



# Quality of higher education institutions and graduate satisfaction at the Autonomous University of Tamaulipas\*

Calidad de las instituciones de educación superior y satisfacción de graduados en la Universidad Autónoma de Tamaulipas

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## ABSTRACT

Higher education institutions face the challenge that their graduates have the competences that allows them to quickly enter to the labor market and obtain an adequate economic remuneration. Thus graduate satisfaction is a key element in the assessment of the quality of institutions, since it allows us to know their perception regarding the quality received in their professional training. The objective is study the quality of higher education institutions and the satisfaction of the graduate in the Autonomous University of Tamaulipas. The methodology is descriptive and transversal based on graduates information and satisfaction. As a result, Students are satisfied with their professional training received and their expectations were met since the academic level of the institution is good. It is concluded that studies on student satisfaction are useful for higher education institutions to identify educational and administrative priorities about the service they provide.

**Key Words:** Quality of education, satisfaction, curriculum, continuous improvement.

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## RESUMEN

Las instituciones de educación superior enfrentan el desafío de que sus egresados cuenten con las competencias que les permitan insertarse rápidamente en el mercado laboral y obtenga una adecuada remuneración económica. Por ello la satisfacción del egresado es pieza clave en la valoración de la calidad de estas instituciones, ya que permite conocer su percepción de la formación profesional recibida. El objetivo es estudiar la calidad de las instituciones de educación superior y la satisfacción del egresado en la Universidad Autónoma de Tamaulipas. La metodología es descriptiva y transversal basada en el análisis de la información de los egresados, así como su satisfacción. Como resultado, los estudiantes están satisfechos con la formación recibida y se cumplieron sus expectativas dado que el nivel académico de la institución es bueno. Se concluye que los estudios sobre satisfacción estudiantil son útiles para que las instituciones de educación superior identifiquen prioridades educativas y administrativas sobre el servicio que proporcionan.

**Palabras clave:** calidad de la educación, satisfacción, plan de estudios, mejora continua.

## Introduction

Since the end of the last century in the context of globalization and internationalization, educational institutions have presented cultural, social, technical, political and administrative changes which are focused on strengthening quality indicators and training proficiency, which is why they are in permanent search of instruments that allow them to evaluate and know the quality of the education provided (Rocha et al., 2017).

Currently everything is aimed at satisfying the requirements of globalization within the knowledge society, in addition to the internationalization of higher education, referring it to the programs undertaken by governmental and non-governmental academic institutions to maximize the positive potential of globalization (Fedorov, 2010).

In this changing scenario, higher education institutions are obliged to confront the new challenges of 21st century society, assume a reflexive posture and propose courses of action to transform themselves to be in tune with the demands of the time. Certainly, they are times of great challenges, but simultaneously of great opportunities for higher education (Luz, 2018).

Providing high quality higher education has been the emphasis of all levels of higher education worldwide, which is why institutions are constantly searching for instruments that allow them to assess the quality of the education provided. One of the ways in which higher education institutions can achieve this goal is through the continuous collection of data on the degree of satisfaction of their students (Rocha et al., 2017; Marín, 2014).

The quality of education provided by the educational institution can be evaluated based on the expression of students satisfaction as consumers of academic and administrative services, constituting an alternative for self-knowledge and planning of the process of improvement and consolidation of them; defining quality as a principle of action towards the congruence between an offer and a perceived demand that each individual decides to use in their improvement, which invades what is, does and has and cannot be altered by any technique.



As a consequence, the quality of education raises the purpose of improving and evaluation puts the methodological tool, the critical judgment and the proposals for continuous improvement, so it is important to make the distinction between quality and evaluation, since while the quality of the Education implies a process of improvement on its elements, it also necessarily requires evaluation. Although quality and evaluation are often matched, each concept is unique and has its own function. However, the most important contribution is what evaluation can make to the quality of education, since it is intended to determine its *relevance, effectiveness, performance, congruence* and *efficiency*, which are the relational explanatory dimensions of quality (Fernández et al., 2016).

One of the great challenges that universities face in recent years, and that has caused a stir in the service of the academic field, is the system of quality assessment by students. Its objective is to guarantee the effectiveness of the services provided by the different university units. The underlying idea is that a university, like any other service provider, must focus on satisfying the needs of its customers: students (Echezabal et al., 2015).

The countless social, economic and political changes, as well as the growing advance of new technologies, the demographic and epidemiological transition, are significant factors in this globalized world and therefore have a significant impact on the training of medical professionals. This social dynamic affects the health-disease process, since in all regions of the world the costs of medical care increase daily, the population ages and chronic diseases increase, which generates a series of opportunities to systematically adapt professional profiles (Juárez et al., 2015).

