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Simple Correspondence Analysis to Study the Relationship between School Dropout Factors and the Stratum of the Student's School of Origin at the Universidad Nacional, Costa Rica

Análisis de correspondencia simple para estudiar la relación entre factores del abandono escolar y el estrato del colegio de procedencia en la Universidad Nacional de Costa Rica

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ABSTRACT

Objective: This paper seeks to explore the relationship between different variables associated with school dropout and the stratum of the school of origin of students who dropped out of the Universidad Nacional. *Methods:* The research team developed a questionnaire on aspects related to student dropout which was applied through voluntary sampling to 503 students in a population of 5,023. The association between 16 variables related to student perception of the university environment and the stratum of the survey participants' schools of origin was analyzed using Pearson's chi-square test, as well as simple correspondence analyses for the associations that were found to be significant. *Results:* The analyses showed that the variables of perception of information about services ($p = 0.027$), interaction with colleagues ($p = 0.006$), academic performance ($p = 0.016$), career expectations ($p = 0.014$), connection to the Internet ($p = 0.023$), condition of the device ($p = 0.010$) and physical space ($p = 0.027$) were significantly related to the stratum of the school of origin. *Conclusions:* The results highlight socioeconomic and educational differences between students from schools of different strata, as well as differences in their ability to integrate into university life.

KEYWORDS: Dropout, Higher Education, Educational Equity, Educational Institutions, School Services, Statistical Association Methods.

RESUMEN

Objetivo: explorar la relación entre diferentes variables asociadas con el abandono escolar y el estrato del colegio de procedencia en el estudiantado que abandonó la Universidad Nacional. *Método:* El equipo investigador elaboró un cuestionario de aspectos relacionados con el abandono estudiantil aplicado por medio de un muestreo voluntario a 503 personas estudiantes en una población de 5023 y se estudió la asociación entre 16 variables del ambiente universitario relacionadas con el abandono escolar y el estrato del colegio de procedencia por medio de la prueba chi cuadrado de Pearson, así como por un análisis de correspondencia simple para las asociaciones que resultaron significativas. *Resultados:* Los análisis mostraron que las variables información de los servicios ($p = 0,027$), interacción con los compañeros ($p = 0,006$), rendimiento académico ($p = 0,016$), expectativas sobre la carrera ($p = 0,014$), conexión a Internet ($p = 0,023$), estado del dispositivo ($p = 0,010$) y espacio físico ($p = 0,027$) están relacionadas con el estrato del colegio de procedencia. *Conclusiones:* Los resultados resaltan diferencias en aspectos socioeconómicos y educativos, así como en la capacidad de integración a la vida universitaria entre los diferentes estratos.

PALABRAS CLAVE: Abandono escolar, Educación superior, Equidad educativa, Instituciones educativas, Servicios escolares, Métodos de asociación estadística

INTRODUCTION

Education is a process that provides great benefits for people and communities in general, improving opportunities and life quality, and producing well-being. Entering higher education constitutes the first step in university academic life, whose ultimate goal is to obtain a degree. In the case of entry into the Universidad Nacional de Costa Rica (UNA), a systematic and organized incorporation process has been implemented since 2009 “based on the needs of national development, the university’s mission and values, and the principles of equal opportunities, equity, academic excellence, transparency and democratization” (Universidad Nacional, 2022, p. 2).

In selecting individuals to be admitted to the UNA student body, a model is used in which three strata of schools are defined using a social criterion and a technical criterion. The social criterion has to do with accessibility to secondary education and characteristics of the schools which influence this accessibility (modality of studies, schedules, types of schools and geographical location): Stratum 1 consists of institutions that have the best academic and economic conditions in the Costa Rican secondary education system (private schools, as well as Bilingual Experimental, Scientific, Humanist and Foreign schools).

Stratum 2 includes public academic or professional technical day schools, while Stratum 3 is made up of institutions that do not have sufficient resources to provide high-quality educational opportunities to their students (night schools, rural schools, distance education programs, etc.).

The technical criterion used is related to levels of knowledge and reasoning in mathematical and verbal contexts. A weighted grade is calculated using applicant grades obtained in the Academic Aptitude Test (PAA), which is assigned a weight of 60%, and the diversified cycle grade, which is assigned a weight of 40%.

Once students are assigned to an appropriate stratum, their weighted grades are standardized by taking each student’s weighted grade, subtracting the average of these grades in the student’s stratum and dividing the result by the standard deviation of weighted grades for students in that stratum. Subsequently, a classification is carried out, based on the calculation of the admission grade as a result of the combination of the average and standard deviation of the weighted grades of the entire population with the values obtained by the population in the standardization (Universidad Nacional, 2022).

