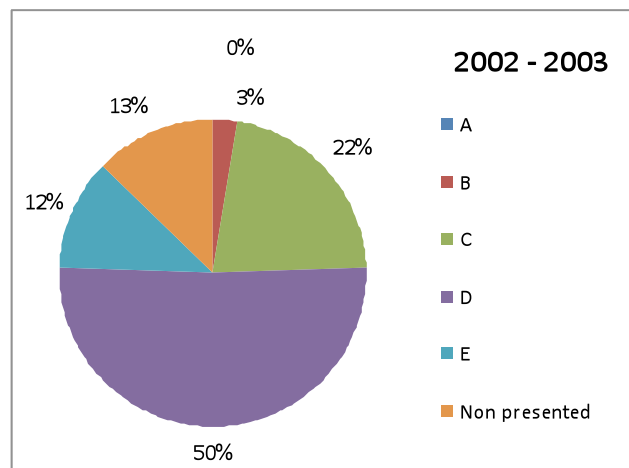


Figure 1: Maritime Works statistics with June official call (ordinary exam)

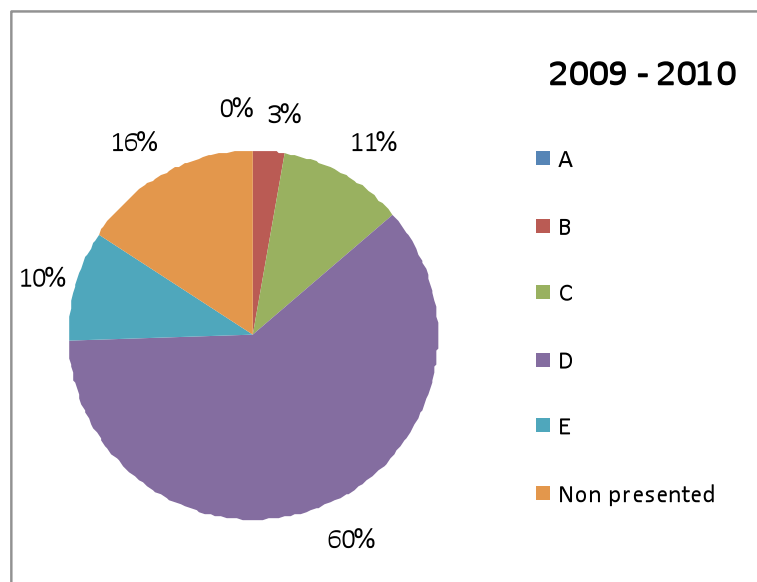


Figure 2: Maritime Works statistics with continuous assessment

A more detailed data on enrolment and scores on the June are observed in Figures 3 and 4.

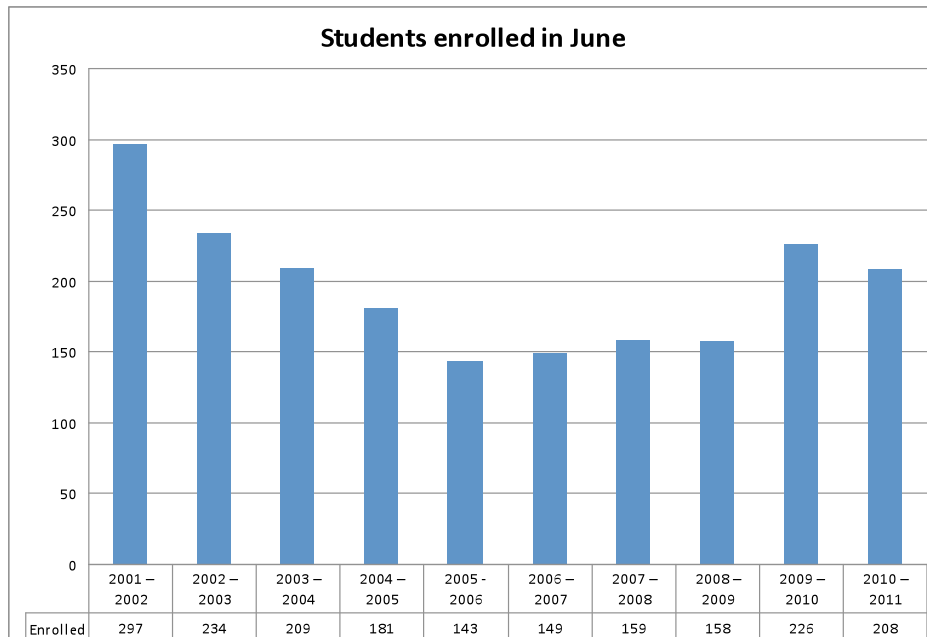


Figure 3: Number of students enrolled in Maritime Works in June call

Year / Calification	2001 – 2002	2002 – 2003	2003 – 2004	2004 – 2005	2005 – 2006	2006 – 2007	2007 – 2008	2008 – 2009	2009 – 2010	2010 – 2011
<b>A</b>	0 (0%)	0 (0%)	1 (0,48%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<b>B</b>	0 (0%)	6 (2,56%)	6 (2,87%)	0 (0%)	12 (8,39%)	2 (1,34%)	5 (3,14%)	2 (1,26%)	6 (2,67%)	5 (2,40%)
<b>C</b>	37 (12,45%)	51 (21,79%)	36 (17,22%)	12 (6,60%)	23 (16,08%)	25 (16,78%)	27 (16,98%)	23 (14,5%)	25 (11,06%)	27 (12,98%)
<b>D</b>	212 (71,38%)	119 (50,85%)	110 (52,63%)	147 (81,21%)	75 (52,44%)	87 (58,39%)	82 (51,57%)	88 (55,7%)	137 (60,62%)	115 (55,29%)
<b>E</b>	26 (8,75%)	27 (11,53%)	19 (9,09%)	8 (4,42%)	6 (4,19%)	11 (7,38%)	8 (5,03%)	13 (8,23%)	22 (9,73%)	11 (5,29%)
<b>Not presented</b>	22 (7,40%)	30 (12,82%)	37 (17,70%)	14 (7,77%)	27 (18,88%)	24 (16,11%)	37 (23,27%)	32 (20,2%)	37 (17,70%)	50 (24,04%)
<b>TOTAL</b>	<b>297</b>	<b>234</b>	<b>209</b>	<b>181</b>	<b>143</b>	<b>149</b>	<b>159</b>	<b>158</b>	<b>209</b>	<b>181</b>

Figure 4: Number of students enrolled in Maritime Works in June call

Having reached this point, we must raise a series of reflections on culture and knowledge obtained:

1. Do students accommodate to a lower score because they know they have many points of assistance (provided by the continuous assessment) to achieve the objectives?
2. Is their knowledge lower for these reasons and circumstances?

It is obvious that the statistics of "unfit" are considerably lower, increasing the number of non-presented (7,40% in 2001-2002 to 24,04% in 2010-2011) and decreasing the pass rate (83,83% in 2001-2002 to 70,67% in 2010-2011). Likewise, the ratings should improve the level of "A" and "B", a fact that does not happen due to the accommodation of students to "assist points" from continuous assessment.

To that effect, the debate should be opened on the education system we are implementing and will require prompt review by the lack of thinking ability and knowledge in basic science subjects and specific technology.

## **REFERENCES**

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