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Original article

Learning and emotional experiences in relation to the support perceived by university students during COVID-19

Experiencias de aprendizaje y emocionales en relación con apoyos percibidos por universitarios durante la COVID-19

Aprendizagem e experiências emocionais em relação ao apoio percebido por universitários durante a COVID-19

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ABSTRACT

During the COVID-19 pandemic, university students continued their studies through remote education, involving different institutional resources and competencies of teachers and students. The objective of this article was to analyze the learning and emotional experiences of the student body based on the institutional and teacher support received during COVID-19, after a year of remote education. A mixed method (quantitative-qualitative) was used; In the quantitative phase, a self-report questionnaire was applied to 682 students and in the qualitative phase, 21 students were interviewed. For the analysis of the quantitative results, the statistical program SPSS v22 was used and the qualitative data were analyzed by hand. The results indicate that the students used various strategies that contribute to the self-regulation of their learning and in general experienced positive emotions, but also anxiety and stress. The students were generally satisfied with the implemented institutional and teaching measures; access to virtual platforms, as well as the adaptation of content, didactic strategies and empathic attitude of teachers were highly valued, given the academic overload and decreased perceived interactions.

Keywords: affectivity; learning; higher education; college student; pandemic.

RESUMEN

Durante la pandemia por la COVID-19, los universitarios continuaron sus estudios

mediante la educación remota, involucrando distintos recursos institucionales y competencias del profesorado y del alumnado. El objetivo de este artículo fue analizar las experiencias de aprendizaje y emocionales del estudiantado a partir de los apoyos institucionales y docentes percibidos durante la COVID-19, tras un año de educación remota. Se utilizó un método mixto (cuantitativo-cualitativo); en la fase cuantitativa se aplicó un cuestionario de autoinforme a 682 estudiantes y en la fase cualitativa se entrevistó a 21 estudiantes. Para el análisis de los resultados cuantitativos se utilizó el programa estadístico SPSS v22 y los datos cualitativos se analizaron artesanalmente. Los resultados indican que el estudiantado empleó diversas estrategias que contribuyen a la autorregulación de su aprendizaje y en general experimentó emociones positivas, aunque también ansiedad y estrés. Los estudiantes estuvieron satisfechos en general con las medidas institucionales y docentes implementadas; los accesos a las plataformas virtuales, así como la adaptación de contenidos, estrategias didácticas y actitud empática del profesorado fueron altamente valorados, ante la sobrecarga académica y disminución de las interacciones percibidas.

Palabras clave: afectividad; aprendizaje; enseñanza superior; estudiante universitario; pandemia.

RESUMO

Durante a pandemia de COVID-19, os universitários deram continuidade aos seus estudos por meio da educação a distância, envolvendo diferentes recursos institucionais e competências de professores e alunos. O objetivo deste artigo foi analisar as experiências de aprendizagem e emocionais do corpo discente a partir do apoio institucional e docente recebido durante a COVID-19, após um ano de ensino à distância. Foi utilizado um método misto

(quantitativo-qualitativo); Na fase quantitativa foi aplicado um questionário autoaplicável a 682 alunos e na fase qualitativa foram entrevistados 21 alunos. Para a análise dos resultados quantitativos foi utilizado o programa estatístico SPSS v22 e os dados qualitativos foram analisados manualmente. Os resultados indicam que os alunos utilizaram várias estratégias que contribuem para a autorregulação da sua aprendizagem e em geral experimentaram emoções positivas, mas também ansiedade e stress. Os alunos mostraram-se globalmente satisfeitos com as medidas institucionais e pedagógicas implementadas; o acesso às plataformas virtuais, bem como a adaptação de conteúdos, estratégias didáticas e atitude empática dos professores foram muito valorizados, dada a sobrecarga acadêmica e diminuição das interações percebidas.

Palavras-chave: afetividade; aprendizado; ensino superior; estudante universitário; pandemia.

