

## 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 educational quality contributes to the detection, as well as the improvement or resolution of flaws in the educational system of schools. Likewise, teacher training is one of the main pillars of educational quality. Objective: To evaluate educational quality based on the satisfaction levels of students and teachers. Methodology: A Likert-scale-based instrument was administered to 304 students and 198 teachers from the 18 largest private universities located in the city of Culiacán, Sinaloa. The research was conducted using an analytical-observational method, including a cross-sectional, quantitative study of a descriptive nature. Results: The results demonstrate that classrooms are populated by a diverse group of students with very specific interests and needs, while on the part of educational institutions, their interests do not always align with these needs and interests, much less with the professional development of teachers. Conclusions: The crucial role of teacher e , and educational institutions in meeting the goals set for undergraduate students is recognized; at the same time, there is a need for ongoing evaluation of educational quality and teacher training.

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### Educational Synergies

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

## 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 greatest aspirations of any educational institution, and although the quality of education is a concept that is not self-defining, it requires its components or dimensions to be made explicit. Educational quality is one of the most important attributes of educational institutions and establishments where teaching-learning processes take place, and even more so of the entire system that encompasses these processes. In Mexico, as in most Latin American countries, education policies are underpinned by assessments and guiding principles that define the direction of their implementation and have, in recent years, been increasingly oriented toward giving greater consideration to local opportunities.

Just as in other parts of the country, in the city of Culiacán, Sinaloa, enrollment and coverage in private higher education are growing, and a broad range of educational offerings has been established; the academic life of institutions is becoming increasingly professionalized, while the quality of education is affirmed as an aspiration and a widely shared value. The factors influencing teachers' professional performance and the teaching-learning process are beginning to be systematically analyzed, and actions are being planned to bring decision-making closer to school practice. In this study, we address this issue, and given the magnitude of the phenomenon and the number of variables that may influence it, we were particularly interested in exploring educational quality by considering four dimensions: 1) from the perspective of administrative leadership, 2) from the evaluation of practice, 3) from the perspective of academic mobility, and 4) from the perspective of social relevance.

### **Educational quality as a subject of study**

The concept of quality is a term that is very difficult to define; nevertheless, Sylvia Schmelkes (1996) clarifies that when we refer to quality, we must consider four main elements that should be observed in an educational process and, above all, in the results it yields. These four elements of quality are relevance, effectiveness, equity, and efficiency. Applying this definition, a high-quality school must offer learning experiences relevant to students' present and future lives and to the needs of the society in which they live, ensuring student enrollment and retention within the institution. Educational quality is established as the primary objective in various regions of the world (Acuña Gamboa & Pons Bonals, 2018), and schools bear the responsibility of fulfilling this task by providing the conditions necessary to achieve the goal of quality education. In the Latin American context, quality as excellence equates to having outstanding students, distinguished academics, and first-rate safeguards as a response to the requirements of the environment, where social relevance must take precedence and depend on the stated purposes under international standards and requirements conducive to achieving professional, academic, and student-faculty exchange within the realm of global competition. (Aguila Cabrera, 2005; Lago de Vergara, Gamoba Suárez & Montes Miranda, 2014).

In the university setting, higher education constitutes a system with a high degree of complexity due to the diversity of intentions, missions, visions, educational models, forms of organization, conditions, and the participation of the actors involved (González

González, Galindo Miranda, Galindo Miranda & Gold Morgan, 2004; González Martín, 2018; Rodríguez, 2009). A perfectly coordinated system is therefore required, one in which there are fewer and fewer errors; for this reason, schools adopt management systems. To achieve maximum efficiency, the system must be established with a series of controls where this concept underlies the so-called efficiency-oriented approaches in education, in which quality management systems are employed within Latin American Higher Education Institutions (HEIs) as an alternative for academic work, whose objectives are to systematize administrative methods and procedures, foster a culture of service, and train staff, in pursuit of student satisfaction, all under rigid frameworks of technical rationality (Castillo-Cedeño, Flores-Davis, Miranda-Cervantes, & León, 2016; Yzaguirre Peralta, 2005; Villarruel Fuentes, 2010).

According to Surdez Pérez, Sandoval Caraveo & Lamoyi (2018), a country's progress depends largely on the quality of education provided by universities; consequently, having systems that incorporate metrics to assess user satisfaction and perception becomes a factor of great importance for improving the educational system in Mexico. In this regard, Vazquez (2013) makes it very clear that educational quality is inherently complex, which is why it is important to define its dimensions and indicators, narrowing down the elements to be evaluated that will allow us to assess the quality of education. To this end, there are initiatives and guidelines from various stakeholders, such as the National Association of Universities and Institutions of Higher Education (ANUIES), the Interinstitutional Committees for the Evaluation of Higher Education (CIEES), and the Council for the Accreditation of Higher Education (COPAES), the National Council for 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 Institutions of Higher Education (FIMPES) (Rodríguez Andujo, López Díaz & Arras Vota, 2009).