This admission procedure recognizes the differences in educational opportunities that each student had during their secondary education, which increases the probability that the individuals with the best performance from the lower strata can compete for the available spaces offered by the UNA (Zamora-Araya et al., 2020), since each person who wants to enter the university competes in their respective stratum with other applicants with similar characteristics (Universidad Nacional, 2022).

On the other hand, when a person enters higher education, he or she must face the challenge of staying in the program of study in which he or she has enrolled to obtain a degree. However, some students abandon their studies before graduating, creating a problem that educational institutions around the world face. Dropping out can cause a series of psychological and physical problems for students, as well as economic and academic costs for institutions (Kim y Kim, 2018), and there are many studies on its political and economic impacts, as well as its effects on individuals and institutions.

The objective of this investigation was to explore the relationship between variables associated with dropping out and the stratum of the school of origin of UNA students who left the institution after their first year of study. This investigation is especially relevant because most studies focus on analyzing information from students about different aspects of the university experience when they are still enrolled in the institution (Chanto y Loáiciga, 2021; Vega y Barrantes, 2022), rather than after they have abandoned the university.

The rest of this document is structured as follows: theoretical references associated with student dropout are discussed, followed by a methodological section describing the participants, the information collection instrument, and the variables and techniques used. The results of analyses are then presented and discussed, followed by sections on conclusions and recommendations.

Theoretical framework

Student dropout

One of the main authorities on the issue of school dropout states that “student dropout represents the failure of people, of a certain capacity and commitment, to achieve the desired educational objectives” (Tinto, 1975, p. 78). Kim y Kim (2018) state that student dropout “describes situations in which a student leaves the university in which he or she has enrolled before having obtained a formal degree” (p. 3). The concept of desertion may vary among persons interested in higher education: from an individual point of view, dropping out is associated with the intentions of the students who enter the university, which may not be compatible with those of the institution, or may not even be clearly defined by the person and may vary during the course of their academic training; on the other hand, an institutional point of view focuses more on identifying which cases of abandonment can be classified as a normal result of institutional functioning, and which cannot (Tinto, 1989). Furthermore, when the expectations of the student body do not coincide with those of the educational institution, this may lead to a student’s decision not to continue with higher education, a decision which is not taken in isolation, but is rather the result of interactions between students and the academic and social systems of the institution (Tinto, 1975). From this point of view, “student abandonment can be conceptualized as a decision-making process” (Bäulke et al., 2022, p. 853).

Tinto (1993) points out that there are a series of elements that influence people's decision to remain at a university, which can be subdivided into stages of: (1) characteristics of the students prior to admission: family background, skills and abilities or previous schooling; (2) insertion into university life: characterized by personal, institutional and external commitments; (3) study: the relationship of students with the institution's academic and social systems; and (4) academic and social integration: factors which determine the degree to which such integration occurs, and the resulting intensity of the effort that the person is willing to invest in their learning activities.

Among the main reasons for abandoning studies at the university level are the lack of funding sources, poor prior school preparation, dissatisfaction with the program of studies selected, family conflicts, occupational commitments, poor academic performance, lack of interaction between university staff and the student body, university environment, and remoteness (Navarro y Bautista, 2021; Rodríguez y Zamora, 2021; Vergara, 2023).

Addressing abandonment is also made more complicated by difficulties in defining the phenomenon and the multiplicity of factors that affect it. Multiple studies aimed at determining the reasons why a person decides not to continue their studies have found that there is a relationship between dropping out and a student's economic situation, motivation, health, and participation in university life (Portal et al., 2022); as well as with academic performance, interaction with teachers, lack of information about the institution, students' schools of origin, choice of programs of study, commitment, and place of residence, among other factors (Munizaga et al., 2018). The diversity of situations that affect abandonment have also been grouped into a series of factors, such as individual, academic, economic, cultural and institutional (Proyecto ALFA-GUIA, 2013).

On the other hand, some of the arguments that have been mentioned about the reasons why dropouts occur suggest that students belonging to vulnerable groups are forced to abandon their studies due to their lack of economic and technological resources (Sandoval-Palis et al., 2020). Furthermore, the contexts of poverty and unemployment in the communities in which the educational centers are located become determinants of decisions about abandoning studies (Zamora-Araya et al., 2023), since students with lower income levels have several disadvantages when entering higher education, given that their accumulated social and cultural capital is usually lower than that of individuals with higher incomes (Palacio et al., 2020).