INTRODUCTION

During the SARS CoV-2 virus pandemic, higher education institutions faced the challenge of maintaining educational quality, through emergency remote education, with the mediation of different platforms and technological tools, which implied the use of various institutional resources and support, as well as different skills on the part of teachers and students. In most universities, the predominant modality is face-to-face, so despite technological advances, the development of technology-supported education has been advancing slowly. That is why, given its nature, emergency remote education due to the pandemic implied a rapid transformation in institutional management, as well as in the design and implementation of teaching and learning

methodologies and strategies, although without planning (Tejedor *et al.*, 2020), in order to face the different academic and psychological demands of the students, from the confinement in the homes, which lasted for more than one academic cycle.

For students, this disruption in educational environments implied the challenge of having adequate technological resources to continue with their classes remotely, as well as the use of strategies to self-regulate their learning. Likewise, that the institutions attend to their emotional well-being needs and promote autonomy to continue their studies. Hence, it is important to know the experience of university students from their perception of the type of support they considered necessary and useful for their learning and emotional well-being, with a possible impact on their permanence at the university. Based on these approaches, the work analyzed the learning and emotional experiences of the student body based on the institutional and teacher support received during COVID-19, after a year of remote education.

Given the health contingency caused by SARS CoV-2, universities launched various initiatives to support students to advance in their studies remotely, which involved the digitalization of teaching. Depending on each institution, the supports have had different formats, serving two main purposes: promoting learning (technological platforms, webinars, tutorials, etc.) and the emotional well-being (psychological help, workshops to manage stress, etc.) of the students. In turn, teachers have had to design and implement various instructional strategies to help students develop skills to achieve optimal learning.

Thus, the experiences that university students have experienced throughout this time of confinement have been largely the product of the different learning environments implemented in relationships

and actions, based on the available institutional infrastructure.

In this sense, Espinoza and Rodríguez (2017) point out that learning environments exceed physical conditions and resources, which, although essential, are not sufficient. That is why, in an educational environment, interactions must also be considered, the type of relationship that people maintain, the activities that are carried out, the attitudes and the affective aspect of each of the participants, which contribute to favor experiences for autonomous and collaborative learning and that promote the development of skills in students.

Among the main measures carried out by the universities to cover the educational needs of the student body in this modality, the access to virtual environments stands out to promote meetings between teachers and students, either synchronously or asynchronously (Díaz-Roncero *et al.*, 2021). These spaces are mainly the technological platforms, through which institutional information is managed, the organization of courses, the support for students and, above all, they enable active communication with educational actors.

Studies on this topic have reported different results regarding the experiences of university students with remote education during the period of confinement at home. The study by Suárez *et al.* (2021), in Spanish and Argentine universities indicated that, for the most part, students perceived that the institutional measures adopted during confinement were not sufficient, which affected their academic performance.

For their part, the results of Abdulrahim & Mabrouk (2020) with university students from Saudi Arabia, generally indicate that they were satisfied with the institutional and instructional measures during this period, based on intensive training courses in the

use of technologies for learning. In addition, they mention that quality online teaching implied having a robust infrastructure, but also an adequate teaching system for these environments.

From the perspective of instructional design in emergency remote education, teachers are guides and support for students. From a meeting and dialogue relationship, it is relevant to encourage the use of effective learning strategies that guide university students to monitor and regulate aspects of behavior and cognition to optimize their learning process, in addition to promoting positive emotional states.

From a socio-cognitive approach, self-regulation of learning has proven to be a relevant aspect for the achievement of academic objectives; by allowing students to plan and adapt their thoughts, emotions and behaviors (Zimmerman, 2008), through the formulation of goals, the use of learning strategies, monitoring and self-assessment, which have a substantial role in student performance. However, in remote education during the pandemic, not all students presented the same abilities to face these demands and in some cases their performance and emotional state were greatly diminished (Suárez et al., 2021).