If something is subjected to evaluation, it is done according to certain criteria, notes Egido Gálvez (2005). By focusing on identifying factors associated with educational quality, quality management in higher education promotes positive changes within the university, and these changes converge on the following basic criteria: direction and leadership, development of academic processes, performance of work teams, behavior of individual actors, and outcomes. (Alfaro, 2010; Álvarez Botello, Chaparro Salinas & Reyes Pérez, 2015;

Álvarez García & Topete Barrera, 1997; Muñoz Labraña, Vásquez Lara & Reyes Jedlicki, 2010).

### **Educational Leadership**

When we think of leadership, we immediately associate this concept with people who demonstrate extraordinary qualities as human beings. In Mexico, private higher education institutions (IESP) are under the scrutiny of various evaluation bodies that join forces to raise educational quality standards, involving a significant amount of human, economic, and financial resources that could be in vain without leadership-oriented administrators who comply with policies to achieve the required levels of educational quality. When referring to private higher education institutions (IESP), the leader is found in the roles of academic head, department head, director, and rector. According to Bass (1997), leaders, through their actions, motivate their followers to transcend their own interests for the good of the group, the organization, or the country. In this regard, López Yáñez & Sánchez Moreno (2009) point out that among the functions of educational leadership are curriculum administration and the creation of a healthy environment.

Thus, the appropriate leadership for the administration of HEIs is that which includes supportive practices in academic, executive, and social interactions that foster the opportunity to grow as leaders by connecting with others (Jones, Lefoe, Harvey & Ryland, 2012). The traits of a person with educational leadership include being adept at the efficient management of people and resources, having a positive vision for change with a focus on personal development by bringing together diverse groups to foster student and faculty development, being consistent, firm, and competent with solid knowledge of administrative performance (Bedrow, 2010; González Martín, 2018; Ramsden, 1998), being inclusive (Fernández Batanero & Fernández, 2013), innovative (Aparicio Molina, Sepúlveda López, Valverde Huincatripay, Cárdenas Merino, Contreras Sanzana & Valenzuela Ravanal, 2020; Berdrow 2010), and, furthermore, sustainable (Sierra Villamil, 2017), for the purposes of education in our times.

### **Pedagogical practice**

While it is true that the principal bears the responsibility for the administration of the school, according to Sylvia Schmelkes (1996), it is the teacher who is responsible for guiding the teaching process within the classroom and, therefore, plays a decisive role in the quality of educational outcomes. Teachers face a monumental task in creating environments conducive to learning, which relies heavily

on their talent and self-efficacy. The atmosphere of a classroom is determined by teachers' beliefs regarding their instructional effectiveness (Bandura, 1999), with planning processes setting the tone for this environment (Zabalza, 1990). In this regard, considering the factors that influence educational quality, teacher quality is the most important factor in a high-quality school (Sylvia Schmelkes, 1996). Today, teachers are expected to design strategies that enable students to learn how to pose and solve problems, think critically, and be creative (Crispín, 1998).

Pedagogical practice is an intentional practice involving the actions taken by the teacher to facilitate student learning. Self-reflection on the teacher's daily work allows them to identify situations they may face during their practice, such as groups with particular characteristics, students with specific concerns that require changes to what was previously prepared for class, as well as the administrative implications of working in a given institution (Bazdresch, 2000; Schön, 1994). A good teacher must possess three coexisting factors: first, mastery of the subject matter; second, teaching motivation—they must enjoy teaching in order to motivate others; and third, communication skills, understood as the ability to take the necessary actions to ensure that the content to be taught reaches the student in the best possible way (Carlos Guzmán, 2005). Thus, through pedagogical practice, teachers will encourage students to engage in self-criticism and to question their environment with intellectual independence (Fresán, 2000). This allows us to view the teaching narrative as a process that reveals people's thoughts, feelings, and intentions, combined with the intellectual and practical nourishment of the profession (Acuña Gamboa, López Ordoñez & Mérida Martínez, 2015).

### **Academic Mobility**

General education helps us reestablish the individual-species-society relationship, without this leading to the reduction or subordination of one term to another (Morin, 1993), actively promoting connections between diverse areas of knowledge and, in this context, an environment for the development of tolerance, empathy, solidarity, and emotional connection (Vélez Cardona, 2012). In this same context, opportunities are fostered to create research and teaching networks, which involves engaging in the functions inherent to academic administration, with the primary purpose of influencing the teaching process and thereby improving academic quality (Knight, 2010). Quality assurance in higher education is the guarantee of trust among educational institutions (Salabur, 2011), a

trust that is largely determined by those who make up the faculty at universities. This culture of quality could not be understood in HEIs without accountability and funding contingent on good results (Michavila & Zamorano, 2008; Olvera, 2010), conceiving quality systems as drivers of innovation and improvement in teaching processes. In human resources development and teacher training, mobility is linked to professional development and, where applicable, recognized within a professional career path. Teacher mobility, referring to the rotation of teachers among schools within a school year, is seen as a good indicator of better working conditions and provides both teachers and participating institutions with a broader perspective for knowledge generation (Bernal del Castillo, 2014; Castejón Silvo, 2013; Madarro, 2011). Consequently, teaching activities have been expanded to include the creation of academic community partnerships outside relevant institutions, networking, and participation in conferences and communities abroad (Stromquist, 2009) to ensure that they possess and contribute the academic quality required by the relevant institutions.

