

Evaluation of the teaching guide as an instrument for adaptation to the new European credit system: Case analysis

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Abstract: This paper presents the evaluation of the teaching guide application for the subject of management control in the Business Management and Administration Degree. The evaluation began with the analysis of a questionnaire which aimed to collect the perceptions of learners who have studied this subject in two groups (morning and afternoon) during the first semester of the current academic year. The intention of this analysis was to obtain information that would meet two objectives: to continue upgrading the teaching-learning process and to revise and improve all the components in the teaching guide. There is an analysis of the degree of difficulty involved in the activities proposed and the degree to which specific objectives for different competencies have been attained. Likewise, we have carried out a global assessment of the different methodologies applied in the teaching-learning process, and an assessment of the evaluation system as well as of other aspects that could have hindered reaching the objectives stated in the guide. Furthermore, the relevance of this questionnaire has been vindicated for obtaining the information necessary to adjust the learner's workload to the European credit.

Key words: higher education; teaching guide; management control; evaluation

1. Introduction

One of the basic elements of the convergence process to the European area is the use of normalised documents, in two languages and available at university websites which provide information about study programmes (teaching guide) which must contain all the relevant information about the institution and detailed information on subjects and their corresponding credits as well. It is, therefore, a basic tool for meeting the objective of "promoting European cooperation in quality assurance through methodology development and comparable criteria" as established in the Bologna declaration.

In particular, for each subject, the teaching guide contains a detailed programme based on the principles that accompany the convergence principle for the creation of the European area.

The Faculty of Economic and Business Sciences started out with the introduction of a pilot project that entailed adaptation to the European credit in the Market Research and Marketing Techniques Degree. It was then introduced in first year subjects in the Business Administration Degree and in those subjects in higher courses

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whose lecturers were willing to participate in the project. In particular, the lecturers in Management Control decided to develop the teaching guide so that tasks and activities that had already been prepared could be scheduled and adapted in order to facilitate the learner's participation in activities and incorporate work scheduled to be done by learners into the agenda.

We have taken into account the teaching guide drawn up for the academic year 2007/2008 for the performance of tasks and activities. At the end of the year and after doing the final exam, learners answered a questionnaire in order to assess the application of the teaching guide from their point of view (the sample obtained makes reference to 126 learners). To do so, we have attempted to obtain information from the indications set out in the guide.

SPSS 15.0 was used to analyse the information obtained, and two kinds of analysis have been carried out:

(1) Analysis of descriptive statistics for some different aspects, grouped in the following way:

- (a) Degree of difficulty of programmed activities,
- (b) Academic content objectives,
- (c) Professional knowledge objectives,
- (d) Skills objectives,
- (e) Attitudes and values objectives,
- (f) Methodology,
- (g) Evaluation,
- (h) General assessment.

(2) Average comparison analysis, applying the T test for independent samples, paying special attention to two variables that were considered likely to cause different valuations: the gender of the learner and number of registered credits. Gender was considered because women (37% of samples) seem to react differently to the subject, as they are more constant at their work and this attitude could lead to different results; on the other hand, learners were asked to indicate their number of credits for the current year, which fall into the following ranges: less than or equal to 60 credits (42% of samples), which could be considered a normal student credit load allowing the student to bear the subject workload easily, or over 60 credits, which means that the learner would need greater efforts and encounter more difficulty due to the workload.

2. Analysis of the difficulty entailed in the programmed tasks

The analysis of the information obtained regarding programmed tasks, shown in Table 1¹, leads us to conclude that the group activities are considered to be normal/average in difficulty except for those in unit 3. This unit corresponds to budget control, and for a good understanding of it, learners must know the standard cost system in depth. This had been covered in the subject of Cost Accounting, which some had done two years before, while others had managed to avoid it entirely due to its complexity. Furthermore, following the task schedule, this unit is given in December, close to Christmas time, when some learners repeat exams for previous years' subjects and also when different companies come to the Faculty of Economic and Business Sciences to recruit learners for

¹ In the table, activities are organised according to units and order performance. Reference to units corresponds to the theoretical explanation, the first exercise of each unit corresponds to an exercise done in class together with the lecturer's clarifications and the rest make reference to exercises done in groups outside class, but which are part of the evaluation system.

work placement. Therefore, external conditions prevented this unit from being more accessible, even when lecturers had already improved conditions with respect to the previous year, allocating more time to those activities and including two group tutorials outside normal class time.

