

# **Generic competences in general studies** at a Peruvian university: importance and achievement

Las competencias genéricas en los estudios generales de una universidad peruana: Importancia y realización

秘鲁大学常识科的常规能力:重要性和成就

Общие компетенции в общем образовании перуанского университета: значение и реализация

### Osbaldo Turpo-Gebera

National University of San Agustín de Arequipa (Perú) oturpo@unsa.edu.pe https://orcid.org/0000-0003-2199-561X

#### Marcela Ore-Perez

National University of San Agustín de Arequipa (Perú) more@unsa.edu.pe https://orcid.org/0000-0003-2228-0499

### Fabiola Pimentel-Cruces

National University of San Agustín de Arequipa (Perú) fpimentel@unsa.edu.pe https://orcid.org/0000-0002-8125-2837

Dates · Fechas

How to Cite this Paper · Cómo citar este trabajo

Received: 2021/09/20 Accepted: 2021/10/30 Published: 2022/01/10 Turpo-Gebera, O., Ore-Perez, M., & Pimentel-Cruces, F. (2022). Generic competences in general studies at a Peruvian university: importance and achievement. Publicaciones, 52(3), 275–290. https://doi.org/10.30827/publicaciones.v52i3.22274

### **Abstract**

The competence-based approach is gradually being consolidated as a method for application in university education, based on the solutions proposals in the Tuning project. Along these lines, regulations governing Peruvian universities provide for its application. This study examined students' perceptions regarding the levels of importance and achievement assigned to the generic competences of students enrolled in General Studies at a public university located in southern Peru. For this purpose, a generic competences evaluative questionnaire was used and applied to a representative sample of students from the three academic areas into which the university is structured. The results revealed that overall the average level of achievement assigned to generic competences was lower than the average level of importance attributed to same, revealing shortcomings in teaching and institutional support. These gaps differed according to the academic field in question.

Keywords: university, education, competences, students, perception.

#### Resumen

Las competencias se están posesionando plenamente como un enfoque de la formación universitaria, a partir de las propuestas del proyecto Tuning. En esta línea, la normativa que regula a las universidades peruanas prevé su aplicación. En esta investigación se estudió las percepciones de los estudiantes sobre el grado de importancia y realización de las competencias genéricas de quienes cursan los Estudios Generales en una universidad pública, situada en el sur peruano. Para tal propósito se utilizó un cuestionario de valoración de las competencias genéricas, y aplicó a una muestra representativa de estudiantes de las tres áreas académicas que conforman la universidad. Los resultados indican que, en general, la media de la realización asignada a las competencias genéricas está por debajo de la media de su importancia, evidenciando insuficiencias en la docencia y los apoyos institucionales, tales brechas difieren por área académica.

Palabras clave: universidad, educación, competencias, estudiantes, percepción.

### 摘要

根据欧洲高校教育结构调整项目(Tuning)的提案,对能力的培养正在成为大学教育的关键。因此,管理秘鲁大学的法规确定了对能力培养方面的应用。在这项研究以位于秘鲁南部的一所公立大学学习通识教育的学生为研究对象,分析其对常规能力重要性的认识以及对获得该能力的看法。为此,我们使用了常规能力评估问卷,并将其应用于该大学三个学术领域学生的代表性样本上。结果表明,一般而言,获得常规能力的平均值低于对其重要性认识的平均值,这表明了在教学和机构支持方面的不足,此外这些差距因学术领域而异。

关键词:大学,教育,学生能力,理解。

#### Аннотация

Компетенции становятся полностью утвержденным подходом к университетскому образованию, основанным на предложениях проекта Tuning. В соответствии с этим, правила, регулирующие деятельность перуанских университетов, предусматривают их применение. В данном исследовании мы изучили восприятие студентами степени важности и достижения общих компетенций тех, кто изучает общеобразовательные

дисциплины в государственном университете на юге Перу. Для этого использовалась анкета для оценки общих компетенций, которая была применена к репрезентативной выборке студентов из трех академических областей, входящих в состав университета. Результаты показывают, что в целом средние достижения, присвоенные общим компетенциям, ниже среднего уровня их важности, что свидетельствует о недостатках в преподавании и институциональной поддержке, причем эти недостатки различаются по академическим областям.

Ключевые слова: университет, образование, компетенции, студенты, восприятие.

