

Generic Competences in Peruvian University Students

Miguel A. Saavedra-Lopez^{1,2,*}, Xiomara M. Calle-Ramirez¹, Ronald M. Hernández³, Javier A. López-Céspedes¹, José Luis Saly-Rosas-Solano¹, Karen Pérez Maraví² & Jacqueline C. Ponce-Meza⁴

¹Universidad Nacional de Tumbes, Tumbes, Peru

²Universidad Continental, Cusco, Peru

³Universidad Privada Norbert Wiener, Lima Peru

⁴Universidad Privada del Norte, Lima Peru

*Correspondence: Miguel A. Saavedra-López, Universidad Nacional de Tumbes, Tumbes, Av. Universitaria s/n, Peru. Tel: 972-822-219

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Abstract

In higher education, generic competencies are those common to most students that can be used in the activities of a sector or organization. The objective was to identify generic competencies in Peruvian university students. The study was a descriptive, non-experimental cross-sectional design. The sample consisted of 567 university students of both sexes from public and private universities in Peru. The instrument applied was the questionnaire of generic competencies of university students (CCGEU). The results showed that Peruvian university students have a sufficient level of generic competencies; they use generic competencies almost always or always in the development of their activities. Likewise, in the dimensions, systemic competencies have the highest value, followed by interpersonal and instrumental competencies. It is concluded that most Peruvian university students use generic competencies at a sufficient level; however, some students never or almost never use them, so it would be important for the Peruvian university institutions where the participants study to implement strategies to strengthen generic competencies.

Keywords: competencies, generic competencies, university students, higher level

1. Introduction

Currently, higher education institutions are facing new challenges, such as the reformulation of teaching paradigms, due to globalization, scientific development and information and education technologies (Martínez, Benítez & Hernández, 2019). Faced with this situation, various countries around the world began to develop reforms in curricula to adapt to the global market and social change, with the aim that students can have a comprehensive training to meet the new challenges that arise (Ng & So, 2017) and provide quality labor services (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017).

Competencies are considered to be the set of knowledge, skills, abilities and attitudes that a person has for the efficient performance of an activity or function (De la Orden, 2011; Paquette, Marino & Bejaoui, 2021). Competencies are divided into generic and specific competencies. Generic competencies are also known as transversal, they are common to most people and are characterized by the integral practice of attitudes, knowledge, values and personality traits in work or social interaction (Gómez, Galiana, García, Cascarilla & Romero, 2006). Specific competencies are related according to the professional or academic profile of the person (Villa & Poblete, 2004). Therefore, in the educational field it is important that students acquire specific competencies and generic competencies, since it will lead to an adequate performance of future professionals (Oyerinde, Onajita, & Aina, 2020).

According to the Tuning Project model (2007), generic or transversal competencies are divided into instrumental, interpersonal and systemic competencies. Thus, Macías-Catagua (2018) states that instrumental competencies are linked to research methodology and skills, to the understanding of ideas and to the analysis of information. Interpersonal competencies are related to the ability to express the feelings experienced, critical and self-critical skills. Finally, systemic or integrative competencies are comprised of understanding, sensitivity and knowledge.

Instrumental and interpersonal competencies are the basis for the acquisition of systemic competencies.

The search for higher education reform led to the initiation in Europe in 1999 of a reform known as the Bologna process, whose purpose was for European universities to raise related aspects in their curricula related to the development of competencies, standardization and common agreements on academic training (Ferreira & Gomes, 2013). It is essential to incorporate these changes in university education for the development of competencies and the integration of students in the workplace (Gómez, Aranda, & Santos, 2017).

Likewise, in the Latin American context, given the need to strengthen higher education, the Tuning-Latin America project arose in 2004 at the initiative of several universities in various countries of this region, which has among its objectives the development of generic and specific competencies (Gonzales, Wagenaar & Beneitone, 2004). The development of generic competencies is explicitly considered in the graduate profiles and study plans during training in higher education institutions (Sandoval & Ormazábal, 2021).

The Peruvian state was not oblivious to the changes that were taking place at the international level, so in 2014 it created the National Superintendence of University Higher Education (SUNEDU) with the aim of verifying and promoting the development of the educational quality of higher education institutions (Ministry of Education, 2014). Likewise, the Accreditation Model for Higher University Education Programs (SINEACE, 2016) states that in order to develop quality education, it is important not only to obtain knowledge but also to have a humanistic behavior, which generates capacities to make decisions autonomously and with critical thinking.