Studies indicate that minority and vulnerable groups in society have the highest rates of withdrawal from and suspension of higher education (Macaulay et al., 2023) with consequences not only for individuals but for their families in terms of opportunities for social, cultural and economic promotion. Dropping out of school may thus be nothing more than the result of circumstances experienced by students belonging to groups typically excluded from the benefits of higher education, generally associated with sex, ethnicity and socioeconomic level (Donoso y Schiefelbein, 2007).

Although dropout and differences in opportunities to access education can occur for various reasons, and knowing about them is highly relevant for educational research, it is also important to observe the person's relationship with the new university context, which is strongly influenced by the way in which students' first experiences within the university occur (Cervero et al., 2021).

METHODOLOGY

Research approach

This research was undertaken using a cross-sectional and descriptive quantitative approach. It is also correlational in nature, seeking to explore the relationships between the different response categorizations of variables associated with school dropout and the stratum of the school of origin.

Participants

The study population was made up of 5,023 new students from the 2017, 2019, and 2020 cohorts who studied a subject in the I and II cycles of each year, but who did not enroll in 2021 at any of the UNA campuses. Each student was contacted through an email sent by the Registration Department of the Universidad Nacional, in which they were invited to answer a questionnaire aimed at obtaining information about the general characteristics of the respondent, as well as variables related to student dropout.

For the study, non-probabilistic sampling was carried out in which an effective sample of 503 students was obtained who agreed to answer the questionnaire after sending three reminders, which constitutes a voluntary sample (Otzen y Manterola 2017), so of those individuals who agreed to participate in the study. It is also important to explain that the sample cannot be considered to be strictly one of convenience, but rather one of availability, since all individuals who completed the questionnaire were included.

The final database was completed with information related to sociodemographic and academic characteristics collected during the admission process such as the stratum of the applicant's school of origin, university entrance grade and area of residence. This information was provided by the UNA Registry department upon request.

Instrument

The research team developed a questionnaire made up of three sections or modules. The first section was aimed at collecting general information from the population such as the year of entry to the university, the country of birth, as well as a series of questions about different personal conditions at the time of entering the university, and that are not considered or recorded during the university admission stage, such as employment status, having children, and enrollment status at another university.

The second section included two aspects: students were asked to indicate which factors influenced their decision to interrupt their studies at the UNA, and their personal assessment, based on their experience at the institution, of a series of aspects related to student abandonment. Finally, the third section aimed to collect comments from individuals on the topic of abandonment.

The questions used in the questionnaire were selected from the results of a previous bibliographic review process on the topic of factors associated with student dropout, as well as from the academic discussions generated in forums and conversations between different participants on both the admission process and academic training within the UNA. In addition, the instrument was validated through expert judgment by two persons with experience in school dropout and academic performance issues and was subjected to a pilot test in which 20 students who entered university in the first cycle of 2021 participated, but dropped out in the second cycle of the same year. Cronbach's alpha and omega coefficients computed for the items in the instrument] showed values of 0.85 and 0.88, respectively, in this pilot test. The percentage of agreement between the evaluators for each item ranged between 84% and 100% in aspects related to sufficiency, clarity, coherence and relevance of the items. Finally, the observations of the reviewers, as well as those obtained from the pilot test, allowed us to improve the structure of the questionnaire.

Study variables

Variables of the university environment related to school dropout

The present study is based on information collected in the second section of the instrument, which consisted of 16 Likert-type scale questions with 5 response options (bad, average, good, very good and excellent) in which the students who dropped out of the university assess different aspects of the university environment related to dropping out while enrolled at UNA. The aspects evaluated were: *the start of classes, relationship with the administrative staff, information provided by different services (scholarships, health, registration, libraries, etc.), the way classes were taught by the teaching staff, interaction with classmates, relationship with the teaching staff, organization and methodology of the courses, course schedules, academic performance, fulfillment of the expectations the respondent had of the program of study in which he or she had enrolled, the Internet connection from the study space, the condition of the electronic device that was used most frequently to take the courses, the physical space that was available to carry out academic tasks, attendance at classes during the stay at the UNA, attendance at consultation hours or tutorials offered by the teacher, and degree of compliance with course assignments (homework, projects, exams, etc.).*

Stratum

This concept was operationalized in three categories (Strata 1, 2 and 3) using the definition developed by the UNA for evaluating applicants for admission: Stratum 1 is made up of students who come from scientific, subsidized, humanistic, private, bilingual experimental and foreign schools, which have the best conditions for providing educational services; Stratum 2 consists of public schools in the daytime academic or professional technical modality; and Stratum 3 is represented by students who come from institutions or modalities that include night schools, high schools for mature students,

open education, Integrated Adult Education Centers (CINDEA), Professional Institutes for Community Education (IPEC), rural high schools, schools located in indigenous areas, remote secondary education, distance baccalaureate programs, curricula for the education of young people and adults, and new educational opportunities for young people (Universidad Nacional, 2018), which in general lack the resources to provide high-quality educational opportunities for their students.