Table 1 Analysis of degree of difficulty found in programmed activities²

	N	Minimum	Maximum	Mean	STD
Unit 1	123	1	5	2.32	.803
Food products case	120	1	4	2.54	.755
Pílux case	120	1	4	2.68	.758
Controller figure case	119	1	4	2.47	.768
Railgourmet case	113	1	5	2.65	.777
Maderas sur case	121	1	5	3.30	.946
Paper on SCR	124	1	5	3.10	.891
Presentation of SCR	123	1	5	2.75	1.005
Unit 2	115	1	5	3.11	.846
Plansur case	122	1	5	3.16	.823
INFO case	119	1	5	3.51	.872
Unit 3	121	1	5	4.16	.895
Paque case	123	1	5	3.98	.927
Atracciones	124	1	5	4.60	.785
Maldonado case					
Unit 4	118	1	5	2.75	.898
Laisor case	120	1	5	2.70	.784
Unit 4 case	118	1	5	3.08	.997
Exam	123	2	5	3.85	.817
Valid N (according to list)	84				

3. Analysis of degree of fulfilment for stated objectives in competencies

3.1 Academic content objectives

The assessment concerning the academic achievement of objectives, as shown in Table 2, is above average, thus it seems that learners believe content objectives are reached in spite of the difficulty found in these activities. What are highlighted are objectives related to traditional management control tools used by companies in order to understand to what extent and in what way objectives are fulfilled and to understand the limitations of control based strictly on financial and quantitative analysis.

Table 2 Analysis of degree of fulfilment of academic content objectives

	N	Minimum	Maximum	Mean	STD
Variables in structure and process	124	2	5	3.60	.720
Control tools	123	2	5	3.73	.790
Limitations	123	1	5	3.70	.923
To broaden insights into management control	122	1	5	3.66	.933
To know interrelations	122	1	5	3.53	.883
Valid N (according to list)	119				

3.2 Professional knowledge objectives

² None of the incomplete cases have been eliminated, which explains the data lost in the analysis.

The assessment of the fulfilment of professional objectives, as shown in Table 3, is above average. The least valued aspect is “to apply professional criteria to problem resolution with technical instruments”. We consider this could be due to not understanding this objective, as learners may consider that an application of technical instruments to apply Management Control concepts does not involve a process of reflection.

Table 3 Analysis of fulfilment of professional knowledge objectives

	N	Minimum	Maximum	Mean	STD
Global vision	122	1	5	3.80	
To value information	123	2	5		.885
To analyze and propose improvements	121	2	5	3.72	.839
Professional criteria	123	1	5	3.37	.793
Valid N (according to list)	120				

3.3 Skills objectives

In the results obtained in the analysis shown in Table 4, the assessment of the fulfilment of skills objectives is again seen to be above average. We highlight the achievement of the above-mentioned objectives for interpersonal relations encouraged through dialogue among learners and between learners and the lecturer (through tutorials and questions raised in class), and reinforced by participation in group activities.

Table 4 Analysis of fulfilment of skills objectives

	N	Minimum	Maximum	Mean	STD
Capacity for interrelation	123	1	5	3.57	.888
Research and information skills	125	1	5	3.57	.936
Analysis and synthesis skills	123	1	5	3.58	.992
Ability to apply theoretical knowledge in practical situations	123	1	5	3.50	1.074
Problem solving skills	124	1	5	3.65	.902
Criticism skills	122	1	5	3.52	.920
Listening skills, dialogue and opinion acceptance skills	124	1	5	3.90	1.027
Team-work skills	123	1	5	4.20	.893
IT skills	123	1	5	3.72	1.196
Communication skills	122	1	5	3.67	.983
Valid N (according to list)	115				

This aspect shows that groups have worked and that the load has not been distributed, which lecturers’ experience interprets as an improvement with respect to previous academic years.

