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A look at quality academic training: the university students' point of view

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ABSTRACT

Introduction. The primary objective of this paper is to define a quality university from the user's perspective, based on what students have expressed regarding different aspects of the institution. Coherence of their opinions is tested under two methodologically different formats of collecting information, and results are evaluated using both a qualitative and quantitative approach.

Method. An opinion survey was applied to a sample of 807 university students, using a model of entry-process-product variables. We then proceeded to study the answers offered, using techniques of quantitative analysis (descriptive, inferential, correlational and multivariate studies) and qualitative analysis (content analysis).

Results. After applying the content analysis technique, we were able to make out tendencies in the students' response, discerning from the information-collection instrument their level of commitment as well as traits which, from their perspective, characterize good educational training. Ills which affect such training are brought, and alternatives for improvement are proposed. Finally, we collected data to describe elements that make up a *Quality University*. These statements were validated following a multiple regression study where the aspect that most represents quality in a University is student satisfaction, a product indicator, and a manifestation of current educational policy in terms of institutional evaluation.

Discussion. In this study we were able to demonstrate properly the compatibility of qualitative and quantitative data analysis techniques when carrying out studies of this nature. At the same time, questions addressed here became a point of reference from which students could satisfy their need to give a critical opinion about the university system to which they belong.

Keywords: qualitative data analysis, quantitative data analysis, educational evaluation, quality university, student satisfaction

Introduction

The quality issue is not new; rather, it is recurrent in educational research in an international context (De la Orden, 1988; De Miguel and Rodríguez Espinar, 1991; Doherty, 1994; Quintanilla, 1998; López Mojarro, 1999; Pérez Juste et al., 2000; Cantón Mayo, 2001; MECD, 2001; EFQM, 2002). However, it has acquired relevance and importance within current educational legislation, particularly in the university setting. At this level, the promotion of quality in association with all elements that form an institution, as a social requirement, is the main objective of the *Ley Orgánica de Universidades* [Organic Law of Universities] (2001).

But its interpretation differs greatly, depending on the persons interpreting and on the methodology employed to arrive at not only the interpretation, but also its implementation. For this reason the European Union has adopted an evaluation model (EFQM) which integrates the logic of existing models in Japan (Deming) and United States (Baldrige). This model, fully integrated into Spanish educational institutions, incorporates from the Japanese model the logic of statistical analysis applied to quality control, and from the American model it adopts the objective of satisfying users.

Nonetheless, as Tejedor affirms (2003), the concern today is no longer how many students receive education and in what proportion, but rather who is learning, what is being learned, and under what conditions are they learning. Certainly the great challenge for education in this century is the search for quality (OCDE, 1991; Marchesi and Martín, 1998 and Gazí el et al., 2000) in direct relation to the satisfaction of students who must be provided with a complete education using innovative didactic methodologies, by means of effective resource usage, and conveying conceptual, procedural, and attitudinal content, all of which enabling them to develop as social beings, on both professional and personal scales.

The search for and promotion of quality in education must be thought of as a process of reflection, systematic and agreed upon by all members of the educational community, with the objective of evaluating the situation where the different educational phenomena take place. This will give rise to discovering potentialities of the institution and the elements which constitute it, it will help to identify weaknesses, will empower development of innova-

tive proposals that execute the desired change, and will bring about continuous and constant development, both of the organization and of its members.

Objectives of the Study

The primary objective of this paper is focused on defining a quality university from the user's perspective, based on what students have expressed regarding different aspects of the institution. Coherence of their opinions is tested under two methodologically different formats of collecting information, and results are evaluated using both a qualitative and quantitative approach.

Method

Sample

To perform this study we selected a sample of 807 studies, applying a proportionality criterion based on branch of specialization of their particular degree programs: Health Sciences, Humanities, Experimental Sciences, Legal and Social Sciences, and Technical programs.

Procedure

Once objectives were formulated, we proceeded to specify variables which inform about the phenomena to be studied. In order to select variables we considered those factors which influence quality of a university institution. From the basis of a relational structure where variables are classified as entry, process and product, we worked with a total of fifty-five, shown in figure 1.

