

Factores que inciden en el rendimiento académico de estudiantes universitarios peruanos

Factors influencing the academic performance of peruvian university students

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RESUMEN: Establecer la relación entre los factores y el rendimiento académico en los estudiantes de la Escuela Profesional de Administración de la Universidad Nacional de Ucayali-Perú. Se realizó un estudio descriptivo-correlacional, aplicado, con diseño no experimental transeccional, aplicando un cuestionario altamente confiable a 72 estudiantes universitarios. Los resultados, analizados con SPSS 27, demostraron que los factores se relacionan de forma lineal, positiva, moderada y significativa con el rendimiento académico con un nivel de significancia del 5%. Las respuestas estudiantiles tienden a ser favorables para ambas variables.

Palabras clave: Rendimiento académico; Universidad pública; Estudiantes peruanos; Correlación

ABSTRACT: To establish the relationship between factors and academic performance in students of the Professional School of Administration of the National University of Ucayali-Peru. A descriptive-correlational study was carried out, applied, with a non-experimental transectional design, applying a highly reliable questionnaire to 72 university students. The results, analyzed with SPSS 27, showed that the factors are linearly, positively, moderately and significantly related to academic performance with a significance level of 5%. Student responses tend to be favorable for both variables.

Keywords: Academic performance; Public university; Peruvian students; Correlation

Introduction

In general, academic performance is understood as the degree of achievement and competence reached by students in their formative process, an aspect that allows for an evaluation of their progress in the course of study; because it simultaneously constitutes a key element for measuring

the quality of the education provided by an institution, it is considered important to know what factors affect this progress.

In the student environment, it is not unusual to see cases where the lack of commitment, motivation or disinterest affects a limited or insufficient performance to advance in a professional career; It is also feasible that, despite having defined purposes, time management is not adequate, requiring the student to establish priorities to achieve a balance between their various activities, accompanying this need with the development of effective study skills and abilities that facilitate problem solving and preparation to overcome their evaluations; without ignoring the possibility of emotional problems, such as personal, family, financial, or health conflicts, which often influence their concentration in the study.

Some of these factors may be socioeconomic, motivational, access to learning resources and study techniques. In this regard, it is worth mentioning that the student's ability to concentrate is susceptible to the family's financial availability to cover basic requirements and educational costs, while motivation affects perseverance and dedication in achieving their goals despite setbacks.

Likewise, access to educational resources such as physical libraries or technology (devices and Internet) has an effect on the development of competencies, especially when linked to the availability of qualified tutoring or counseling according to the level of education and student support programs. Likewise, organization, planning, learning modality and participation, as efficient study techniques, influences academic progress.

Considering these aspects, these factors have been analyzed to determine their incidence on the academic performance of participants in a Peruvian public university, so that, based on the results obtained, this institution will be able to design support strategies for its students aimed at improving instructional levels and their personal and professional development; for this purpose, the objective was to establish the relationship between the factors and academic performance in the students of the Professional School of Administration of the National University of Ucayali-Peru.

Development

Regarding the factors that affect academic performance, Bracho (2022) considers that it can be analyzed through physical conditions, student services, economic accessibility, personal relationships, teaching-learning process and insertion in the global context. Regarding the first of these, Bores-García *et al.* (2020) explain that the physical conditions of the facilities, which include

the quality and maintenance of classrooms, libraries, laboratories and other study spaces, should consider a green design, with adequate lighting, acoustics and temperature, as well as their shape and orientation. In turn, in relation to student services, Cascante & Villalobos (2022) express that students should have quiet spaces, without noise or distractions, to avoid the deconcentration of the student body, adding Sito-Justiniano *et al.* (2021), on dining halls, that this aspect deals with the perception of quality, variety and quantity of food offered to foreign students, considering the payment for what they receive.

When it comes to economic accessibility, it includes enrollment costs, fees, cost of educational materials and dining room service, elements where quality becomes important, as well as the feeling of social support and stimulation of self-esteem, which can affect the performance of students at the university. On the other hand, personal relationships comprise the quality of the exchange established between students, teachers and administrative staff (Medina *et al.*, 2018), adding that they refer to the students' perception of their classmates, other students in the institution (Rodríguez-Ortiz & Moreno-Pérez, 2022) or their teachers.