This has also been reflected in the high score given to the ability to work in a team, which means that learners themselves acknowledge its importance.

3.4 Attitudes and values objectives

The character of the institution, a private centre with a particular ideology, makes the fulfilment of objectives concerning attitudes and values a priority for the staff. Therefore, we were delighted when these received the best assessed variables of all. As can be observed in the results shown in Table 5, most of them are values close to four, much above average. The fulfilment of objectives in “Responsibility”, “Collaboration” and “Motivation for Quality” values are highlighted. We consider that this fact can be due again to the incidence of obligatory participation in work groups and to the positive effect of the lecturers’ application of the guide to develop activities and require their fulfilment.

Table 5 Analysis of degree of fulfilment of objectives concerning attitudes and values

	N	Minimum	Maximum	Mean	STD
Ability to act with ethical and socially responsible criteria	124	2	5	3.81	.823
Responsibility	123	2	5	4.02	.779
Collaboration	124	1	5	4.04	.887
Participation	124	1	5	3.98	.992
Creativity	124	1	5	3.57	.989
Transparency	124	1	5	3.87	.919
Motivation for quality	124	1	5	4.09	.902
Valid N (according to list)	123				

4. Analysis of methodologies applied

There has been an average global evaluation for the methodologies applied in the activities, as can be observed in Table 6. The score awarded by students to case tutorials, which exceeds 4, is significant. We should point out that the organization of tutorials implies a complex task due to the difficulty in setting the most appropriate meeting time, which in some cases has meant a certain delay in the appointments with groups. However, the possible wait seems to have been worthwhile as their expectations have been met and the direct contact with the lecturer in a more relaxed environment has been fruitful.

Furthermore, we would highlight the assessment of the self-evaluation tests done at the end of each unit in which the learner has to answer several questions to help self-diagnose his level of knowledge. This facilitates the final exam preparation and the evaluation of one’s knowledge about theoretical contents throughout the year.

Table 6 Analysis of global assessment for applied methodologies

	N	Minimum	Maximum	Mean	STD
Lectures	119	1	5	3.64	.998
Non-assessable cases done in class	119	1	5	3.64	1.023
Assessable cases done in groups in class	117	1	5	3.56	1.038
Assessable cases done in groups out of class	115	1	5	3.43	1.043
Self-evaluation tests	117	1	5	3.85	1.044
Case tutorials	117	1	5	4.11	.972
Valid N (according to list)	114				

5. Analysis of the evaluation system

An analysis of the evaluation results shows very positive outcomes, near or over 4, as seen in Table 7. The assessment of the system in general is quite favourable in spite of its including a minimum attendance requirement—at least 70% of the sessions, an aspect that has received a high score. This leads us to conclude that learners have understood that the process of continuous evaluation requires attendance to maintain adequate contact with the subject, which is also necessary for the performance of activities. Not attending could result in learners taking advantage of their group-mates’ work.

We point out the high assessment given to the relationship with lecturers, helped by programmed activities and especially by tutorials which permit closer contact with learners.

Table 7 Analysis of global assessment of the evaluation system

	N	Minimum	Maximum	Mean	STD
Continuous evaluation	114	1	5	4.36	.843
How case reflects in the final result	111	1	5	3.91	.949
% of theory and practice in final result	108	1	5	3.93	1.030
Exam difficulty	117	1	5	3.81	.928
Relationship with lecturer	118	1	5	4.33	.916
Conditions of class attendance	116	1	5	4.16	1.119
Valid N (according to list)	101				

6. Analysis of global assessment

In this section we have asked about programme content, the teaching guide and the material available on the electronic board of the subject. These three aspects have been assessed positively as shown in Table 8. However, we consider that some learners have not followed the teaching guide, although they received it on the first day of class. We believe they have realised the benefits to be drawn from the Teaching Guide at the end, and that some were not aware of them at all, probably because lecturers reminded them of unit activities and objectives in the

sessions and therefore learners did not consult the Teaching Guide on their own. On the other hand, for some learners it was the first time they had had a Teaching Guide in a subject.

