

Evaluation of the quality and transversal competences of university students in an Andean region, Perú

Rocio Cahuana Lipa¹, Sabino Pichihua Torres², Juana Regina Serrano Utani³, Julio César Machaca Mamani⁴, Rosa Huaraca Aparco⁵, Rosario Giovanna Machaca Mamani⁶, Victor Alberto Lima Román⁷

rcahuanal@utea.edu.pe¹, spichihuat@utea.edu.pe², jserranou@utea.edu.pe³, jcmachaca@unajma.edu.pe⁴, rhuaraca@unajma.edu.pe⁵, d01323009@uancv.edu.pe⁶, victorlima@unajma.edu.pe⁷.

^{1,2,3}Universidad Technological of the Andes, Apurímac, Perú

^{4,5,6,7}Universidad Nacional José María Arguedas, Apurímac, Perú

Abstract

Quality is crucial within the university apparatus and even more so when transversal competences are emphasized especially in the Andean regions. The objective of the study was to determine the relationship of the perception of the quality of the educational service with the transversal competences in the student body of the Faculty of Legal, Accounting and Social Sciences of the Technological University of Los Andes, subsidiary Andahuaylas, Apurímac 2021. The methodology of the study was quantitative, the collection of study data was carried out through geolocation, the sample was composed of 141 university students from an Andean region of deep Peru. The results show that quality was perceived in 5.7% as never before; 18.3% almost never, 43.3% sometimes, 27.8% almost always and 4.9% always and with respect to transversal competences, it could be revealed that 5.7% have never developed them; 38.4% from time to time, 35.7% almost always and 20.2% always, completing the 263 participants. Conclusion: At 95% confidence, the very low level correlation between both variables was assured. In the end, it is intended to reaffirm that the elementary quality conditions remain intact and unchanged since the licensing was achieved in said university, however, they should increase their level to achieve again an institutional relicensing by the SUNEDU and tempt university accreditations in the near future.

Keywords: Quality, skills, education, students, university, transversality.

INTRODUCTION

Today the culture of quality has practically been implemented as a philosophical conception that has managed to become widespread worldwide to such an extent that its purposes have been established in almost all occupations of humanity and organizationally said. Therefore, quality has made it possible to raise the competitiveness of the entities in such a way that the impalpables are less and less imperfect, avoiding at all costs any failure or defect within their production process. Consequently, the quality offered by universities throughout the world is not alien to this context.

Internationally, organizations such as UNESCO (2018), dedicated to the promotion of science, education and cultures, has shown during the year nineteen ninety-five, relevant concern about the alarming quality records in

educational fields, mainly in Latin America and the neuralgic unevenness with their peers in the world given the massification of technologies and the wisdom products of globalization. Therefore, the problem generated by the lack of quality in academic organizations in general becomes evident.

According to Alonso and Arandia (2017) they affirm that, within that same perspective, the European Union, faced with the manifest state of educational insensitivity reigning, more than twenty years ago, managed to implement profound reforms at all educational levels respecting the autonomies and diversities, contemplated in the Bologna Declaration that printed the beginning of a new institutional education that broke border barriers with the sole purpose of massifying quality and adapting all the Curricula to the great national requests, achieving exchanges of young graduates and the acceptance of credits mainly. For this reason, the quality referenced in education manages to merit universities, as reflected in the university QS ranking, differentiating them from each other by their quality. On the other hand, the World Bank (2017), affirmed that the number of entrants to university programs had been doubled in Latin America and the Caribbean, in the span of the last 2 five-year periods, not being able to advance with the due speed to achieve convincing levels of quality that meet the demanding needs of societies. Likewise, this report reveals that, to promote innovations, it is necessary to institute higher education with quality. It also warns that this quality must at all costs banish desertions, ensuring opportunities, approximating labor markets, with jobs that reward higher economic income, protected by optimized regulations. He concludes by noting that the educational context of Latin America and the Caribbean alone is not inferior to that of Africa, currently, which becomes a repetitive problem not yet overcome. At the national level, the problem has worsened because a considerable percentage of universities have simply not achieved their licenses and do not function properly and others will stop operating because they have not managed to demonstrate quality required by the prevailing regulations. Likewise, others tirelessly seek to remain competitive by improving their presence and sustainability in the university environment.