Although generic competencies have received wide interest from higher education institutions and by the entities in charge of evaluating the educational quality of these institutions, there is little research information on the generic competencies presented by Peruvian university students and thus updated information can be obtained that can lead to the development of strategies related to the strengthening of generic competencies. Therefore, the objective of this study was to identify the generic competencies of Peruvian university students.

2. Method

2.1 Type and Design of Research

The research was of cross-sectional, non-experimental design, since the manipulation of the studied variable was not performed, being a descriptive type study, allowing the research to be carried out in the state in which the study variable is found in the determined population (Hernández-Sampieri & Mendoza, 2018). In addition, it is basic research since it facilitated the collection of information of a reality that contributes to the increase of scientific knowledge and understanding of a specific problem (Barriga, 1971).

2.2 Sample

The study sample consisted of 567 university students currently enrolled in Peru, women (419) and men (148). Due to the health emergency situation, the sample was by convenience through the use of technology (filling out a Google form).

2.3 Instruments

The instrument applied is called Questionnaire of generic competencies of university students (CCGEU) (Villanueva, 2014), the instrument consists of 61 items linked to generic competencies and presents three dimensions, which are divided into sub-dimensions: 1. Instrumental competency: organization and planning, information management, solution of critical situations, decision making, communication. 2. Interpersonal competence: teamwork, critical reasoning, self-management. 3. Systemic competence: learning orientation, leadership, quality motivation, flexibility. The levels of competencies of the instrument are insufficient, sufficient and excellent. Likewise, in relation to the percentages (%) of response, those that are equal to or higher than 30% are classified as excellence according to the frequency. Finally, the reliability value by Cronbach's Alpha was .977, which shows a high reliability of the instrument applied.

3. Results

The statistical package Statistical Package for Social Sciences (SPSS V. 25.0) and Microsoft Excel were used to process the study data. Likewise, the analysis was carried out with frequency tables, percentages and mean. Finally, Cronbach's Alpha reliability analysis was used.

Table 1. Characteristics of the Study Population

Sociodemographic characteristics		<i>fx</i>	%
Sex	Woman	419	73,9
	Man	148	26,1
Type of university	Public	210	37,0
	Private	357	63,0
The professional career belongs to:	Social sciences	153	27,0
	Health sciences	244	43,0
	Economic sciences	18	3,2
	Political science	19	3,4
	Engineering	27	4,8
	Others	106	18,7
Work	No	351	61,9
	Yes	216	38,1
Lives with:	Parents	427	75,3
	Only	42	7,4
	As a couple	52	9,2
	Other persons	46	8,1

In Table 1, the population of the present study are university students from Peru, being mostly women (73.9%) and men with 26.1%. Sixty-three percent belong to a private university, compared to 37% who are part of a public university. The professional careers with the highest incidence are those belonging to the health sciences (43.0%) and social sciences (27%). Likewise, a higher percentage of students dedicate themselves exclusively to studying (61.9%) in relation to the 38.1% who were working at the time of filling out the questionnaire, this situation is reflected in the coexistence, since more than 75% still live with their parents.

Table 2. Generic Competencies in University Students

Generic competencies		
Media	3,90	
Level	Enough	
%	N	1,1
	CN	5,1
	M	23,5
	CS	42,3
	S	28,0

%=Percentage; N=Never; CN=Nearly Never; M=Medium; CS=Almost Always; S=Always.

Table 2 shows that the average of generic competencies in Peruvian university students is 3.90, placing them at a sufficient level of competencies. In addition, in relation to the percentage of the answers given, it can be established that 42.3% demonstrate the competencies with a frequency of almost always.

Table 3 shows that the instrumental competence is at a sufficient level, with an average of 3.86. In addition, in relation to the frequency of demonstration of instrumental competence, it is observed that 43.4% of the university students are almost always. 1. In the subdimension organization and planning, the level is sufficient, where 42.08% are in the frequency of almost always. In the subdimension information management, the level of this competency is sufficient (3.91) with regard to the frequency of manifestation, it is observed that it appears almost always with 40.74%. 3. Subdimension solution of critical situations, the level is sufficient with an average of 3.91, in relation to the demonstration of the competency, it is observed that it appears almost always (42.57%). 4. Subdimension decision making, the level is sufficient (3.82), highlighting the ability almost always (46.33%). 5. Subdimension communication is found at a sufficient level (3.92) in the category almost always with 45.24%.

