

## The Quality of Private Higher Education in Mexico: The Case of Culiacán, Sinaloa

La calidad de la educación superior privada en México: El caso de Culiacán, Sinaloa

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### Abstract

Evaluating the quality of education contributes to the detection, as well as to the improvement or solution of failures in the educational system of schools. Likewise, teacher training is one of the main axes of educational quality. Objective: To evaluate educational quality through the degree of satisfaction of students and teachers. Methodology: An instrument based on a Likert scale was applied to 304 students and 198 teachers of the 18 largest private universities located in the city of Culiacán, Sinaloa. The research was carried out from the observational analytical method, including a cross-sectional and quantitative study of descriptive scope. Results: The results show that in the classrooms there is a heterogeneity of students with very particular interests and needs, while on the side of the educational institutions the interests do not always agree with these needs and interests, and even less with the formative education of the teachers. Conclusions: the crucial role of teachers and educational institutions in meeting the goals set for undergraduate students is recognized; at the same time, a permanent evaluation of educational quality and teacher training is required.

**Keywords:** Higher education, educational quality assessment, teacher training, educational indicators.

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## Resumen

Evaluar la calidad educativa contribuye en la detección, así como en la mejora o solución de fallas en el sistema educativo de los centros escolares. Así mismo, la formación del profesorado es uno de los ejes principales de la calidad educativa. Objetivo: Evaluar la calidad educativa mediante el grado de satisfacción de los estudiantes y docentes. Metodología: Se aplicó un instrumento con base en escala Likert a 304 alumnos y 198 docentes de las 18 universidades privadas más grandes que se sitúan en la ciudad de Culiacán, Sinaloa. La investigación se realizó desde el método analítico observacional, incluyendo un estudio transversal y cuantitativo de alcance descriptivo. Resultados: Los resultados demuestran que en las aulas de clases participa una heterogeneidad de estudiantes con intereses y necesidades muy particulares, mientras que del lado de las instituciones educativas los intereses no siempre concuerdan con estas necesidades e intereses, menos con la educación formativa de los docentes. Conclusiones: se reconoce el papel crucial que tiene el docente y los centros educativos para dar respuestas a las metas planteadas en los estudiantes de licenciatura, a su vez, se precisa de una evaluación permanente de la calidad educativa y la formación del profesorado.

**Palabras clave:** Educación superior, evaluación de la calidad educativa, formación del profesorado, indicadores educativos.

## Introduction

Achieving higher levels of quality is one of the highest aspirations of any educational institution, and although the quality of education is a concept that is not defined by itself, it needs to be made explicit in its components or dimensions. Educational quality is one of the most important attributes of the educational institutions and establishments where the teaching-learning processes are carried out, and even more, of the system as a whole that contains such processes. In Mexico, as in most Latin American countries, education policies are supported by diagnoses and guiding ideas that define the direction of their implementation and have been oriented in recent years to consider local opportunities with greater strength.

As in other parts of the country, in the city of Culiacán, Sinaloa, the enrollment and coverage of private higher education is growing and a wide range of educational offerings has been consolidated, the academic life of the institutions is deepening its professionalization, while the quality of education is asserted as an aspiration and a widely shared value. The impact on teachers' professional performance and on the teaching-learning process is beginning to be systematically analyzed and actions are planned to bring decision-making closer to school practice. In this paper we address this issue

and due to the magnitude of the phenomenon and the number of variables that are likely to influence it, we were particularly interested in exploring educational quality taking into account four dimensions: 1) from managerial leadership, 2) from the evaluation of practice, 3) from academic mobility and 4) from social relevance.

### **Educational quality as an object of study**

The concept of quality is a very difficult term to define, however, Schmelkes (1996) elucidates that when we refer to quality, we must consider four main elements that must be observed in an educational process and, above all, in the results it produces. These four elements of quality imply relevance, effectiveness, equity and efficiency. Applying this definition, a quality school must offer relevant learning for the current and future life of its users and for the needs of the society in which they develop, ensuring coverage and permanence of students in the institution. Educational quality is positioned as the main objective in the different regions of the world Acuña & Pons (2018) and on schools falls the responsibility to fulfill this task by providing the conditions to achieve the objective that is, quality education. Quality as excellence in the Latin American context is equivalent to possessing outstanding students, outstanding academics, and first level assurances as a response to the requirements of the environment where social relevance must prevail and dependent on the purposes declared under favorable international requirements and standards to achieve professional academic student and faculty exchange, in the field of global competition. (Barros-Bastidas & Gebera, 2020), (Aguila, 2005; Lago de Vergara, Gamoba & Montes, 2014).