In the case of the College of Medicine “Dr. Alberto Romo Caballero” curricula and programs are aimed at training professionals who actively participate to respond to social needs through health care. The curriculum of the medical career is structured through a curriculum map consisting of 5 areas of knowledge and integrates 72 subjects grouped in training, biomedical, sociomedical, medical and surgical. The selection and organization of the curriculum mesh considers the theoretical-practical linkage and distribution allows obtaining the necessary skills to achieve the professional profile.

The social dynamics in national, regional and state health issues allow to generate the revision and/or update of the plans and programs of medical training, generating as a consequence the need to constantly verify the opinion of the graduates about the curriculum, as well as the congruence between the knowledge acquired during training with the current needs of society in the labor market. Derived from the above, the National Association of Universities and Institutions of Higher Education (ANUIES for its acronym in Spanish) determines that to ensure the educational quality of an institution it is important to know the satisfaction of graduates in relation to the curricular contents obtained during their training, the congruence that it exists between the graduation profile and the demands of professional practice, among others, with the purpose of supporting the updating and/or adaptation of the study plans and programs.

Today, health institutions require that the staff have the necessary skills to work in constantly changing scenarios and situations, which not only demand the application of knowledge but also the combination of other skills such as skills, abilities, attitudes and values developed through educational processes (Salas, Díaz & Pérez, 2014).



From the above considerations, the need and convenience of having results from graduate studies to achieve self-knowledge and planning of improvement processes is evident, so that the permanent evaluation of university quality has become a priority, of in such a way that academic decisions can be based in order to cover the educational requirements of the graduates of this institution (Castro, 2014).

## Material and Methods

Descriptive and cross-sectional study conducted during the period from May to July 2018. The population was represented by 100 % (106) of students graduated from the Graduate Degree of Surgeon of the Faculty of Medicine of Autonomous University of Tamaulipas. To obtain the information, the recruitment instrument was adapted based on the questions of the questionnaire for the study of graduates proposed by the ANUIES of 1998; the reason for the adaptation was because it did not include all the variables. The ones that are oriented to know the characteristics of the contents acquired during their theoretical and practical training were selected and it was emphasized to identify the opinion of the graduates about the contents and skills acquired during their school career including aspects such as satisfaction and career evaluation, fulfillment of expectations, evaluation of the academic level, training to face the labor market, evaluation of the curriculum as well as importance of clinical practice. The results were analyzed using the statistical software SPSS version 19; for quantitative variables, central tendency measures were used and for qualitative frequencies and percentages.

## Results

The study includes 106 students, with sex distribution, of 62 male students (58.5 %) and 44 female students (41.5 %). The final academic average is 8.2 (SD: 0.36), with a minimum of 7.2 and a maximum of 9.07.

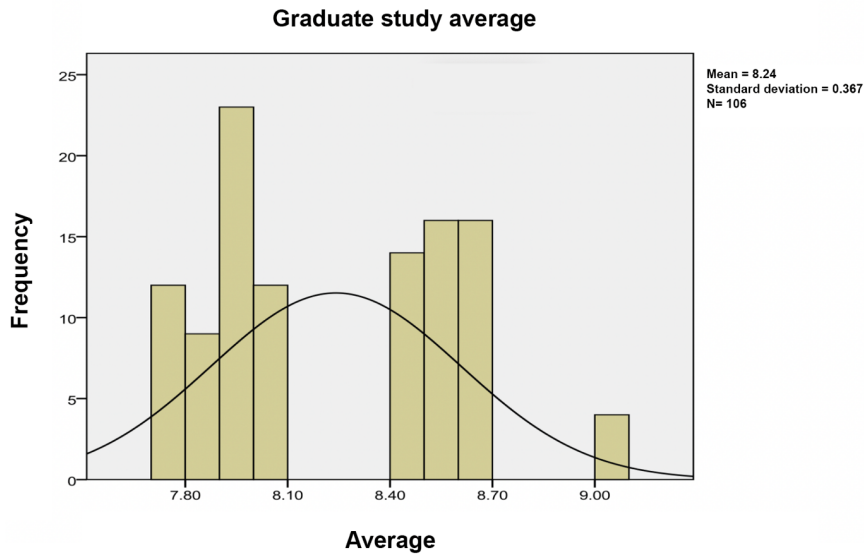


Figure 1. Graphic of Students Average. Source: Author’s elaboration.

A Cronbach reliability test was performed, with a result of 0.85, which provides discrimination validity to the questionnaire reagents.

For each question the proportion of the response categories was analyzed and a chi-square test of goodness of fit was applied. The results of the question: how satisfied are you with the training acquired in the career?, are evaluated as regular 17 % (18); while 58.5 % (62) consider it good and 24.5 % (26) very good (p = .001).