Data analysis

Pearson's chi-square test was used to evaluate the hypothesis of independence between the stratum of applicants' schools of origin and each of the 16 variables related to student opinion about the university environment. In the case of significant associations, a simple correspondence analysis was performed to study the association between the variables under study. To do this, perceptual maps were constructed, which allow graphically observing the association between the categories of the opinion questions and strata of schools of origin. To measure the level of reliability of the scale, Cronbach's Alpha coefficient and the Omega coefficient were used, statistical analysis was carried out using R software version 4.1.2 (R Core Team, 2021), and p values of less than 0.05 were considered to indicate significant results.

RESULTS

Of the total number of participants in the study, 56.10% were women, 23.23%, 54.13% and 22.64% of respondents came from Strata 1, 2 and 3, respectively, 54.72% of the participants did not have a student scholarship and the number of participants from each year of entry (2017: 25.45%, 2018: 28.23%, 2019: 24.06% and 2020: 22.27%) was very similar ($p = 0.281$). Analysis of internal consistency of the scale produced alpha and omega coefficients of 0.88 and 0.91, respectively, which are considered acceptable for the purpose of the research.

In the case of student opinions, it was found that most of the variables analyzed had an average value of at least 3 points, corresponding to the good category on the evaluation scale. The expectations that the students had about their chosen program of study had the lowest average score (2.5 points, $SD = 1.2$ points), while class attendance was the variable that showed the highest percentage of excellent responses (26%); for no other variable did the percentage of excellent scores exceed 20%. Finally, results of the analyses showed that the variables that were significantly related to the strata of students' schools of origin ($p < 0.05$) were: information about services ($p = 0.027$), interaction with colleagues ($p = 0.006$), academic performance ($p = 0.016$), expectations about degrees ($p = 0.014$), Internet connection ($p = 0.023$), device condition ($p = 0.010$) and physical space ($p = 0.027$). In these cases, it is appropriate to carry out a correspondence analysis (Table 1).

With respect to the information provided by different university services, the correspondence analysis showed that regular evaluations seem to be more associated with individuals from Stratum

1 (although there was no statistically significant relation), individuals from Stratum 3 seem to lean towards more favorable evaluations (very good or excellent), while in Stratum 2 there was no obvious tendency towards a particular type of assessment (Figure 1).

The evaluation of interaction with classmates by survey participants showed that in Stratum 1 this interaction was considered to be good, while in Stratum 3 it was regular. As was the case in the previous analysis, there was no obvious tendency towards a particular type of assessment among respondents from schools in Stratum 2 (Figure 2).

Regarding career expectations, respondents whose school of origin belonged to Stratum 1 tended to lean toward less favorable evaluations (bad or regular), without expressing a particular position about some of the other variables, while for individuals from schools in Stratum 2 these expectations were good and for those from schools in Stratum 3 they were very good (Figure 3).

Academic performance during the time the respondent was enrolled at the UNA was evaluated as excellent by those individuals whose school of origin was located in Stratum 1; respondents from schools in Stratum 3 rated it as average, while the responses of individuals from schools in Stratum 2 seem to regard it favorably, although their replies were not strongly related to a particular response (Figure 4).

Table 1.

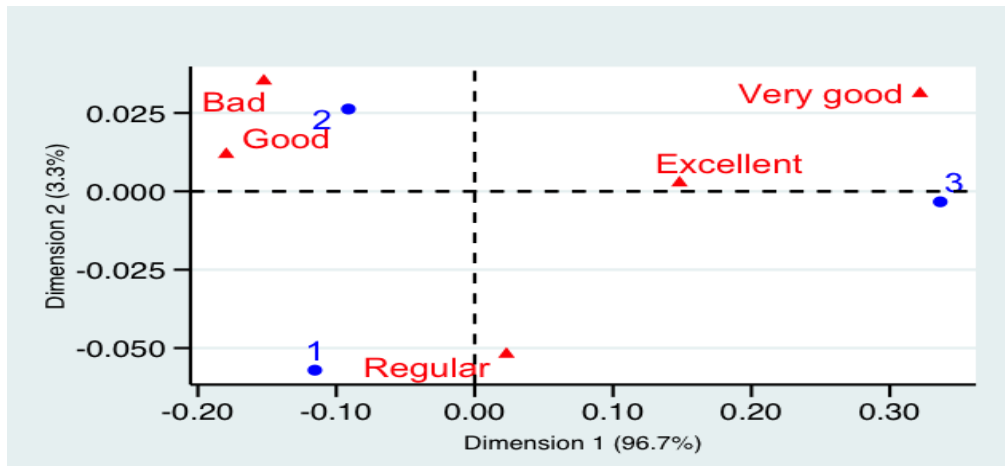
UNA. Assessment of different aspects of university life by students who left the institution

