

# Online Programme of Excellence Model (OPEM)

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**Abstract**—Finding effective ways of improving university quality assurance requires, as well, a retraining of the staff. This article illustrates an Online Programme of Excellence Model (OPEM), based on the European quality assurance model, for improving participants' formative programme standards. The results of applying this OPEM indicate the necessity of quality policies that support the evaluators' competencies to improve formative programmes. The study concludes by outlining how faculty and agency staff can use OPEM for the internal and external quality assurance of formative programmes.

**Keywords**—Formative assessment, Online faculty excellence program, Teaching competencies, University quality assurance.

## I. INTRODUCTION

SINCE the early 1990s, many Spanish universities have used quality assurance procedures (i.e. a process of establishing stakeholder confidence that programme provision (input, process and outcomes) measures up minimum requirements). Spanish higher education institutions are nowadays accountable for meeting state-mandate programme standards (i.e. standards or performance indicators were data that provided a measure of some aspect of an individual's or programme's performance against which changes in performance or the performance of others could be compared).

Programme standards were intended, to some extent, to reassure the public at large that university faculty were discipline and pedagogical competent to teach students to attain the literacy and other skills and abilities necessary for employment and citizenship (i.e. competence was used as the acquisition of programme standards at a level of expertise sufficient to be able to perform in an appropriate university or agency setting).

More generally, Spanish universities were developing and implementing a strategy for the internal quality assurance by holding faculty, administrative staff and students accountable for meeting those standards, and boosting public confidence in the universities (i.e. internal quality assurance or internal institutional audit was the process that Spanish universities had undertaken for themselves to check that they had procedures in place to assure quality, integrity or standards of provision and outcomes across the universities). Management staff, faculty, students and graduates were usually part of the self-evaluation group. These evaluation systems integrated 'stakeholders' in the functioning of quality assurance in higher

education. Apart from the European model, other higher education institutions provided assurance about their quality, safety and reliability using ISO 9000 standards as a system that mainly focused on the process of service delivery and performance measured by means of identified and published indicators [9]. In effect, the European Foundation for Quality Management (EFQM) was a nonprescriptive framework based on nine criteria of enablers and results that recognised there were many approaches to achieving sustainable excellence by combining actions (enablers) and results [13].

### 1. Purpose Of The Study

This article evaluated an online approach to faculty and evaluation agency personnel development on quality assurance, transformation and enhancement used at Spanish universities. The essence of the problem was that a higher education experience, to degree level, was being delivered by faculty and evaluated by agency members whose competence and understanding of the expectations of Spanish higher education might be limited.

The Online Programme of Excellence Model (OPEM), described and analysed in this article, was adapted from the EFQM model. The authors drew from online faculty development to put forth an online evaluation training case of personnel empowerment (i.e. the development of standards in the faculty and evaluation agency personnel to enable them to control and develop their own learning). It emphasized how criteria and standards were learned and practiced by faculty and evaluation agency staff members and embedded within a programme evaluation, in other words, the process of reviewing the quality or standards of a coherent set of study modules. Learning of standards was a way of strengthening the knowledge, skills and attitudes of both faculty and agency staff members so that they could improve a University programme or study curriculum undertaken by a student that had co-ordinated elements.

Following were some key features of OPEM located in the following URL: <http://gid.us.es:8083>. This was a free, course management system, with many different components in its design - learner characteristics, learner outcomes, course environment and institutional factors (including classroom culture, structural assistance, success factors, online interaction, and evaluation) [22]:

- Faculty members and agency staff used one programme standard handbook [23], which reviewed several sources and identified 24 critical programme standards, with a focus on teaching innovation and evaluation, and student learning. The handbook conveyed a commitment to professional learning by means of reflecting on where an individual was and where he or she wanted to go.
- Faculty and agency staff members interpreted resource materials which were segmented into twelve lesson units or performance indicators - called 'standards' - grouped around the six EFQM criteria and released on a weekly basis with

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ongoing update (see Table 1). All 156 pdf and html documents (e.g., its substantive structure composed of facts, concepts and theories), 114 Web sites, ten Microsoft Power Point presentations, pictures, dynamic visual representation, and over 500 glossary educational concepts and references were hyperlinked. Mentors also used voice over Internet protocols.

