

# Students' Representations About Quality Education: A Longitudinal Study on Nursing and Management Degrees

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Characterizing the quality of education may involve the analysis of several variables, such as human resources, financial resources, teaching methodologies, personal and social development, and positive academic results. Nevertheless, all elements of the education system matter and may contribute to improve its quality. Ultimately, the success of an education system depends on the interaction of all elements. In order to study the representations of quality, a longitudinal research project is taking place in some higher education institutions of Alentejo region (Portugal). In this paper, the authors analyzed the relationship between scores on quality education representations of students from the Évora University and Beja and Portalegre Polytechnic Institutes, attending on nursing and management degrees. The analyses of the selected factors had shown human and institutional factors as the most important.

*Keywords:* quality of education, students' perceptions, academic success, higher education

## Quality of Education in Perspective

The concept of “quality” applied to education in general or to education in particular, has been for some time a global concern, which has become a matter of educational debate since 1940, when opportunities arose from the expansion of population's schooling (Garcia, 2001; Hobsbawm, 1995). Due to its multidimensional nature, it is a concept that does not have a consensual definition (Amante, 2007; Oliveira & Araújo, 2005; Avasilcai, Boier, & Hutu, 2006).

According to a report from the OECD (Organization for Economic Co-operation and Development), on quality of education in Portugal, made in 1984, there was a great difficulty in defining this concept, since, on one hand, this results from the “global character, because the concept includes both the results and factors that condition it more directly”, and on the other hand, it is derived from “their relativity, because it implies the objectives of the system as a point of reference” of “its complexity, because it covers the results of qualitative and quantitative order”, and finally, of “its regulations, since it implies a comparison between what is and what should be” (OECD, 1984).

The concept of quality of education is thus not only associated with the quantitative aspects of an education system, having reference as the number of learners and teachers, the number of schools and budget

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size, but also the qualitative aspects of that system, regarding the adequacy of programs, the assessment process, the degree of participation, the capacity of innovation, interaction with the surrounding community and the sharing of resources, climate, and the level of satisfaction of the various stakeholders in the process (Adeogun, 2011; Amante, 2007; Bailey & Bennett, 1996; Bateman & Roberts, 1994; Bonvillian & Nowlin, 1995; Chua, 2004; Faulkner, 1994; Hobsbawm, 1995; Oliveira & Araújo, 2005; Rinehart, 1993; Sherkenbach, 1988).

Moreover, this concept is also linked to the effectiveness and efficiency, and relates to the need for expansion of education to more young people to increase success rates, to the adequacy of the teaching and learning process, including curriculum, training of teachers, the upgrading of schools, and the strengthening of young people skills, because an effective teaching is characterized by the demand for quality at all levels (Buch & Shelhutt, 1995; Chappell, 1993; Cloutier & Richards, 1994; Papadopoulos, 1994; Salmon, 1993; Sallis, 2002).

Thus, effective and quality schools are highly related to the concept of the development of students which is measured by its cognitive, academic, and not-academic results, like the positive expectations, the attitudes towards schooling and learning, sociability and ability to work in group, the spirit of initiative, the ability to make decisions, and the acquisition of values related to the spirit of citizenship, freedom, and respect for difference (Venâncio & Otero, 2003).

For Ethier (1989), the concept of quality in education focuses primarily on three parameters: quality of human, financial, and material resources that a department of education should have, quality of the educational process in which programs and methods express all potential, and quality of academic performance, but also the personal and social development of students. Other authors (e.g., Correia, 2008; Deming, 1989; Hobsbawm, 1995; OECD, 1989; Oliveira & Araújo, 2005; Rinehart, 1993), in their analyses of the quality of schools or educational systems, address mainly the quality of resources or focus primarily on the quality of the process and its results. However, both factors interpenetrate and are from the optimal combination that appears the add value for the quality of schools. To Saraiva (2004), all the approaches related to organizational characteristics of schools generally tend to be formed around the following three major areas: the physical structure (size, number of classes, management of space, and material resources), the administrative structure (management, decision-making, teaching, and non-teaching staff), and the social structure (inter-relations, internal democracy, the school culture, and climate). Another perspective, not much different from those already described, is presented by the global study and reflection carried out by the OECD (1992). This study reflects the concern with the need to improve the quality of teaching and focuses on five priority areas that believe in finding the quality of schools and school systems (OECD, 1992).

The concept of quality in higher education can also be seen, according to Harvey (as cited in Amante, 2007), in terms of excellence, as something special, which aims to achieve perfect results. But the educational system is, as shown in Figure 1, a function of several variables and, above all, the interaction among factors (Amante, 2007; Chua, 2004; Ethier, 1989; Hobsbawm, 1995; Leonard, 1996; OECD, 1992; Oliveira & Araújo, 2005; Papadopoulos, 1994; Rinehart, 1993; Saraiva, 2004; Venâncio & Otero, 2003).