# Introduction

Universities have acquired a strategic role as a result of globalisation and the information explosion, providing important spaces for the production and dissemination of knowledge, to the extent that they have become the main drivers of economic and social development. Universities, as deliberate human inventions, focus on achieving the common good, defined as doing things the right way, in order to achieve a better society (Manzano-Arrondo & Andrés, 2007; Rocha, 2016). The role of universities has become essential to advance in the education of people and society, forging a culture of human relations that influences their environment, equipping them with tools to critically develop their agency, in order to safeguard "the social responsibility of universities, their teaching and research goals and the desired achievement of equality" (Guerra, 2019, p. 47).

In recent years, competences have become a benchmark approach for teaching-learning implemented by universities in their educational role. This process has involved the development of curricular innovations that seek to integrate knowledge that contributes to personal and professional achievement. The aforementioned process reveals teachers' need for planning and its implementation. The perspective generated by competences makes it necessary to promote changes that gradually modify teaching methodologies and strategies (Poblete et al., 2016). In fact, teaching has become the means and resource used to optimize learning outcomes through the acquisition of skills by students, a situation that has led to changes in assessment systems.

Adaptation to, and formative alignment with, the competence-based approach leads to their integration in subjects, a process that represents a challenge for both teachers and universities to progress in changing conditions in education. Competence-based education envisages the use of strategies that employ a global approach to promote interdisciplinary and applied learning (Villarroel & Bruna, 2014). Their intervention increases the likelihood of learning apprehension, an action that requires adequate planning and subsequent implementation. In this way, universities seek to respond to society's growing demand for the development of more relevant education processes for incorporation in the labour market.

In curricular change processes, competences have acquired greater dynamism in Latin American universities thanks to the contribution of the Tuning Project (2004-2007), promoting education that integrates knowledge, which contributes to the educational mission of universities, in "a life-long learning perspective, for a productive career and for citizenship" (Beneitone et al., 2007, p. 34). There is no room for ambiguity or avoidance when addressing this challenge, only commitment and responsibility which instil competences with the necessary importance for their performance, i.e. to train

students as individuals in constant transformation, endowed with a sensitivity towards change in order to respond to and anticipate the requirements of society.

The application of the competence-based educational model in university education seeks to articulate research and teaching around comprehensive student training. The process includes the response to social demands and their subsequent transfer to research groups and projects, which later return results that contribute to solutions and help enrich teaching with syllabuses that respond to global and local (glocal) needs. According to García and Anido (2015), the renewal and updating of university syllabuses based on the competence model ensures future professionals are trained in generic or transversal and specific competences (Tuning Project), constructing knowledge that will underpin economic and social development.

From the competence perspective, generic competences are directly related to future activity, are common to professions, and include elements of a cognitive and motivational nature, expressing "knowledge and techniques typical of a professional field (for example: interpreting a temperature and rainfall graph, calculating framework strength, evaluating the knowledge acquired by a student, managing loans to clients, etc.)" (Corominas, 2001, p. 307). Competences are expressed as abilities such as: i) instrumental, methodological or procedural competences, conducive to analysis and synthesis, organisation, planning and information management; ii) personal competences, for teamwork, interpersonal relationships, ethical commitment, etc., and; iii) systemic competences, for autonomous learning, adaptation, creativity and leadership, etc. (González & González, 2008). Overall, they contribute to comprehensive training, and specifically to the acquisition of a scientific and humanistic culture.

Generic competences transcend subjects, and are acquired throughout the curriculum (Miró & Capó, 2010). This approach implies institutional responsibility, defined on the basis of four analytical elements: a) inter-disciplinarity, which covers different social fields and human activities, not only academic and professional, but also personal and social; b) mental complexity, which favours the development of higher-order intellectual thought, such as criticism and analysis, reflection and mental autonomy; c) multi-functionality, i.e. they depend on an extended and diverse field of habitual, professional and social demands to achieve goals and resolve situations in different contexts; d) multidimensionality, i.e. they consider perceptual, normative, cooperative and conceptual dimensions, among others (Rychen & Salganik, 2003).

The challenge addressed by Peruvian University Law 30220 of 2014 introduced a series of changes and their resulting continuity. Among the proposed reforms, it is worth highlighting the renewal of undergraduate studies (Bachelor's Degrees) through the establishment of a period of compulsory training, called General Studies ("Estudios Generales" - "EEGG" - in Spanish) aimed at the integration of knowledge (Vélez, 2013). These studies represent the gateway to university life (Rangel, 2019), with a minimum duration of 35 credits, and aim to provide comprehensive training to students (Article 41), as a stage prior to specific and specialised studies (Article 42). In this sense, Peruvian universities implement these reforms according to their conditions and decision-making processes. Each university has adopted its own approach to respond to social demands from a wide range of perspectives (Turpo-Gebera et al., 2020).

