Evaluation of a mentoring project for undergraduate university students

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Summary. This study evaluates the mentoring project implemented by a Latin American university, which is aimed at improving the adaptation processes of first cycle university students and provides accompaniment through peer mentors of higher cycles, in order to facilitate their induction to the Higher Education environment. The study compiles the experience of 74 student mentors (who provide accompaniment) and 538 mentored students (who receive accompaniment), through perception surveys adapted from studies of similar characteristics. In addition, by means of the data obtained, the incidence of mentoring on the continuity of the mentored students was determined by means of inferential statistics. The results confirm a high degree of satisfaction of those involved, showing that the actions generated by the program have a positive impact on the academic continuity of the students. In the future, it is expected to complement the study by identifying risk profiles and mapping adaptive strategies to ensure the academic continuity of university students.

Key words: University, First Cycle University Student, Higher Education, Induction to Student Life, Secondary - Higher Education Transition.

1 Introduction

The rapid expansion of higher education requires strategies to ensure student retention in a context where only 50% of students complete their studies (Banco Mundial, 2017).

The transition from secondary to higher education is a focus of attention that requires the involvement of universities and the students themselves, as it is a stage that involves difficulties, given the adaptation to a system different from the one they have left in their school studies (Gallo, 2022). In this context, a Latin American university established the Mentoring Project, which provides support to students during their first year at university, through peers from higher cycles and institutional strategic support channels that seek their induction. This research evaluates this project for its constant improvement, identifying its impact on the continuity of the students benefited.

2 Theoretical Framework

2.1 Definition of mentoring

For Tinoco (2018), mentoring seeks to develop the human being as an individual, under a relationship established according to the environment and need. Peer mentoring involves an experienced person who guides and transmits his or her knowledge to someone who seeks to develop in a similar context (Gower et al., 2022). This process also benefits the mentor, since while fulfilling his or her role, he or she develops skills to meet the demands of new students (Arroyo et al., 2021).

Aguilar y Manzano (2018) consider six phases of mentoring: formation of the mentoring team, generation of a strategy matrix, selection of strategies to be used, familiarization, accompaniment, and finally, evaluation.

3 Method

3.1 Approach

A quantitative experimental approach was applied, through the measurement of variables and their evaluation (Niño, 2011). Hypothesis testing was carried out to determine the influence of the accompaniments received by first cycle students.

3.2 Instrument

A five-point Likert-type scale survey was structured, adapted from studies with similar objectives to the present one (García et al. 2013), (Torrecilla et al.2013). In addition, it was validated, using Cronbach's alpha, concentrating items in homogeneous groups, by means of factor analysis.

The data were processed in the SPSS version 29 computer software.

3.3 Sample

The sample surveyed was 538 mentees and 70 mentors, under a confidence level of 95%, and a sampling error of 0.05. The hypothesis test considered the first cycle students under mentoring, of the university under study, segmented into students who continue and do not continue their studies during the second cycle (597) and (59). To homogenize the samples, the number of observations was equalized, using random criteria, considering characteristics such as: belonging to the first cycle and the same career, mentoring, age and school of origin.

4. Results

4.1 Descriptive analysis

Table 1 shows the general profile of mentors and mentees participating in the experience.

Table 1. Characteristics of the sample of mentored students and mentors, for the application of the survey.

Sample Characteristics	Mentored	Mentors
Gender		
Female	66%	62%
Male	34%	38%
Age		
18 a 20	80%	3%
22 a 24	16%	77%
25 a 27	3%	16%
28 a 30	1%	4%
>30	0,4%	0,4%
College of origin		
Prosecutor	28%	-
Fiscomisional	45%	-
Private	27%	-
Previous mentoring experience /Participation in other projects		
Yes	19%	45%
No	81%	55%

4.2 Satisfaction of those involved in the program

Tables 2 and 3 show how mentees and mentors rate the program, with the highest rating being 5 points.

Table 2. Project evaluation, mentored students.