Table 8 Analysis of global assessment

	N	Minimum	Maximum	Mean	STD
Programme contents	118	2	5	3.76	.688
Teaching Guide	114	1	5	3.78	.880
Programme contents teaching guide	118	2	5	4.24	.759
Valid N (according to list)	112				

7. Analysis of average comparison taking into account gender of learner and number of registered credits

As explained in the introduction, averages have been compared in order to analyse if the following hypotheses are fulfilled:

- (1) Female learners have followed the subject better and have shown a greater interest in activities, which is revealed in their assessment.
- (2) Learners who registered for a higher number of credits, higher than what would be considered normal in an academic year, have greater difficulty when following a process of continuous evaluation, which is revealed in the assessment of activities.

To verify the hypothesis, we have applied the analysis of average comparison, applying the T test for independent samples, taking into account both variables, and for the learners’ assessment regarding the degree of difficulty of programmed activities, and the Levene test for variance equality.

As can be observed in the results shown in Table 9 and Table 10 (Appendix), there are no significant differences between assessment averages according to the T-test, therefore departure hypotheses are not corroborated.

We believe that the explanation for the first hypothesis could be the fact that the groups have worked well, which could have made male learners assess activities positively so that gender has not affected assessment.

On the other hand, regarding the second hypothesis, we believe that the lack of ratification could be caused by the minimum attendance requirement—at least 70% of the sessions, as this has meant that although learners are registered in a greater number of credits, this subject has required more of their attention.

8. Conclusions

The elaboration of the teaching guide has helped us move towards complying with the demands made by the European Higher Education Area. It has been a useful tool for the lecturer when planning activities, setting objectives and organising the subject. For the learners, it is an information tool since they can see what they are expected to achieve in this subject and what they have to do, while at the same time it helps them plan their time. However, both for learners and lecturers it is a new tool that should be improved with respect to contents and use.

Nevertheless, we consider that the learners’ resulting assessment of the aspects analysed is over average and that this positive assessment has been surprising in some aspects, given the greater effort required on the part of

the learners. This makes us think that learners are aware of the importance of active participation in the teaching-learning process.

As mentioned previously, this teaching guide was the first of its kind for most of the learners. Until now, they have used subject programmes with very general information about content, evaluation systems and basic bibliography. However, the teaching guide has been given a high score, and we expect that next year, when necessary changes are introduced and when we insist on its use as a reference tool for the whole year, its efficacy will be greater.

We have not included those learners who due to personal reasons could not follow this learning process, although there were fewer than 10 learners in that situation, and so the impact on results has been very small. They prepared the subject on their own and did the theory and practice final examinations.

Objective and/or competency assessment have/has been very positive in general and we would highlight the fulfilment of objectives regarding attitudes and values. However, we observe that it would be necessary to associate the relation of this subject content more clearly with professional positions and reinforce the need of applying certain techniques for decision making that learners will find necessary in their professional future.

One of the objectives of the guide was to plan the learner's workload and this was done based on the lecturers' experience. However, we could not contrast the time allocated to each activity because of lack of information. Most learners have not answered that section, probably because the questionnaire was too long (it was carried out after the theory exam and it had been some time since the performance of the activities, so learners might have found it difficult to assess). Next academic year we are doing a short questionnaire about the activities to be completed by learners at the end of each unit, which will help us obtain more appropriate information for analysis.

Classroom facilities have not been adequate for projects in class, but we believe this aspect has been taken in stride by the learners. We consider that although the evaluation system has been evaluated very positively, it could be improved, as some of the objectives stated in the guide have not been assessed independently. Knowledge objectives are still predominant in the evaluation system.