Table 3. Instrumental Competence and Subdimensions in University Students

	Instrumental Competence	Organization and planning	Information management	Solution of critical situations	Decision Making	Communication	
Media	3,86	3,73	3,91	3,91	3,82	3,92	
Level	Enough	Enough	Enough	Enough	Enough	Enough	
%	N	0,8	1,16	0,63	0,77	0,59	0,62
	CN	5,4	7,16	5,26	4,78	4,41	5,38
	M	25,8	29,42	24,80	24,71	28,10	21,96
	CS	43,4	42,08	40,74	42,57	46,33	45,24
	S	24,7	20,18	28,57	27,16	20,58	26,81

%=Percentage; N=Never; CN=Nearly Never; M=Medium; CS=Almost Always; S=Always.

Table 4. Interpersonal Competence and Subdimensions in University Students

	Interpersonal Competence	Teamwork	Critical reasoning	Self-management	
Media	3,89	3,90	3,76	4,00	
Level	Enough	Enough	Enough	Enough	
%	N	1,47	2,12	1,57	0,73
	CN	5,33	5,47	6,90	3,62
	M	24,08	22,27	28,37	21,60
	CS	41,38	40,56	40,67	42,92
	S	27,73	29,59	22,49	31,13

%=Percentage; N=Never; CN=Nearly Never; M=Medium; CS=Almost Always; S=Always.

Table 4 shows that the mean of interpersonal competence is 3.89, placing the students at a sufficient level. Likewise, regarding the frequency of manifestation of this competence, it is observed that they demonstrate it almost always (41.38%). 1. In the subdimension teamwork, the students' level is sufficient (3.89) with a frequency of manifestation of almost always (40.56%). 2. In the subdimension critical reasoning, they were at the sufficient level (3.76), with a higher frequency of demonstration almost always (40.67%). 3. Subdimension self-management; university students were at the sufficient level (4.00) presenting a higher percentage in the frequency always (31.13%) and almost always (42.92%).

Table 5. Systemic Competence and Subdimensions in University Students

	Systemic Competence	Learning orientation	2. Leadership	Motivation to quality	4. Flexibility	
Media	3,98	3,92	3,96	3,97	4,09	
Level	Enough	Enough	Enough	Enough	Excellent	
%	N	1,02	1,37	1,13	1,13	0,44
	CN	4,72	4,50	4,36	6,10	3,92
	M	20,71	22,97	21,84	20,85	17,20
	CS	42,00	43,43	42,98	38,98	42,59
	S	31,55	27,73	29,68	32,95	35,85

%=Percentage; N=Never; CN=Nearly Never; M=Medium; CS=Almost Always; S=Always.

Table 5 shows that in the dimension systemic competence the mean was 3.98, with a sufficient level, in relation to the frequency of response, it was observed that this competence is almost always (42.00%) and always (31.55%) manifested. 1. Subdimension orientation to learning, the students were located in the sufficient level (3.92), where the frequency of manifestation of this competency was almost always (43.43%). 2. Subdimension leadership was at a

sufficient level (3.96), showing that 42.98% presented this competency almost always. In relation to motivation for quality, the average was 3.97, placing it at a sufficient level; it is worth noting that more than 70% of the university students demonstrated this competency between almost always (38.98%) and always (32.95%). In relation to the flexibility competence, the excellent level stood out with an average of 4.09, and it was also observed that almost 80% of the university students demonstrated this competence almost always (42.59%) and always (35.85%).

4. Discussion

In the current context, society demands that professionals not only possess competencies related to their specialty or profession, but also that higher education institutions train professionals with adequate generic competencies (Schmal, Rivero & Vidal, 2020). Therefore, it is essential to know about the development of generic competencies during university training, which will be put into practice in the workplace (Nogales, García-Tejedor, Sanz & de Dios, 2020; Ojeda-Nahuelcura, Carter-Thuillier, López-Pastor, Fuentes-Nieto & Gallardo-Fuentes, 2021).