At the university level, higher education is a system with a high degree of complexity due to the diversity of intentions, missions, visions, educational models, forms of organization, conditions and participation of the actors involved (González, Galindo, Galindo & Gold, 2004; González, 2018; Rodríguez, 2009). It is required then, a perfectly articulated system in which there are fewer and fewer errors and therefore, schools enter the management system. In order to achieve maximum efficiency the system must be established with a series of controls where this conception underlies the so-called efficiency postures in education where quality management systems are wielded within Latin American Higher Education Institutions (HEIs) as an alternative of academic work, whose objectives are to systematize administrative methods and procedures, promote the culture of service and train staff, in search of student satisfaction, all under rigid schemes of technical rationality (Castillo-Cedeño, Flores-Davis, Miranda-Cervantes, & León, 2016; Peralta, 2005; Villarruel, 2010).

For Surdez, Sandoval & Lamoyi (2018), the progress of a country depends largely on the educational quality provided by universities, in accordance with this, having systems that incorporate measurements to evaluate the satisfaction and perception of users becomes a factor of great importance to obtain the improvement of the educational system in Mexico. In this sense, Vazquez, (2013) tells us very clearly that educational quality has real complexity, that is why it is important to decide on its dimensions and indicators, delimiting the elements to be evaluated that will allow us to diagnose the quality of education. For this purpose, there is the intention and guidelines of several interest groups, such as the National Association of Universities and Higher Education Institutions (ANUIES), the Interinstitutional Committees for the Evaluation of Higher Education (CIEES) and the Council for the Accreditation of Higher Education (COPAES), the National Council of Science and Technology (CONACYT), the Council of the National System of Technological Education (COSNET), the National Center for the Evaluation of Higher Education and the Federation of Mexican Private Higher Education Institutions (FIMPES) Rodríguez, López & Arras (2009).

If something is subjected to evaluation it is done under some criteria, Egido (2005) points out to us, under the approach of identifying the factors associated with educational quality, quality management in higher education promotes positive changes within the university and that these converge in the basic associated criteria: management and leadership, development of academic processes, performance of work teams, behavior of individual actors and in the results. (Alfaro, 2010; Álvarez, Chaparro & Reyes, 2015; Álvarez & Topete, 1997; Muñoz, Vásquez & Reyes Jedlicki, 2010).

### **Educational leadership**

When we think of leadership, we immediately associate this concept with people who show extraordinary qualities as human beings. In Mexico, private IESP (IESP) are under the scrutiny of different evaluating agencies that join efforts to raise the levels of educational quality that involve a great amount of human, economic and financial resources that could be in vain if there are no leading administrators that comply with the policies to achieve the demanded levels of educational quality. When referring to the IESP, the leader is found in the figure of the academic head, department head, principal and rector. According to Bass (1997), through their actions, leaders move their followers to transcend their own interests for the good of the group, the organization or the country. In this sense, López & Sánchez (2009) point out that among the functions

of educational leadership are the administration of the curriculum and the generation of a healthy climate.

Thus, appropriate leadership for HEI administration is one that includes supportive practices in academic, executive and social interactions that provide the opportunity to grow as leaders by connecting with others, Jones, Lefoe, Harvey & Ryland (2012). Traits of a person with educational leadership include being harmonious of efficient management of people and resources, having a positive vision for change with a focus on personal development merging distinct groups leading to student and teacher development, having consistency, being assertive and competent with sound knowledge in administrative performance, (Bedrow, 2010; González, 2018; Ramsden, 1998), that is inclusive (Fernández & Fernández, 2013), innovative (Aparicio et al, 2020; Berdrow 2010) and furthermore, sustainable (Sierra, 2017), for purposes of education in our times.

### **Pedagogical practice**

While it is true that the principal is responsible for the administration of the school, according to Schmelkes (1996), it is the teacher who is responsible for conducting the teaching process within the classroom, and therefore constitutes a determining element in the quality of educational results. Teachers have a titanic task in the creation of environments conducive to learning, residing to a great extent in talent and self-efficacy. The classroom environment is determined by teachers' beliefs regarding their instructional efficacy (Bandura, 1999), with planning processes setting the tone for this environment (Zabalza, 1990). In this sense, following the factors that affect educational quality, the quality of the teacher is imminently the most important factor in a quality school (Sylvia, 1996). Today, teachers are expected to design strategies that allow students to learn to pose and solve problems, to think critically and to be creative (Crispín, 1998).