Variable	Average	SD	Ranked as Excellent (%)	<i>p</i>
Start of classes	3.2	1.1	15.1	0.366
Relationship with administrative staff	3.2	1.1	15.1	0.165
Information about services	2.8	1.2	10.3	0.027
Way of teaching classes	3.2	1.1	14.3	0.394
Interaction between students	3.2	1.2	17.9	0.006
Relationship with teaching staff	3.2	1.0	12.5	0.193
Organization of the courses	3.0	1.1	11.5	0.075
Course schedule	2.7	1.1	7.0	0.747
Academic performance	2.7	1.2	8.3	0.016
Career expectations	2.5	1.2	7.8	0.014
Internet connection	2.8	1.2	11.5	0.023
Device condition	3.0	1.2	11.9	0.010
Physical space	2.9	1.2	11.3	0.027
Class attendance	3.5	1.2	26.0	0.718
Assistance during consultation hours	2.7	1.2	11.3	0.421
Compliance with schoolwork	3.3	1.2	19.9	0.095

Source: Own elaboration.

Figure 1.

UNA. Information provided by different university services according to stratum



Source: Own elaboration.

Figure 2.

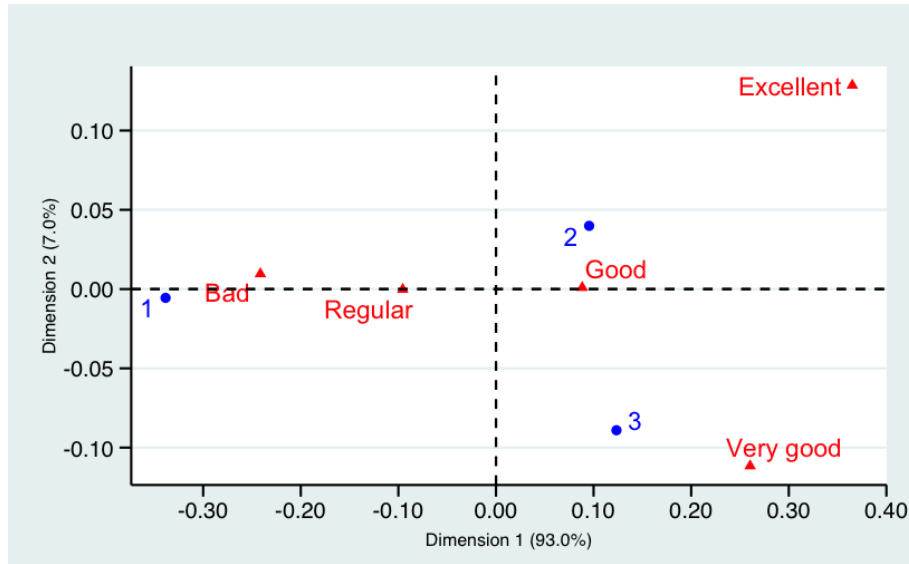
UNA. Interaction between peers according to stratum



Source: Own elaboration.

Figure 3.