A systemic approach introduces new vocabulary in school and requires reviewing many of its practices, given that the "system" is a central element of any philosophy of quality and has enormous potential in the explanation of the main problems that occur in the educational context (Chappell, 1993; Cloutier & Richards, 1994; Helminski & Koberna, 1995).

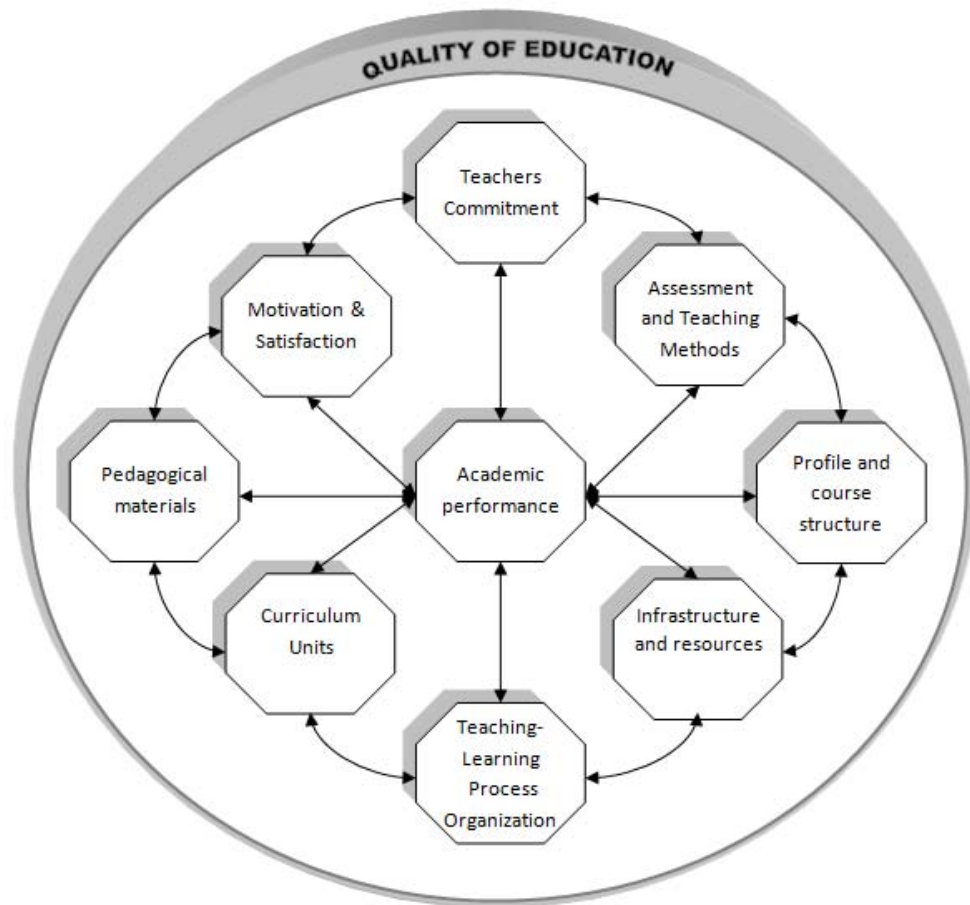


Figure 1. Variation sources of the educational process. Source: The authors' elaboration.

One approach to develop the systemic thinking is to consider how the fundamental processes of an organization interact, like budgeting, recruitment, hiring, and assessment, among many others. Naturally, there is a tendency for each one to focus on process in which it is directly involved, but the truth is that the change that is tried on a particular aspect, even though making sense for the process in question, cannot work or have the desired effect in the system as a whole (Buch & Shelnutt, 1995; Helminski & Koberna, 1995; Leonard, 1996; Pati, Reis, & Betton, 1996). Also, "it is important for the institution to evaluate the curriculum, the competence achieved, and the achievement of the objectives set for the faculties and finally, the processes" (Kettunen, 2011, p. 152).

For Bonvillian and Nowlin (1995), Engelkemeyer (1995), Leonard (1996), and Wilson (1992), the lack of awareness of education as a system, causes that each individual case is not examined in their relations with others. Taking a systemic perspective for education means to recognize its different components and to focus on how they interact to form a whole. Improving a process is to manage all elements but not each one individually.

Essentially, the quality of education relates to equal opportunities, the need to modernize facilities, resources distribution, educational leadership, training programs, staff, and students' assessment, the tutoring and the education relationships with the models of economic development and the labor market. Thus, the concept of quality is perceived differently by different actors in education, according to the role and function

they perform, which makes it difficult for communication between them. For some, quality of education identifies itself with the concept of curriculum quality, and for others with the discipline, command, and success, among other views (Amante, 2007; Bailey & Bennett, 1996; Chua, 2004; Correia, 2008; Morais, Almeida, & Montenegro; 2006; OECD, 1992).