Pedagogical practice is an intentional practice that implies the actions carried out by the teacher to facilitate the student's education. Self-reflection on the teacher's daily work allows him/her to identify situations that he/she may face during his/her practice, such as groups with particular characteristics, students with specific concerns that force him/her to change what was previously prepared for the class, as well as the administrative implications of working in a certain institution (Bazdresch, 2000; Schön, 1994). A good teacher must have in coexistence three factors, first, his or her preparation in content mastery competence, second, teaching motivation, who must like to teach to motivate others and third,

communicative ability, understood as the ability to perform the necessary actions to ensure that the contents to be taught reach the student in the best way (Guzmán, 2005). Thus, through pedagogical practice, teachers will encourage students to be self-critical and to question their environment with intellectual independence (Fresán, 2000). Allowing us to visualize the teaching narrative as a process that allows us to know the thoughts, feelings and intentions of people, coupled with the intellectual and practical nourishment of the profession (Acuña, & Mérida, 2015, p. 23).

### **Academic mobility**

General education helps us to reestablish the individual-species-society relationship, without this leading to reduce or subordinate one term to another (Morin, 1993) actively promoting the connections between the various areas of knowledge and establishing in the same way in this context, an environment for the development of tolerance, empathy, solidarity and affectivity (Vélez, 2012), solidarity and affectivity (Vélez, 2012) and in this same scenario, the development of opportunities to generate research and teaching networks is favored, implying involvement in the functions that are inherent to teaching management, with the main purpose of influencing the teaching process and thus improving academic quality (Knight, 2010). Quality assurance in higher education is the guarantee of trust among educational institutions (Salabur, 2011), trust that is largely determined by those who form the teaching staff in universities. This culture of quality could not be understood in HEIs without accountability and funding conditioned to good results (Michavila & Zamorano, 2008; Olvera, 2010), conceiving quality systems as drivers of innovation and improvement in teaching processes. In the training of human resources and contributing to teacher training, mobility is linked to professional development and, where appropriate, recognized in a professional career. Teacher mobility, referring to the rotation of teachers between schools within a school cycle is seen as a good indicator of better working conditions and provides both teachers and participating institutions with a broader vision for the generation of knowledge (Bernal del Castillo, 2014; Castejón, 2013; Madarro, 2011), which is why the creation of alliances of academic communities outside the institutions of relevance, networking, participation in congresses and communities abroad (Stromquist, 2009) has been added to the teaching activities to ensure that they have and provide the quality in academia required by the institutions of competence.

## Social relevance

Higher education has to respond to the needs demanded by society and by having this commitment it is directly linked to knowledge both in the clarification of our understanding and its acquisition through teaching. Today's society is in a process of constant change that affects and interacts with the customs, patterns and ways of life of social groups (ANUIES, 2000) and the strategic value of knowledge and information, as well as the greater participation of the intellectual dimension of work (UNESCO, 1995). The mastery of knowledge has become a relevant factor in development in such a way that the transition of society towards a knowledge-based stage offers new horizons to higher education institutions, both in their role as trainers of professionals and in their contribution to the generation, application and transfer of knowledge, considered as fundamental processes in the economic development of a country (World Bank, 1995). In this way, it can be stated that higher education must produce and reproduce knowledge, whether in its careers, in its contents, in its research and in any space that is allowed (Gómez, 2014) and it is in this sense that it is necessary to open the university to an objective society. For a higher education institution, relevance means to inscribe its objectives within a project of society emphasizing that relevance is involved to the context of knowledge production, that is, to take into account the environment of HEIs and thus bring closer those who produce knowledge with those who appropriate it, since the latter are not only students, but other sectors of society and elements of the educational system to which they belong von Feigenblatt (2020); (Castro-Gómez, 2007; García & Organista, 2006). The way of providing solution and attention to diverse needs of the changing society is a way of conceiving the social relevance of HEIs, which also implies social responsibility by participating in detecting and analyzing the needs, demands and priority problems of the social context of which they are part (Estévez, Coronado & Martínez, 2012).

This research is an important contribution to educational quality that allows the generation of future instruments and methodologies that add up to the satisfaction of quality on the part of individuals. For the purpose of this work, it is considered that the quality of education in private higher education universities in the capital of the state of Sinaloa is determined by various factors that converge among themselves, among these factors are educational leadership, the performance of pedagogical practice, academic mobility and social relevance, to achieve the strengthening of educational quality.

## Materials and methods

This research presents the diagnosis of the educational quality with which private higher education institutions in the city of Culiacán, Sinaloa currently develop their study plans and programs. Based on four analytical variables (managerial leadership, evaluation of pedagogical practice, academic mobility and social relevance), data were collected from 198 teachers and 304 students that allowed us to position ourselves on the subject.

From this perspective, the present research was developed from a quantitative approach, since it allowed differentially statistical comparisons of the information obtained from the sample, which provided very particular descriptive insights into the reality of the quality of private education in Culiacán, Sinaloa.

Likewise, this approach allowed us to develop a concrete research aimed at correlating the variables and allowed us to know the metric behavior contributing to increase the quality of education, particularly in the IES of this city.