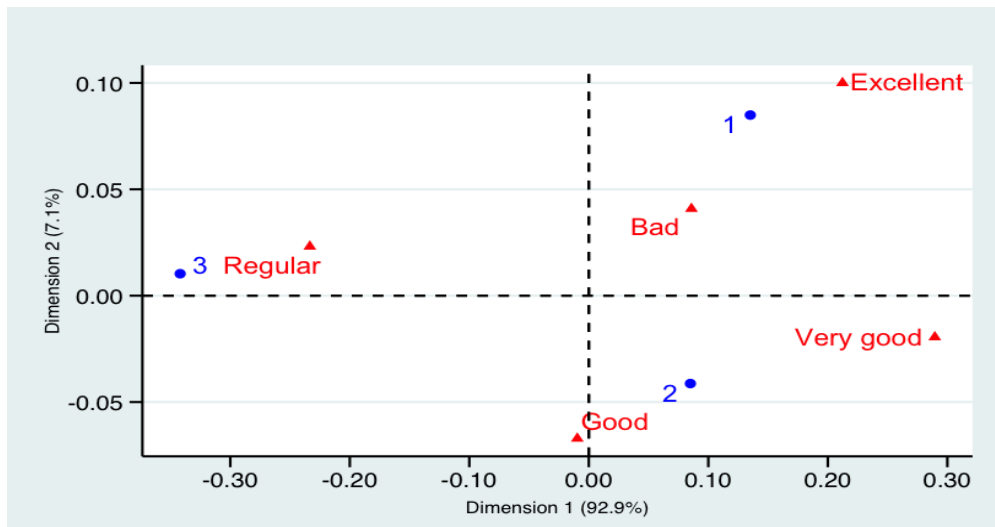
UNA. Expectations about the program of studies chosen according to stratum



Source: Own elaboration.

Figure 4.

UNA. Academic performance during stay at the university according to stratum

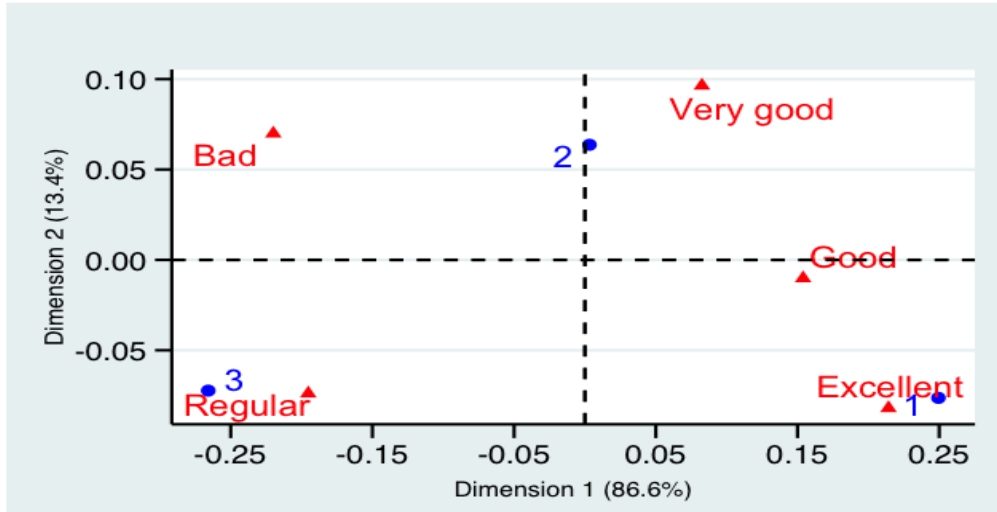


Source: Own elaboration.

Individuals from schools in Stratum 1 who later dropped out of the UNA considered their Internet connections to have been excellent, while dropouts originally from Stratum 3 schools regarded them to have been regular. As has been the case for other aspects analyzed, the responses from individuals originally from Stratum 2 schools do not tend to agree closely (Figure 5).

Figure 5.

UNA. Internet connection according to stratum

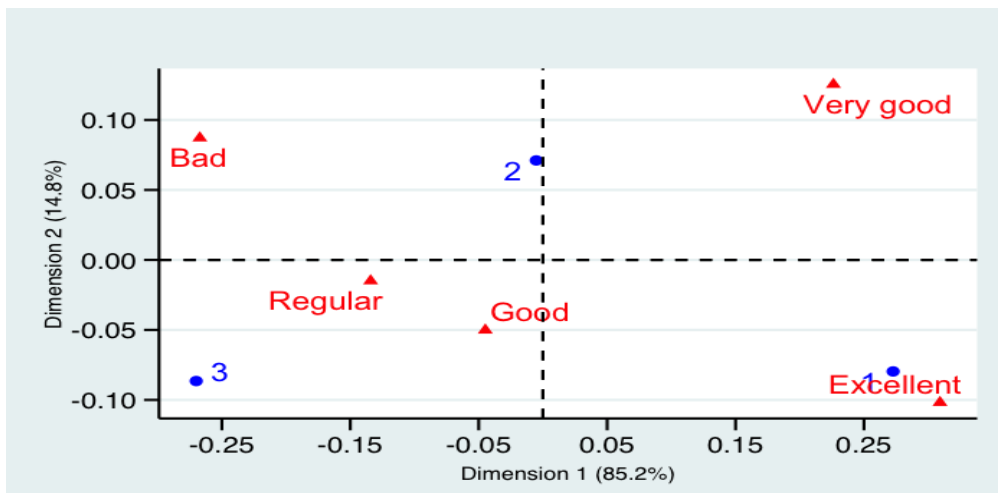


Source: Own elaboration.