- The interrogative style adopted in these standards served to express the awe-inspiring nature of programme quality. Each standard included a four-step approach towards reflection following a cycle: Functional analysis, Experiential Learning, Reflection as meditation and Construction of commitment.

Faculty and agency staff members discussed two topics in asynchronous forums: criteria, standards and guidelines for a programme internal university audit, and criteria, standards and guidelines for the external programme evaluation, both of which were organized and released on a fortnight basis, but remained accessible throughout the course (i.e. an external programme evaluation or institutional audit was a process by which an external person or team checked that procedures were in place across a University to assure quality, integrity or standards of provision and outcomes). Also, the authors believed that faculty participation in the asynchronous network was crucial for learning as a collaborative process that proceeded through social dialogue and negotiation of meaning.

Considering faculty postings to asynchronous discussions in online courses, it has been remarked:

‘Determining the elements of faculty participation and involvement can lead to the development of improved skills, which in turn may lead to improved learner satisfaction, instructor satisfaction, and the lowering of attrition rates’ [3, p. 152].

- Faculty and agency staff members accessed e-mail from the browser for one-on-one interactions with OPEM mentors or among them.
- Faculty and agency staff members browsed the material with URL links to related articles and institutions, notes and grades from any location, and at flexible time schedules.
- Generally speaking, faculty and agency staff members downloaded Microsoft Power Point presentations, key concept maps and study guides and resources onto their personal computer.
- Faculty and agency staff members submitted learning activity assignments using Web forms interface, or via e-mail. These were authentic activities that had real-university relevance and which presented complex assessment tasks to be completed over a sustained period of time.
- Assessment related activity tasks attract faculty and agency staff members’ attention over non-assessed information activities.
- Faculty and agency staff members completed twelve online exams using Web forms with the responses recorded in the appropriate database on the server. Each standard exam was programmed (random selection) to be unique and to provide instant feedback to the online course participants with the results. In other words, faculty and agency staff members received authentic assessment, which was seamlessly

integrated into the learning activity assignments, meaning they could formatively assess their understanding of basic standard concepts, and possibly gain a sense of progress.

- Faculty and agency staff members’ satisfaction with the OPEM course. They assessed the quality of materials and training process as a formative evaluation for course revision.
- Faculty and agency staff members met with the two OPEM mentors and other online course participants in a chat room to discuss course progress and content.

TABLE I  
PROGRAMME CRITERIA AND STANDARDS OF THE OPEM COURSE

<b>Criterion I. Programme</b>
Standard 1: How are the objectives of a programme designed? Standard 2: How is the curriculum flexibility adjusted to the objectives of the programme?
<b>Criterion II. Teaching Organization</b>
Standard 3: How is the continuous improvement planned? Standard 4: How is an effective communication established?
<b>Criterion III. Human Resources</b>
Standard 5: How are the academic personnel involved in investigation, development and innovation activities? Standard 6: How is the academic personnel's teaching valued?
<b>Criterion IV. Material Resources</b>
Standard 7: How are the library and documental archives made more convenient and accessible for the formative process? Standard 8: How are media and resources adapted to the programme?
<b>Criterion V. Formative process</b>
Standard 9: How are student competencies developed in the teaching-learning process? Standard 10: What is the teaching-learning methodology? Standard 11: How is the student guided and motivated in a tutorship within the formative process?
<b>Criterion VI. Results</b>
Standard 12: How is the student's satisfaction measured in a formative process?

## 2. Aim and Research Problems

This study was an attempt to gain insight into the form and substance of faculty and agency staff members’ reflections on criteria and standards for enhancing programme quality. Hence, the overall intention or purpose of the study was as follows: to assess faculty and agency staff members’ learning a series of programme standards in the OPEM. This article was an evaluation research because it inquired into ‘what works’ questions arising out of programme practice and online environment framework. A central element of programme assurance was to determine which criteria and standards (according to different stakeholder groups) should be used to determine a programme’s worth and merit. However, eliciting the interests of different stakeholders was not an easy and straightforward evaluation task. ‘As evaluation research typically emerges in response to needs of individuals who approach the research community with their information needs, and who are typically motivated by social action or betterment ideals’ [4, p. 17].

