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Abstract

We analyzed the quality indicators evolution of the Occupational Risks Master online mode at the Miguel Hernández University (UMH) from the academic year 2012-2013 to 2017-2018.

The indicators used are those established in the fifth Quality Plan of UMH. Currently the fifth UMH Quality Plan 2017-2020 gathers the experience acquired in the previous four-year plans since 2000 when we implemented the first Strategic Plan for Quality 2000-2003 and the first Master Plan for Quality in Management 2000-2003. The results of the first Plan were positive, allowing to improve the levels of quality in the different areas (teaching, research and development and management), ensuring the conditions of participation of the UMH in the financing system linked to quality objectives of the Ministry of University and Science and helping to introduce the philosophy of total quality in the UMH.

One of the main strengths of UMH Quality Plans is their Indicator System. The system of indicators allows the measurement of the results obtained in the different areas.

In this study are shown the approved indicators for the master by the plenary committee Masters in each academic year and how they have evolved since their implementation, and we have compared these indicators with the respective standards in the relevant Quality Plan indicators.

The indicators are measured on a percentage scale from 0 to 100, were are in general above 72% and in all cases exceeded the set standard scores in the Quality Plan except for the indicator "Percentage of graduates with an equal job or greater their level of education which is below the standard set at 90% for the academic years 2012/2013, 2013/2014 and 2017/2018. In general, the majority of the indicators show an increase over time or a constant value in the different annuities, which is 100% for 7 of the indicators studied.

Keywords: Quality plans, quality indicators, University Master.

1 INTRODUCTION

To ensure and improve the quality of its teaching, the Miguel Hernández University of Elche (UMH) has designed and implemented assessment and improvement processes included in the UMH Quality Plan. The Quality Plan [1] is designed to ensure the quality of degrees from the Miguel Hernández University through the use of tools that facilitate compliance with quality standards, permit analyzing strengths and possible areas for improvement, and guide strategic decision-making regarding the quality of teaching in order to meet the requirements approved by the Spanish Ministry of Education in the verified reports for each degree.

One of the main strengths of UMH Quality Plans is the indicator system, which allows measurement of the results obtained in different fields [2]. The collected information is a source for making decisions that allow the improvement and quality assurance in degrees.

Currently the UMH is developing the V UMH Quality Plan 2017-2020 [1], which gathers the experience acquired in the previous four-year plans since 2000 when UMH implemented the I Strategic Plan for Quality 2000-2003 and the I Master Plan for Quality in Management 2000-2003 [3]. The results of the I Plan were positive, allowing to improve the levels of quality in the different areas (teaching, research and development and management), ensuring the conditions of participation of the UMH in the financing system linked to quality objectives of the Ministry of Science and University and helping to introduce the philosophy of total quality in the UMH.
This I Plan was followed by the II Strategic Plan for Quality 2004-2007 [4] in which new and more ambitious quality objectives were set and a system of incentives to quality was developed covering centers, departments, institutes and services and developing the first "integral dashboards" for management. The main objective of II Plan was to consolidate the excellent results achieved in teaching, research and management, without losing sight of the need to respond to the new challenges that arise in the university environment.

The III Quality Plan 2008-2012 [5] was designed considering the guidelines of the European Association for Quality Assurance in Higher Education, the action plans of the ANECA and the necessary reforms derived from the European Higher Education Area. Facing new scenarios significantly marked our objectives and new action plans, whose main challenges were internationalization, the employability of our students and innovation.

With the implementation of the new degree and master's degrees, the IV UMH Quality Plan 2013-2016 was designed [6]. In this quality plan UMH define the current approach: simplify our system of indicators and focus our efforts on actions that we can achieve without forgetting the UMH “leitmotiv” of customer orientation: A system flexible enough to achieve the essential objectives but without forgetting the long-term goals of the UMH.

The quality plans include the objectives, actions, systems of indicators and incentive systems for the areas of teaching, research and management, although for the management area from the beginning, specific plans have been developed. Currently, the V Quality Plan is structured in four sections [1].

In the introduction, the map of processes of the UMH, aligned with the Strategic Plan of the UMH and actions to develop is included.

Second, the objectives of the Quality Plan, divided into teaching, research and technological development, management and social responsibility are presented.

The third section refers to the system of indicators of the Quality Plan, which includes indicators for evaluation and improvement in each of the areas of action of this Plan, and which have a scope to degrees, masters, departments, research institutes, management units and the entire university.

Finally, this Quality Plan includes, like the previous ones, a quality recognition system to reward the achievement of good results. We continue to use the awards approach to the units responsible for positive results, and the promotion of continuous improvement in all units.

The System of indicators has evolved over time. To make the first list of indicators, different sources of information were taken into account:

- System of indicators of the Council of Universities,
- Indicators of the Evaluation Programs of the Ministry of Education and Science,
- The System of Indicators of the Valencian Universities,
- The Multiannual Financing Plan of the Generalitat Valenciana, indicators of the title verification process, of the follow-up and accreditation, etc.

This list of indicators is reviewed annually by a Plenary Commission.

The objective of this study was to analyze the evolution of quality indicators of one of the official’s masters taught by the UMH in on-line mode from the academic year 2012-2013 to 2017-2018: the master's degree in Occupational Health and Safety. The aim of this master's degree is to provide professionals with the knowledge, abilities and skills Necessary to take on high-level professional Responsibilities in the field of occupational health and safety. Students specialize in various areas of prevention, treats including occupational safety and industrial hygiene, and ergonomics and Applied Social Psychology.