### **Social Relevance**

Higher education must respond to the needs demanded by society, and by making this commitment, it is directly linked to knowledge—both in clarifying our understanding and in acquiring it through teaching. Today’s society is undergoing constant change that affects and interacts with the customs, patterns, and ways of life of social groups (ANUIES, 2000), as well as the strategic value of knowledge and information and the increased role of the intellectual dimension of work (UNESCO, 1995). Mastery of knowledge is a key factor in development, such that society’s transition toward a knowledge-based stage offers new horizons for higher education institutions, both in their role as trainers of professionals and in their contribution to the generation, application, and transfer of knowledge—processes considered fundamental to a country’s economic development (World Bank, 1995). Thus, it can be asserted that higher education must produce and reproduce knowledge, whether in its degree programs, in its curricula, in its research, or in any other space available (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 entails aligning its objectives with a societal project, emphasizing that relevance is tied to the context of knowledge production, that is, taking into account the environment of higher education institutions and thereby bringing those who produce knowledge closer to those who appropriate it, since the latter are not only students but also other sectors of society and

elements of the educational system to which they belong (Castro-Gómez, 2007; García Garduño & Organista Sandoval, 2006). The way to provide solutions and address the diverse needs of a changing society is a way of conceiving the social relevance of HEIs, which also implies social responsibility by participating in identifying and analyzing the needs, demands, and priority issues of the social context of which they are a part (Estévez, Coronado & Martínez, 2012).

This research is an important contribution to educational quality that enables the development of future tools and methodologies that contribute to individuals' satisfaction with quality. For the purposes of this study, it is considered that the quality of education at private higher education institutions in the capital of the state of Sinaloa is determined by various interrelated factors, including educational leadership, pedagogical performance, academic mobility, and social relevance, all of which contribute to strengthening educational quality.

### **Materials and methods**

This research presents an assessment of the educational quality with which private higher education institutions in the city of Culiacán, Sinaloa, currently develop their curricula and study programs. Based on four analytical variables (administrative leadership, evaluation of teaching practices, academic mobility, and social relevance), data were collected from 198 teachers and 304 students, which allowed for an assessment of the subject matter.

From this perspective, this research was conducted using a quantitative approach, as it allowed for differential statistical comparisons of the information obtained from the sample, which provided very specific descriptive insights into the reality of the quality of private education in Culiacán, Sinaloa.

Likewise, this approach allowed us to conduct a specific study aimed at correlating the variables and enabled us to understand the metrics that contribute to improving the quality of education, particularly in the higher education institutions of this city.

Two assessment questionnaires were administered to measure the quality of private higher education in Culiacán, Sinaloa: the "Teacher Questionnaire" and the "Student Questionnaire," through which the opinions of the respondents were systematically collected. The instrument consists of 38 items answered using 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 “always” level is associated with good educational quality, the “sometimes” level with fair quality, and the “sometimes” and “never” levels with poor quality. This instrument groups the items according to categories that collectively define the concept of educational quality: 1) from the perspective of administrative leadership, 2) from the perspective of practice evaluation, 3) from the perspective of academic mobility, and 4) from the perspective of social relevance.

The respondents were either teaching (in the case of teachers) or enrolled (in the case of students) in bachelor’s degree programs in: International Trade and Customs, Advertising, Design and Communication, Psychology, Dance, Gastronomy, Marketing, Accounting, Educational Psychology, Chemical Engineering, Family Sciences, Clinical Psychology, 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 STATSTM 2.0 software in the Sample Size Determination section. The sample calculation, based on a normal distribution with a 5% margin of error and a 95% confidence level, established that the sample should consist of 198 teachers and 304 students.

The teachers and students who completed the questionnaire in this study are affiliated with the private higher education sector at the bachelor’s degree level in the city of Culiacán.

To validate these data collection instruments, they were administered as a pilot test to 30 teachers and 40 students selected at random from 4 different universities. Reliability analysis was performed using the SPSS statistical software (Statistical Product and Service Solutions), yielding a Cronbach’s alpha coefficient of 0.96 for the teacher questionnaire and 0.93 for the student questionnaire.