Universities expect their students to acquire generic competences when studying general subjects that: i) reinforce basic training with introductory courses; ii) define and confirm professional vocation; iii) create a space to address forms of knowledge; and iv) strengthen their intellectual, personal and social maturity (Del Valle, 2011).

The purposes should guide the education of competent, professional and academically-responsible citizens, with historical and social awareness, critical sense and vast judgment (Nussbaum, 2011), to enable them to contribute to the "use of their rational, discursive and critical skills" (Guerra, 2011, p. 61), for the development of culture and humanism in general, as the cornerstones of a democratic society, based on plural and multiple perspectives.

The pre-eminence of generic competences (GCs) in professional training programmes developed in Latin American universities is highlighted in the Tuning Project, "as a dynamic approach to thresholds and reference points" (Beneitone et al., 2007, p. 37). The competences paradigm places the learner in the centre, a task that requires greater leadership and effective engagement. By attaching importance to generic competences, it is possible to recognise professional and academic profiles, channel knowledge management, respond to the learning demands of society, boost employability, strengthen citizenship, facilitate dialogue and exchange between different people, etc. Therefore, the acquisition of generic competences requires comprehensive, complex and contextualized strategies to foster the interaction of knowledge, skills, abilities and norms.

The importance of generic competences is perceived by students as the relevance assigned to the competence to perform work in the development of their profession. Its assessment involves differentiated estimates of certain competences over others, establishing a ranking of priorities. The competence acquisition process is related to curricular development, which channels it as evidence of achievement or its scope (achievement) (Suárez, 2017; Vera et al., 2010). Assigned importance can be gauged by measuring or observing the specific certainty of the transfer of learning. However, this is not enough. It requires the achievement of learning, i.e. the degree of achievement or acquisition and the gaps that are evidenced (Rubau et al., 2013).

The contrasts between the importance and achievement of generic competences are reflected in student evaluations, which should be rethought in order to develop more relevant and robust measures that enable their relevance to be determined and to establish a core curriculum, given the higher level of achievement and greater importance. It also presents the opportunity to propose minimum competences, recognise common core elements, ensure quality, facilitate mobility and identify shortcomings.

In general, the Tuning Project revealed that mean scores for achievement were lower than the mean scores for importance (Beneitone et al., 2007). These differences were due to the insufficient attention paid to, and investment in, institutional and pedagogical change due to the limited space for reflection and discussion (Figueroa & García, 2017).

Students perceive generic research-related competences as more important, while those related to the environment, interpersonal skills and respect for diversity and multiculturalism as less important (Rubau et al., 2013). They also value autonomy and interpersonal relationships and perceive higher levels of achievement. Flexibility or adaptation to new work scenarios would not enable higher levels of achievement (Suarez, 2017). Students consider a second language and working in international contexts to be important for professional training, but report lower levels of achievement in the case of critical thinking and abstraction skills. Many students report lower levels of achievement of competences related to research and commitment to the socio-cultural environment (Vera et al., 2010).

The studies highlight the differences perceived by students with respect to the rating of importance and the achievement of generic competences. The mean values of importance were significantly higher than those of achievement, and were related to "teaching competences, disjointed content-based curricular design and the development of skills and obtainment of knowledge; with a [routine] professional practice and social service "(Vera et al., 2010, p. 53).

For the Tuning project, the variations would respond to the cultural homogeneity of the population, as well as sample size, and the diversity of professional training programmes analysed (Beneitone et al., 2007).

After analysing the evolution of generic competences in professional training at Latin American universities, it is worth highlighting the levels of importance and achievement perceived by students, i.e. the gaps between the relevance for professional work and the achievement or scope obtained, in the case of first-year university students, defined as the general studies stage in Peruvian universities. Thus, their level of acquisition and development is estimated, and reveals the need for a comparative analysis of student perceptions in different formative areas. The differences detected between the most important competences and their level of achievement will also be evaluated.

### Method

Student perceptions regarding generic competences were measured based on a descriptive-comparative research design. For this purpose, the "Students' perceptions of the importance and achievement of generic competences in general studies - 2019" questionnaire was used (v.1.0). The instrument was developed from the list of competences comprising four factors: i) learning processes; ii) social values; iii) technological and international context; and; iv) interpersonal skills (Beneitone et al., 2007) (See Table 1). It consisted of two parts: i) personal data, with 5 items; ii) level of importance, 27 items and; level of achievement of generic competences, 27 items. A scale with 4 values was used: 1 = none; 2 = weak; 3 = considerable; 4 = strong.