Two evaluation questionnaires were applied to measure the quality of private higher education in Culiacán, Sinaloa: "Teachers' Questionnaire" and "Students' Questionnaire", through which the opinion of those who answered the questionnaire was systematically collected. The instrument is composed of 38 items that are answered by means of a Likert-type scale that classifies the levels of *always*, *almost always*, *sometimes* and *never*, which the teacher or student considers representative of the topic. The level of *always* is related to *good* educational quality, the level of *sometimes* to *regular* quality, and the levels of *sometimes* and *never* to *poor* quality. This instrument groups the items according to the categories that as a whole define the concept of educational quality: 1) from the perspective of management leadership, 2) from the perspective of practice evaluation, 3) from the perspective of academic mobility and 4) from the perspective of social relevance.

Respondents were either teaching (in the case of teachers) or studying (in the case of students) for degrees in: International Trade and Customs, Advertising, Design and Communication, Psychology, Dance, Gastronomy, Marketing, Accounting, Psychopedagogy, Chemical Engineering, Family Sciences, Psychology in Therapy, Biotechnology Engineering, Interior Design, Foreign Trade and Customs, Tourism Business Administration, Marketing and Advertising. The calculation of the representative and statistically significant sample size was determined using *Decision Analyst STATS™2.0* software in the

*Sample Size Determination* section. The calculation of the sample with a normal distribution and a permissible error level of 5% and a confidence level of 95%, established that the sample was 198 teachers and 304 students.

The teachers and students who completed the questionnaire responses in this study are assigned to the private higher education sector at the undergraduate level in the city of Culiacán.

To validate these data collection instruments, they were applied as a pilot test to 30 teachers and 40 students randomly in 4 different universities and using the statistical program SPSS (Statistical Product and Service Solution) a reliability analysis was performed, yielding a Cronbach's coefficient of 0.96 for the teachers' questionnaire and 0.93 for the students' questionnaire.

Criteria content: Educational leadership, evaluation of practice, academic mobility and social relevance to assess educational quality in schools.

**Table 1. Criteria**

Teachers	Students
<i>Managerial leadership</i>	
<b>Management promotes the mission, vision and values of the institution.</b>	<i>The principal promotes respect among students.</i>
<b>Management encourages the professional development of staff.</b>	The director's work is a model example.
<b>In a situation of conflicting interests between the principal and the teachers, the principal is able to bring both parties to a satisfactory agreement.</b>	In a situation of conflicting interests between the director and the teachers, is there any uneasiness among the teaching staff?
<b>The management promotes a climate of participation, cordiality and respect.</b>	Communication between managers, teachers and students is efficient and adequate.
<b>The director puts forward forward-looking pedagogical and institutional proposals.</b>	The principal intervenes in the solution of problems that arise among students.

**Management supports and promotes the quality policy.** The principal is impartial in resolving problems that arise among students.

**The director delegates responsibilities.** The director congratulates or encourages when things are done well.

**The director guides the work of his staff by example.** Management promotes the mission, vision and values of the institution.

**Management recognizes the successes achieved by the teaching staff.** Motivation and incentive actions stimulate students to contribute to the development of the institution.

**The principal distributes work fairly among the teaching staff.** The principal encourages students' educational successes to be known.

**The management establishes agreements with the educational community and external organizations.** The management organizes and participates in conferences, seminars and competitions.

*Evaluation of pedagogical practice*

**Teachers are evaluated on the mastery of information and communication technologies.** The teamwork of the teachers in the institution is appreciated.

**The director periodically monitors the pedagogical practice in order to propose improvement strategies.** They receive information and guidance on their academic performance from teachers.

**Teachers meet periodically to discuss the progress and difficulties of the students' learning process.** They consider that there is good communication among teachers.

**The pedagogical practice promotes communication** My teachers attend classes regularly and are punctual.

**among students and equal learning opportunities.**

**The process of curricular diversification is carried out taking into account the problems established in the institutional educational program.**

My teachers tell me from the beginning of the school year the rules to be respected and the way to work in the subject.

**The teacher informs students of the results and criteria used to assess learning.**

The students receive entertaining activities from the teachers during the class.

**The pedagogical practice is carried out in accordance with the class planning.**

They agree on the use of different educational materials for teaching.

**Areas with opportunities for process improvement are identified based on the results of evaluation and follow-up.**

Students feel part of the class as they are actively participating, a participation encouraged by the teacher.

**The teacher stimulates learning with innovation and creativity through teamwork.**

What I learn in my institution is useful to solve problems that I face in my daily life.

**Teachers motivate students to develop activities that involve field trips and other spaces different from the classroom.**

In my classes I incorporate information and communication technologies to improve the learning process.

**The performance of the teaching staff is evaluated.**

My teachers encourage us to research and read different sources of information.