We observe that entry variables encompass basic aspects which describe the students in terms of their personal and academic identification, as well as other classifying factors and factors influencing the realization of university studies. At the same time, we also dealt with all those aspects relating to the newly-arrived student's attitudes toward the institution.

Figure 1: Variables of the Study

ENTRY VARIABLES	PROCESS VARIABLES	PRODUCT VARIABLES
<p>Student characteristics:</p> <ul style="list-style-type: none"> - Academic variables: classification within the University - Personal variables: identification - Family socio-economic variables - Academic variables prior to enrolling in the University - Motivational variables <p>Attitudes of newly-enrolled students towards the University</p> <ul style="list-style-type: none"> - Beliefs about the context - Concept of the student's role in the University 	<p>Student involvement in the university community</p> <ul style="list-style-type: none"> - Services - Government and representative groups <p>Educational activities carried out by the students</p> <ul style="list-style-type: none"> - Academic training - Professional training - Complementary training - Leisure and free-time activities <p>Placement in the workforce</p> <ul style="list-style-type: none"> - Professional outlets - Professional guidance - Access to the labor market 	<p>Student attitudes toward the University at the end of their degree program</p> <ul style="list-style-type: none"> - Beliefs about the context - Concept of the student's role in the University <p>Student satisfaction</p> <ul style="list-style-type: none"> - S. with the climate - S. towards the teaching - S. evaluation of academic performance - S. services and activities - S. infrastructure and resources - S. administration - S. general <p>Student performance</p> <ul style="list-style-type: none"> - Academic performance

Secondly, process variables refer to the internal functioning of the University, and to the degree to which the student participates in this functioning, as well as to elements related to his training, taking into account activities pursued and mechanisms used for job placement.

Finally, product variables include, on one hand, attitudes of the students in their final year of studies regarding their experience in passing through the University. Later on, we dealt with elements related to their satisfaction regarding the university institution. Next, their academic performance characteristics were analyzed, and lastly, we sought to obtain information that would serve towards defining a quality University.

With the help of the computer program NUDIST 4.0, we used this information to attempt to explore, describe and analyze cultural and social patterns within daily university life. This way, we would be able to identify basic characteristics and infer particularities with regard to the system which the University embodies.

Instruments

Information regarding this set of variables was collected using two well-differentiated instruments. First, we designed a questionnaire addressing students in their first and final years of studies, given that they are the principal source of information. The questionnaire was composed of 136 questions, of which 125 were closed (items rating the degree of agreement or disagreement with a given statement, using a 5-point scale), 4 semi-closed and 7 open-ended, structured across ten dimensions which classified all the variables in the study. Questionnaire completion yielded a total of 103,672 answers, of which 101,828 were submitted to quantitative analysis (descriptive, inferential, correlational and multivariate studies), and 1844 to qualitative analysis (content analysis). Next, we worked with official data primarily regarding identification variables and academic performance.

Since it was impossible to wait five or six years for students surveyed to complete their studies, we used a cross-sectional procedure where entry data was collected from newly arrived students, and exit data from students in their final year of studies.

Results of the Qualitative Analysis

Qualitative Analysis

From the total open-ended answers obtained (1844), we selected the 1708 which correspond to the last four items of the questionnaire, those most pertinent to our proposed objective. These were analyzed using a content analysis technique, which addresses the *human being's natural capacity for inquiry and discovery, that which is beyond the literal information, through which one focuses on finding within the different human expressions those particularities of language which offer intersubjective meanings characteristic of their communication systems. This means obtaining registers of the content in order to infer a series of conclusions that respond to a series of pre-established hypotheses and initial theories* (Bar-tolomé, 1990).

As reflected in table 1, the most-frequently answered question was number 132 (*definition of a quality University*), answered by 61.21% of those surveyed, followed by number

134 (*negative aspects of university training*), answered by 54.52% of the students. The average proportion of response was 52.92%.