The findings of Biver et al. (2021), with 1,800 Dutch university students, indicated that, in online environments, students were less motivated and considered less capable of regulating their attention, effort and time, compared to their pre-lockdown situation. For their part, several researchers (Rahiem, 2020; Suárez et al., 2021) report that students perceived an overload of activities and tasks, a fast pace of work, as well as little (or no) communication, which is why they preferred face-to-face environments.

With regard to evaluation, in particular, the support from the universities focused mainly

on the postponement of exams, the supply of online questionnaires, supervised tasks, oral exams, among others (Grande-de-Prado et al., 2021). In these practices, the flexibility on the part of the institutions and teachers was substantial to make the transition process to emergency remote education as effective as possible. However, studies such as that of Suárez et al. (2021) indicate that students were not satisfied with the online assessment methods.

To help students learn, other institutional actions focused on tutoring, through teacher and peer support, as well as consultation and guidance spaces for new students, various workshops on learning strategies, public speaking, oral expression and writing, among others. Regarding the experiences of communication with teachers, the opinion of Italian, Spanish and Ecuadorian university students on the importance of tutoring processes to improve performance during emergency remote education stands out (Tejedor et al., 2020). Likewise, students perceived the support and guidance of their teachers as a key factor in their academic success.

Other types of institutional support linked to academic performance involve the emotional sphere, which, during the pandemic, was considered a high-risk factor for the mental health of students, associated with the high stress experienced by the probability of contagion, illness, grief and the economy at home, coupled with the high intellectual and emotional demands that involved remote education (Moreta-Herrera et al., 2022). In this regard, Bisquerra (2009) states that emotions are the result of the interpretation of changing situations, based on personal and contextual resources, which predispose the person to an emotional experience. During the confinement, the university students experienced high levels of stress, anxiety, anguish, fear, but also a sense of responsibility, care and appreciation of the other. Within this framework, the universities

made efforts to promote the well-being and mental health of the student body, through individual psychological help, workshops to reduce stress, among others (Rastegar Kazerooni et al., 2020).

The evidence presented shows the importance of analyzing, in a contextualized manner, the experiences lived by Mexican university students derived from remote education during the pandemic. Particularly, it is relevant to investigate their perceptions regarding the self-regulation strategies of learning and the emotions experienced, in relation to the institutional and educational support received. It is considered that these aspects can provide relevant information, in order to understand the needs of students in hybrid scenarios and once again face-to-face, after the period of confinement.

Based on all of the above, the following research objective was established:

To analyze the learning and emotional experiences in relation to the institutional and teaching support perceived by university students during COVID-19, after a year of emergency remote education.

The following particular purposes derive from this objective:

1. Identify students' learning and emotional experiences
2. Determine the institutional and teaching supports for the promotion of learning perceived by the student body
3. Distinguish the institutional and educational supports for the promotion of positive emotional states from the perception of the student body.

MATERIALS AND METHODS

A mixed method (quantitative-qualitative) was used, with the purpose of deepening the understanding of the object of study and complementarity of the data. In the quantitative phase, a self-report questionnaire was applied to 682 students and in the qualitative phase, 21 students were interviewed.

Participants. The sample was made up of students from three private universities in northwestern and central Mexico using non-probabilistic, intentional sampling. In the quantitative phase, 682 undergraduate (68%) and master's (32%) students participated. The university students had an average age of 24.57 ($SD = 7.87$) and the majority were women (73.9%). Most of them completed undergraduate studies (68%) in the areas of health (40.3%) and education (28.3%). During the confinement, the majority lived in an urban environment (71.8%) with an internet connection (95.7%) (see Table 1).