Students originally from Stratum 1 schools considered the condition of the electronic device used for carrying out different university tasks to have been excellent. However, there seems to be no clear tendency of the responses on this topic from UNA dropouts with schools of origin within Strata 2 or 3 (Figure 6).

Figure 6.

UNA. Condition of the electronic device used in courses according to stratum

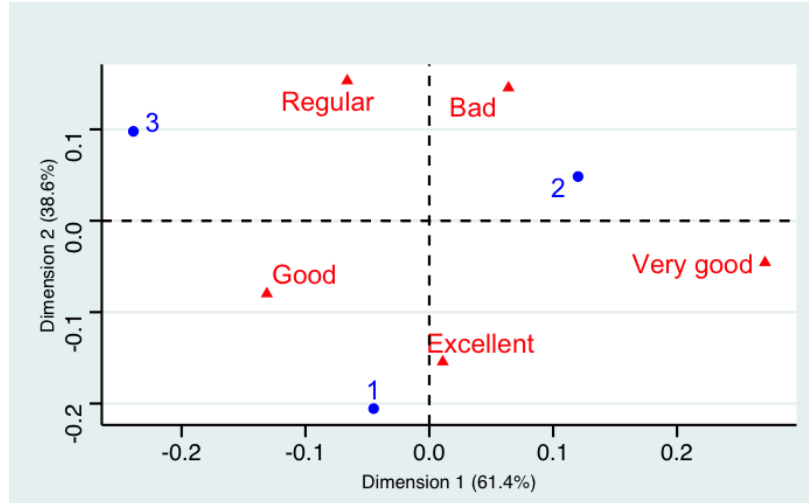


Source: Own elaboration.

The physical space available to carry out academic tasks was evaluated as excellent by respondents from schools in Stratum 1. The assessment of this factor by respondents from Stratum 2 and Stratum 3 is not clearly defined, although it seems that the space they had did not provide favorable conditions for carrying out their tasks (Figure 7).

Figure 7.

UNA. Physical space in which academic work was carried out according to stratum



Source: Own elaboration.

DISCUSSION

The range of factors that influence a person's decision to leave an educational institution mean that levels of desertion vary between populations. An analysis of the opinions of students who abandon university education can provide information about the perspectives that different groups have concerning the institutional environment during the period of their university enrollment. The results of the present study showed differences by stratum in student perceptions of various aspects of the environment of the UNA, such as interaction with classmates, the information provided by the different departments of the university, academic performance, expectations of the program of studies, Internet connectivity, condition of the electronic device with which academic tasks are carried out and the physical space in which these tasks are carried out.

Opinions about the state of interaction between students vary between dropouts from schools of origin in different strata. This result is important because relational factors play an important role in the context of dropping out, since difficulties in integrating into the academic and social context and in building positive relationships with peers and teachers can affect the development of a successful university experience (Aina et al., 2022). The possibility of establishing relationships between people in the university environment is conditioned by personal factors, as well as by institutional characteristics, and it is therefore necessary for the university to promote activities that allow students to integrate socially and generate positive relationships that contribute to better development during their participation in higher education, particularly if they come from disadvantaged educational contexts such as students from schools in Stratum 3.

In addition, differences were found in the way in which students received information provided by different university services (scholarships, registration, library, etc.). This result suggests the existence of disparities in people's access to institutional information, which is highly significant since the proper reception of information provided by the university can contribute to the strengthening of academic persistence, limit academic lag and contribute to a better educational experience (Lobos et al., 2021). If information provided by the university does not reach all students, university authorities should consider the possibility of implementing different communication channels for different types of students, since failure to do so could have negative effects on the members of certain groups.

Differences in expectations about the chosen program of study were also encountered. This finding agrees with Tamargo et al. (2022), who point out that people's academic and work interests may differ depending on sex and area of residence, since there is often a high level of indecision when choosing a certain branch of knowledge in order to satisfy a student's future professional expectations. Furthermore, it is common to find differences between what a person expected and what is actually offered at the university (Páramo et al., 2017). That is why it is important to take into account that the expectations developed by students when they enter higher education constitute a variable that influences the process of adaptation to university life (Páramo et al., 2017), since the student learning experience, as well as the ability to succeed in studies are usually determined by the way in which these expectations are created (Yang et al., 2020).