Table 1: Open-ended questions, valid responses and proportion of valid responses submitted to content analysis

Question No.	Variable Name	Question	Valid Responses	Proportion of responses
132	UNICALI	What is a quality University, for you?	494	61.21%
133	FORMAPOS	What do you consider the most positive aspects of your university education?	387	47.95%
134	FORMANE	What do you consider the most negative aspects of your university education?	440	54.52%
135	PROPFORM	What would you propose in order to improve your university education?	387	47.95%
Total			1708	52.92%

The base category system for performing the analysis is represented by a tree with four branches, corresponding to each of the survey questions used in this study. Codifying was carried out *a posteriori* once the answers were collected, amounting to a first approach at results analysis. Total number of proposed categories was 334; once the documents were assigned to each of the analysis categories, the process was to continue with the disposition of data, the obtaining of results and verification of conclusions.

Disposition and transformation of data

Given the large quantity of textual information under analysis, and the high number of categories, results obtained are very extensive. Therefore, a first step in analysis is the disposition of data. This is done with a reordering procedure that allows us to present the data in a manageable, useful fashion for resolving research issues (Rodríguez et al., 1995).

In our case, in consideration of the work performed by Sánchez, Prado and Martín (2001) on qualitative analysis of cross-sectional themes implicit in reading books, we used the matrix of the *coding* function for each of the four main categories of analysis (positive aspects of university training, negative aspects of university training, proposals for improving university training, and definition of a quality University), determining the existence (1) or

not (0) of given textual units in the responses analyzed, and which ones were most recurrent. Due to its size it cannot be shown in this paper.

Obtaining and verifying conclusions

At this point, the need arose to perform a detailed study of the information such that it would offer significant conclusions to address the objectives of the study.

Towards this end we performed a triple analysis. First, we did a study of the percentage of textual content in each of the open answers (*make report*); second, we analyzed results obtained following the connection between codes (*union*); and last, we carried out a ranking of the latter by using different boolean operators (*collect*).

The principal data obtained are:

- Good university training should be characterized by a personal and professional component that allows students to develop socially by acquiring skills, attitudes and values. Good training strengthens interpersonal relationships and offers practical experiences that are well-adapted to the proposed training objectives.
- The main ills that affect student training are: study programs overloaded with subjects, many of them unnecessary, and an excess of theoretical content; lack of individual attention from the teaching staff; scarcity of practical professional experiences; overloaded schedules; crowding; lack of information; absence of a system offering professional guidance; competition and lack of motivation in the students; didactic methodology based on master classes; quantitative evaluation and inadequate and insufficient resource materials.
- Proposals put forward for avoiding these ills are focused fundamentally on improvements in the professional practice system, on the need to give students vocational guidance, on reworking the programs of study, on introducing new didactic methodologies, new ideas regarding both teachers (evaluation and attention to the student) and students (relationships and participation), on new administrative organization systems for the different degree programs, and on improvement of resource materials for properly developing the activities proposed.

- In conclusion, based on the contributions from students who formed our study sample, we can consider that a quality University is one that provides comprehensive training to the student, such that it addresses his or her social and employment needs. It is one that possesses a qualified, satisfied teaching staff, adequate resource materials for the needs of the university community, and that meet its objectives. A quality University promotes research, and to a lesser degree, possesses a wide variety of degree programs, additional services, and provides individualized attention to students.

Results of the Quantitative Analysis

Claims put forward thus far were validated by a multiple regression study and a discriminatory analysis, techniques which helped us explain relationships between the different variables and their degree of interdependence, as well as specify those elements that define, from the students' view, a quality university institution.

Results of the multiple regression analysis

The object of this analysis is to *quantify* the relationship between the dependent variable and the independent variables, and to establish to what degree of confidence we can affirm that the quantification observed corresponds to reality (Guillén, 1992).

The first step consisted of *selecting the variables* that were relevant for the objectives of the study. In our case, based on conclusions gathered in the qualitative study of open-ended responses, we were able to usefully identify a series of variables that form a relationship model and that are introduced as a function of the connection existing between the percentage of indexed textual units in the specified category, and the questionnaire item to which they make reference (see table 2).