The system needs some improvements, such as decreasing the number of learners registered in each group; improving classroom facilities for group work; incorporating the use of technologies more and more; coordination with other subjects in the same academic year; revising the amount of time allocated to activities; substituting some cases with more appropriate ones to achieve objectives, and improving the lecturers' formation on evaluation of competencies, among other questions.

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Appendix

Table 9 Average comparison of assessment of difficulty in programmed activities taking into account the variable of gender

Independent samples test										
		Levene's Test for Equality of Variances		T-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Standard error difference	95% confidence interval of the difference	
									Lower	Upper
Unit 1	Equal variances assumed	.086	.769	-.619	121	.537	-.094	.152	-.395	.207
	Equal variances not assumed			-.594	76.664	.554	-.094	.159	-.410	.222
Food product case	Equal variances assumed	.105	.746	-.951	118	.344	-.137	.145	-.424	.149
	Equal variances not assumed			-.941	81.670	.349	-.137	.146	-.428	.153
Pilux Case	Equal variances assumed	.267	.606	-.678	118	.499	-.099	.146	-.389	.190
	Equal variances not assumed			-.687	84.282	.494	-.099	.144	-.386	.188
Controller Figure Case	Equal variances assumed	.427	.515	-.689	117	.492	-.102	.148	-.394	.191
	Equal variances not assumed			-.665	76.358	.508	-.102	.153	-.406	.203
Railgourmet Case	Equal variances assumed	.083	.773	-1.063	111	.290	-.162	.153	-.465	.140
	Equal variances not assumed			-1.080	84.094	.283	-.162	.150	-.461	.137
Maderas Sur Case	Equal variances assumed	.003	.957	.442	119	.659	.080	.180	-.277	.436
	Equal variances not assumed			.442	86.756	.660	.080	.180	-.278	.438
Paper on SCR	Equal variances assumed	.331	.566	.712	122	.478	.119	.168	-.212	.451
	Equal variances not assumed			.730	95.396	.467	.119	.163	-.205	.444
SCR Presentation	Equal variances assumed	.000	.991	.203	121	.839	.039	.190	-.337	.414
	Equal variances not assumed			.201	86.447	.841	.039	.192	-.342	.420
Unit 2	Equal variances assumed	.063	.802	-1.321	113	.189	-.216	.163	-.539	.108
	Equal variances not assumed			-1.251	72.434	.215	-.216	.172	-.559	.128
Plansur Case	Equal variances assumed	1.283	.260	-.389	120	.698	-.061	.157	-.371	.249
	Equal variances not assumed			-.367	73.124	.715	-.061	.166	-.392	.270
INFO Case	Equal variances assumed	2.083	.152	-.664	117	.508	-.111	.167	-.441	.220
	Equal variances not assumed			-.629	74.056	.531	-.111	.176	-.462	.240
Unit 3	Equal variances assumed	.061	.805	-.371	119	.712	-.063	.171	-.401	.274
	Equal variances not assumed			-.369	85.747	.713	-.063	.171	-.403	.277
Paque Case	Equal variances assumed	.751	.388	-.396	121	.692	-.070	.176	-.418	.279
	Equal variances not assumed			-.386	79.598	.701	-.070	.181	-.430	.290
Atracciones Maldonado Case	Equal variances assumed	.049	.826	-.300	122	.765	-.044	.148	-.337	.249
	Equal variances not assumed			-.322	108.038	.748	-.044	.138	-.317	.229
Unit 4	Equal variances assumed	1.504	.222	1.562	116	.121	.271	.174	-.073	.615
	Equal variances not assumed			1.591	82.840	.115	.271	.170	-.068	.610
Laisor Case	Se han asumido varianzas iguales	.043	.835	-1.241	118	.217	-.185	.149	-.480	.110
	No se han asumido varianzas iguales			-1.254	89.858	.213	-.185	.147	-.478	.108
Unit 4 Case	Equal variances assumed	1.011	.317	-.616	116	.539	-.118	.192	-.499	.262
	Equal variances not assumed			-.619	86.042	.537	-.118	.191	-.498	.262
Exam	Equal variances assumed	.323	.571	-.588	121	.557	-.091	.154	-.396	.214
	Equal variances not assumed			-.578	84.484	.565	-.091	.157	-.402	.221