The study consisted in the measurement and comparison of two variables: importance and achievement of generic competences. The Tuning project defines: i) importance as the level of importance of a competence for working in a profession; and ii) achievement as the level of achievement or scope of the competences as a result of having completed a degree (Beneitone et al., 2007).

The study sample comprised 747 students enrolled in general studies at a public university, accredited and widely recognized for its academic and research track record. The university in question, located in one of the southern Peruvian regions, is one of the oldest in the country and is among the top ranking universities in Peru, offering degrees distributed in three areas of knowledge (Social Sciences, Engineering and Biomedical Science).

Students enrolled in general studies during the 2018 academic year participated in the survey. They were asked to complete the questionnaire the year after they finished their degrees (2019), after accepting informed consent. The study sample represented 32% of all enrolled students (2,342 students). The selection of the respondents was probabilistic and by quotas (formative areas and gender). The validity of the questionnaire was verified by experts in methodology. Their suggestions led to timely decisions on the items formulated and the structure of the instrument. The data gathered were

used to test reliability ( $\alpha$  = .919). The value of Cronbach's alpha revealed the high reliability of the scale.

Table 1
Generic competences agreed for Latin America by the Tuning project

Factors	Generic competences				
Learning process	GC1: Capacity for abstraction, analysis and synthesis				
	GC2: Ability to learn and update knowledge continuously.				
	GC3: Knowledge about the area of study and the profession				
	GC4: Oral and written communication skills				
	GC5: Ability to identify, pose and solve problems				
	GC6: Ability to apply knowledge in practice				
	GC7: Research capacity				
	GC8: Skills to search, process and analyse information from different sources				
	GC9: Critical and self-critical capacity				
	GC10: Social responsibility and citizen commitment				
	GC11: Commitment to preserving the environment				
Social values	GC 12: Commitment to the socio-cultural environment				
Social values	GC13: Appreciation and respect for diversity and multiculturalism				
	GC14: Ability to formulate and manage projects				
	GC15: Ethical commitment				
Technological	GC16: Ability to communicate in a second language				
and international	GC17: Ability to work in international contexts				
context	GC18: Skills in the use of information and communication technologies				
	GC19: Ability to organize and plan time				
	GC20: Ability to act in new situations				
	GC21: Creative ability				
	GC22: Ability to make decisions				
Interpersonal skills	GC23: Ability to work in a team				
	GC24: Interpersonal skills				
	GC25: Ability to motivate and lead towards common goals				
	GC26: Ability to work autonomously				
	GC27: Commitment to quality				

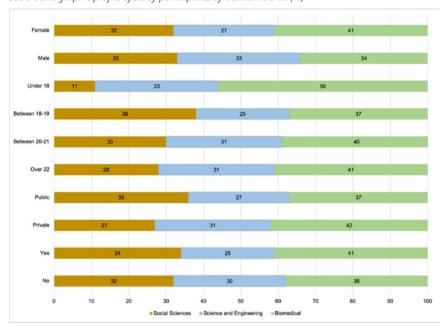
### **Results**

The results of the study showed the level of importance and achievement of the generic competences perceived by the general studies students. Table 3 presents the results in descending order, based on the mean values assigned by the students to the 27 generic competences.

## Details of the study participants

The following graph presents the socio-demographic profile of the participants in the study sample, organised by areas of knowledge.

Figure 1
Socio-demographic profile of study participants by academic area (%)



In Peru, general studies begin upon completion of secondary education (at the age of 16-17) and the passing of the corresponding entrance exam. In recent years, greater gender balance has been observed in the university population, albeit with slight differences from one area of knowledge to another. In the university studied, the majority of students enrolled in Engineering are male (33%) but there are more female students (41%) in Biomedical Science. By age, the average age of admission is 19 years (National University Census, 2010), coinciding with the sample, i.e. between 18 and 19 years (41%). The enrolment age of students in Biomedical Science is older, over 18 years of age, but under 18 in Engineering. General studies students come mainly from public schools (63%), mainly enrolled in Social Sciences (36%). Overall, 77% are full-time students, i.e. they do not work.

The perceptions of students on the importance of generic competences reveals the pre-eminence assigned to their future performance, while achievement expresses its materialisation or achievement. From that perspective, Table 2 presents the perceptions of students on the assessment of general studies.