Given these reasons, a wide-ranging research project has been drawn up, with the aim of verifying how the students' representations, on quality of education, evolves in the transition-cycle studies, in particular, the transition from primary to secondary education and to higher education. The variables considered in this particular paper seek to identify the representations of quality education of the higher education students involved, particularly in what relates to their academic success.

## Methodology

### Participants

Two hundred and seventy students from three institutions of higher education in the Alentejo region (Portugal) participated, aged between 18 and 52 years, with an average age of 24 years. One hundred and ninety-eight students are females. The students belonged to undergraduate courses in management and in nursing and had entered the 1st grade in the 2008-2009 academic year, distributed according to Table 1: The choice of courses, due to the fact of being common to the three institutions under review: Évora University, Beja Polytechnic Institute, and Portalegre Polytechnic Institute.

Table 1

#### *Sample Distribution by Course*

Course	<i>F</i>	%
Nursing	149	55.2
Management	121	44.8
<i>N =</i>	270	100.0

Regarding academic success, 182 of the subjects had not failed any curricular unit, but for 77 of them, this had happened in a curricular unit (37.8%), two curricular units (25.7%), three (16.2%), four (9.5%) or more curricular units. However, the vast majority (70.8%) had failed only once, especially because they were students enrolled in the first grade of the course.

### Procedures

To examine the representations of students about the quality of education it has implemented a structured questionnaire, constructed for this purpose, based on literature review, considering the studies of Bateman and Roberts (1994), Amante (2007), Chua (2004), Correia (2008), Deming (1990), Ethier (1989), OECD (1989), Saraiva (2004), Tribus (1995), Turner (1995) among others. The results were different dimensions of quality in analysis, such as motivation, the commitment of teachers of the course, the teaching materials, the methods of teaching, the assessment methods, the programs of curricular units, the organization of the teaching and learning process, adequacy of infrastructure and resources of the Institution of Higher Education, the adequacy of the profile and structure of the course, the degree of satisfaction, and academic success.

The questionnaire consists of 73 items, with a range of response formed by five points, with the options of answer: "1-Completely disagree", "2-Disagree", "3-Agree", "4-Completely agree", and "5-I do not know/Not applicable/I am undecided", seeking to know the representations of the quality of students against the school to

which they are subjected to. The instrument also includes some social demography issues, as well as some questions of open answer, on the understanding of educational quality, the aspects to improve in the institution of education, how to improve scholar results, the number and reasons given for failing, and the curricular units more and less preferred.

The final version was obtained by consensus among members of the research project, and then subjected to a panel of outside experts, who gave information that clarify the language and improved the construction of items. Data collection occurred between the months of May and June 2008 and the questionnaire was applied directly by the team of researchers in the classroom, after obtaining the necessary permits.

The 73 items of the questionnaire were treated with the statistical software SPSS (Statistical Package for the Social Sciences) (Version 16.0), by using descriptive and inferential analysis, that allowed to established associations with some significance between variables, and selecting those who had a degree of confidence higher than 95%. To calculate the average there were used the following weighting coefficients: "1-Completely disagree", "2-Disagree", "3-Agree", and "4-Completely agree". The average score is 2.5. The answers "Do not know/Not applicable/I am undecided" were coded with 98 and the non-responses and void as system missing (99). Furthermore, it was used the analysis of variance, with the aim of identifying the representations of students about quality in education and there used the method of the CART (classification and regression trees algorithm).

## Results and Discussion

To meet the objective of the study, it was investigated the relationship between the different variables related to the representations of quality of education outlined by the students and their level of satisfaction with the course they are in.

This analysis resulted in the association that are presented in Table 2 and Figure 2, which allows the authors to understand the importance of which of the variables studied when combined with the degree of students' satisfaction.

Table 2

*Relationship Between the Variables of the Questionnaire and the Degree of Satisfaction With the Progress of the Course That Students Are Attending*

Items	Importance	Normalized importance (%)
Profile and course structure adequacy	0.144	100
Teaching methods	0.097	67.1
Curricular units	0.077	53.6
Adequacy of the infrastructures and resources	0.071	48.9
Assessment methodologies	0.063	43.5
Teachers' commitment	0.053	37.0
Pedagogical materials	0.041	28.3
Motivation	0.033	23.2
Teaching-learning process organization	0.028	19.6

The variables of major importance were the "profile and course structure adequacy", the "teaching methods", and "the program of curricular units". Each one explained more than half of the sample under analysis. The items included in those categories relate mainly to the quality of the curriculum, the link between the objectives and content of the course, the labor market requirements, and the professional profile of the

licensee. So, in the construction of their concept of quality, we can see the importance that students gave to the relationship between the course they attend and the labor market.