### *Academic mobility*

**The needs for updating and training of the teaching staff are identified.**

Students are encouraged to participate in cultural programs.

**Staff development is promoted through participation in**

Students are supported by the management to be absent a certain number of hours/class for

<b>projects or programs and the exchange of experiences.</b>	reasons of attendance to academic congresses.
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<b>Staff performance is evaluated individually and collectively.</b>	Public recognition is given to student achievement.
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<b>Staff achievements are reported through a recognition scheme.</b>	The institution identifies the needs for personnel updating.
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<b>Teachers are encouraged to attend refresher courses and workshops supported by the institution.</b>	Students receive financial support to attend sports competitions.
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<b>Teachers are financially supported to give lectures at conferences and seminars.</b>	The principal encourages students to participate in civic ceremonies organized by the institution.
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<b>The number of days that teachers are allowed to be absent from their groups for reasons of academic improvement in subjects related to the subjects they teach.</b>	Students are encouraged by management and teachers to participate in academic competitions.
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<b>Staff participation in decision making is permanently promoted.</b>	Communication is effective in upward, downward and lateral directions.
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### *Social relevance*

<b>The institution projects itself to the community through social assistance, aid and volunteer work for charitable institutions.</b>	The institution has carried out joint activities with other institutions such as churches, municipal centers and others.
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<b>As a teacher I have participated in the community through some of the activities such as workshops, projects, talks, etc.</b>	The relationships that the institution has benefit the educational work.
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**The educational institution participates in awareness-raising activities to solve problems in its environment such as: delinquency, gangs, drugs, etc.**

As a student I have participated in the community through some of the activities such as sports, talks, etc.

**The institution's directors have agreements with local government authorities to improve the institution.**

The institution conducts outreach programs for the protection of the community's environment.

**The educational community participates in activities to reduce inconveniences and/or risks in road traffic.**

The institution has received recognition for its outstanding participation in the community.

**The institution conducts outreach programs for the protection of the environment in its community.**

The institution has received complaints from neighbors about the inappropriate behavior of its administrative and teaching staff.

**The educational community participates in the care of parks, gardens, streets, squares and urban furniture in their environment.**

There has been evidence of inappropriate behavior by students in the streets surrounding the school, causing nuisance to the community.

**The institution has received recognition for its outstanding participation in the community.**

The educational institution participates in awareness-raising activities to solve problems in its environment such as: traffic accidents, drug use, etc.

The data from the closed questions in the questionnaires were analyzed by calculating descriptive statistics such as *means* and their respective *standard deviations*, classified in intervals according to the teacher's or student's level of agreement with each of the statements (4-Always/good quality, 3-Almost always/regular quality, 2-sometimes and 1-never/bad quality). To discriminate between the groups in which differences were established, the one-way ANOVA test followed by Tukey's test was used using the statistical program *Prism Graph Pad Version 6.0*. Comparisons were made between the categories good, fair or poor, in two ways: the first within the columns that discriminated the intragroup differences

with respect to the appraisals of educational quality and the second, between the columns that differentiated in an intergroup way with respect to the comparisons of teachers' and students' appraisals. Significant differences between means ( $p < 0.05$ ) were considered statistically significant.

## Results

Understanding educational quality as a process that produces results, an important part of its study is the analysis of the elements involved in this process. On the other hand, the quality of educational elements depends to a large extent on how they are allocated and how their functioning is monitored. Therefore, they are components of quality that can be modified through educational decision-making processes.

The objective of this study is to understand the quality of the educational offer and how it affects the results of the following elements: educational leadership, pedagogical practice performance, academic mobility and social relevance.

The HEIs in the city of Culiacán have good educational leadership. The percentages of private higher education institutions classified in the three levels of quality (good, regular, bad) with respect to the statements of students and teachers. In the variable, 88.88% in black bars of the HEIs evaluated by the students are shown as good, since the principal promotes by example the work he/she performs and is impartial when intervening in the solution of problems that arise among the students. According to the teachers, 83.33% of the HEIs in white bars show leadership by promoting the mission, vision and values of the institution, as well as the ethical principles that support the culture of continuous improvement of the institution. There is the presence of IES of regular quality manifested only by teachers in 4.22% due to the fact that the management does not delegate responsibilities, while IES of poor quality were evidenced between 11.11% and 12.45% by the two groups evaluated, this is due to the fact that students are not sure that the communication between management and teaching staff is efficient and teachers point out that the management does not distribute the work with equity among the teaching staff.

Offering of educational leadership. Percentage of private higher education institutions in the city of Culiacán that offer managerial leadership in the classification of good, fair or poor based on student and teacher responses. Statistically significant differences were found in the intra and intergroup comparison, ( $p < 0.0001$ ).