At the institutional level, SUNEDU (2018) reported on the Biennial report where the institutionality of universities in the country is summarized, accounting for the university institutional transit lacking supervision procedures that address quality. that continues to relegate us and distance us from the demands demanded by employers.

After the appearance of CONAFU in 1995, which did very little to establish quality standards, SINEACE was created in 2006 under Law No. 28740 with the design of assessing quality through the promotion of continuous improvement.

Entering 2008, the State began measures to transform the university horizon through regulatory policies of supervision and supervision in order to attack this national problem head-on. 4 years later (2012), the creation and granting of new authorizations for new operations of universities and their respective subsidiaries for 5 continuous years began to be prohibited, with the purpose of achieving rethinking in education policy through legislation that guarantees quality in this sector. MINEDU (2014), So much so, that since 2014 Law 30220 has been in force, achieving corporate and associative regulations for public and private universities and the consequent adaptation to new quality parameters.

Finally, the university educational context is reflected in the National Survey of University Graduates (ENEU) of the INEI (2014), as it reveals findings very far from those desired, however, they turn out to be stimulating to consecrate quality, distinguishing, for example, buildings with qualifications of excellence and good in 60% and 40% respectively, while complementary services obtained qualifications of good and excellent with 52% and 10% respectively. Likewise, the teaching staff for the associative private entities has been appreciated as good and excellent in 57% and 28% respectively, while the corporate ones were seen as excellent and good in 23% and 61% respectively, leaving very relegated to the public universities with appreciations ranging from 9% and 55% as excellent and good respectively. In the end, it was evident that universities do not have sufficient incentives and resources, which contributes to the non-solution of the quality problem.

At the local level, according to the official newspaper El Peruano (2020) the Technological University of Los Andes, as a private entity, has achieved its licensing in 2020, despite the marked limitations in terms of services in general,

however, it is no stranger to the new process of revalidation of the institutional operating license in a few years, which makes it evident that we have to work on improving quality according to what is stipulated in University Law 30220; because this does not yet meet the needs of teachers and much less even of the students in general and in particular of the professional schools in question.

A recurring setback that accompanies the lack of quality is that the university institutionally has not achieved any accreditation or quality certification, inevitably forcing to carry out referred studies on quality; essential requirement for self-diagnosis and / or self-evaluations required by SUNEDU before obtaining national or international certifications and accreditations. Finally, in consideration of the problem described above and after the previous systematizations, an answer is given to the primary question of the study that refers to relations of the perceptions of quality and transversal competences of the students of the aforementioned Faculty in Andahuaylas, emphasizing that to satisfy this general question, the curricula of the aforementioned schools were taken into account for the adaptations and use of the Servperf pattern. and to obtain assessments of student perceptions of the provision of this service.

MATERIALS AND METHODS

Area of study

The study was developed in an Andean region of Peru deep in the district of San Jeronimo ($13^{\circ}42' S, 73^{\circ}24' W$ at an altitude of 2935 meters above sea level) belonging to the province of Andahuaylas, Apurimac region. With climate Cwd according to Koppens with average annual rainfall around 1000 mm / year, average relative humidity of 50% and temperature of $-5^{\circ}C$ to $21^{\circ}C$, with moderate incidence of frost.

Figure 1. Area of study



Data collection

The study was developed in a private university in the province of Andahuaylas. Data collection was based on 835 students from the schools of Law (477), Accounting (225) and Education (163) duly enrolled. The study and sampling was probabilistically that defined the participation of 141 students of Law, 71 of Accounting and 51 of Education, making a sample of 263 students. As for the techniques and instrument, see sustained in the theories of

the Servperf pattern as referred to by Cronin and Taylor cited in Oliva and Baquero (2014) appropriate to the curricula of the aforementioned professional schools, achieving student perceptions and assessments on the transversal competences according to the theory of Tuning 2007 highlighted by Elizondo and Cabrero (2012). The first included in the 5-dimensional Servperf questionnaire and the second in the 3-dimensional Tuning questionnaire for Latin America. Both are part of the general research survey.