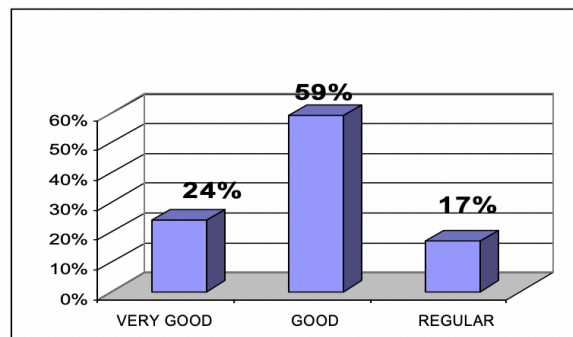
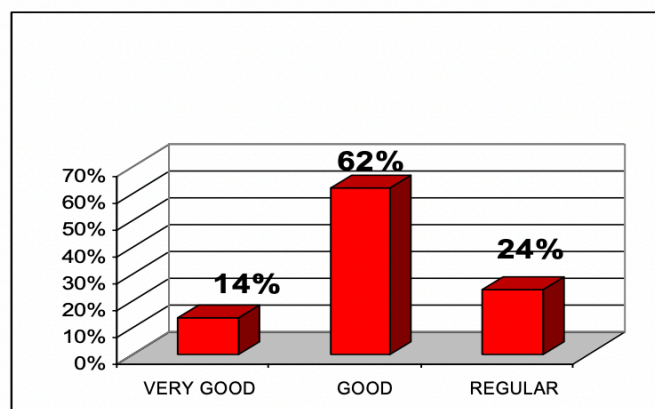


Figure 2. How satisfied are you with the training acquired in the career? Source: Author’s elaboration.

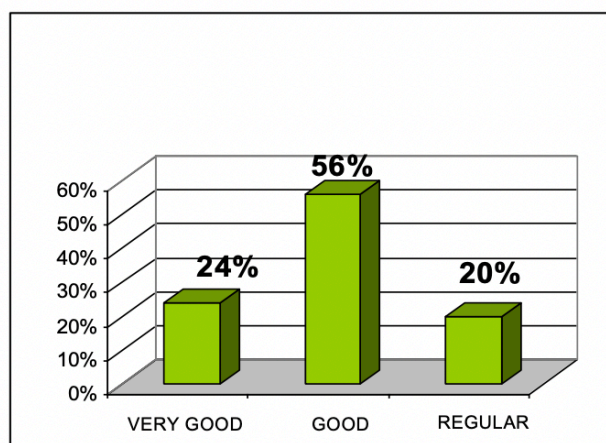


Another reagent asks the following: at what level the expectations that were proposed when pursuing the career of this faculty were met?, the regular response category was expressed by 23.6 % (25); they consider having fulfilled their expectations as good in 62.3 % (66); and 14.2 % (15) of the students refer to a very good evaluation ( $p = .001$ ).



**Figure 3.** At what level the expectations that were proposed when pursuing the career of this faculty were met? Source: Author's elaboration.

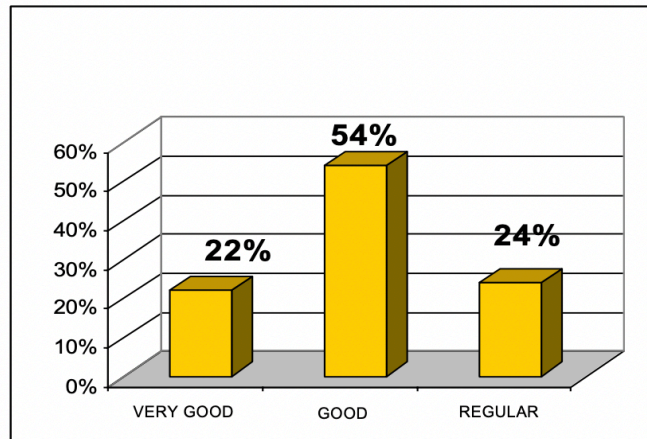
On the question: how would you evaluate the quality of the career that formed you academically? 24.5 % (26) report an evaluation with a quality response; 55.7 % (59) consider it good; while 19.8 % (21) consider it as a very good quality ( $p = .001$ ).



**Figure 4.** At what level were the expectations that were proposed to meet the race met? Source: Author's elaboration.



In the question: how would you evaluate the academic level of the college?, moderate answer is expressed by 23.6 % (25); while 54.7 % (58) consider it as a good academic level; and 21.75 % (23) refer a very good evaluation of the students ( $p = .001$ ).