The criterion variable, in the qualitative study, makes reference to the definition of a quality University, identified in the set of variables as item number 103 from the questionnaire, and the group of predicting variables is formed by those that make reference to comprehensive and multidimensional training, facilities, vocational guidance, teaching staff, stu-

dent satisfaction, training in attitudes and values, skill acquisition, advisory services, activities, information and administration.

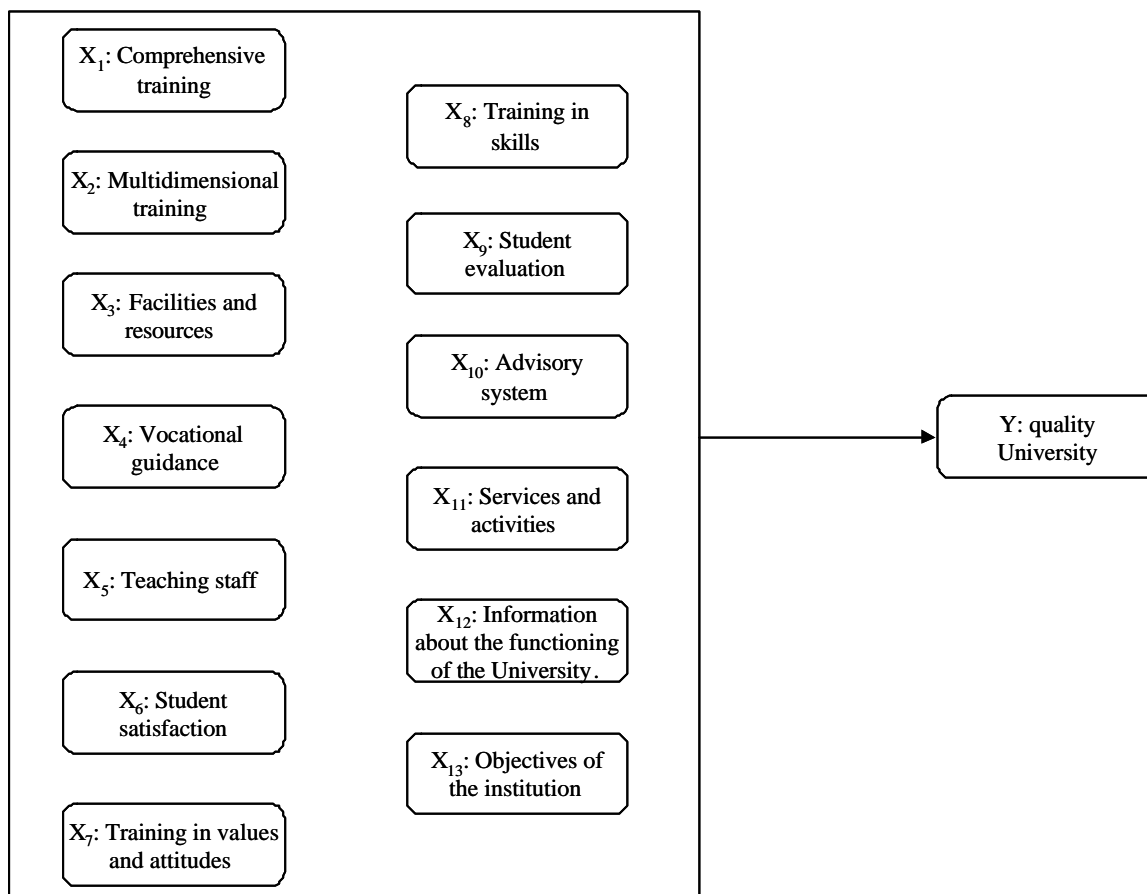
Table 2: Variables in the multiple regression model