The academic performance achieved while the person was at the university was not valued equally by students from schools of origin in different strata. This result is in accordance with what was mentioned by Soza (2021), who states that academic performance is influenced by aspects such as the schools of origin of students, their cultural habits, the educational system and the institution in which they study. Individuals from schools in Stratum 3 stated that their academic performance was regular, which may be due to the different limitations they face during the process of their education. It is likely that individuals from schools in this stratum must work or carry out different activities that allow them to generate the necessary resources to cope with university life, which can affect their performance, since, as Araiza (2021), mentions, the experiences that individuals with different limitations experience may put them at a disadvantage compared to other groups that come from more favorable academic conditions, who have fewer distractions while attending a university, allowing them to achieve greater productivity.

Therefore, it is important to pay attention to the particular conditions of students in different strata, since the disadvantages of vulnerable groups can affect the academic performance of the populations in Stratum 3, preventing them from having a successful school career, and leading to poorer academic performance. These students are more likely to be at risk of dropping out of school and tend to experience lower satisfaction with their educational experience overall (Li y Carroll, 2020).

Differences were also found in aspects related to socioeconomic conditions such as physical space and the use of technology, such as Internet connectivity and condition of the device used for academic work. The evaluations made by the students are in agreement with comments of [Rodríguez-Hernández et al. \(2020\)](#) y [Tomaszewski et al. \(2022\)](#), who point out that individuals from more disadvantaged socioeconomic contexts face adverse situations that can negatively influence their motivation and academic performance, increasing the risk of dropping out of school.

Furthermore, [Hidalgo et al. \(2019\)](#) suggest that student permanence tends to be favored when there are sufficient economic resources to meet academic needs. The evaluations of the students who come from schools in Stratum 3 are relevant, since they normally have fewer resources, must work to meet both their own needs and those of their families, they live in remote areas and do not have the necessary material resources to cover the responsibilities involved in carrying out academic tasks.

On the other hand, although the incorporation of environments based on information and communication technologies has become an essential element for learning by university students ([Wang et al., 2020](#)) and makes relevant contributions to the curriculum, it is necessary for universities to constantly review these environments, since they involve related factors that can impact students' decisions ([Fonseca-Grandón, 2018](#)).

CONCLUSIONS

This study explored the relationship between variables associated with school dropout and the educational stratum of students' schools of origin as defined by the UNA, using data gathered from students who dropped out after their first year of university education, a research approach which has not previously been taken by the institution.

The findings established that variables related to peer interaction, connectivity, resources and academic performance were more favorably perceived by individuals from schools of origin in Stratum 1, while the lowest scores were found in Stratum 3.

Regarding expectations about student's programs of study and information about the services offered by the university, the most positive evaluations were made by individuals from schools of origin in Stratum 2 and Stratum 3, in contrast to the perceptions of individuals from schools in Stratum 1.

These results highlight differences in perceptions of socioeconomic and educational factors, as well as in the ability to integrate into university life between individuals from schools in different strata.

Based on these results, it is recommended that future studies investigate the relationships found more deeply, so that they can be explained in sufficient detail to contribute to the description of the impact that the stratum of the school of origin exerts on aspects related to school dropout in the UNA. For example, some of the analyses did not produce clear results concerning the evaluations of students from schools of origin in Stratum 2, which contains the largest proportion of students in the sample

(around 60% of first-entry enrollment); therefore, future research should focus on analyzing in detail the characteristics of this stratum and its relationships with variables associated with abandonment.

It is also necessary to carry out longitudinal comparative studies between students who remain enrolled and those that drop out in order to identify the variables that best describe the differences between these populations.

It is necessary that the university orients institutional actions so that the specific problems of each stratum can be addressed more directly and thereby prevent people with any individual, economic or social disadvantage from abandoning higher education. It is thus highly important to continue to develop admission policies that seek to provide opportunities for entry to university education by the most disadvantaged students, thereby supporting policies that promote equal access.

Another recommendation for the UNA is to study the results of this research to better understand factors that can condition or influence people's decision to remain in or leave the university educational system, and to consider the structure of the strata of schools of origin when working to increase the length of time that first-entry students remain enrolled at the University.

Finally, it must be noted that this study has some limitations. First, the application of the simple correspondence analysis technique, carried out for descriptive purposes, identified similarities between the categories of one variable with respect to those of another, but does not allow establishing causal relationships between the variables under study. Second, we must recognize that the sample consists only of students who dropped out of the university, so it is not possible to model a relationship between the study variables and dropout. Third, the possibility exists that the data used suffer from recall biases, given that the informants were no longer enrolled at the institution.

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