Table 2

Average perception of the importance and achievement of generic competences

Generic Competence	Importance	Achievement
GC1: Capacity for abstraction, analysis and synthesis	3.61	2.62
GC2: Ability to learn and update knowledge continuously.	3.67	2.71
GC3: Knowledge about the area of study and the profession	3.64	2.85
GC4: Oral and written communication skills	3.64	2.80
GC5: Ability to identify, pose and solve problems	3.61	2.80
GC6: Ability to apply knowledge in practice	3.59	2.72
GC7: Research capacity	3.58	2.70
GC8: Skills to search, process and analyse information from different sources	3.57	2.80
GC9: Critical and self-critical capacity	3.61	2.68
GC10: Social responsibility and citizen commitment	3.45	2.87
GC11: Commitment to preserving the environment	3.56	2.91
GC12: Commitment to the socio-cultural environment.	3.47	2.83
GC13: Appreciation and respect for diversity and multiculturalism	3.57	3.01
GC14: Ability to formulate and manage projects	3.54	2.58
GC15: Ethical commitment	3.62	3.00
GC16: Ability to communicate in a second language	3.59	2.42
GC17: Ability to work in international contexts	3.48	2.31
GC18: Skills in the use of information and communication technologies	3.52	2.67
GC19: Ability to organize and plan time	3.64	2.72
GC20: Ability to act in new situations	3.57	2.78
GC21: Creative ability	3.55	2.83
GC22: Ability to make decisions	3.64	2.85
GC23: Ability to work in a team	3.59	3.10
GC24: Interpersonal skills	3.54	2.91
GC25: Ability to motivate and lead towards common goals	3.54	2.86
GC26: Ability to work autonomously	3.50	2.86
GC27: Commitment to quality	3.62	2.91
Mean value of GCs	3.58	2.78

The perception of generic competences reveals that the average level of importance perceived by students was 3.58 (close to 4 = strong) while the average level of achievement was 2.78 (very close to 3 = considerable). The difference reveals the gap between importance and achievement ( .8). The values of perception of importance are very subtle, while those for achievement were very significant when evaluated. Thus, the assigned level of importance was close to the maximum score (4 = strong), in contrast to achievement, which was between 3 = considerable and 2 = weak. The difference between perceptions revealed that students broadly value the importance of generic competences for their future development, but perceive that their achievement is not consolidated to the same extent, i.e. their level of achievement is insufficient.

Table 2 presents the generic competences from higher to lower level of importance and achievement, from the student perspective as presented in Table 3. Their classification reveals the differences.

Table 3

Comparison of the importance and achievement of the most valued generic competences

Highest level of importanc	e	Highest level of achievement			
Generic Competence	Average	Generic Competence	Average		
GC2: Ability to learn and update learning continuously.	3.67	GC23: Ability to work in a team	3.10		
GC3: Knowledge about the area of study and the profession	3.64	GC13: Appreciation and respect for diversity and multiculturalism	3.01		
GC19: Ability to organize and plan time	3.64	GC15: Ethical commitment	3.00		
GC4: Oral and written communication skills	3.64	GC11: Commitment to preserving the environment	2.91		
GC22: Ability to make decisions	3.64	GC24: Interpersonal skills	2.91		
GC15: Ethical commitment	3.62	GC27: Commitment to quality	2.91		
Lower level of importance		Lower level of achievement			
Generic Competence	Average	Generic Competence	Average		
GC10: Social responsibility and citizen commitment	3.45	GC17: Ability to work in international contexts	2.31		
GC12: Commitment to the socio- cultural environment.	3.47	GC16: Ability to communicate in a second language	2.42		
GC17: Ability to work in international contexts	3.48	GC14: Ability to formulate and manage projects	2.58		
GC26: Ability to work autonomously	3.50	GC1: Capacity for abstraction, analysis and synthesis	2.52		
GC18: Skills in the use of information and communication technologies	3.52	GC18: Skills in the use of information and communication technologies	2.67		
GC14: Ability to formulate and manage projects	3.54	GC9: Critical and self-critical capacity	2.68		

In terms of importance, general studies students highly valued the competences related to learning processes (GC2, GC3 and GC4) and interpersonal skills (GC19 and GC22), but attached less importance to competences related to values (GC10, GC12 and GC14), and the technological and international context (GC17 and GC18), due to their limited connection with institutional life. They also reported higher levels of achievement in generic competences relating to social values (GC13, GC15 and GC11) and interpersonal skills (GC23, GC24 and GC27). And lower levels of achievement in the case of generic competences associated with the technological and international context (GC17, GC16 and GC18) and the learning process (GC1 and GC9).