Variable type	Results from the qualitative study	Variable	Coincidence with item ...
Criterion	Definition of a quality University	Y: quality University	103: I am receiving quality education
Predicting	Comprehensive training of students, where professional and personal components take on importance	X ₁ : Comprehensive training	58: My passage through the University is developing me, not only as a professional
	Significant offering of theoretical and practical training	X ₂ : Multidimensional training	69: The teachers integrate theory and practice in their subjects
	Facilities and resources adequate to the needs of the university community	X ₃ : Facilities and resources	97: Facilities are adequate for my needs
	Vocational guidance in the different degree programs	X ₄ : Vocational guidance	122: Over the course of my training I have received information about the work world and professional outlets for my degree
	Motivating, motivated and satisfied teaching staff	X ₅ : Teaching staff	91: I feel well attended-to by my teachers
	Students satisfied with the training received	X ₆ : Student satisfaction	92: My expectations with regard to the training I am receiving are being fulfilled satisfactorily
	Transmission of values such as freedom, and training in attitudes where the critical spirit is emphasized.	X ₇ : Training in values and attitudes	72: I am acquiring personal norms, attitudes and qualities specific to the profession
	Training in skills	X ₈ : Training in skills	63: I am acquiring the skill of reflection and learning
	Quantitative and qualitative analysis	X ₉ : Student evaluation	94: Evaluation addresses all aspects of my training
	Individualized attention to students	X ₁₀ : Advisory system	29: Being served through a good advisory system
	Additional services at the disposition of the university community	X ₁₁ : Services and activities	96: Services and activities offered by the University respond to my needs
	Offering information to the students regarding the institution	X ₁₂ : Information about the functioning of the University	37: Receiving adequate information about one's rights as a student, as well as the general functioning of the University
	Meeting objectives proposed initially	X ₁₃ : Objectives of the institution	42: Cooperating for the attainment of institutional objectives

After completing the description, the purpose proposed was to reveal the dimensions around which the concept of quality university revolves, choosing the most thorough model,

and ordering them from most to least important, based on their predictive capacity for the criterion variable. The regression model is shown in figure 2.

Figure 2: Multiple regression model



Once we specified the variables that will be used to explain the dependent variable and the order in which these will be introduced, we were inclined to use the *stepwise* inclusion method, which, as Etxeberría points out (1999), is the most complete method, and that which provides the most information. Starting with inclusion of the second variable, at each stage we analyze the significance of every variable so far included in the equation, such that, if one of them does not contribute information, it is eliminated from the model. In short, the regression model is set out in the following fashion (see table 3).

Results point out that, from the thirteen incorporated predictive variables, deduced from open answers given by students to the question about defining a quality University, only eight variables are selected, the total explanation of criterion variance being 45.2%. Chart 3 represents

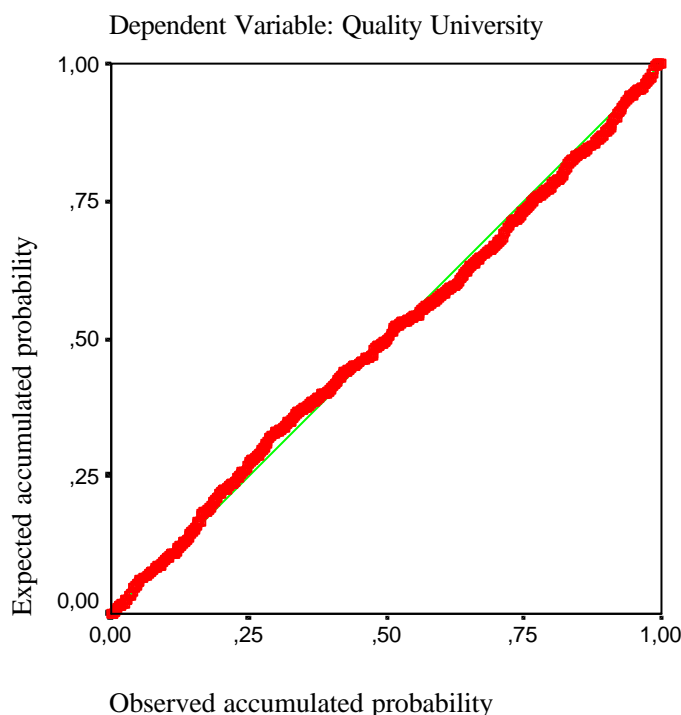
the normal probability that guides our model. As can be noted, sample values are superimposed practically at the main diagonal, indicating their nearly absolute proximity to normality.