The evaluation presented here set out to answer the following questions:

1. How the OPEM proceed and how was it realized from both faculty and agency staff members' perspectives and programme standards needs?
2. What affective domain changes did the OPEM bring about in faculty and agency staff members' standards?
3. Were the programme standards (cognitive domain) set for the OPEM achieved?

### 3. Background Of The Study

Several distinct, but not mutually exclusive, evaluation models had also used different criteria to examine organization and programme development. These included the following:

1. The general model adapted for conducting a self-study which was embedded in the 'approach of organizational development (OD)' consisting of the open systems theory, distinction between process and task emphases, democratic values, and action research [15, p. 359].
2. The evaluation 'Model of the four levels' - reaction, learning, behaviour, and results - based on Kirkpatrick's framework [2, p. 341].
3. Other specific evaluation approaches, such as the 'Goal-Question-Metric' (GQM) method [20, p. 336], the 'Instructional Model of the Educational Situation' (MISE) based on the theories of systems and human communication [7, pp. 166-167], or the 'Learning evaluation', a hybrid evaluation type in which elements of other evaluation theories might be found (rational, constructivist, responsive, participative, and utilization-oriented) [8, p. 608].

On the whole, each of those evaluation models suffered from conceptual shortcomings. Consequently, the European Association for Quality Assurance in Higher Education was calling for more research and training on principles and methods about quality assurance. Hence, external expert or examiner professionalization (i.e. person from another institution or organisation who monitored the assessment process of an institution for fairness and academic standards) was an important issue in the field of programme evaluation and quality assurance to know the 'Essential Competencies for Programme Evaluators') [21]-[10]. Besides, the understanding of the formal system of a university quality policy was complex and multilayered. That trend was particularly visible in the desire to integrate students into the internal quality monitoring (IQM) (i.e. generic term to refer to procedures within universities to review, evaluate, assess, audit or otherwise check, examine or ensure the quality of the programme provided).

Autonomous accreditation agencies had been established on a national or regional level in most European countries (i.e. accreditation as concept was the establishment of the status, legitimacy or appropriateness of a programme of study). All accreditation agencies used external experts as evaluators for quality assurance procedures, which took into account the effectiveness of the programme internal assessment reports. The evaluation experts were typically appointed by the accreditation agencies and had varying tasks and responsibilities. Their core function was to carry out

university visits and interviews, and more importantly, to draw up programme assessment reports.

The *Agencia Canaria de Evaluación y Acreditación Universitaria* (Canary Agency for University Accreditation and Quality Evaluation) (ACECAU) was formally granted the responsibility for the external quality assurance of the two Canary universities irrespectively of their structure and size. It had been the organisation that had undertaken any kind of monitoring, evaluation or review of the quality of higher education in the Canary Islands. Thus, external evaluators were a key-mediating link between the agency policy and the university practice. However, no one Spanish accreditation agency had provided guidance as to how personnel was to be trained in order to encourage and help higher education institutions use appropriate measures, particularly quality programme standards, as a means for enhancing, upgrading or enriching the quality of programme standards.

In this regard, some Spanish agencies were more likely to have the resources to develop programme criteria and standards by asking faculty and administrative staff, for example, what they knew about programme evaluation and in what situations they would use it [17]. Although internal and external evaluators did not perceive a need for a specific degree in the practice of programme evaluation, it actually involved a complex set of activities instructed by a range of different types of knowledge which required on-going training and development support [16]-[12].

University faculty and agency staff members interacted in a multiplicity of ways. They were often involved in the evaluation of the programme report. In fact, academicians as evaluators might take part in the formulation and implementation of the internal programme assessment. But faculty also played a crucial role in external programme assessment by carrying out a peer-review group, site visits and publication of programme assessment reports.

Thus far, the authors have argued that university faculty and agency staff members must have an active role in the programme assurance process, and should participate in at least three assessment phases: interpreting programme standards, interpreting programme assessment data, and using programme assessment information. This meant that evaluators were having the opportunity to convey programme criteria and standards to other faculty, students and administrative staff.