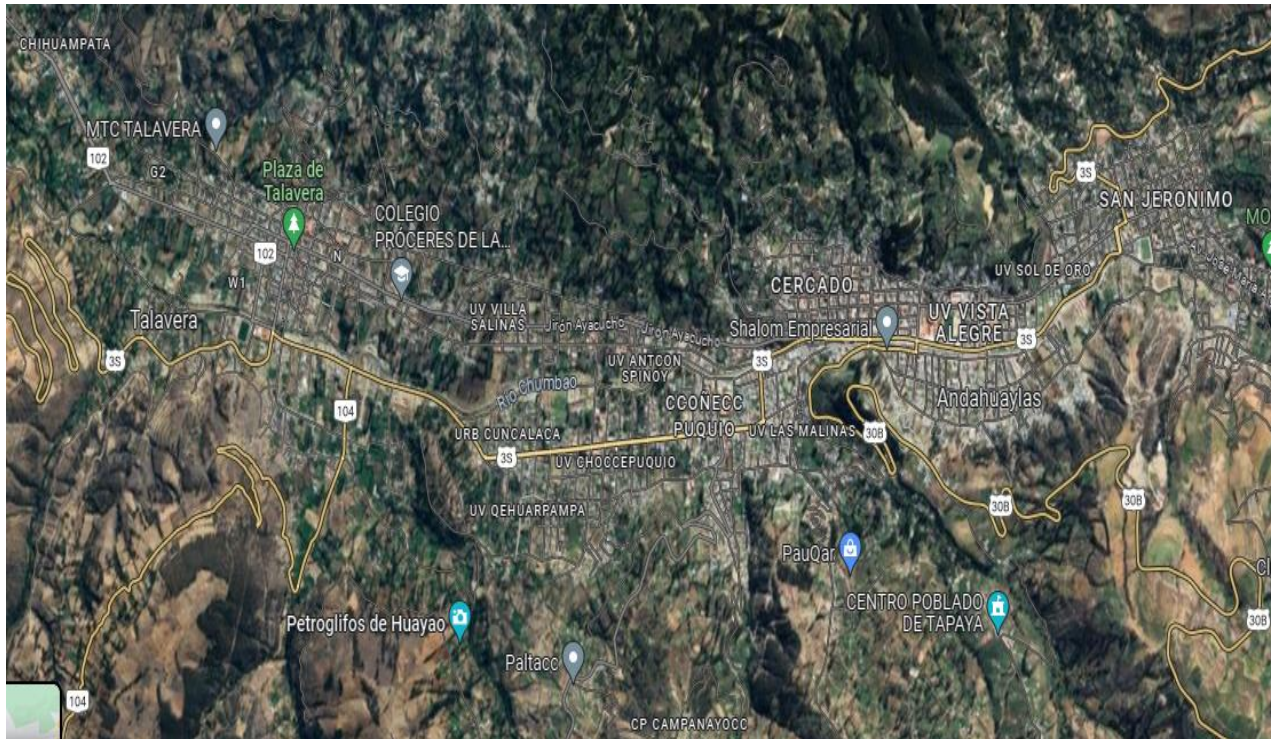


Figure 2: Geographical image of the sampling and information collection site.

Quality measured according to the Servperf standard

It appeared in 1988 under the authorship of A. Parasuraman, Valarie A. Zeithaml and Len Berry, to measure quality through the perceptions of those evaluated through 5 identifiable dimensions that focus on tangible issues, trust, responses, empathy and security. This archetype differs from ServQual because it does not take into account the (GAPS) that are the differences or gaps that are generated between expectations and perceptions.