Table 3: Summary of the multiple regression model

Steps	Criterion variable	Predicting variables	R	R ²	Delta R	F	P
1	Y	X ₆	0.574	0.330	0.330	363.508	0.000
2	Y	X ₆ , X ₅	0.622	0.387	0.057	232.775	0.000
3	Y	X ₆ , X ₅ , X ₃	0.643	0.413	0.026	172.486	0.000
4	Y	X ₆ , X ₅ , X ₃ , X ₁	0.656	0.430	0.017	138.718	0.000
5	Y	X ₆ , X ₅ , X ₃ , X ₁ , X ₂	0.662	0.438	0.008	114.526	0.000
6	Y	X ₆ , X ₅ , X ₃ , X ₁ , X ₂ , X ₄	0.666	0.444	0.006	97.644	0.000
7	Y	X ₆ , X ₅ , X ₃ , X ₁ , X ₂ , X ₄ , X ₉	0.670	0.448	0.004	85.019	0.000
8	Y	X ₆ , X ₅ , X ₃ , X ₁ , X ₂ , X ₄ , X ₉ , X ₇	0.672	0.452	0.004	75.303	0.000

$$Y = 0.320 + 0.258X_6 + 0.184X_5 + 0.133X_3 + 0.106X_1 + 0.058X_2 + 0.064X_4 + 0.072X_9 + 0.065X_7$$

Figure 3: Probability chart



The order of incorporating variables to the model was as follows:

1. *Student satisfaction* (X₆), with an explanation of criterion variability of 33%. That is, results confirm the importance given to "user satisfaction" among the list of product indicators of an institution. According to this study, the variable which correlates most strongly quantitatively, and therefore, predicts a positive opinion about receiving "quality education", has to do

with the level of satisfaction toward the training being received. If you like, we are defining once again that same newly-minted concept of “quality”. The main contribution of Malcolm Baldrige's evaluation model is the need to respond to customers' needs and expectations (CIGAL, 2000), an element that has guided the principles of total quality applied to higher education. In this sense, we must recall that student satisfaction is the most heavily weighted dimension in quality assessment policies in European countries, including Spain (Consejo de Universidades, 1998).

2. **Teaching staff** (X_5), with an explanation of criterion variability of 5.7%. In this regard, the next variable incorporated reduces explanation of variability substantially; therefore, we can say that what the student understands as quality education is explained practically entirely by the satisfaction variable. However, it is interesting to observe that after this variable appears *attention from the teaching staff*, or the fact of feeling attended to, treated individually as a person. This result leads one to think that, from the student's viewpoint, more individualized attention constitutes an important element when giving merit to education. Recall this dimension in the evaluation of teaching and the weight that it is given here (Grupo Helmántica, 1995).

3. **Facilities and resources** (X_3), reduces even further the explanation of variability of the criterion (quality) to 2.6%. Nonetheless, it is also interesting to reflect on the standing of this variable which relates to infrastructures in university education. Currently, where academic administrations are proposing changes motivated by incorporation into the information society and the knowledge of new technologies, we observe how the student-user calls attention to this aspect. We may say that the student does relate educational "quality" with the degree in which "facilities" respond to his or her current needs.

4. **Comprehensive training** (X_1), with an explanation of criterion variability of 1.7%. Despite this percentage, the student is conscious that a quality University should provide a range of knowledge that will enable him to confront the world where he will find his place once his studies are concluded. It is of interest how students assert that university training should provide them with the necessary knowledge and resources to move forward professionally and personally in adult life.

5. **Multidimensional training** (X_2), with an explanation of criterion variability of 0.8%. This minimal contributing variable says that students consider a quality University to be one that provides theoretical and practical training in the different degree programs it offers, by means of different teaching activities.

6. **Vocational guidance** (X_4), with an explanation of criterion variability of 0.6%. Despite an even lower explanation, students consider that the university institution must provide information about the work world, as well as professional outlets for each degree program. Associated with comprehensive training, a quality University is characterized by including an employment component in its training where guidance toward job placement is especially relevant.