Table 1- Characteristics of the quantitative phase participants (n =682)

| Indicator | Percentage of participants |
|---|----------------------------|
| Gender | |
| Female | 73.9 |
| Male | 25.5 |
| no information | 0.6 |
| educational level | |
| Degree | 68 |
| master's degree | 32 |
| Areas disciplinary | |
| Health | 40.3 |
| Education | 28.3 |
| Sciences social , administration , law | 17 |
| arts and humanities | 7.6 |

| | |
|---|------|
| Engineering, manufacturing and construction | 4.5 |
| Natural, exact and computational sciences | 23 |
| housing environment | |
| Urban | 71.8 |
| semi-urban | 21.3 |
| Rural | 6.9 |
| network connection | |
| Internet | 95.7 |
| Without Internet | 4.3 |

In the qualitative phase, the inclusion criteria of the participants were: to be students enrolled in the current period who had been in remote classes for at least one year, who wished to collaborate with the study and gave their consent to record the interview. It was sought that there was representation in the sample regarding the level of studies (bachelor's and master's degrees) and disciplinary areas. As shown in Table 2, 21 students (11 men and 10 women) participated, with an average age of 23.18 ($SD = 4.84$). The main limitation in approaching the student body, given the conditions of the pandemic, was obtaining responses only from people who had electronic resources for follow-up.

Table 2- Characteristics of the qualitative phase participants (n= 21)

| Indicator | Percentage of participants |
|--------------------------|----------------------------|
| Gender | |
| Female | 47.6 |
| Male | 52.4 |
| educational level | |
| Degree | 57.1 |
| master's degree | 42.9 |

Techniques and instruments. For the quantitative phase, a questionnaire was designed, prepared with the Google Forms

tool for its anonymous online application. The questionnaire was made up of four sections, in which questions were asked about: a) the sociodemographic characteristics of university students, b) emotions, c) self-regulation of learning, and d) perceived institutional and teaching actions, in the context of confinement. by the COVID-19 pandemic. A more detailed description of the composition of each section of the questionnaire is presented below:

a) Sociodemographic characteristics. The variables considered were: gender, age and academic period. Likewise, they were asked about the housing conditions during the confinement: state of residence in the country, environment (urban, semi-urban and rural) and technological resources to continue with the studies.

b) Emotions. A list of eight emotions linked to academic achievement was presented, based on the studies by Bisquerra (2009) and Pekrun et al. (2005), these being: joy, calm, hope, gratitude, anxiety/worry, anger, frustration and apathy. Based on this list, the students were asked to select to what extent they had experienced these emotions during confinement, using a 5-point Likert response scale: never (1) to always (5).

c) Self-regulation of learning. The Self-Regulation Formative Questionnaire (Gaumer -Erickson & Noonan, 2018) was used, adapted to the confinement situation. The 22-item instrument measures the perceived level of competence in four essential components of self-regulation, which for the present study had acceptable levels of reliability: a) Planning (5 items; $\alpha=0.76$); b) Progress monitoring (6 items; $\alpha=0.77$); c) Control of changes made (6 items; $\alpha=0.76$); d) Reflection on the results (5 items; $\alpha=0.75$). The instrument, with a 5-point Likert response scale, has a reliability index $\alpha = 0.92$.

d) Perceived institutional actions. A multiple-choice question was asked: which of the following actions taken by your university have contributed to your emotional coping and/or self-regulation of your learning during the period of confinement? with the following response options: 1) institutional platform, 2) tutorials, 3) emotional support/psychological service, 4) talks/webinars, 5) virtual library, and 6) others.

For the qualitative approach, a semi-structured interview was designed, consisting of a nine-question guide, in order to explore in greater depth, the perceptions of the student body regarding learning and emotional experiences, in relation to the institutional and teaching supports implemented during the remote education due to COVID-19. The questions were formulated according to three categories:

a) Learning experiences (compared to the face-to-face modality and the study strategies implemented),

b) Perceived institutional and teacher support for the promotion of learning,

c) Perception of institutional and educational support for the promotion of positive emotional states in students.

Procedure. The questionnaire was distributed through institutional mail, as well as through academic and social networks. The participants were informed about the objectives of the study and agreed to respond voluntarily and anonymously.