According to Parasuraman, Berry and Zeithaml (1991) this pattern has been widely used on a global scale, and turns out to be of very high reliability, especially for service-generating agencies because it rescues and understands the responses of the plaintiffs on the particular way of how quality is perceived. Meanwhile, it is specified that structurally it is designed by a battery of reagents that question five factors within the organization that are evaluable through numerical scales, whose lowest value is 1 and highest value is 5; where 1 represents the total state of disagreement and 5 the state of total agreement. Likewise, its 5 components reveal various issues in such a way that duplication and overlapping of answers and ideas in the act of its application is avoided. Finally, the 22 interrogative propositions distributed in 5 categories can find correlations with each other.

The dimensions of the Servperf pattern are: Reliability, empathy, responsiveness, tangibility and security.

Alfa Tuning and Transversal Competences.

In Europe, it became known as a project and had its first outbreaks in the nineties, developing within the broad spectrum of conscientious reflection on higher education that originated to respond to the demanding and contagious change of pace of life that the academic society of that time was living. Fundamentally, its orientation is given towards specific and generic competences.

According to Gento (2012) during the two thousand and five, that is, six years after its appearance, Argentina hosted the number one meeting of the Tuning Project for Latin America. Precisely, in this South American scenario, the lists of transversal competences were prepared by cabinet that would later be put to consultation by academics, students, graduates, graduates and, of course, employers in Latin America. Finally, the preliminary results were presented in February of the year two thousand six, in Costa Rica and later in Mexico.

The version of the Tuning Latin American edition is a creative and innovative project that concerns social areas where methodological tactics are promoted that develop and evaluate competencies and then be embedded in student curricula. To achieve its purposes, it has been inciting debates and agreeing with universities from different latitudes of Latin America, in the constant search for optimization of educational structures through the consensual participation of the managers and protagonists of education, to achieve quality in these services offered. The aforementioned project defines competencies as the gathering of skills that an individual needs to carry out autonomously effective solutions to challenges imposed by professional circumstances and life in general. In an environment as competitive as the current one, it is essential to hybridize the deep knowledge of being and doing in the search for an integral person, committed to their principles and values and fundamentally competitive. For Latin America, transversal competences are defined as follows: Instrumental (Conceptual), Systemic (Procedural) and Interpersonal (Attitudinal)

RESULTS

Table 1

Quality frequencies

Valid	F	%	% valid	Cumulative %
Never	15	5,7	5,7	5,7
Almost never	48	18,3	18,3	24,0
Sometimes	114	43,3	43,3	67,3
Almost always	73	27,8	27,8	95,1
Always	13	4,9	4,9	100,0
Total	263	100,0	100,0	

The quality of the Utein student body was perceived in 5.7% as never before; in 18.3% almost never, in 43.3% sometimes, in 27.8% almost always and 4.9% always, completing the 263 participants.

Table 2

Frequencies of competitions

Valid	F	%	% valid	Cumulative %
Never	15	5,7	5,7	5,7
From time to time	101	38,4	38,4	44,1
Almost always	94	35,7	35,7	79,8
Always	53	20,2	20,2	100,0
Total	263	100,0	100,0	

Regarding the transversal competences perceived by the Utein students, it was revealed that 5.7% have never developed them; 38.4% from time to time, 35.7% almost always and 20.2% always, completing the 263 participants.

Table 3

Frequency of the dimensions of the Servperf model

Valid / Frequency	Reliability		Empathy		Responsiveness		Tangibility		Safety	
	F	%	F	%	F	%	F	%	F	%
Never	24	9,1	19	7,2	21	8,0	21	8,0	18	6,8
Almost never	42	16,0	70	26,6	53	20,2	45	17,1	44	16,7
Sometimes	110	41,8	101	38,4	95	36,1	88	33,5	98	37,3
Almost always	71	27,0	63	24,0	67	25,5	82	31,2	83	31,6
Always	16	6,1	10	3,8	27	10,3	27	10,3	20	7,6
Total	263	100,0	263	100,0	263	100,0	263	100,0	263	100,0

Reliability on the part of Utein students was perceived in 9.1% as never before; in 16.0% almost never, in 41.8% sometimes, in 27.0% almost always and 6.1% always.

Meanwhile, empathy was perceived in 7.2% as never before; in 26.6% almost never, in 38.4% sometimes, in 24.0% almost always and in 3.8% always.