Nevertheless, external evaluators found the evaluation task difficult due to the lack of a detailed standards briefing prior to reviewing the internal programme evaluation documents and reports. In sharp contrast to this portrait of the multiple, interdependent paths from a programme standards policy to quality teaching and learning, most studies of quality evaluation focused solely or predominantly on the formal programme assessment system, failing to take into account or investigate the importance of evaluator competencies training. If university faculty and agency staff members were to be trained as evaluators, then the substance and process of a programme evaluation theory must be considered, because the area of work (i.e. the University programme) played an important role in the development of faculty and agency staff members' attitudes [16]. This was the reason for the interest in

the attitudinal variations attributed to the work site environment of three groups of participants in this study: two from the Canary universities and one from the ACECAU. Authors believed that much work was needed in online professional training to prepare faculty and agency personnel to work together cooperatively in evaluation.

## II. METHOD

In this section the methodology of this study was described. It consisted of personal and professional characteristics of the OPEM participants, measures and procedure.

### 1. Participants

Participants included twenty-one tenured lecturers and agency staff members. All volunteers met the following selection criteria: (a) University campus or ACECAU, (b) scientific field, and (c) professional merits. Of the 21 participants, 7 (33.3%) were male and 14 (66.7%) were female. All of the respondents were full-time faculty at the two public Canary universities: eight at the University of La Laguna (ULL) ([www.ull.es](http://www.ull.es)) (38.1%) and six at the University of Las Palmas de Gran Canaria (ULPGC) ([www.ulpgc.es](http://www.ulpgc.es)) (28.6%); and seven contracted personnel of the ACECAU ([www.acecau.org](http://www.acecau.org)) (38.1%). Twelve participants held a doctorate (57.1%) and eight (38.1%) a bachelor's degree and only one participant had a different, lower degree. Three (or 14.3%) held the rank of full professor, and seven (33.3%) held a different rank as a contract appointment, reflecting the fact that a large number of participants held a contract status. Teaching experience ranged from nothing to over nine years. Participants taught disciplines in twelve knowledge areas. Nine participants (42.9%) rated their programme evaluation preparation as low, and fifteen (71.4%) indicated that their practical experience in European Convergence was very low. Ten participants followed the course from home (47.6%), eight from work (38.1%), and three from other places (14.3%). Personal data were used as independent variables in analyses.

### 2. Measures and Data Analyses

Analysis employed data from participant online questionnaires and tests. There were four basic types of data collected:

a) Attributes, what faculty and agency staff were (learners' characteristics). This was done by means of an online questionnaire which included:

- *Demographics of online learners* (gender and age).
- *Academic variables*, or personal qualities of participants that were essential to mastering those aspects of academic and administrative work (degree, professional appointment, teaching experience, University, scientific field, knowledge area, department, undergraduate degree program teaching, school, major subject matter teaching).
- *Career development variables*, or faculty and agency staff members' productive pedagogical knowledge (evaluation training, and European culture).

• *Prior experience*. This variable was defined by two items referring specifically to educational knowledge. For each item, respondents were asked to indicate the extent to which the educational training was a personal characteristic on a 5-point scale.

b) Assessment needs, what faculty and agency staff members knew to be true (an online three-point scale of twelve declarative statements used as a programme standard diagnostic tool).

c) Programme standard opinions and attitudes, what faculty and agency staff members thought might be true and said they wanted (affective domain). Twelve standards opinions and attitudes questionnaires, adapted from common themes in the instruments for quality assessment (e.g. 'This standard is pertinent for evaluator training'), were employed to capture potential attitudes, beliefs, and actions change among all participants [11]. Each OPEM sheet consisted of ten declarative statements or quality scale items (Table 2). A Cronbach' alpha ( $\alpha = .989$  standardized) computed for the instrument indicated a high degree of internal consistency.

d) Programme standard learning, what faculty and agency staff members actually knew (cognitive domain). Twelve standards teacher-made multiple response tests were used for measuring learning. Each test was composed of ten declarative statements. All the more, taking a test was understood as a time on-task learning activity (e.g. 'An unavoidable principle of TQM is the following one'). Also, Cronbach' alpha ( $\alpha = .989$  standardized) for all tests showed a high degree of internal reliability. Responses required selecting from a range of four item possibilities, and tests were administered at the end of each standards lesson. Face validity, stem clarity, correct keying answer, and spelling of distracters were some of the determinants considered for evaluating the quality of standards tests. Overall, these alpha scores indicated that respondents were highly likely to answer consistently on items belonging to the same instrument or test.