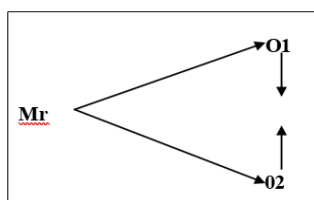
The teaching-learning process contemplates an evaluation of its quality and effectiveness, together with the teacher's ability to transmit both skills and knowledge and the students' ability to understand and apply what they have learned (Yildirim *et al.*, 2019). In this sense, it should be added that each institution has regulatory provisions on aspects related to the organization of the training programs of each of the units that structure the careers offered by the academy (study regime). Likewise, the aspect of recognition among peers and from teachers to students is taken up again, seen as a strategy used to motivate and reinforce desired behaviors, to show appreciation, which contributes to demonstrate good performance and favorable results.

Another element of interest is the insertion into the global context, a means of evaluating the university capacity to train its students considering the labor market, globalization and innovation, that the educational area includes the use of new technologies, tools, knowledge techniques in order to achieve satisfactory services to the students that at the same time encourage them to improve their performance (Kriukova & Ameridze, 2021). In this context, emphasis is placed on the cost reduction of the use of these new technologies in the educational field, by reducing the need for physical materials by making use of programs or applications, making it easier for students to search for quality information in an efficient way and in real time.

Regarding academic performance, Limaico-Nieto & Velasco-Arellano (2020) clarify that there is no unit to define it, but it is usual to consider grades as a quantitative assessment, according to which it can be determined whether or not a student passes or fails a subject or university course, being the result of a set of factors, among which they mention personal, teaching, social and even institutional conditions. According to Esparza-Paz *et al.* (2020), “...it refers to the evaluation of the knowledge acquired during their preparation process” (p. 1), a process that can be carried out through different types of tests (oral, written, simulations or practical, among others). In this sense, students should seek options to achieve the acquisition of knowledge, such as the application of study techniques that facilitate the development of skills and abilities, and may even receive the support of their teachers to implement those that are more favorable to them (Borja *et al.*, 2021).

Considering that the research approach constitutes a systematic process, linked to the method used, the present study is characterized as quantitative, following the guidelines of an applied type of work (its results can be put into practice) and a descriptive-correlational cross-sectional design, due to the fact that the variables were measured at a single moment (Hernández-Sampieri & Mendoza, 2018), plotted below:

Figure 1: Procedure applied



Source: Self elaboration

Legend:

M = Sample

O1 = Variable 1, Factors

O2 = Variable 2, Academic performance

r = Relationship between variable 1 and variable 2

The population consisted of 274 students of the Professional School of Administration of the National University of Ucayali-Peru, estimating a sample size of 72 students, using the Restudy for

this calculation with a confidence level of 95% and an error of 4%, who were randomly selected to answer a questionnaire of 17 closed questions, for whose reliability the Cronbach's Alpha coefficient was estimated, with a result of 0.892 (highly reliable).

Table 1: Factors affecting academic achievement

Levels	Levels of Variable 1: Factors													
	Physical conditions		Student Services		Economic accessibility		Personal relationships		Teaching-learning process		Insertion in the global context		Average	
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%
Completely agree	8	11.1	0	0.0	3	4.2	2	2.8	3	4.2	7	9.7	4	5.6
Agreed	32	44.4	16	22.2	24	33.3	40	55.5	43	59.7	32	44.4	31	43.0
Neither agree nor disagree	15	20.8	39	54.2	34	47.2	26	36.1	24	33.3	31	43.1	28	38.9
Disagree	14	19.4	14	19.4	7	9.7	3	4.2	1	1.4	1	1.4	7	9.7
Completely disagree	3	4.2	3	4.2	4	5.6	1	1.4	1	1.4	1	1.4	2	2.8
Total	72	100.0	72	100.0	72	100.0	72	100.0	72	100.0	72	100.0	72	100.0

Source: Self elaboration

According to Table 1, referring to the factors that affect academic performance, it can be seen that 44.4% of the students agree that the furniture is adequate; 54.2% show a neutral position regarding the adequacy of the university spaces and the meals offered in the dining room to satisfy the needs of the students, while 47.2% expressed a similar position regarding the variety of these meals in relation to their economic possibilities. Regarding personal relationships, 55.5% expressed agreement with the levels of ethics, respect, values and inclusion of their classmates, as well as the importance of getting along well with them; the efficiency of the professors' teaching methodology and the work of the department heads.