**Figure 5.** How would you evaluate the academic level of the college? Source: Author's elaboration.

When you graduate from the career, do you feel qualified to face the labor market?, 78.3 % (83) of the students report that they are qualified, while 21.7 % (23) of the students answer no.

The importance of having a greater emphasis on clinical preparation is expressed by 84 % of the students; and 16 % (17) of the students do not consider it important. An ANOVA analysis was used to determine if the average of the students showed differences with respect to the category of response of the level of satisfaction during the career, for the consideration of very good an average of 8.3 (SD: 0.31) was obtained; in the manifestation of good, the average was 8.2 (SD: 0.38) and for the regular reference, an average of 8.2 (SD: 0.36) was obtained, finding no significant differences (ANOVA: 1.22  $p = 0.29$ ).

**Table 1.** Results of averages between the different response categories on academic satisfaction

	N	Media	Typical deviation	Typical error	95 % confidence interval for the average	
					Lower limit	Upper limit
Very good	26	8.3373	.31193	.06117	8.2113	8.4633
Good	62	8.2035	.38933	.04944	8.1047	8.3024
Regular	18	8.2344	.35435	.08352	8.0582	8.4107



Total	10 6	8.2416	.36700	.03565	8.1709	8.3123
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Source: Author's elaboration.

**Table 2.** Results of the Analysis of variance, applied to the question about academic satisfaction

	Sum of squares	gl	Quadratic mean	F	Sig.
Intergroups	.329	2	.164	1.226	.298
Intra-groups	13.813	103	.134		
Total	14.142	105			

Source: Author's elaboration.

## Discussion

Higher education institutions around the world have used information on student satisfaction to understand, improve and change academic environments, as well as to create environments that are more conducive to student development (Martínez, Martínez & Velázquez, 2017). Educational organizations must make an effort to manage service processes, consider human interactions as an essential instrument of quality, develop staff competencies and skills, motivate staff to improve quality and meet customer expectations, without forgetting the importance of the perception of the client, the image of the culture and of the benefits of the organization of services (Sánchez, Zermeño & Preciado, 2016).

Customer satisfaction studies are very important to make organizational changes and relevant adjustments; in addition to serving the university administration as guides to make decisions that serve in the processes of accreditation of programs by the relevant agencies. In recent years, conducting studies on the social impact of graduates has been a constant concern of higher education managers and governments, interested in knowing the job skills and employability of graduates, that is, the work and academic path that each individual experience once obtained his professional degree (Fierro et al., 2018).

The College of Medicine of Autonomous University of Tamaulipas, immersed in the quality certification process, analyzes student satisfaction at the end of their career, as part of the factors involved in it, since the accreditation of the programs is an element essential to reach the expectations



of the student, without forgetting the importance of his/her perception of the institutional image, of the teaching staff and of the provision of services.

The approach of the involvement of the student to evaluate the institutional quality is a method that identifies the understanding of the nature of the expectations of a university graduate, what they achieved in the university institution, the participation and effort made in homework activities, research and clinical practices, the quality of teachers' work and their involvement with their peers, which are aspects to be considered in the evaluation of their level of satisfaction (Fuentes et al., 2015).

## Conclusions

The realization of studies on student satisfaction is a useful element for higher education institutions since they allow to identify the priorities of attention that the student marks on the service that it provides; the application of a satisfaction survey should be established during your school career, as well as in the graduate follow-up program.

Many universities around the world have been given the task of surveying their students to plan their strategies for improving the services they provide to students, including those in the countries of Puerto Rico, United States, Canada, Peru and Australia, which present similarities in their results.

It is essential to understand that the university market is a mature market, characterized by a reduced growth rate and a greater number of competitors. Universities have to see their students as internal and external clients, and provide them with the highest quality of their services. This is not only to be effective and to continue with the objectives set by the educators, but to ask if the internal client has received the optimal service that he expected to perform in the workplace.

The evaluation made by the students towards the Faculty of Medicine, they refer in general as a good satisfaction, however, it is necessary to consider those students whose response was to regulate; another aspect students consider is to place more emphasis on clinical practice, for which it is necessary to evaluate this activity; another important point is the overall career average that can be identified as good (Global: 8.2) (SD: 0.36); although it is appropriate to know more about the expectations and motivation during his/her career, which increases the average and is more satisfied with his/her academic preparation.

The methodology for the study of satisfaction of teachers, students and graduates is the starting point of any quality process, it is an ideal way to capture the needs and demands of the actors involved and increase the competitiveness the educational institution in the face of the challenge that the labor market demands, so it is necessary that universities worldwide increase student satisfaction studies in order to improve the quality of their services and increase the effectiveness of the education provided.

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