Univariate tests of analyses of variance were performed to investigate how dimensions and/or personal and professional variables, individually, contributed to the distinction between OPEM participants. T-tests were computed to compare means for the independent variables analysed. To determine the significance of differences in frequencies, the  $\chi^2$  test was used.

### 3. Procedure

The OPEM programme took place during the autumn quarter of the 2006 academic year. Managing participants' assignments, providing feedback to participant, and assessing participants' learning were all key factors in the OPEM. Mentors provided online measures, resources and course materials in folders for each week of the course.

## III. RESULTS

### 1. Perceptions of formative programme standards needs

In addition to collecting descriptive summary data about participants' demographic characteristics, information

regarding their formative programme standards necessity was also obtained in order to better examine the relevance of the 12-standard OPEM course in relation to participants' learning of formative programme standards. The scale was 1-3, with measures of "1 = Not So Necessary," "2 = Moderately Necessary," and "3 = Very Necessary". Figure 1 displays the percentage of the twelve standards OPEM considered as very necessary by the respondents to the survey. The needs assessment was undertaken at the beginning of the OPEM in a similar procedure followed by other researchers in order to obtain, for example, the development interests and needs of Medicine faculty members and the priorities of academic and course development as perceived by staff and students [1].

Hypothesis 1 was supported. As Figure 1 indicates, all participants considered professional training as very necessary in all twelve standards of the OPEM at different levels. The high overall response rate of 90.5% indicates that faculty and agency staff considered standard 6 (*How is the academic personnel's teaching valued?*) very relevant to their needs. Faculty and agency staff were also certain about the significant need in other standards. However, they considered the knowledge of standard 12 (*How is the student's satisfaction measured in a formative process?*) to be moderately necessary with a response rate of 52.4% level.

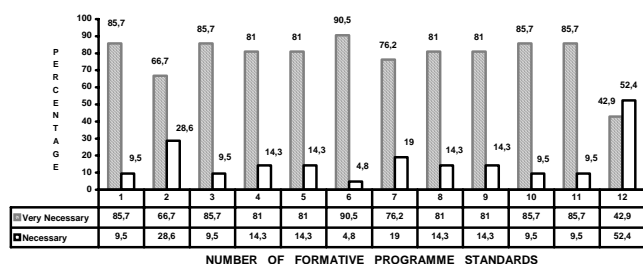


Fig. 1 perceived programme standards needs expressed by the participants

Chi-square difference tests were used to compare whether two independent variables (participants' demographics and academic variables, i.e., a nominal variable – University degree - and an interval variable – age cycle -) had significantly different distributions across the OPEM programme standards needs. Data were cast into several contingency tables.

With regard to the relationship of scientific field (agency staff members and Social Sciences faculty) to 'How is the continuous improvement planned?' this standard was very necessary:  $\chi^2 = (12, N = 21) = 23, p < .028$ . The same happened with the following standard: 'How are media and resources adapted to the programme?',  $\chi^2 = (18, N = 21) = 29.51, p < .042$ .

Regarding genre, the learning standard 'How is an effective communication established?' was considered very necessary for females,  $\chi^2 = (2, N = 21) = 7.23, p < .027$ . Also,

concerning the standard 'How is the student's satisfaction measured in a formative process?',  $\chi^2 = (2, N = 21) = 13.20, p < .001$ .

## 2. Participants' programme standard opinions and attitudes

In terms of OPEM, means and standard deviations on the twelve standards rating scale items are shown in Table 2. On each item, univariate analyses of variance (ANOVA) or *t* tests were conducted. In this section, the significant effects found in the tests were described.