After the analysis conducted, it is possible to affirm that most of the universities have educational leaders. A small portion of the universities have personnel who lead with little leadership are located in the lower middle class conurbation, where principals rarely visit the universities, so the universities are different among the regions in terms of the number of students and the condition of their infrastructure. Another important difference lies in the possibilities that principals have to dedicate their time and energy exclusively to the management of their schools. This is the norm only in the urban middle class. Universities are more vital and active in urban and developed areas.

Thus, the present study shows the existence of very diverse conditions in relation to the quality of educational leadership. The differences correspond to the degree of development-urbanization of the regions where the universities operate, conditions of infrastructure and attendance of the principal, in addition to the distribution of work with equity among the teaching staff and efficient communication between management and teaching staff.

HEIs in the city of Culiacán promote a polarized performance in pedagogical practice. The percentages of private higher education institutions in the city of Culiacán, polarizing the pedagogical practice in two of the three levels of quality (good, bad) with respect to the affirmations of students and teachers. In this evaluated variable, 60.52% of the IES evaluated by the students are shown in black bars, since they feel part of the class as they are actively participating and participation is always promoted by the teacher. 66.24% of the IES in white bars according to teachers agree that the class is carried out according to the initial planning and teachers promote communication among students and equal learning opportunities. The remaining percentage of IES, 39.48% and 33.76% by students and teachers respectively, classified them in the poor quality level based on the performance of pedagogical practice because, according to students, information and communication technologies are not incorporated to improve learning processes and also they are not motivated to research and read different sources of information and by teachers, they affirm that teachers do not meet periodically to discuss the progress and difficulties of the students' learning process.

Polarization of pedagogical practice performance. Percentage of private higher education institutions in the city of Culiacán that offer development of pedagogical practice in the classification of good and bad based on student and teacher responses. There are statistically significant differences in the intra and intergroup comparison ( $p < 0.0001$ ).

In examining indicators related to teachers' pedagogical practice, we found that there is a generalized teaching culture that explains a broad consensus on how to teach. However, the actual behavior of teachers in the classroom varies significantly among regions; the urban middle class area stands out in this regard. The results indicate that the quality of higher education is distributed in a polarized manner, such that we are faced with two entirely different educational realities: that of the urban and the underdeveloped.

The differences that lead to the polarization of the pedagogical practice in the universities analyzed in the metropolitan area correspond to the low incorporation of information and communication technologies to improve learning processes, the low motivation for research, minimal requirements in the consultation of different sources of information and the almost null frequency of teachers' meetings to discuss the progress and difficulties of the students' learning process.

HEIs in the city of Culiacán promote academic mobility. The classification (good, regular) of private higher education institutions in the city of Culiacán in which the percentages of 84.32% by students (in black bars) affirm that the institution identifies and attends to the updating needs of personnel and motivates them to participate in cultural programs and 86.22% reported by teachers (in white bars) that the development of personnel is promoted through participation in projects or programs and the exchange of experiences and the achievements of personnel are reported through a recognition scheme. In the classification of regular by the response percentages of 15.68% and 13.78% by students and teachers, respectively, is due to the fact that they regularly receive economic support to attend sports competitions and teachers have permits in number of days to be absent from the groups for reasons of academic improvement in subjects according to the subjects they teach.

Academic mobility in good classification. Percentage of private higher education institutions in the city of Culiacán that favor academic mobility in the good and regular classification based on student and teacher responses. There are statistically significant differences in the intra and intergroup comparison, ( $p < 0.0001$ ).

While it is true that recent studies have discovered the strength of intra-school variables in determining the results of the influence of principal and teacher practice, this does not mean that the characteristics for academic mobility to occur, such as socioeconomic, cultural and educational characteristics of the family, are not important in explaining the results of institutional quality. The information provided by students and teachers clearly

shows the differences where students from different zones are also different in terms of the contact they have with academic mobility. The teachers have different expectations of mobility since the modal responses are: to have the necessary permissions in number of working days to be absent from the groups they are in charge of for reasons of academic updating in subjects according to the subjects they are assigned or according to their professional profile. The characteristics of the geographical area of the universities are not important in this evaluation.

The HEIs in the city of Culiacán offer insufficient social relevance. The classification (good, regular, bad) of the private higher education institutions in the city of Culiacán in which we can observe how the percentages obtained by the assertions of the students and teachers position them in the level of good reaching 44.44% and the teachers giving them 38.88% in this classification. 88% in this classification, due to the fact that the students affirm that the institution has received recognition for its outstanding participation in the community and the teachers agree that the educational institution participates in awareness-raising activities to solve problems in their environment such as: delinquency, gangs, drugs, etc. A 33.33% of the students and 33.35% of the teachers classify the institutions as regular because the students point out that the institution carries out very few joint activities with other institutions such as churches, municipal centers or others and as teachers they participate infrequently in the community through some activities such as workshops, projects, talks, etc. In addition, the classification of poor quality is unfortunately present with 22.23% and 27.77% by students and teachers, respectively, and this is because, according to the students, the institution does not carry out diffusion programs for the protection of the community's environment and the teachers affirm that the educational community does not participate in activities to reduce nuisances and/or risks in road traffic nor does it participate in the care of parks, gardens, streets, squares and urban furniture in its surroundings.