2 METHODOLOGY

We selected the quality indicators to master degree approved by the UMH quality plenary committee for Master in six academic years (2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017 and 2017-2018) showing how they have evolved over time. We also compare these indicators with the respective standards in the relevant Quality Plan indicators. The indicators used are those set out in the Quality Plans University in effect for these years: IV Quality Plan 2013-2016 and the current V Quality Plan 2017-2020.
The indicators are measured on a percentage scale from 0 to 100, except student and graduated satisfaction with degree and resources that are measured on scale from 1 to 5.

The list of current indicators and the established standard in the Quality Plan are:

11. Index of student satisfaction with the teaching received (scale 0-100): 65 %
21. Percent meeting of the Council of Masters (100 % = 2 meetings per year): 100 %
28. Percentage of satisfied teachers regarding the teaching organization: 95 %
49. Percentage of subject programs presented on the web in English: 55%
57. Perform the review report results according to system quality assurance checked: 100 %
58. Percentage of graduates occupationally inserted satisfied with the education received (response value in the satisfaction survey than or equal to 5): 91 %
59. Percentage of graduates inserted occupationally: 85 %
60. Percentage of students work at or above their level of education: 90 %
61. Percentage of entrepreneurs satisfied with recruited graduates: 95 %
73. Teacher questionnaire score on the means at its disposal to give teachings: 65 %
142. Graduation Rate: ratio between students of a cohort input exceeding, on Schedule Plus one year, credits leading to a diploma and the total new students from the same cohort
143. Dropout Rate: percentage ratio between the total number of students in a cohort of new entrants who should get the title the previous academic year and who have not enrolled either in that academic year or in the previous
144. Efficiency Rate: percentage ratio between the total number of credits of the curriculum to which the set of graduates of a given academic year and the total number of credits for which they have actually had were enrolled throughout their studies enrol
145. Performance Rate: percentage ratio between the number of ordinary credits passed in the title and number of total regular credits registered on the title
153. Improvement plan made by the due dates (within the Quality Assurance system verified): 100 %
179. Supply and Demand Rate: percentage ratio between the number of students applying for registration by studying in 1st and 2nd choice, and the positions offered
180. Doctor PDI Rate: percentage ratio between the number of PDI doctor who teach in the title and the total number of PDI who teaches in the same title
181 Rate of Full Time PDI: PDI ratio between full-time in the title and the total number of PDI in the title
182 Enrolment Ratio: ratio between the numbers of students who enrol in a degree in relation to the positions offered
194 Student satisfaction with the degree (scale 1 - 5): 3,3
195 Student satisfaction with resources (scale 1 - 5): 3,3
196 Satisfaction of graduates with the degree (scale 1 - 5): 3,3
205 Percentage of subjects from which a valid response rate has been obtained in the surveys: 50%
207 Percentage of subjects with a success rate higher than 40% and at least 10 enrolled: 90%

3 RESULTS

The indicators were in general above 72% and exceeded in all cases fixed standard scores in the Quality Plan, except indicators 59 and 60 (Table 1). Thus, 59 indicator “Percentage of graduates inserted occupationally” was below the standard set at 85 % for the year 2013/2014 (72.4 %) as was reported in a previous study about quality indicators of this master since its implementation in 2010-2011 academic course [7]. However, the percentages rose to near or above 90% from 2014-2015 to 2017-2018. Also, the 60 indicator "Percentage of graduates with an equal job or Greater their level of education" was below the standard set at 90 % (83.3 % for the year 2012/2013 and 66.7 % for the year 2013/2014). Then increased to about 95% for the 2014-2015, 2015-2016 and 2016-2017
courses, exceeding the 90% standard, but fell back to 65% in the last academic year analysed (2017-2018).

Although some indicators show a slight oscillation with time, as indicator 11 “Index of student satisfaction with the teaching received” ranging from 74 to 81% in the period studied (Table 1), most of them have a constant value around the peak in the different annuities, or the maximum value that can be obtained (100%). With regard to the satisfaction of teachers (indicator 73. “Teacher questionnaire score on the means at its disposal to give teachings”), the time evolution shows also an oscillation but near the maximum value of 100%, except in 2015-2016 (84%).

With regard to the Rates established by AVAP; graduation, dropout, efficiency and performance rates (indicators 142, 143, 144 and 145), despite its slight decrease over time at the beginning of the period, they increased again in the last years (2016-2017 and 2017-2018) and they are generally satisfactory and adequate to the provisions of the verification report [8]. The Enrolment Ratio (indicator 182), also reached the 100% value in the four last academic years due a decreasing in academic fees last years (Table 1). Regarding the Rate of supply and demand (indicator 179), which in the first year is 79 %, increased to 352.7 % in the last year probably due to this reduced academic fees. In fact, all the places offered for this master are covered every year and there are always applicants on the waiting list.

We also consider the increase over time in the rates of doctor PDI (indicator 180) and full-time PDI (indicator 181) to be very positive (Table 1), in line with the improvement plan proposed in the allegations made by the University to the Commission for the Renewal of Accreditation.

The indicators that measure the satisfaction of students and graduates with the master and with the resources (indicators 194, 195 and 196), which were only reported from 2014-2015, show a good evolution with time reaching in the last year values close to or above 4 (on a scale of 1 to 5), always exceeding the 3.3 standard set by the university (Table 1).

Finally, percentage of subjects from which a valid response rate has been obtained in the surveys and percentage of subjects with a success rate higher than 40% and at least 10 enrolled (205 and 207 indicator, respectively) was of 100% in 2017-2018, exceeding the standards of 50% and 90% respectively for these indicators.

### Table 1. Quality Indicators Master in prevention of occupational risks in different years of teaching (approved master Indicators for the Quality Committee of the Whole).

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4 CONCLUSIONS

The indicators in general exceeded the set standard scores in the Quality Plan. The majority of the indicators show an increase over time or a constant maximum in the different annuities, which was 100% for 7 of the indicators studied.

REFERENCES