7. **Student evaluation** (X_9), with an explanation of criterion variability of 0.4%. This variable's explanation is a barely present in the regression model. However, it seems that students wish to point out that systems evaluating their performance are an aspect to be valued in the definition of a quality University. They identify a quality factor of evaluation being well-suited to the different aspects of training: theoretical, practical, knowledge, experiences, participation, etc.

8. **Training in values and attitudes** (X_7), with an explanation of criterion variability of 0.4%. It is the last variable introduced into the model, and its contribution is nearly null. However, it should be noted that students consider training based on the acquisition of norms, attitudes and qualities needed for personal, professional and social involvement to be relevant.

Variables eliminated in this model were: skill training (X_8), advisory system (X_{10}), services and activities (X_{11}) information on the functioning of the University (X_{12}) and objectives of the institution (X_{13}). Though considered to be defining elements of a quality institution, their contribution to the multiple regression model was not significant.

Results of the discriminatory analysis

This technique was used for the purpose of decreasing the possibility of obtaining significant results simply by chance. We try to uncover which elements are capable of describ-

ing the differences between students that consider the institution where they are enrolled to be a quality institution or not.

Taking as a reference the criterion variable of the multiple regression model (quality University) coded from 1 to 5 (from disagree totally to agree totally), the discrimination groups are:

1. Low quality group: formed by those students who answered 1 or 2 on the reference item.
2. Average quality group (*missing*): formed by all students who scored the item a 3.
3. High quality group: formed by all students who answered 4 or 5 on the item.

Next, we selected the variables that define the model, that is, the predictors selected in the multiple regression study (13 variables), and proceeded to the analysis specified.

Taking the Wilks Lambda discrimination measure from among the existing *step-wise* techniques, the model eliminated seven variables, leaving six which are able to discriminate students in the groups labeled high and low (see table 4).

Table 4: Variables introduced at each step and Wilks Lambda values obtained

Steps	Variables	Wilks Lambda	F	p
1	Student satisfaction	0.611	307.817	0.000
2	Teaching staff	0.558	190.638	0.000
3	Facilities and resources	0.536	138.917	0.000
4	Multidimensional training	0.521	110.183	0.000
5	Comprehensive training	0.511	91.660	0.000
6	Training in values and attitudes	0.505	78.117	0.000

From these variables the discriminatory function was constructed, allowing us to interpret the discriminating power of the variables introduced. We found a Lambda value of 0.505 for the function, η^2 squared adopting a value of 328.018, which was significant at a significance level of 0.01. Consequently, we can say that this function gives rise to significant differences between the groups. Taking as a reference the intra-group correlation of each of the variables with the discriminating function (structure coefficients), as is shown in table 5,

each variable's contribution to discriminating between the two groups of the criterion variable is specified.

Table 5: Structure coefficients of the discriminating function

Variables	Structure coefficients
Student satisfaction	0.806
Teaching staff	0.664
Training in values and attitudes	0.500
Facilities and resources	0.494
Multidimensional training	0.465
Comprehensive training	0.422

In this way one can appreciate, just as in the previous study, that the variable which most contributes to defining both groups is student satisfaction, in the sense of seeing their needs met and their expectations fulfilled. In second place, teaching staff should offer adequate individual attention to the students, to those who should be receiving an education where values such as freedom and attitudes promoting the critical spirit are emphasized. For its part, a quality University should possess facilities and resources adequate to the needs of the university community. This institution should be noted for offering substantial training that integrates both theory and practice, as well as comprehensive training where the professional and personal components are important.

The study was then repeated classifying the students surveyed according to their academic performance (see table 6). Those with low performance consider that a quality University is one that satisfies the students, whose teaching staff is attentive to students, where students are evaluated from the double perspective of quantitative and qualitative, one that provides comprehensive training, and for all of this, possesses adequate facilities and resources.