The research found that in Peruvian university students the sufficient level of generic competencies prevails, where the majority of students use generic competencies almost always or always in the development of their activities. Possessing adequate generic competencies or putting them into practice frequently is not only perceived by students but also by personnel recruiters and managers responsible for an institution. Štambuk, Karanović & Host (2019) found that adequate development of generic competencies is important. In the study they conducted with personnel selection managers of university graduates, respondents refer that they are satisfied with the presence of specific competencies and that higher level institutions would have to emphasize generic competencies. Stare & Klun (2018); Pyrhonen, Niiranen & Pajarre (2019) conducted studies with employers who consider that competencies related to ethics are valued as fundamental and that generic competencies are more valued than specific ones.

Regarding the dimensions instrumental, personal and systemic of the generic competencies' variable, it was found that all are at the sufficient level; however, according to the mean, the highest value presents the systemic competencies, followed by interpersonal and instrumental competencies. Different results were found in studies carried out in Spain by Amor and Serrano (2018) and Pegalajar (2018) where interpersonal competencies present the highest value and is made up of ethical commitment, collaborative and interdisciplinary work, followed by systemic competencies which is made up of motivation for development, creativity, ability to adapt to new situations and autonomous learning. The instrumental competencies include problem solving, decision making, organizational and planning skills, as well as communication and information management skills. The difference in the results could be due to Edwards-Schachter, García-Granero, Sánchez-Barrioluengo, Quesada-Pineda & Amara (2015) who refer that the competencies that students acquire may vary depending on the educational paradigm considered.

The subdimensions organization and planning, information management, solution of critical situations, decision making and communication, which are part of the instrumental competencies, according to the mean are at a sufficient level; however, there is a percentage of students who never or almost never use them. Gawrycka, Kujawska & Tomczak (2020) conducted a study on university graduate recruiters and reported that the competencies they most appreciate in the people to be hired are communication, such as verbal and non-verbal communication skills and the commitment they have in the activities to be developed. Chankseliani, Qoraboye & Gimranova (2021) refer those instrumental competencies such as critical thinking skills and conflict management, are considered of much importance in the humanistic purposes of higher education, since universities can empower students in generating security and self-confidence, to act appropriately in situations that will be presented to them in the future. On the other hand, among all the subdimensions, the subdimension of organization and planning has a higher percentage of students who never and almost never use it, this ability being important for the achievement of effectiveness in the functions of personal, academic, professional and social performance (Villa & Poblete, 2007).

Regarding interpersonal competencies, it was found that all subdimensions are at a sufficient level. The competencies of teamwork, critical reasoning and self-management are at a sufficient level. However, approximately 30% of Peruvian university students never, almost never and at an average level use this generic competency. Similar results were found in a comparative study conducted by Saavedra-López et al. (2022) in a sample of university students from Peru and Cuba, who present a sufficient level in interpersonal competencies. Olmedo-Torre, Martínez, Pérez-Poch & García (2018) in Spain developed a study in engineering students, finding that the interpersonal competencies most valued by teachers were autonomous learning and teamwork. Likewise, university students considered autonomous learning to be the one most acquired during training. In this context Olvera-Lobo, Robinson & Gutiérrez-Artacho (2018) consider that it is fundamental that the teamwork competency be taught explicitly and implicitly, so that university students develop confidence when they need to relate in professional contexts.

Finally, in the systemic competence, the subdimensions of learning orientation, leadership and quality motivation are at a sufficient level, using them almost always. The flexibility subdimension is at an excellent level. In Malaysia, Quek (2005) conducted a study on graduates, who consider that the generic competencies interpersonal skills and flexibility are fundamental to achieve success in job performance.

5. Conclusions

The study concludes that, although it is true that most Peruvian university students use generic competencies at a sufficient level, a minimum percentage never or almost never use them, and it is important that the Peruvian university institutions where the participants study can implement strategies to strengthen generic competencies.

The study also reported that, in the instrumental, personal and systemic dimensions of generic competencies, university students present a higher percentage of sufficient level.

It is recommended to develop future research on generic competencies in university students with more representative samples from all over Peru, so that higher level institutions can consider the results for the benefit of the students. It is also recommended that studies be conducted with analytical and/or explanatory methods to strengthen the understanding of the factors that may be associated with the study variable.

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