**Table 1.** *Content of the criteria: Educational leadership, practice evaluation, academic mobility, and social relevance for evaluating educational quality in schools.*

Teachers	Students
<b><i>Administrative leadership</i></b>	
<b>The administration promotes the institution’s mission, vision, and values.</b>	<i>The principal fosters respect among students.</i>
<b>Management supports the professional development of staff.</b>	The principal’s work serves as a model of excellence.
<b>When there is a conflict of interest between the principal and the teachers, the principal ensures that both parties reach a satisfactory agreement.</b>	In situations where the principal and teachers have conflicting interests, is there any noticeable tension among the teaching staff?
<b>The administration fosters a climate of participation, cordiality, and respect.</b>	Communication between administrators, teachers, and students is efficient and effective.
<b>The principal puts forward educational and institutional proposals with a forward-looking vision.</b>	The principal intervenes in resolving problems that arise among students.
<b>The administration supports and promotes the quality policy.</b>	The principal is impartial when resolving problems that arise among students.
<b>The principal delegates responsibilities.</b>	The principal offers praise or encouragement when things are done well.
<b>The principal guides the work of his or her staff by example.</b>	The administration promotes the institution’s mission, vision, and values.
<b>The administration recognizes the achievements of the teaching staff.</b>	Motivational initiatives and incentives encourage students to contribute to the institution’s development.
<b>The principal distributes work fairly among the teaching staff.</b>	The principal ensures that students’ educational achievements are recognized.
<b>The administration establishes partnerships with the</b>	The administration organizes and participates in conferences, seminars, and competitions.

educational community and external organizations.

*Evaluation of Teaching Practices*

<b>Teachers are evaluated on their proficiency in information and communication technologies.</b>	Teachers' teamwork within the institution is valued.
<b>The principal periodically monitors teaching practices to propose strategies for improvement.</b>	Students receive information and guidance from teachers regarding their academic performance.
<b>Teachers meet periodically to discuss students' progress and challenges in the learning process.</b>	They believe there is good communication among teachers.
<b>Teaching practices promote communication among students and equal learning opportunities.</b>	My teachers attend classes regularly and are punctual.
<b>The curriculum diversification process is carried out taking into account the issues identified in the institutional educational program.</b>	My teachers explain to me at the beginning of the school year the rules that must be followed and how the course will be conducted.
<b>The teacher informs students of the criteria and methods used to assess their learning.</b>	Students are given engaging activities by teachers during class.
<b>Teaching practices are carried out in accordance with the lesson plan.</b>	They agree on the use of different educational materials for teaching.
<b>Areas with opportunities for improvement in carrying out the processes are identified based on the results of assessment and monitoring.</b>	Students feel like they are part of the class by actively participating, a participation encouraged by the teacher.
<b>The teacher stimulates learning through innovation and creativity by fostering teamwork.</b>	What I learn at my school is useful for solving problems I encounter in daily life.
<b>Teachers motivate students to engage in activities that involve field trips and other settings outside the classroom.</b>	Information and communication technologies are incorporated into my classes to improve learning processes.

**Teacher performance is evaluated.** My teachers encourage us to research and read different sources of information.

*Academic mobility*

**The professional development and training needs of the teaching staff are identified.** Students are encouraged to participate in cultural programs.

**Staff development is promoted through participation in projects or programs and the exchange of experiences.** Students are supported by the administration to be absent for a certain number of class hours to attend academic conferences.

**Staff performance is evaluated individually and collectively.** Student achievements are publicly recognized.

**Staff achievements are reported through a recognition program.** The institution identifies staff professional development needs.

**Faculty are encouraged to attend professional development courses and workshops supported by the institution.** Students receive financial support to participate in sports competitions.

**Teachers receive financial support to give presentations at conferences and seminars.** The principal encourages students to participate in civic ceremonies organized by the institution.

**Teachers are granted a certain number of days off from their classes for professional development in subjects related to the courses they teach.** Students are encouraged by the administration and teachers to participate in academic competitions.

**Staff participation in decision-making is continuously encouraged.** Communication is effective in upward, downward, and lateral directions.

*Social Relevance*

**The institution engages with the community through social assistance initiatives, aid, and volunteer work with charitable organizations.** The institution has carried out joint activities with other institutions such as churches, municipal centers, and others.

**As a teacher, I have participated in the community** The institution's relationships benefit its educational work.

**through activities such as workshops, projects, talks, etc.**

**The educational institution participates in awareness-raising activities to address local issues such as crime, gang activity, drugs, etc.**

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

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

The institution carries out outreach programs to protect the community's environment.

**The school community participates in activities aimed at reducing traffic disruptions and/or hazards.**

The institution has received recognition for its outstanding community involvement.

**The institution carries out outreach programs to protect the environment in its community.**

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

**The school community participates in the care of parks, gardens, streets, plazas, and street furniture in its surroundings.**

Inappropriate behavior by students has been observed on the streets surrounding the institution, causing disturbances to the community.

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

The educational institution participates in awareness-raising activities to address local issues such as traffic accidents, drug use, etc.

Own elaboration.