Table 10 Average comparison of assessment of difficulty in programmed activities taking

into account the variable regarding the number of registered credits

Independent samples test										
		Levene's test for Equality of Variances		T-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence Interval of the difference	
									Lower	Upper
unit 1	Equal variances assumed	.316	.575	.810	114	.420	.124	.153	-.179	.426
	Equal variances not assumed			.802	80.127	.425	.124	.154	-.183	.430
Food products case	Equal variances assumed	.709	.402	-.213	112	.832	-.032	.149	-.328	.264
	Equal variances not assumed			-.220	94.920	.826	-.032	.144	-.318	.255
Pilux Case	Equal variances assumed	.001	.973	.240	112	.811	.036	.150	-.262	.334
	Equal variances not assumed			.238	81.419	.812	.036	.151	-.265	.337
Controller Figure Case	Equal variances assumed	.055	.816	-.825	112	.411	-.123	.149	-.418	.172
	Equal variances not assumed			-.811	81.616	.419	-.123	.152	-.425	.179
Railgourmet Case	Equal variances assumed	.027	.870	-.962	107	.338	-.150	.156	-.458	.159
	Equal variances not assumed			-.963	81.850	.338	-.150	.155	-.459	.159
Maderas Sur Case	Equal variances assumed	2.574	.111	-.084	113	.933	-.015	.184	-.380	.349
	Equal variances not assumed			-.080	71.572	.936	-.015	.193	-.401	.370
Paper on SCR	Equal variances assumed	.000	.986	-.758	115	.450	-.134	.176	-.483	.216
	Equal variances not assumed			-.758	82.220	.450	-.134	.176	-.484	.217
SCR Presentation	Equal variances assumed	.026	.872	-1.606	114	.111	-.317	.197	-.708	.074
	Equal variances not assumed			-1.653	89.465	.102	-.317	.192	-.698	.064
Unit 2	Equal variances assumed	.138	.711	-1.901	107	.060	-.317	.166	-.647	.014
	Equal variances not assumed			-1.864	71.602	.066	-.317	.170	-.655	.022
Plansur Case	Equal variances assumed	.198	.657	-.476	114	.635	-.073	.155	-.380	.233
	Equal variances not assumed			-.469	79.340	.640	-.073	.157	-.385	.238
INFO Case	Equal variances assumed	.072	.789	-1.451	111	.150	-.248	.171	-.586	.091
	Equal variances not assumed			-1.471	80.499	.145	-.248	.168	-.583	.087
Unit 3	Equal variances assumed	.543	.463	1.889	113	.061	.325	.172	-.016	.666
	Equal variances not assumed			2.004	97.569	.048	.325	.162	.003	.647
Paque Case	Equal variances assumed	5.759	.018	1.628	114	.106	.288	.177	-.062	.639
	Equal variances not assumed			1.776	107.149	.079	.288	.162	-.034	.610
Atracciones Maldonado Case	Equal variances assumed	3.742	.056	1.105	115	.271	.170	.154	-.135	.476
	Equal variances not assumed			1.158	97.146	.250	.170	.147	-.122	.463
Unit 4	Equal variances assumed	.595	.442	-1.852	109	.067	-.320	.173	-.663	.022
	Equal variances not assumed			-1.969	96.131	.052	-.320	.163	-.643	.003
Laisor Case	Equal variances assumed	.037	.847	-.529	112	.598	-.081	.153	-.385	.223
	Equal variances not assumed			-.546	91.203	.586	-.081	.149	-.376	.214
Unit 4 Case	Equal variances assumed	1.699	.195	-.246	111	.806	-.048	.196	-.438	.341
	Equal variances not assumed			-.238	72.968	.813	-.048	.203	-.453	.356
Exam	Equal variances assumed	.496	.483	.083	114	.934	.014	.164	-.311	.338
	Equal variances not assumed			.080	74.287	.936	.014	.170	-.325	.352