Likewise, the response capacity was perceived in 8.0% as never before; in 20.2% almost never, in 36.1% sometimes, in 25.5% almost always and in 10.3% always.

Meanwhile, tangibility was perceived in 8.0% as never before; in 17.1% almost never, in 33.5% sometimes, in 31.2% almost always and in 10.3% always.

And finally, security on the part of Utein students was perceived in 6.8% as never before; in 16.7% almost never, in 37.3% sometimes, in 31.6% almost always and in 7.6% always.

Statistical contrast of the general hypothesis

Ho: There is no significant relationship between the perception of the quality of educational service and the transversal competences of the students of the Faculty of Legal, Accounting and Social Sciences of the UTEA, subsidiary Andahuaylas, Apurimac 2021.

H1: There is a significant relationship between the perception of the quality of educational service and the transversal competences of the students of the Faculty of Legal, Accounting and Social Sciences of the UTEA, subsidiary Andahuaylas, Apurimac 2021.

Table 4

Correlation of central variables

			Quality	Competences
Rho of Spearman	Quality	Correlation coefficient	1,000	,187**
		Sig. (bilateral)	.	,002
		N	263	263
	Competences	Correlation coefficient	,187**	1,000
		Sig. (bilateral)	,002	.
		N	263	263

The sig. value of 0.002 is less than the fixed condition of 0.05; therefore, the H_0 hypothesis was discarded and H_1 was accepted. Simultaneously, the coefficient 0.187** units, ensured 95 % confidence obtaining a very low correlation.

Statistical comparison of the specific hypotheses:

Table 4

Correlation of quality dimensions with transversal competences

		Competences	
Rho of Spearman	Reliability	Correlation coefficient	0.126
		Sig. (bilateral)	0.041
		N	263
	Empathy	Correlation coefficient	0.200
		Sig. (bilateral)	0.001
		N	263
	Responsiveness	Correlation coefficient	0.113
		Sig. (bilateral)	0.017
		N	263
	Tangibility	Correlation coefficient	0.174
		Sig. (bilateral)	0.005
		N	263
	Safety	Correlation coefficient	0.295
		Sig. (bilateral)	0.000
		N	263

In all cases the Sig. value was less than the fixed condition of 0.05 units, therefore, all affirmative hypotheses were accepted. Simultaneously, the coefficient 0.126 ensured a very low correlation for reliability matching. The same happened with the capacity of replication and tangibility whose coefficients 0.113 and 0.174 ensured correlations very low respectively. Regarding empathy and security, the coefficients 0.200 and 0.295 ensured low correlations simultaneously.

DISCUSSION

The quality of the educational service in the university is not only subject to the teaching and academic excellence of its teachers, but also involves students in the development of transversal skills.

On the other hand, these competences have been constituted in skills that are applied in different contexts, enhancing the integral development of students. These, in turn, incorporate the skills to work in teams, solve complex problems, outcrop creativity, critical thinking, effective communication, leadership, innovation, adaptability to change and ethics. Therefore, it will be very important to consider various aspects such as the inclusion of teacher training and training programs in the teaching of these competencies, as well as; the inclusion of practical activities and research that foster the development of specific skills in learners, as noted (Gento, 2012). At the same time, student evaluations will not only be limited to the knowledge acquired, but also to the transversal competences deployed throughout the educational programs. Finally, the generation of conducive environments that encourage the development of these skills, such as collaborative work spaces, extracurricular activities, mentoring programs, among others; They must constantly feed back on the transient coexistence between teachers and students to identify areas that can be improved and ensure continuous implementation and strengthening of the focus on transversal competences.

CONCLUSIONS

There is a positive but very low correlation between educational quality and transversal competences. This means that a high-quality education is closely related to the effective development of transversal competences in students. The Servperf approach, which focuses on the quality perceived by students, can be used as a reliable indicator to evaluate and improve the quality of education at the university.

A quality education provides the necessary basis for the development of transversal competences, which are skills and knowledge that transcend specific disciplines and prepare students to face the challenges of the world of work and society.