The assigned levels reflect the fact that they are in the early stages of their degrees and are noteworthy insofar as the objectives pursued in general studies point in a different direction, inasmuch as the focuses is on the reinforcement of skills and attitudes to reinforce studies, rather than the cultivation of a scientific and humanistic culture, the achievement could not be certified.

In response to the objective of probing the importance and achievement perceived by students in different academic areas. Table 4 summarizes the differences based on the determinants of generic competences.

Table 4

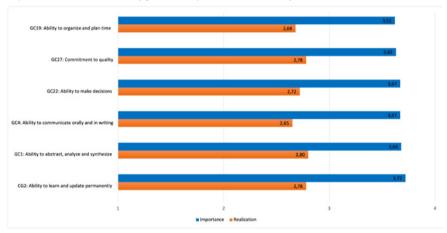
Average values of the factors of achievement and importance of generic competences

		Social Sciences Area		Engineering Area		Biomedical Science Area	
	Importance	Average	Variance	Average	Variance	Average	Variance
Factors	Learning process	3.62	.70	3.73	.62	3.53	.55
	Social values	3.56	.72	3.62	.65	3.45	.60
	Technological and international context	3.51	.68	3.67	.67	3.43	.63
	Interpersonal skills	3.60	.64	3.66	.67	3.50	.53
	Achievement	Average	Variance	Average	Variance	Average	Variance
Factors	Learning process	2.63	.93	2.70	.94	2.87	.75
	Social values	2.80	.71	2.75	.68	3.00	.61
	Technological and international context	2.35	.64	2.33	.56	2.67	.55
	Interpersonal skills	2.82	.64	2.78	.63	2.97	.57

In terms of the importance perceived by students, the generic competences presented different values in the areas of knowledge. The average values defining the determinants of generic competences were significantly higher than those of achievement (t = 4.18, p = .01), in the Engineering area. According to the general studies students' perceptions, these differences reveal that the most important aspects for their training were not aligned with what they actually received. These differences were also observed in other academic areas. Generally speaking, the importance assigned by students to generic competences does not translate in effective achievements. This situation transcends teaching and also concerns institutional support.

The generic competences assigned higher levels of importance, and their level of achievement, reveal the effectiveness of teaching and institutional work, i.e. the resources used and the achievements made. The following figures present the differences between importance and achievement by areas of knowledge.





The results for the importance of generic competences perceived by general studies students in the area of Social Sciences reveal the emphasis on learning processes (GC1, GC2 and GC4) and interpersonal skills (GC19, GC22 and GC27). Moreover, the level of achievement is not satisfactory (average = 2.74), between weak and considerable. All the average levels of importance assigned to generic competences outweighed the average levels of achievement assigned to same. The differences in ratings (.85 - 1.02) between the importance and achievement of generic competences are significant (t = 1, p = .0000011), revealing limitations for their optimisation. This level of achievement could be due to the little attention paid by teachers to improving teaching and the configuration of social sciences syllabuses, comprising subjects more oriented to pragmatism, and lacking the humanistic and scientific support that general studies should receive.

The representation of the importance and achievement of generic competences perceived by Engineering students (see Figure 3) shows evident differences, between .89 and 1.16, slightly higher the levels reported in Social Sciences. Engineering students consider the most important generic competences to be those associated with learn-

ing processes (GC2, GC3 and GC7), technological and international context (GC16) and interpersonal skills (GC19 and GC22). There were significant differences between the importance and achievement of generic competences (t = .99, p = .0000001), with a larger gap (= 1.0) than in Social Sciences (= .93). This situation is due to the fact that Engineering degree syllabuses are more technical in nature, contrasting with general study guidance, and therefore require more specialised teachers than in general studies.

Figure 3
Importance and achievement of generic competences in the area of Engineering

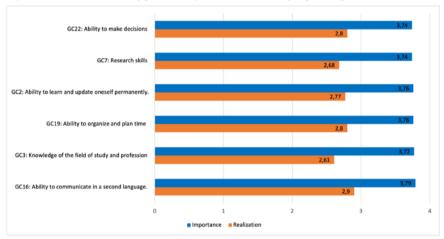
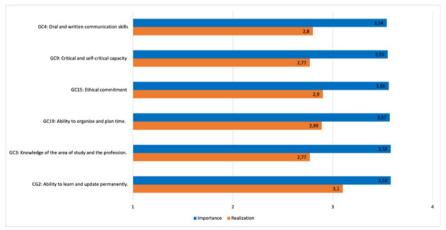


Figure 4
Importance and achievement of general competences in the area of Biomedical Science



Significant differences were observed in the levels of importance and achievement assigned by general studies students on Biomedical Science degrees (t = .99, p = .0000001) - an average of .69 points, very different to the results for the two areas

described previously. The differences between the levels of importance and accomplishment are not that great. These students attached importance to the generic competences related to learning processes (GC2, GC3, GC4 and GC9) and social values (GC15) and interpersonal skills (GC19). They expressed greater interest in learning and updating knowledge in their degrees, but were also interested in developing their critical thinking and self-criticism skills. The smaller differences between importance and achievement seem to reveal better teacher performance and greater interest in learning and, therefore, higher levels of achievement. The degrees in this area included medicine and nursing, among others, which have more demanding entry requirements.