Data from the closed-ended questions in the questionnaires were analyzed using descriptive statistics such as means and their respective standard deviations, classified into intervals based on the teacher's or student's level of agreement with each statement (4-Always/good quality, 3-Almost always/fair quality, 2-sometimes, and 1-never/poor quality). To distinguish between the groups where differences were found, a one-way ANOVA was used, followed by Tukey's test, using the Prism GraphPad statistical software, Version 6.0. Comparisons were made between the categories good, fair, or

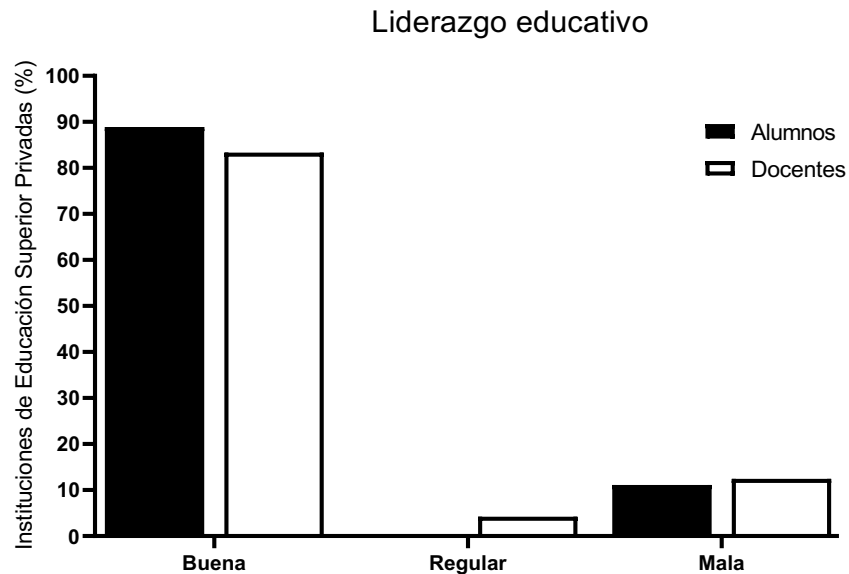
poor in two ways: first, within the columns that distinguished intragroup differences regarding perceptions of educational quality, and second, between the columns that distinguished intergroup differences regarding comparisons of teachers' and students' perceptions. A significant difference between the means ( $p < 0.05$ ) was considered statistically significant.

## Results

Understanding educational quality as a process that produces outcomes, a significant part of this study involves analyzing the elements involved in that process. Furthermore, the quality of educational elements depends largely on how they are allocated and how their functioning is monitored. Therefore, they constitute 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 provision and how it influences the outcomes of the following elements: educational leadership, pedagogical practice, academic mobility, and social relevance.

Higher education institutions in the city of Culiacán demonstrate strong educational leadership. Figure 1 shows the percentages of private higher education institutions classified into the three quality levels (good, fair, poor) based on statements from students and faculty. In this variable, 88.88% of the HEIs evaluated by students are rated as good (black bars), as the director promotes the work carried out by setting an example and is impartial when intervening to resolve problems that arise among students. According to faculty, 83.33% of HEIs (shown in white bars) demonstrate leadership by promoting the institution's mission, vision, and values, as well as the ethical principles that support the institution's culture of continuous improvement. There is a presence of institutions of average quality, as indicated solely by the faculty members ( ) at a rate of 4.22%, due to the fact that the administration does not delegate responsibilities, while institutions of poor quality were identified by both evaluated groups at rates ranging from 11.11% to 12.45%; This is because students are unsure whether communication between administrative staff and faculty is efficient, and faculty members indicate that the administration does not distribute work equitably among the teaching staff.



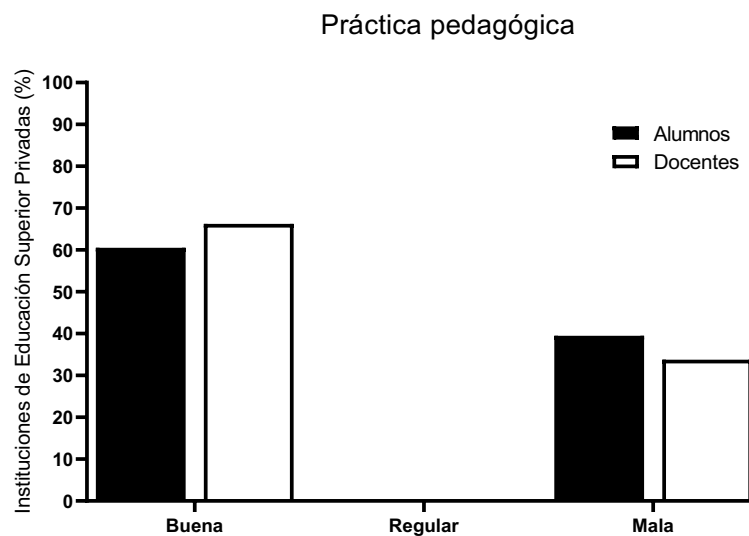
**Figure 1.** Educational Leadership Offerings. Percentage of private higher education institutions in the city of Culiacán that offer leadership rated as good, average, or poor based on responses from students and faculty. Statistically significant differences were found in both intra- and inter-group comparisons ( $p < 0.0001$ ).

Following the analysis, it can be stated that most universities have educational leaders. A small portion of universities have administrators with limited leadership skills; these are located in the lower-middle-class suburban area, where directors rarely visit the universities, resulting in significant regional differences in student enrollment and infrastructure conditions. Another important difference lies in the extent to which directors can devote their time and energy exclusively to managing their schools. This is the norm only in the middle-class urban area. Universities are more vital and active in urban and developed areas.