Table 6: Structure coefficients of the discriminating function as a function of academic performance

	Variables	Structure coefficients
Students with low academic performance	Student satisfaction	0.776
	Teaching staff	0.624
	Student evaluation	0.584
	Comprehensive training	0.444
	Facilities and resources	0.435
Students with high academic performance	Training in values and attitudes	0.606
	Training in skills	0.515

For their part, students showing high academic performance define elements characteristic of a quality University as providing training based on the transmission of values and attitudes and skills such as reflection and learning.

When performing the analysis again, taking into account the student's branch of specialization, we find the following results (see table 7):

Table 7: Structure coefficients of the discriminating function as a function of branch of specialization

	Variables	Structure Coefficients
Health Sciences	Teaching staff	0.801
	Comprehensive training	0.551
	Multidimensional training	0.536
Experimental Sciences	Student evaluation	0.648
	Comprehensive training	0.518
	Student satisfaction	0.363
	Training in values and attitudes	0.207
Humanities	Teaching staff	0.914
	Comprehensive training	0.455
Legal-Social Sciences	Teaching staff	0.915
	Training in values and attitudes	0.589
	Facilities and resources	0.375
Technical Programs	Vocational guidance	0.585
	Teaching staff	0.569
	Facilities and resources	0.559
	Student evaluation	0.508

- *Health Sciences*: students in these specialities consider that a quality University is one where teachers offer adequate individual attention to students, that offers comprehensive training (professional and personal), as well as training that combines theory and practice.
- *Experimental Sciences*: these students assert that a proper evaluation of their learning, both qualitative and quantitative, is the element which best characterizes a quality University. Likewise, the university should offer comprehensive training, respond to the needs and expectations of the students, and offer values and attitudes in the different training activities.

- *Humanities*: Like their fellow students in Health Sciences, these consider that the element which best characterizes a quality University is a teaching staff that offers them satisfactory individual attention. In addition, it should offer comprehensive training, characterized by professional and personal elements.
- *Legal-Social Sciences*: a teaching staff that offers individual attention, training that helps transmit values and attitudes, and possession of facilities and resources adequate to the needs of the community are the factors that make up a quality University for this group of students.
- *Technical Programs*: students belonging to these degree programs assert that they should receive information about the work world and professional outlets for their studies. In second place, teachers should offer satisfactory individual attention to the students. Third, the institution should have suitable facilities and resources for the different activities, and finally, evaluation (quantitative and qualitative) should respond to all aspects of student training.

Conclusions

In this study we were able to demonstrate properly the compatibility of qualitative and quantitative data analysis techniques when carrying out studies of this nature. At the same time, questions addressed here became a point of reference from which students could satisfy their need to give a critical opinion about the university system to which they belong.

After applying the content analysis technique, we could make out tendencies in the students' survey response, discerning from the information-collection instrument their level of commitment as well as traits which, from their perspective, characterize good educational training. Ills which affect such training are brought to light, and alternatives for improvement are proposed. Finally, we collected data to describe elements that make up a *Quality University*.

Thus, good university training should be characterized by a personal and professional component which allows the student to develop socially by acquiring skills, attitudes and values.

In contrast, deficiencies which affect his or her training have to do with study programs overloaded with subjects, many of them unnecessary, and an excess of theoretical content to the detriment of the practical. Likewise, students report a lack of individual attention and relationship with the teachers.

In order to correct these deficiencies, proposals are few and not very pragmatic. Even so, they consider that the system of practical experiences should be improved such that these are more professional, that new didactic methodologies should be introduced which focus on vocational guidance, and that programs of study should be reworked in favor of more specialization.

These statements were validated following a multiple regression study where the aspect that most represents quality in a University is student satisfaction, a product indicator, and a manifestation of current educational policy in terms of institutional evaluation. Despite this being the students' best defining element of quality, students expressed the need for access to teachers that give them attention, that motivate them and that provide comprehensive education for their future involvement in the social environment and the professional world, needing mechanisms for vocational guidance and adequate systems for evaluating academic performance, in a institution endowed with good facilities and adequate resources.

These data coincide with results found in the discriminatory analysis. However, when repeating the technique with different classifications of students as a function of their academic performance and their branch of specialization, they offer somewhat distinctive profiles as to how they consider that a quality University should be conceived.

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