The interviews with the 21 key informants were carried out virtually, seeking the representativeness of the different disciplinary areas in the participating institutions, with the help of a videoconference platform, prior contact and agreement with each student; these were recorded based on the informed consent of

the participants, taking care to maintain their anonymity. The information was collected by the study researchers.

For the analysis of the quantitative results, the statistical program SPSS v22 was used. The reliability analysis of the instruments was carried out, as well as the normality and linearity of the data. Next, descriptive analyzes (frequency and central tendency) were performed. The qualitative data was analyzed by hand, from the transcription of the responses obtained by each informant, by identifying the three preliminary categories and looking for new categories that emerged as a result of the conversation with the participants.

RESULTS

Student learning and emotional experiences

In order to achieve a better understanding of the emotional and learning experiences of university students during COVID-19, firstly, their level of self-regulation of learning was determined and, in a complementary way, the study strategies implemented, as well as their perceptions regarding the learning acquired, compared to the face-to-face modality. In addition to inquiring about the emotions experienced by students from remote education.

The statistical results indicated, from a maximum value of 5, an average level of self-regulation in the student body above three points ($M = 3.69$, $SD = .45$), as well as in its four components (see Table 3).

Table 3- Average values of components of self-regulation of learning (n =682)

| Self-regulation Components | Mean (M) | Deviation typical (DT) |
|----------------------------|----------|------------------------|
| Planning | 3.66 | 0.61 |
| monitoring | 3.76 | 0.59 |
| Control | 3.63 | 0.51 |
| Reflection | 3.73 | 0.56 |

The results of the interviews showed that among the strategies that the students implemented to continue their studies remotely are paying attention to the academic agenda, anticipating deliveries, planning activities, and monitoring progress. In addition to consulting other more experts, either teachers or colleagues. The following testimonials account for this type of strategy: *" Since I started the virtual modality, I have used many calendars, the one on my computer that goes directly to the phone and I have the dates very large "* (P1, Bachelor's, Business Engineering); *" I try to focus a lot, for example, if I have to deliver something on Friday, I try to force myself to have it ready from Wednesday for any eventuality... Using ` post-its ' I divide my homework... and as I progress, I remove the pieces of paper from the blackboard and I am realizing that I no longer have so many pending tasks"* (P13, Master's, Advanced Manufacturing Engineering); *" ...I also go with my classmates or perhaps with other people who have a little more knowledge "* (P10, Master's, Leadership and Educational Management).

Likewise, some of the participants indicated doing more research on their own, organizing the materials and study time. In addition to using specific strategies depending on the subject, such as screenshots, taking note of the most important things, making mind maps or exercises. A student comments: *"Well, depending on the subject, if it is a theoretical subject, I seek to talk to myself*

about the topics I learn, as if I were talking to someone else, but in my mind... And in those that are not so theoretical, exercise after I exercise until I am sure that I can do any exercise that is given to me; then I have to try a little more" (P8, Bachelor's Degree, Financial and Stock Market Administration).

In addition to the above, some participants mentioned having made modifications, regarding the use of resources, such as working on the tablet or taking class notes on the computer, instead of the notebook, using a digital calendar and reviewing the materials on the platform. In the same way, the testimonies showed strategies for adapting to the environment, such as trying to be in a room or space without noise, using headphones or walking to reduce stress, were also strategies mentioned by the students.

Regarding learning, in comparison with the face-to-face modality, the testimonies of some university students indicate that this has been affected, mainly due to the difficulty in maintaining attention in class for long periods of time, distractions at home or lack of organization and study strategies: *"Well, it has decreased. For me it has been very annoying... when I only have to be in class it is very tedious, like overwhelming, those long periods of being there"* (P11, Bachelor's degree, Psychology); *" I feel that it has decreased a bit... I don't know, like I'm not as self-taught as I'd like... or also because it distracts me that my mom is already coming in or that my dog is already barking or that the gas or water is already coming, there are more distractions than in class"* (P10, Master, Leadership and Educational Management).