Thus, this study reveals the existence of highly diverse conditions regarding the quality of educational leadership. These differences relate to the degree of development and urbanization of the regions where universities operate, infrastructure conditions, and the principal's attendance, as well as the equitable distribution of work among faculty members and the efficiency of communication between administrative staff and faculty.

Higher education institutions in the city of Culiacán exhibit polarized performance in pedagogical practice. Figure 2 shows the percentages of private higher education institutions in the city of

Culiacán, with pedagogical practice polarized across two of the three quality levels (good, poor) based on statements from students and faculty. In this evaluated variable, 60.52% of the HEIs evaluated by students are shown in black bars, as students feel they are part of the class by actively participating, and participation is always encouraged by the instructor. 66.24% of the HEIs, shown in white bars according to faculty, agree that classes are conducted according to the initial lesson plan and that professors promote communication among students and equal learning opportunities. The remaining percentage of HEIs—39.48% and 33.76% for students and faculty, respectively—classified them as low quality based on the performance of teaching practices because, according to students, information and communication technologies are not incorporated to improve learning processes, and students are not encouraged to research and read different sources of information; meanwhile, teachers state that faculty do not meet regularly to discuss the progress and difficulties of the students’ learning process.



**Figure 2.** Polarization of teaching practice performance. Percentage of private higher education institutions in the city of Culiacán that offer teaching practice development, classified as good or poor based on responses from students and teachers. There are statistically

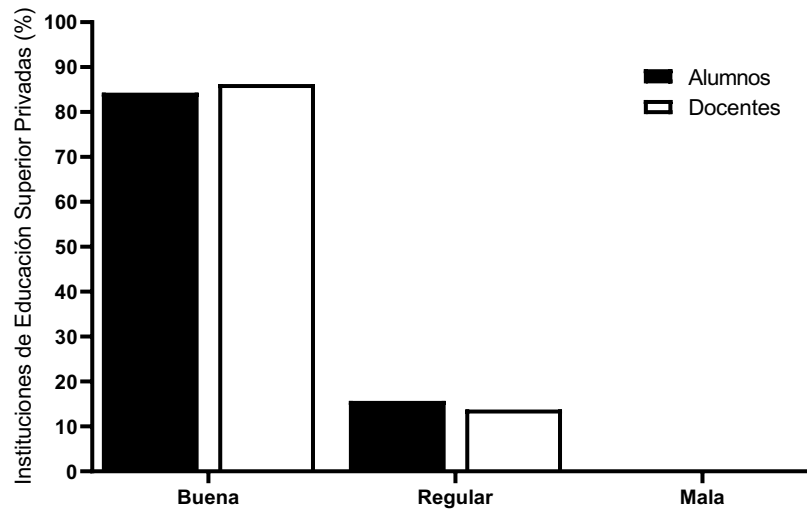
significant differences in intra- and intergroup comparisons ( $p < 0.0001$ ).

Upon examining indicators related to teaching practice, we found that there is a widespread teaching culture that accounts for a broad consensus regarding how teaching should be conducted. However, teachers' actual behavior in the classroom varies significantly across 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 distinct educational realities: that of the urban area and that of the underdeveloped area.

The differences leading to the polarization of teaching practices in the universities analyzed in the metropolitan area correspond to the low incorporation of information and communication technologies to improve learning processes, low motivation for research, minimal requirements for consulting different information sources, and the near-absence of regular faculty meetings to discuss the progress and difficulties of the students' learning process.

Higher education institutions in the city of Culiacán promote academic mobility. Figure 3 shows the classification (good, fair) of private higher education institutions in the city of Culiacán, where 84.32% of students (in black bars) state that the institution identifies and addresses staff professional development needs and encourages participation in cultural programs, and 86.22% reported by faculty (in white bars) indicate that staff development is promoted through participation in projects or programs and the exchange of experiences, and staff achievements are recognized through an awards system. In the "fair" category, based on response percentages of 15.68% and 13.78% for students and faculty, respectively, this is because students regularly receive financial support to participate in sports competitions, and faculty members are granted a certain number of days off from classes for academic development in subjects related to the courses they teach.

### Movilidad académica

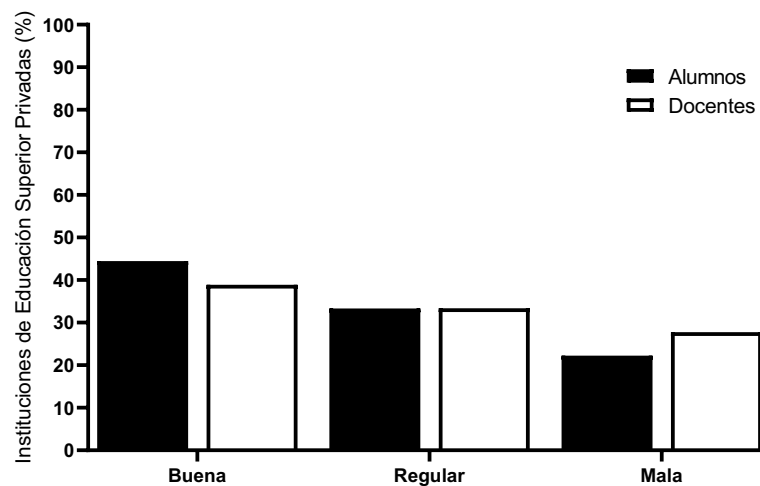


**Figure 3.** Academic mobility in the “good” category. Percentage of private higher education institutions in the city of Culiacán that promote academic mobility in the “good” and “fair” categories based on responses from students and faculty. There are statistically significant differences in the intra- and inter-group comparisons ( $p < 0.0001$ ).