### Discussion and conclusions

The study revealed differences in preference and perception among general studies students with respect to the importance and achievement of generic competences. The achievement of competences consists in the mastery of key skills in today's world, and which universities must provide. In this sense, students are expected to reinforce their basic training, define their professional vocation and strengthen their intellectual and social maturity. For students, universities are responsible for providing the conditions necessary for their all-round development, under equitable conditions (Guerra, 2019), which involves continuous curricular innovations to optimize learning achievements (Villarroel & Bruna, 2014).

From the perspective of the achievement of generic competences, the study shows that higher levels of achievement were reached in the learning of interpersonal skills, autonomy, and adaptation to new settings, flexibility and academic exchange, among other areas. Similar findings were reported by Beneitone et al. (2007) and Rubau et al. (2013). For the students, instrumental skills related to the acquisition of a second language and work in international contexts were also rated highly, in line with the results reported by Suarez (2017). The study also corroborates the limited achievement of competences related to research, the low level of critical thinking and abstraction skills, essential for academic development (Vera et al., 2010).

The evidenced priorities and limited consolidation of generic competences were due to the fact that they were at the beginning of their university education, in which they aim to strengthen their learn skills, update their knowledge and obtain knowledge about their area of study. This will enable them to communicate, while achieving a greater connection with institutional life by organising and planning time and making decisions (Del Valle, 2011; Suárez, 2017). Nevertheless, despite their high levels of importance, these generic competences were not assigned the highest levels of achievement, which corresponded to teamwork, commitment to quality, and social values such as respect for diversity and the environment. Even so, it is evident that the most important generic competences are not always valued in the same way as those assigned the highest levels of achievement.

General studies students perceive that the average importance of generic skills is above the average achievement, a result similar to that found in the Tuning Project for Latin American students (Beneitone et al., 2007). Such gaps are noticeable in Tables 2, 3 and 4, and Figures 1, 2 and 3. Considering the differences in importance and achievement, smaller differences were observed with respect to learning processes, while greater differences corresponded to social values, as reported by Rubau et al.

(2013). The low level of importance assigned to social references could have been due to their limited bond with the institution, since the students were beginning their academic life and were unfamiliar with university activities, which, due to their public nature, focused more on promoting social responsibility (Turpo-Gebera, 2018).

The perceived differences in the levels of importance and achievement of generic competences provided clear evidence of the students' preferences (Corominas, 2001; Fernández-March, 2006; Poblete et al., 2016). For the students, the most important competences were linked to learning processes, even if their level of achievement was insufficient. They also valued the technological and international context as being of greater importance, but they were less convinced about the level of achievement of these competences. In summary, the results reveal the limited interest in promoting involvement through the development of generic competences in languages and technological applications. This situation is controversial because universities are seen as technological benchmarks and their study plans include the learning of a second language, a competence not fully perceived by students, probably due to their low level of involvement in the institution.

# **Acknowledgements**

This article is part of the project "General studies in Peruvian universities: context, relevance and prospects for the National University of San Agustín de Arequipa", funded by the National University of San Agustín de Arequipa, with Contract No. IBAS-01-2019 -UNSA.

# **References**

- Beneitone, P., Esquetini, C., González, J., Marty, M., Siufi, G., & Wagenaar, R. (2007). Reflexiones y perspectivas de la educación superior en América Latina Informe final-Proyecto Tuning. América Latina 2004-2007. Universidad de Deusto-Universidad de Gröningen.
- Corominas, E. (2001). Competencias genéricas en la formación universitaria. *Revista de Educación*, (325), 299-321.
- Del Valle, J. (2011). Los Estudios Generales y la formación integral: cuando la tradición no es un peso muerto. En F. Tubino, E. Guerra, J. del Valle, & J. Ferradas (Eds.), *Contexto y sentido de los estudios generales* (pp. 21-46). PUCP.
- Fernández-March, A. (2006). Metodologías activas para la formación de competencias. *Educatio Siglo XXI*, *24*, 35-56.
- Figueroa, E., & García, V. (2017). Adopción del modelo educativo por competencias, desde la categoría de Campus de Bourdieu. Actualidades Investigativas en Educación, 17(2), 1-22. 10.15517/aie.v17i1.28100
- García, L., & Anido, J. (2015). Las funciones universitarias como fundamento para generar competencias orientadas hacia la codificación del conocimiento agrícola local. *Acta Agronómica*, *65*(1), 58-64. 10.15446/acaq.v65n1.47515
- González, V., & González, R. (2008). Competencias genéricas y formación profesional: un análisis desde la docencia universitaria. *Revista Iberoamericana de Educación*, 47, 185-209.