The items relating to variables about methodologies of teaching relate primarily to the scientific and pedagogical quality of teachers, and the participation of students in classes, the adequacy and balance between theory and practice, among other things. It was emphasized, also, that the competence of the teacher, their roles in leadership, and student's assessment. Noting, finally, the importance of the Curricular Units' Program, which includes items, such as the connection between the themes and objectives with the required skills, the correlation between the content of the program currently taught and its adaptation to the required learning, the authors can see how the quality and success of programs can also influence the representations of quality education.

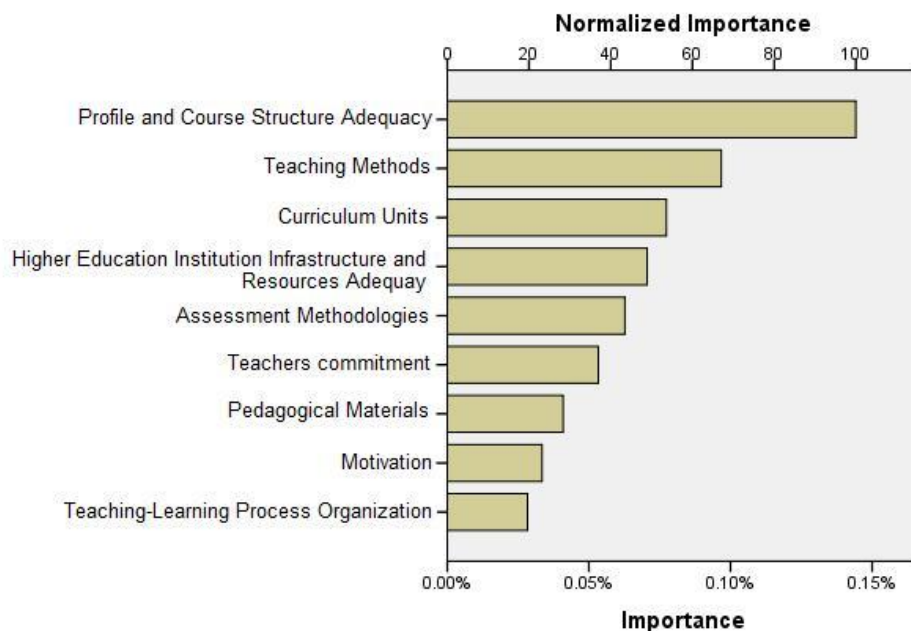


Figure 2. Relationship between the variables of the questionnaire and the degree of satisfaction with the progress of the course that students are attending.

It is important to note that the variable degree of satisfaction regarding the course includes three items. The results obtained in the questionnaire, in terms of average correlation, are present in Table 3.

Table 3  
*Students Responses About the Degree of Satisfaction*

Items	Mean	Standard deviation
The course satisfies me totally	3.07	0.627
The higher education institution satisfies me totally	2.96	0.648
The academic success that I have reached satisfies me totally	2.58	0.763

As can be seen, the students inquired were satisfied with the courses they are in and also, although to a lesser extent, with the higher education institution. The satisfaction with their income is the item that reaches the lower average in this group of variables.

Table 4 shows the results obtained from the Chi-square test, resulting from the intersection between the

items regarding the degree of satisfaction, made with one of the indicators of academic success, the existence of failures in units of the course curriculum.

Table 4

*Relationship Between the Degree of Satisfaction and the Disapproval in Some Curricular Unit of the Course*

Items	Have you ever failed any curricular unit of the course?		
	Chi-square	df	Sig.
The course satisfies me totally	6.666	6	0.353
The higher education institution satisfies me totally	11.006	6	0.088
The academic success that I have reached satisfies me totally	17.940	6	0.006

As expected, the association between the degree of students' satisfaction with their academic success and failure variable is statistically significant; however, that failure does not seem to interfere with the satisfaction expressed regarding the course and institution.

### Conclusions

The results shown allow the authors to conclude that, for students in the analyzed sample, from the nursing and management courses, in the three institutions of higher education studied, the representation that they showed regarding quality of education is positive, and they value, in their evaluation, factors regarding the link between training and future profession, the scientific and pedagogical training of teachers and the quality and suitability of the course curriculum units programs.

The inquired students are satisfied with the course and the institution of higher education and less with their academic performance, which explains the failures that 28.5% indicate to have obtained at least in one curricular unit, although they are attending the first grade of the first cycle of studies.

As indicators of success, it can be emphasized that, in consequence, structural factors, such as good organization and structure of the courses, the appropriateness of the professional profile, teaching proficiency, and the adequacy of the disciplines.

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