While it is true that recent studies have highlighted the significance of intra-school variables in determining outcomes—such as the influence of the principal’s and teachers’ practices—this does not mean that the characteristics necessary for academic mobility to occur—such as a family’s socioeconomic, cultural, and educational background—are not important in explaining institutional quality outcomes. The information provided by students and teachers clearly highlights differences, as students from different areas also differ in terms of their exposure to academic mobility. Teachers have different expectations regarding mobility, as the most common responses are: having the necessary leave in terms of the number of working days to be absent from the classes they teach for the purpose of academic updating on topics related to the subjects they teach or in accordance with their professional profile. The characteristics of the geographical area of the universities are not significant in this evaluation. Higher education institutions in the city of Culiacán offer insufficient social relevance. Figure 4 shows the classification (good, fair, poor) of private higher education institutions in the city of Culiacán, where we can observe how the percentages obtained from

student and faculty statements place them at the “good” level, reaching 44.44% and faculty members awarding them 38.88% in this classification, because students state that the institution has received recognition for its outstanding participation in the community, and faculty members agree that the educational institution participates in awareness-raising activities to address local issues such as crime, gang activity, drugs, etc. 33.33% of students and 33.35% of teachers rate the institutions as average because students note that the institution conducts very few joint activities with other institutions such as churches, municipal centers, or others, and teachers rarely participate in the community through activities such as workshops, projects, talks, etc. Furthermore, the “poor” rating is unfortunately present, with 22.23% of students and 27.77% of teachers giving this rating, respectively, This is because, according to students, the institution does not carry out outreach programs for the protection of the community’s environment, and teachers state 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, plazas, and urban furniture in its surroundings.

#### Relevancia social



**Figure 4.** 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 responses from students and faculty. There are statistically significant differences in the intragroup comparison ( $p > 0.05$ ).

Relationships between educational institutions and the community are cordial, and no conflicts or problems are reported. The promotion of social and ethical responsibility is fundamental to establishing better collective coexistence. We are not surprised to have found that the quality of social relevance varies so greatly among the institutions analyzed. This study quantifies the differences found, some of which are alarming. Students and faculty who classify these institutions as “good” do so because the institutions promote professional ethics and a sense of social responsibility, which they consider necessary for better integration into the job market. In the case of traditional universities, they state that local community issues are frequently discussed at these institutions. Finally, in the institutions where students and faculty rate the universities unfavorably, it is due to the complete lack of social responsibility these institutions demonstrate.

A multivariate analysis was conducted with the aim of testing a hypothetical causal model regarding the achievement of educational quality. This model considers the following variables: university characteristics—physical, geographic, and demographic. These are followed by the variables: faculty professional profile—academic degree, research activity, teaching performance, and training.

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

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

Category

<i>Variable</i>	<i>Educational leadership</i>	<i>Teaching practice</i>	<i>Academic mobility</i>	<i>Social Relevance</i>
Geographic location	0.3852	-0.2101	0.2583	-0.4051*
Facility conditions	-0.2755	-0.3686*	0.1542	0.3925

Internet service		0.8212+	0.3012	-0.2475+	-0.1946
Document service	printing	-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
Teachers' degree	academic	0.1759+	0.3318	0.4227*	0.4626+
Conducting research		0.1388	0.1936+	-0.4534*	-0.1871
Teacher evaluation	performance	-0.1381	-0.1732+	0.2675	0.3123
Teacher training		0.3413*	0.3834+	0.2171	0.4852*
Teacher age		0.1085	0.2125	0.3925	0.2488
Eigenvalue		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 included in these regressions ranges from 43.6% for social relevance to 11.9% for

educational leadership. From the results obtained, we can conclude 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 provide to students—such as internet access, cafeterias, and libraries—nor the services they offer contribute significantly to the variance in educational leadership quality and academic mobility.

2. The way in which respondents from educational institutions evaluate educational leadership contributes significantly to the variance in educational quality results. Members of the underdeveloped region are more critical of how the school is run in terms of social responsibility and ethics.

3. The variable in the dataset corresponding to teacher characteristics with significant betas is age. This variable does not contribute to the variance in educational quality outcomes regardless of whether institutions provide such facilities or not. Age contributes very significantly to the variance in quality outcomes only in the case of universities in the city's suburban areas, and as expected, older teachers receive lower ratings in the academic mobility category. Therefore, the fact that it is not significant in the urban area is because, in this region, being older is an advantage for achieving better results.