The incorporation of transversal competences in academic programs can contribute significantly to improving the quality of education at the university. These competencies, such as critical thinking, effective communication and teamwork, are increasingly in demand by employers and should be cultivated during higher education.

The Alpha Tuning approach, which is geared towards improving students' generic competences, provides a solid framework for assessing and developing transversal competences at university. This pattern allows for greater alignment between academic programs and labor market needs, thereby improving educational quality and promoting students' professional success.

Finally, these conclusions point out the importance of having a quality education focused on the development of transversal competences, and how both aspects are interrelated to provide a comprehensive educational experience and prepare students for future challenges. However, it is important to note that each university may have its own particularities and specific contexts, so these findings may vary in each particular case.

CONFLICT OF INTEREST.

Before, during and after the execution of the research, there was no conflict of interest on the part of the university students and much less of the team of researchers.

REFERENCES

- [1] Alonso-Sáez, I., and Arandia-Loroño, M. (2017). 15 years since the Bologna Declaration. Development, current situation and challenges of the European Higher Education Area. *Revista iberoamericana de educación superior*, 8(23), 199-213. Retrieved from: https://www.scielo.org.mx/scielo.php?pid=S200728722017000300199&script=sci_arttext
- [2] World Bank (2017). Higher education is expanding in Latin America and the Caribbean, but it is not yet developing its full potential. Retrieved from: <https://www.bancomundial.org/es/news/press-release/2017/05/17/higher-education-expanding-in-latin-america-and-the-caribbean-but-falling-short-of-potential>
- [3] Carrasco, S. (2017). *Methodology of Scientific Research*. San Marcos.
- [4] Official Gazette el Peruano (2020). Institutional License granted to the Universidad Tecnológica de los Andes to offer higher university educational service. Retrieved from: <https://busquedas.elperuano.pe/normaslegales/otorgan-licencia-institucional-a-la-universidad-tecnologica-resolucion-n-031-2020-suneducd-1860426-1/>
- [5] Elizondo, M. & Cabrero, J. (2012). 20 professional competences for teaching practice (p. 95). Trails. Retrieved from: <http://www.theibfr2.com/RePEc/ibf/riafin/riaf-v1n1-2008/RIAF-VIN1-2008.pdf#page=97>
- [6] Gento, S. (2012). *Educational leadership and its impact on the quality of Educational Institutions*. Symposium. Interuniversity Congress of Organization of Educational Institutions CIOIE, Granada, Spain.
- [7] Hernandez, R. (2019). *Research Methodology. The quantitative, qualitative and mixed routes*. Editorial. McGraw-Hill.

- [8] INEI (2014). National Survey of University Graduates and Universities 2014. Retrieved from: https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1298/Libro.pdf
- [9] University Law No. 30220. (July 09, 2014). Official Gazette El Peruano.
a. Congress of the Republic. Retrieved from: <https://leyes.congreso.gob.pe/Documentos/Leyes/Textos/30220.pdf>
- [10] MINEDU (2014). University Law. Retrieved from: http://www.minedu.gob.pe/reforma-universitaria/pdf/ley_universitaria_04_02_2022.pdf
- [11] Oliva, E. J. D., Javier, A., & Baquero, C. (2014). Validation of the SERVPERF model in the field of internet: a Colombian case. Business Sum, 5(12), 115-123. <https://www.sciencedirect.com/science/article/pii/S2215910X14700333>
- [12] Parasuraman, A., Berry, L., & Zeithaml, A. (1991). *Refinement and Reassessment of the ServQual Scale*. Journal of Retailing, 19 - 26.
- [13] SUNEDU (2018). Biennial Report on University Reality – 2018. Retrieved from: <https://www.gob.pe/institucion/sunedu/informes-publicaciones/606251-informe-bienal-sobre-la-realidad-universitaria-2018>
- [14] UNESCO (2018). The strategic role of higher education in the sustainable development of Latin America and the Caribbean. Retrieved from: <https://unesdoc.unesco.org/ark:/48223/pf0000372644?posInSet=15&queryId=>