Regarding the teaching-learning process, 59.7% agree with the regulations of the institutional study regime, the recognition of student achievements by teachers and the support received by their co-workers. In turn, 44.4% expressed their agreement with the good use that students make of the technological equipment offered by the university. On average, it can be observed that 5.6% completely agree, 43.0% agree, 38.9% neither agree nor disagree, 9.7% disagree and 2.8% completely disagree with the proposals presented on the factors analyzed, with a favorable tendency towards the university.

Table 2: Levels of Variable 2: Academic Performance

Levels	Qualifications		Study techniques		Writing tools		Average	
	Fr	%	Fr	%	Fr	%	Fr	%
Completely agree	6	8.3	21	29.2	19	26.4	15	20.8
Agreed	31	43.1	32	44.4	33	45.8	32	44.4
Neither agree nor disagree	25	34.7	17	23.6	17	23.6	20	27.8
Disagree	9	12.5	1	1.4	1	1.4	4	5.6
Completely disagree	1	1.4	1	1.4	2	2.8	1	1.4
Total	72	100.0	72	100.0	72	10.0	72	100.0

Source: Self elaboration

Table 2, referring to the academic performance variable, shows that 43.1% of the students agree that academic records reflect the effort and commitment they apply to their education; 44.4% also agreed that study techniques are necessary for good learning, as a sign of technical mastery of study and intellectual work; likewise, 45.8% agreed on the benefits of using online writing tools (grammar checkers and dictionaries, for example) to improve the accuracy and quality of their writing. On average, 20.8% of the student body completely agreed with the proposals made, 44.4% agreed, 27.8% maintained a neutral position, 5.6% disagreed, and 1.4% stated that they completely disagreed, a positive trend regarding their performance at the university.

With respect to the scope of the objective of this work, to establish the relationship between the factors and academic performance in the students of the Professional School of Administration of the National University of Ucayali-Peru, the results of the hypothesis test are shown below.

Table 3: Hypothesis Test: Pearson's Correlation Coefficient

Pearson correlation coefficient	V1: Factors	V2: Academic performance
	1	,587**
Sig. (bilateral)		,000
N	72	72
Sig. (bilateral)	,000	

Source: Self elaboration

** The correlation is significant at the 0.01 level (bilateral).

Null hypothesis: Ho: There is no significant relationship between the factors and academic performance in the students of the Professional School of Administration of the National University of Ucayali-Peru.

Alternate hypothesis: H1: There is a significant relationship between the factors and academic performance in the students of the Professional School of Administration of the National University of Ucayali-Peru.

Level of significance or risk: 5%.

Statistical decision: It is concluded that there is a linear, positive, moderate and significant relationship between the factors and academic performance in the students of the Professional School of Administration of the National University of Ucayali-Peru, with an $r = 0.587$ and a significance level of 95% (Hernández-Sampieri & Mendoza, 2018).

These results corroborate the contribution of Gutiérrez-Monsalve *et al.* (2021), who demonstrated the incidence of factors of the teaching-learning and institutional process, as well as economic factors on student academic performance. Likewise, the results of Duarte *et al.* (2021) were verified, who estimated a Pearson correlation coefficient = 0.938 between motivation and academic performance, also detecting that for 92.57% of the students economic dependence influences their performance, while teamwork affects 73.1% of the cases and social isolation affects 48.7% of them.

Similarly, the results of the work of Herrera & Arancibia (2022) were ratified, establishing that the students' perception of their classmates and motivation affect their academic performance, also detecting differences among students according to their income level (economic factor). In this regard, data provided by Cuamba *et al.* (2022) were corroborated when analyzing the personal, social and institutional factors between university groups of low and high academic performance, finding that educational services, together with satisfaction or not with the university, are the factors with the greatest weight in the separation or discrimination of both groups, with the highest average belonging to the students with the highest performance.

Conclusions

In the study conducted at the Professional School of Administration of the National University of Ucayali-Peru, it has been established with a significance level of 5% that there is a linear, positive, moderate and significant relationship between the factors and academic performance. A favorable opinionated tendency was determined towards the factors physical conditions, student services, economic accessibility, personal relationships, teaching-learning process and insertion in the global context. Likewise, a positive tendency was detected in the student responses regarding their performance at the university, specifically with respect to their grades, study techniques and writing

tools. The results indicate that the factors analyzed have a positive, albeit moderate, impact on academic performance, which highlights the importance of considering improvements in them if we aspire to obtain better results in the quality and conditions offered by the university on the evaluation of Peruvian students' competencies.

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