- Guerra, M. (2019). Universidades, neoliberalismo académico e igualdad de género. En A. Casado da Rocha (Ed.), *Cultura dual. Nuevas identidades en interacción universidad-sociedad* (pp. 33-48). Plaza y Valdés.
- Ley Nº 30220, de 9 de julio de 2014. Diario Oficial El Peruano. Lima, Perú.
- Manzano-Arrondo, V., & Andrés, L. (2007). *El diseño de la nueva universidad europea. Algunas causas, algunas consecuencias*. Atrapasueños.
- Miró, J., & Capó, J. (2010). Repositorio de actividades para enseñar competencias transversales. *Revista de Docencia Universitaria*, *8*, 101-110. 10.4995/redu.2010.6219
- Nussbaum, M. (2011). *El cultivo de la humanidad. Una defensa clásica de la reforma en la educación liberal*. Andrés Bello.
- Poblete, M., Bezanilla, M., Fernández-Nogueira, D., & Campo, L. (2016). Formación del docente en competencias genéricas: un instrumento para su planificación y desarrollo. *Educar*, *52*(1), 71-91. 10.5565/rev/educar.713
- Rangel, G. (2019). Los Estudios Generales en la Educación Superior: Una mirada desde la experiencia del estudiantado de primer ingreso a la Universidad de Costa Rica. *Revista Estudios*, s/n. 10.15517/RE.V0I0.36276
- Rocha, R. (2016). El modelo educativo basado en competencias para la enseñanza del arte. *Educere*, *20* (66), 215-224.
- Rubau, C., Dias, I., Tovar, M., & Fernández, A. (2013). Importancia de las competencias genéricas Tuning-América Latina para el desarrollo de la formación para la investigación. Estudio comparativo en el Instituto de Ciencias Básicas de la Universidad Nacional de Cuyo (Argentina). En *Actas. IX Congreso Internacional sobre Investigación en Didáctica de las Ciencias*, Girona, 9-12 de septiembre de 2013.
- Rychen, S., & Salganik, L. (2003). A holistic model of competence. En D. Rychen & L. Salganik (Eds.), *Key Competencies for a successful life and a well-functioning society* (pp. 41-62). Hogrefe & Huber.
- Suárez, X. (2017). Percepción de adquisición de competencias genéricas en estudiantes de psicología que inician y finalizan su formación. *Actualidades Investigativas en Educación*, 17(3). 10.15517/AIE.V17I3.30277
- Turpo-Gebera, O., Hurtado-Mazeyra, A., Delgado-Sarmiento, Y., & Mango, P. (2020). Sistemas formativos y organizativos de los estudios generales en universidades peruanas: aproximaciones a sus sentidos. *RISTI Revista Ibérica de Sistemas e Tecnologias de Informação*, *E31*, 161–177. http://www.risti.xyz/issues/ristie31.pdf
- Turpo-Gebera, O. (2018). Representaciones de resultados educativos: PISA 2015 en medios digitales peruanos. *Espacios*, *39*(5). https://www.revistaespacios.com/a18v39n05/a18v39n05p16.pdf
- Vélez, W. (2013). La integración del conocimiento como fundamento de los estudios generales. *Ciencia y Sociedad*, *38*(4), 643-658. 10.22206/cys.2013.v38i4.pp643-658
- Vera, J., Estévez, E., & Ayón, L. (2010). Percepción de estudiantes universitarios sobre importancia y realización de competencias genéricas. *Revista de Educación y Desarrollo*, (15), 47-54.
- Villarroel, V., & Bruna, D. (2014). Reflexiones en torno a las competencias genéricas en educación superior: un desafío pendiente. *Psicoperspectivas*, *13*(1), 23-34. http://dx.doi.org/10.5027/psicoperspectivas-Vol13-Issue1-fulltext-335