TABLE II  
MEANS AND STANDARD DEVIATIONS FOR OPEM QUALITY SCALE ITEMS

	M	S.D.
Relevance	.84	.33
Usefulness	.85	.34
Appropriateness	.84	.33
Adaptation	.86	.34
Tips	.85	.34
Structure	.86	.32
Pertinence	.84	.33
Reading	.85	.34
Impact	.83	.32
Time-Consuming	1.14	.59

With regard to genre, faculty and agency staff members revealed a significant difference in 'time-consuming',  $t(27) = 2.520, p < .018$ . An ANOVA in which the independent variable was scientific field type, comprised of five levels, indicated a significant effect on 'usefulness',  $F(4,25) = 2.78, p < .049$ ; 'appropriateness'  $F(4,25) = 3.18, p < .030$ ; 'adaptation',  $F(4,25) = 4.10, p < .011$ ; 'structure',  $F(4,25) = 3.94, p < .013$ ; 'pertinence',  $F(4,25) = 2.86, p < .044$ , and 'impact',  $F(4,25) = 3.22, p < .029$ . Also, participants' experience in European convergence programmes significantly differed from pedagogical knowledge,  $F(4,21) = 21.33, p < .000$ . Furthermore, participants with a distinct level of pedagogical knowledge had a different attitude toward OPEM 'relevance',  $t(28) = 2.182, p < .044$ .

## 3. Assessing the learning activities

Learning activities reflected the way in which the knowledge of programme standards were to be used in real university programmes. The activities gave meaning and structure to the study of the OPEM course.

In this sense, faculty and agency staff members completed 1,654 learning activities (Table 3) (e.g. 'propose an argument about validity as the essential consideration in the evaluation of the uses and interpretations of any assessment'). Additionally, a principle of the learning process was peer assistance and review, which was fulfilled by means of

TABLE IV

MEANS AND STANDARD DEVIATIONS ON THE TWELVE STANDARD SELF-ASSESSMENT TESTS

	<i>M</i>	<i>S.D.</i>
Standard 1	7.90	2.07
Standard 2	7.95	2.05
Standard 3	8.28	2.95
Standard 4	8.80	2.15
Standard 5	7.80	3.41
Standard 6	6.52	3.41
Standard 7	6.95	3.65
Standard 8	6.85	3.10
Standard 9	7.28	3.62
Standard 10	7.52	3.77
Standard 11	7.23	3.71
Standard 12	7.04	3.70

providing guidance and feedback to the faculty and agency staff members in the learning process. Online help was often needed. Thus, coaching and scaffolding of learning was done by the two OPEM mentors. They diagnosed the strengths and weaknesses of each faculty and agency staff member and tailored support accordingly.

Table 3 signals faculty and agency staff members' changes in their interest in and willingness to respond to programme standards learning activities as the OPEM course progressed. Initial frequency learning activities were, however, higher than final activity responses. Data demonstrated that time commitment to programme standards was not equally distributed. While the first standard ('How are the objectives of a programme designed?') took on a high frequency dedication, the ninth standard ('How are student competencies developed in the teaching-learning process?') had a low or limited response frequency. In any case, activity learning was fluent and faculty and agency staff members became aware of new possibilities for quality assessment.

TABLE III  
 FREQUENCY OF PARTICIPANTS' ACTIVITIES

Note:

	A1	A2	A3	A4	A5	A6	T/P/S	TOTAL
S1	22	21	6	19	7	7	20	162
S2	20	19	20	6	7	7	17	156
S3	20	18	15	7	5	8	17	147
S4	6	6	16	6	19	18	15	143
S5	17	6	7	17	15	7	14	135
S6	8	15	6	6	17	16	15	130
S7	17	14	17	7	6	6	17	135
S8	17	17	17	5	5	6	17	136
S9	12	15	6	15	6	7	11	124
S10	17	6	16	5	5	16	16	132
S11	17	17	17	6	6	5	17	136
S12	16	6	16	7	4	14	15	127
TOTAL								1,654

A1 ... A6 = Activities 1 to 6.  
 Task (T), Practice (P) or Strategy (S).  
 S1 ... S12 = Standards 1 to 12.

#### 4. Assessing cognitive domain standards learning

Means and standard deviations on the twelve self-assessment test scores are shown in Table 4. It was found that participants' learning was effective, although objective testing of programme standards showed participants' performance was more effective in the standard 3 'How is the continuous improvement planned?' than in the standard 6 'How is the academic personnel's teaching valued?' According to sixty-six per cent of participants' opinions, the latter standard was considered very difficult and complex.