Mentored students	Mean	Des. Estandard
Project organization		
Information	4,31	1,358
Mentor's belonging to the same career	4,33	1,020

Mentor-mentee relationship		
Relationship with the mentor	3,97	0,872
Mentor's support	4,24	1,070
Satisfaction of requests and consultations	4,27	1,000
Planning of mentoring	4,09	0,936
Mentor's role	4,21	0,902
Effects of the project		
Support for adaptation to university life	3,84	1,128
Support in adapting to the reality of the career	3,89	1,135
Help in getting to know the university services	3,91	1,124
Help in the social sphere	3,68	1,187
Feeling of identification with the career	4,09	0,836
Satisfaction with the degree program being studied	4,26	0,834
Criteria on the mentoring project		
Usefulness during the first cycle	3,96	1,011
Utility during the second cycle	3,54	1,275
Utility in general	4,04	0,969

The criteria received a rating higher than 3.5, showing a high level of satisfaction on the part of the students who received the accompaniment.

Table 3. Project evaluation, student mentors.

Estudent mentors	**Mean**	**Des. Estan-dard**
Project organization		
Information about the students in their charge	4,88	0,522
Belonging to the same career as their mentees	4,65	0,748
Usefulness of previous training	4,04	0,999
Commitment of the integrating teacher to the project	3,58	1,216
Commitment of the career director to the project	3,14	1,307
Performance of the people in charge of the project	4,24	0,637
Mentor-mentee relationship		
Relationship with mentee	4,27	0,799
Requests and queries are met	4,54	0,601
Accompaniment is adapted to the interests and needs of the mentees	4,18	0,627
Effects of the project		
Help in overcoming difficulties.	4,16	0,759
Help in adapting to university life	4,19	0,715

Usefulness of the mentoring project for the community	4,36	0,61
Reinforcement of the mentor's skills	4,27	0,58
Personal and professional growth	4,18	0,627
Criteria for the mentoring project		
Usefulness during the first cycle	4,22	0,53
Usefulness during the second cycle	3,24	1,191
Utility in general	4,33	0,625

The mentors rated the project with more than 4 points in all criteria, with the exception of its usefulness during the second cycle and the commitment of the career director and his team.

3.4 Hypothesis testing

The non-normality of the samples (Kolmogorov-Smirnov test) allowed the application of the Mann-Whitney Test to determine the incidence of mentoring on student continuity (null hypothesis: the number of mentoring received by students who continue their studies during the second cycle is equal to that of students who do not continue, decision rule: for $P < \alpha$ (0.05) reject the null hypothesis). Table 4 summarizes the results.

Table 4. U de Mann-Whitney Test

	Total, accompaniments received	**Gender**
U de Mann-Whitney	1597,000	1563,500
W de Wilcoxon	3367,000	3333,500
Z	-0,787	-1,104
Sig. asin. (bilateral)	0,431	0,270

With a significance level of 95%, there is insufficient evidence to reject the null hypothesis (0.431 > 0.05). There are no significant differences between the number of accompaniments received by students who continue their studies and those who do not.

5 Discussion

García (2013), evaluating a university mentoring program, evidences the satisfaction of those involved with the resolution of needs and optimization of the use of institutional resources; however, supervision and duration show dissatisfaction. Their findings coincide with the perception of the program evaluated, showing a positive mentor-mentee relationship and favorable induction. Contrasting the limitations identified by Garcia, the program differs in the assessment of supervision, coinciding only in its duration, perceiving a greater usefulness during its first semester of execution.

Rodríguez (2019) regarding student continuity, considers adaptation as an incident factor; however, the results of this research, after comparing the groups that continue and those that do not, indicate that the possibilities of permanence do not increase according to the number of accompaniments received. Although this support is important for continuity, there are other factors that determine academic performance (Reynoso, 2011).

6. Conclusions

Student induction programs enable effective adaptation. For their implementation, it is advisable to strengthen the accompaniment activities, seeking timely support channels. It is important to analyze their duration, considering that their maximum usefulness is during the first cycle of university life.

Limitations and Future Research

Limitations may arise from not considering continuity as a multifactorial aspect, being opportune to identify risk profiles and map strategies to improve academic retention.

Another limitation may be related to the size of the sample used for the inferential analysis, recommending expanding the research with students from other study modalities and socioeconomic contexts.

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