Insufficient social relevance. Percentage of private higher education institutions in the city of Culiacán that offer insufficient social relevance in the classification of good, fair and poor based on student and teacher responses. There are statistically significant differences in the intra-group comparison ( $p > 0.05$ ).

Relations between the educational institutions and the community are cordial and no conflicts or problems are reported. The promotion of social and ethical responsibility is fundamental for the establishment of a better collective coexistence. We are not surprised to have found that the quality of social relevance is so different in

the institutions analyzed. This study measures the differences found, some of which are alarming. Students and teachers who classify them as good are because the institutions promote professional ethics and awareness of social responsibility and consider them necessary elements for a better insertion in the labor market. In the case of regular universities, they state that local community problems are frequently discussed at these universities. Finally, on the campuses where students and teachers rate the universities unfavorably, it is because of the lack of social responsibility that they guarantee.

In order to test a hypothetical model of causal relationship with respect to the achievement of educational quality, a multivariate analysis was carried out. This model considers the following variables: university characteristics -physical, geographic and demographic-. It is followed by the variables: teaching professional profile -academic degree, research, teaching performance, training-.

For this purpose, all variables included are dichotomous or continuous. The indicators included in the regression runs were selected after analyzing the strength of the correlations between them. Regressions were run for each category: educational leadership, pedagogical practice, academic mobility and social relevance. The dependent variable is the quality test score for the 18 universities evaluated.

Results of the multiple regression analysis by category. Dependent variable: educational quality.

**Table 2.** *Categories*

<i>Variable</i>	<i>Category</i>			
	<i>Educational leadership</i>	<i>Pedagogical practice</i>	<i>Academic mobility</i>	<i>Social relevance</i>
Geographical location	0.3852	-0.2101	0.2583	-0.4051*
Site conditions	-0.2755	-0.3686*	0.1542	0.3925

Internet service	0.8212+	0.3012	-0.2475+	-0.1946
Document printing service	-0.3147	0.3982	0.1261	-0.6391*
Library	-0.3982+	-0.2404	-0.1764	0.1256
Cafeteria	0.1992	0.5613*	0.3041	0.2976
Academic degree of teachers	0.1759+	0.3318	0.4227*	0.4626+
Conducting research	0.1388	0.1936+	-0.4534*	-0.1871
Teacher performance evaluation	-0.1381	-0.1732+	0.2675	0.3123
Teacher training	0.3413*	0.3834+	0.2171	0.4852*
Age of teachers	0.1085	0.2125	0.3925	0.2488
Eigenvalor	3.7601	2.7843	4.9912	2.4985

%Variance	0.1193	0.3147	0.2551	0.4363
Significance	0.00001	0.00001	0.00001	0.00001

\*Betas significance level,  $p > 0.05$

+Betas significance level,  $p > 0.01$

As a result of this analysis, all four regressions are significant. The percentage of variance explained by the variables entered in these regressions varies from 43.6% in social relevance to 11.9% in educational leadership. From the results obtained we can say that:

1. When the context in which events occur remains constant, demographic conditions lack the importance assigned to them in the model. However, neither the services that universities have and offer to students, such as internet, cafeteria and library, contribute significantly to the variance in the quality of educational leadership and academic mobility.

2. How respondents from educational institutions evaluate educational leadership contributes significantly to educational quality outcomes. Members of the underdeveloped zone are better critics of how the school conducts itself in the aspect of social and ethical responsibility.

3. The variable in the dataset that corresponds to teacher characteristics with significant betas is age. This data does not contribute to the variance of the quality scores of the institutions whether they provide or not. Age contributes very significantly to the variance of quality scores only in the case of universities in the conurbation areas of the city and, as expected, older teachers score lower in the academic mobility category. Therefore, the fact that it is not significant in the urban area is due to the fact that in this region, being older is an advantage for obtaining better results.

4. Of all the data considered in the model, the one that offers significant contributions to the explanation of the variance of educational quality is the one referring to teacher characteristics:

4.1. The academic degree of teachers contributes significantly to the performance of pedagogical practice, regardless of the geographic location of the university in which they are located.

4.2. The conduct of research by teachers contributes significantly to the variance of educational quality results in the two regions in the expected direction. Teachers who conduct research in addition to teaching have better results. Teachers whose schooling is above average feel more adapted to the requirements of the institutions where they work.