#### 5. Discussion

The purpose of this study was to measure the impact of university and agency staff members' participation in the short-term OPEM.

This academic development unit web site included a course which contained a database of programme evaluation reports, and a quality review of criteria and standards, as do other online academic staff development and evaluation sites [14].

In this article, the authors had tried to carefully document the processes used to evaluate online programme standards learning. The key instrument design faced with OPEM was similar to those written by other researchers: assessment programme standards for the measurement of learning gains need to be aligned with the online course goals [18].

Essentially, six findings were noteworthy concerning OPEM evaluation.

Firstly, participants showed a greater increase in their knowledge of quality standards at the outset of the course (they were involved in 1,654 activities). Besides, they were asked to notice their own interactions while using the multimedial platform, and to comment on the suitability of the programme standards for their own programmes.

Secondly, OPEM was an environment which encouraged collegiality and communication; it provided constructive feedback to all participants' activities, deploying a variety of equity, integrity and just methods of assessment.

Thirdly, females, agency staff members and university scientific field participants had different standard knowledge needs.

Fourthly, agency staff members and university scientific field participants gave a different evaluation of the quality of each standards structure.

Fifthly, formative evaluation approaches were implemented in order to obtain regular feedback from the participants regarding their satisfaction with the OPEM.

Sixthly, and finally, results of the current study were restricted to faculty from the Canary universities and the ACECAU staff. All participants were enrolled in the OPEM, which suggested that they valued technology, teaching and personal and professional development.

## 6. Recommendations

### 6.1. Recommendations for online university faculty and agency staff development programmes

The following were recommendations based on the processes and outcomes of this study for consideration in the development of future university faculty and agency staff development programmes:

a) Both universities and the ACECAU should have an institutional commitment to the importance of faculty growth and development and hence provide adequate programmes to develop programme quality criteria and standards. As had been pointed out: 'Regional or other consortia may be the most feasible vehicles for delivering these training opportunities' [6, p. 35].

b) Awareness had been raised regarding the complexity of quality assurance. OPEM had encouraged participants to reflect on university programme quality standards.

c) Participants had accepted that OPEM was based on four principles, which confirmed it being a quality training model [5]:

- Focus of programme standards: every standard unit was taught with the faculty and agency staff needs in mind, ensuring that material and communication process adjustments were appropriately carried out.
- Continuous improvement as the process of enhancing, upgrading or enriching the quality of programme standard: incessant activity feedback efforts to improve participants' standard learning were carried out by mentors.
- Integral approach: OPEM concerned programme standards of the EFQM model.
- Quality assurance of the materials put on the web, ensuring coherence in the structure of the relevant course by means of a previous university field-testing.

### 6.2. Recommendations for Further Research

Future research should include the following:

a) Lengthening OPEM may be useful to provide university faculty and agency staff members with more time to apply criteria and standards to other programme evaluation cases.

b) Participants' learning activity responses as textual documents should be compared, contrasted, and categorized by qualitative research methods [19].

c) The present study was limited by the demographics of the sample. Subsequent studies should utilize samples from more departments and scientific fields of the two Canary universities.

d) The concept of competencies for a professional evaluator was an important idea for future online training. There was a steady increase in the number of academicians who regarded themselves as programme evaluators needed for in-depth quality assurance training.

## 7. Caveats associated with this research

Two limitations must be noted. First, causality cannot be inferred from this analysis because data are from an

uncontrolled study. Second, missing data, particularly involving specific variables with many levels, created constraints for testing them; therefore, generalization of the results is limited only to this sample.

## IV. CONCLUSIONS

Faculty and agency staff members recognized of multiple levels of programme standards use (individual and organizational) conveying that programme standards could affect agency policies, faculty classroom practices, and university programme implementation and assessment. Faculty and agency staff members very often mentioned the words "use" and "utilization" as informal ways for referring to generally positive and desired consequences of programme standards. A key benefit for faculty and agency staff members was the depth and breadth of programme standard experiences afforded to them in the OPEM as a computer-mediated delivery system for distance education.

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