Strengthening of Learning Skills Supported by Peer Tutors

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Summary. The systematization of the peer-to-peer tutorial system was conducted at a private university in Lima during the second period of 2022-2. The participants were students enrolled in the first year as tutees and students from other years of studies as peer tutors. The tutees were selected based on the Risk Identification Tool (RIT). They had obtained a failing grade (less than 11.00) where 11.00 is the minimum passing grade at the university. With this group of students, academic tutoring and personalized accompaniment was planned, carried out by peer tutors who were previously trained to explain and practice the course activities. One hundred and on tutoring groups were organized with a participation of 458 students who enrolled progressively in the sessions motivated by the commentaries of their peers, who improved their participation and academic performance in the course. The results obtained were positive, the level of success improved between 25% and 83% according to each course evaluated.

Keywords: Tutorial system, tutoring, first cycle university student, student participation.

1 Introduction

In diverse educational spaces, the needs and profiles of the students go beyond the classroom setting, and if they are not identified and attended to in time, the learner can become demotivated to see that the improvement in their performance is delayed.

This paper presents the systematization of a peer-to-peer tutorial accompaniment program aimed at strengthening students' performance in their first year of university. It started in the area of Chemistry. Peer tutors are students from higher years who explained and reviewed the topics in group sessions where first and second cycle students showed greater difficulties.

The climate during the tutoring sessions was horizontal and respectful and this encouraged the tutees to talk about their doubts and about the aspects that needed to be strengthened.

Students who play the role of peer tutors received prior training in order to promote the development of competences in the tutees, strengthen interpersonal links and the management of small groups; applying accompanying strategies in the tutorial action and encouraging them to identify, recognize and strengthen their personal resources, as part of the process of building the role of peer tutor.

Through practice, peer tutor students were able to share with their tutees, academic knowledge, learning strategies, study habits, and time management, and they could also apply academic reinforcement techniques and collaborative work to enhance the learning of students of the first year of university.

As a result, students at academic risk who participated in peer tutoring have improved their academic performance by 47% in the area of Chemistry.

2   Theoretical Framework

Academic tutoring and personalized accompaniment is a strategy that aims to improve students' academic performance through interaction with their peers in formal spaces, taking into account the academic needs of each student. This educational strategy favors the communication between student-peer tutor and the tutored student, generating a positive interdependence and a co-responsibility between them.

Peer tutoring is a form of cooperative learning with a positive impact on both the tutor and the tutee, with special input for at-risk students (Thurston et al., 2021). Students are automatically placed in a position of teaching and authority, so they tend to gain self-confidence and his self-esteem is strengthened, as well as his motivation to keep that position (Zheng & Wang, 2022).

In this regard Sanchez-Aguilar (2021) points out that the relationship of peer tutors and cross-age tutees does not change despite the fact that peer tutors have greater skills.

3   Method

The systematization of peer-to-peer tutoring of the Chemistry Elements course was approached from a qualitative approach.

To monitor the academic performance of students in the first year, the Risk Identification Tool (RIT) was implemented, in order to identify students at academic risk weekly. The weekly progression of the learning was discussed in the Academic

Committee where it was possible to identify the Peer Tutoring as a strategy to accompany this group of students at risk.

Based on this identification, study groups were organized in different face-to-face and virtual schedules, where peer tutors focused on working the practice of previously defined activities with the course coordinator. To manage and monitor academic progress, the general tutor recorded attendance and weekly progress of student grades to give feedback to the peer tutor and evaluate study groups weekly

4   Results

Table 1. Results of the academic performance of the students participating in the Peer-to-Peer Tutoring in the Chemistry area courses

Subject	No. of Groups	No. of Attendants	Passing Rate
Elements of Chemistry	60	323	47.50%
Chemistry 1	19	58	60%
General Chemistry – Engineering	7	12	25%
General Chemistry - Medicine	13	59	61.02%
General Chemistry 2	2	6	83%
Total	101	458	

The results showed that academic tutoring and personalized peer support favor the learning of students who in most cases were able to pass the courses in the Chemistry area. The course with the highest percentage of approval was General Chemistry II, followed by General Chemistry offered for medical students.

5   Discussion

According to Thurston et al., (2021) the organization of peer tutoring has represented a learning space for peer tutors as well as for tutees. The comments collected show that tutored students felt free to ask all kinds of questions in the climate of trust generated by the peer tutor. In turn, peer tutors strengthened their self-confidence, improved their learning strategies and reinforced the topic explained to the group, as also presented by Zhang & Wang (2022).

Finally, as proposed by Sanchez-Aguilar (2021), the interactions of peer tutor and tutees in the study group established a climate of trust and horizontal dialog.

6   Lessons Learnt

6.1 Peer-to-peer tutoring generates a favorable climate for addressing diversity in the classroom.
6.2 Training peer tutors in didactics provides confidence in conducting the sessions.
6.3 Planning of the sessions and accompaniment to the student peer tutor during the sessions contributes to generate a favorable climate for the tutorial action.

7   Limitations and Future Investigations

7.1 The availability of students-peer tutors is variable; they are also students and can change their priorities and times of engagement. The learning gap is diverse, so not all students succeed in passing despite tutoring and mentoring. In addition to learning the content, they must simultaneously develop skills and attitudes for collaborative, self-regulated learning, which requires greater dedication and effort.

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