4. Of all the data considered in the model, the factors that make a significant contribution to explaining the variance in educational quality are those related to faculty characteristics:

4.1. Teachers' academic qualifications significantly contribute to their pedagogical performance, regardless of the geographic location of the university where they are based.

4.2. Teachers' engagement in research significantly contributes to the variance in educational quality outcomes in both regions in the expected direction. Teachers who conduct research in addition to teaching achieve better results. Teachers with above-average education feel better 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 professional development training are the ones who achieve better results.

## **Discussion**

When discussing the evaluation of educational quality, different concepts emerge depending on the reference point for evaluation. The results of the multivariate analysis correlating the four evaluated categories showed that private higher education institutions in the city of Culiacán, Sinaloa, offer average educational quality, with some caveats.

In these four areas evaluated in our research, we found that the results vary in quality—ranging from poor to average to good—depending on the specific area evaluated. This aligns with the findings of Cueto (2018), who reports that the quality offered by educational institutions in all categories is of an average level in the evaluated dimensions. We agree, however, regarding the categories of educational leadership and academic mobility, where both are of good quality, as reported by Saraiva (2008), who notes that an institution that provides a high-quality education is one that fosters the development of analytical, decision-making, and research skills, as well as intellectual abilities, human autonomy, and a critical spirit, and that motivates students. In the case of satisfaction levels regarding the categories of leadership and academic mobility, the distribution of quality ratings is good, above 80% (Figs. 1 and 3), while for the category of teaching practice performance, the distribution is nearly homogeneous between good and poor quality, where, according to our multivariate analysis, it is classified as average quality.

Our results do not correspond to those found by Mas (2014), who notes that the quality of education reported by the evaluated schools is at a poor level, with some factors at a fair level but no factors evaluated at a good level, whereas we did have some results in the good quality category, since the evaluation of administrative leadership yielded satisfaction scores at the good quality level, allowing us to observe satisfaction similar to that reported by Cuevas, Díaz, and Hidalgo (2008), where the scores achieved in their study were above 80%.

The fact that the perception of quality shifts from good to average and subsequently to poor indicates that there is a distribution of opinions such that, if the perception is not of good quality, then it will subsequently be fair, and thus, if it is not fair quality, it will be

poor quality. It is in the category of social relevance that we observe this pattern, which allows us to see that although the evaluations of the other three assessed parameters—whether good, fair, or poor—were consistent, we could observe that opinions fell into two distinct categories. In this case, regarding social relevance, we noted that this assertion weakened and led to a truly significant participation of institutions classified as of average quality, in addition to those of good and poor quality, yielding results of similar magnitude for quality without any statistically significant differences among these three evaluation levels. This finding takes on a different meaning when the distribution of opinions indicates that, if the perception of quality is good and the subsequent distribution of opinions is bad, it suggests that the perception is all-or-nothing.

The research results in the category of pedagogical practice evaluation showed that schools offer good and poor quality in similar proportions, contrasting with the findings of Corona (2014), who states that this aspect in the evaluated schools is in a developmental phase, with positive responses not exceeding 35 percent.

Geographic distribution has a partial influence on these results, given that the educational institutions evaluated as low-quality are located in the city's suburban area, while the high-quality educational institutions are located in the urban area. This finding is consistent with the results of García Villegas and Quiroz López (2011) and Cantú (2012), who report a significant association between educational quality and socioeconomic status, as their findings indicate that higher socioeconomic levels tend to be associated with better outcomes and that higher education institutions, depending on their location, are segregated by socioeconomic status. However, some of the institutions with average quality in our study are also located in urban areas, which suggests that, if distribution were the determining factor for quality, these institutions would be classified as high-quality.

There is no doubt that, to contribute to the quality of education, the training of faculty hired at these institutions will make a significant difference. If the training of faculty members working at these institutions includes, for example, a commitment to research, students at that institution will receive comprehensive support through advising and tutoring in areas where they need additional attention outside of class, thereby deepening the learning of students, the faculty themselves, and benefiting society as a whole. Academic qualifications are truly important, as teachers with a doctorate in science have a very clear understanding of the realities of education

and contribute much more to teaching, ensuring the relevance of learning for their students.

Contrary to the findings of Pérez Díaz (2002), who reported that only 62.5% of classroom teachers held a degree, we found that 100% of the classroom teachers in this study hold at least a bachelor's degree to qualify as teachers. Teacher performance, of course, plays an important role in the quality of education, since year-after-year performance shapes teachers' career trajectories and academic significance and specializes them in the tasks they perform.

In line with Acuña Gamboa and Pons Bonals (2018), who note that the primary responsibility for educational quality does not rest solely with the teacher, however, teachers are a key factor in determining the quality of education in the institutions where they work, since the evaluated institutions where the quality of education is perceived as good have teachers who face much more rigorous professional demands than those in other institutions, so it is no coincidence that students and teachers at institutions evaluated as good agree in their responses regarding the perception of good quality in three of the four evaluated categories, and the same applies to educational institutions classified as having average quality, where they obtained.

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