5. Teacher performance evaluation does not contribute significantly to the variance in educational quality outcomes with the exception of social relevance. Teachers who receive teacher training are those who obtain better results.

## Discussion

When talking about evaluating the quality of education, different images are conceptualized, depending on the reference to evaluation. The results of the multivariate analysis correlating the four categories evaluated showed that private higher education institutions in the city of Culiacán, Sinaloa offer regular educational quality while retaining some considerations.

In these four items evaluated under our research we found that the results are of different degrees of quality, ranging from poor, regular and good and according to the evaluated item confronting with the results of Cueto (2018) where he reports that the quality offered by the educational institutions in all items is of a regular level in the evaluated dimensions and we agree in the item of educational leadership and academic mobility with good quality in both with what is reported by Saraiva (2008) who points out that an institution that provides a good quality education is one that stimulates the development of analytical, decision, research, intellectual, human autonomy and critical spirit capabilities, which motivates the student. In the case of the degree of satisfaction of the categories of leadership and academic mobility, the distribution of the quality evaluations is good, above 80% (Fig. 1 and 3), while the category of teaching practice performance corresponds to an almost homogeneous distribution between good and bad quality where, according to our multivariate analysis, it is positioned as regular quality.

Our results do not correspond with those found by Mas (2014) where he points out that the quality of education reported by the evaluated schools is in a bad level with some factors in regular level but no factor evaluated in the good level, where we did have some results in categories the level of good quality, since in the evaluation of managerial leadership they gave us satisfaction values in the good

quality level allowing us to see satisfaction in a similar to that reported by Cuevas, Diaz and Hidalgo (2008) where the values achieved in their study (Satisfaction above 80%).

The fact that the perception of quality transits from good to regular and then to bad, tells us that there is a distribution of opinions in that, if the perception is not good quality, then subsequently it will be regular and thus, if it is not regular quality, it will be of bad quality and it is in the category of evaluation of social relevance where we observe this behavior that allows us to see that although the evaluations of the other three parameters evaluated, -either good or regular or bad- and we could observe that the opinions were of two types. In this case, in the social relevance we noticed that this assertion was downgraded and included us to a really important participation the classification of regular quality institutions in addition to those of good and bad quality providing us in the same magnitude the quality results without having significant statistical differences between these three levels of evaluation. This event has a different meaning when the distribution of opinions in that, if the perception of quality is good and the following distribution of opinions is bad, it tells us that the perception is all or nothing.

The results of the research in the category of evaluation of pedagogical practice showed that the schools offer good and poor quality in similar quantities, in contrast to what was reported by Corona (2014), who establishes that this item in the evaluated schools is in a developmental phase, not even exceeding 35 percent of positive feedback.

The geographic distribution has a partial influence on these results given that the educational institutions evaluated as having poor quality are located in the conurban area of the city, while the educational institutions of good quality are located in the urban area. This finding is consistent with the results of García and Quiroz (2011) and Cantú (2012) where they report a significant association between the quality of education and socioeconomic level since in their report high socioeconomic levels tend to be associated with better results and that HEIs determined by their location are segregated by socioeconomic level. However, some of the institutions with regular quality in our research are also located in the urban area, so it stands out that, if distribution were to set the standard for quality, the latter would be among those with good quality.

There is no doubt that, in order to contribute to the quality of education, the training of the faculty hired in these institutions will make a significant difference. If the training of the teachers who

collaborate in the institutions includes, for example, a commitment to research, the students of that institution will have comprehensive support through counseling and tutoring on topics where there is a need to be addressed outside the classroom and thus deepen the learning of the students, of the teachers themselves and for the benefit of society itself. The academic degree is really important, since teachers who have a doctoral degree in science have a very clear perspective of the reality of education and contribute much more to teaching, they carry out the relevance of learning in their students.

Contrary to what Pérez (2002) found, where he reports that only 62.5% of the teachers who graduated in front of a group held a bachelor's degree, we found that 100 percent of the teachers who are in front of a group in this research have at least a bachelor's degree to work as a teacher. Teaching performance, of course, plays an important role in the quality of education since, year after year, it shapes the trajectory and academic transcendence of teachers and specializes them in the work they perform.

In agreement with Acuña and Pons (2018) where they refer that the absolute weight of the quality of education does not fall exclusively on the teacher, however, teachers are a key piece in establishing, then, the quality of education in the institutions in which they are since the evaluated institutions in which the quality of education is perceived as good have teachers in which the professional demands are much more rigorous than in the other institutions, Therefore, it is no coincidence that the students and teachers of the institutions evaluated as good have the same answers regarding the perception of good quality in three of the four items evaluated, and the same for the educational institutions classified as of regular quality, where they obtained the same results.

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