Other students refer that, although they have been able to learn and maintain their academic performance, online learning has implied several challenges, such as staying focused or enjoying the subjects: *"Yes, I have learned, my learning has been good,*

many things have become clear to me ..., but it is adapting and, although I have, I feel that I enjoyed my classes more when I attended them in person" (P16, Bachelor's Degree, Hotel and Restaurant Management).

Regarding the emotions experienced by the students, as shown in Table 4, from a maximum value of 5, the ones that obtained a higher average score were gratitude ($M = 3.78$, $SD = .97$) and joy ($M = 3.66$, $SD = .88$), while anger ($M = 3.16$, $SD = .93$) and apathy ($M = 2.65$, $SD = 1.09$) presented the lowest levels.

Table 4- Average values of emotions experienced by the students (n =682)

| Self- regulation Components | Mean (M) | Deviation typical (DT) |
|-----------------------------|----------|------------------------|
| Gratitude | 3.78 | 0.97 |
| Happiness | 3.66 | 0.88 |
| Hope | 3.42 | 1.04 |
| Anxiety / worry | 3.41 | 1.12 |
| Calm | 3.33 | 1.08 |
| Frustration | 3.28 | 1.03 |
| Anger | 3.16 | .93 |
| Apathy | 2.65 | 1.09 |

In the interviews, some students mentioned feeling stressed by having excessive homework and assignments, reporting anger, stress, anxiety, and frustration, since teachers were not always sympathetic to them. *" With these changes, many times I felt angry, frustrated, because I thought... they are already demanding a lot from us... suddenly they are final and everyone wants you to do their homework, their projects, exams, well, as if one did feel a certain amount of stress or anxiety..."* (P12, Bachelor's Degree, Mechatronics).

However, some students reported doing other activities to feel better, such as exercising, and particularly some postgraduate students found it helpful to

focus on studying and interacting with their peers to counteract the emotional impact of estrangement from family or other loved ones. *"I kept my mind busy; you have to do homework, you have to investigate... [say to a colleague] 'give me a hand, I didn't understand, we'll connect after a while'. I think the emotional impact would have been stronger on me if I hadn't been studying postgraduate, definitely, because my family lives in [name of place] and I didn't see my girlfriend"* (P14, Master of Engineering in Advanced Manufacturing).

Institutional and educational support for the promotion of learning from the perception of students.

Based on the students' responses to the questionnaire, the institutional actions that most helped their emotional coping and self-regulation of learning during confinement were associated with access to digital platforms (63.0%). The institutions used *Blackboard, Teams, Zoom* and *Classroom*, which contributed to the management of academic activities, as well as in communication with students. For their part, several students mentioned emotional support and/or psychological service (22.6%), as well as talks and/or webinars (21.6%) and to a lesser degree they mentioned tutorials (11.1%), or the virtual library (4.8%).

Some testimonials of this support were: *"for me, the Teams platform is easier, I thank the University for choosing it"* (P1, Bachelor's Degree, Business Engineering); *" When we were trained to use Classroom and the applications that were used at the beginning, Turnitin, many tools that we were completely unaware of... that helped me a lot..."* (P 19, Master's, Education). Likewise, the participants emphasized that with these platforms they could have the recording of the class sessions, which contributed to their learning. *"... the part of the recordings is an advantage that was added to the learning*

strategies because that did not exist in person, right? Before the pandemic... The library resources offered by the University not so much because many teachers already offer us their digital books" (P12, Degree, Mechatronics).

Regarding the teaching actions perceived by the students to favor their learning, the responses were of a diverse nature; They mainly referred to the organization of the course material and the forms of communication, to the advice by video call and attention by institutional mail or WhatsApp. Also, to the improvement of class interactions such as the use of Kahoot and specific applications such as in the case of teaching mathematics. *"If what the university did was useful to me, I tried to make the most of the resources. My coordinator kept up the communication of events even by WhatsApp... [The teachers] ... they left helped with Kahoot, they were using blackboards with digital post - its ..."* (P5, Bachelor's, Business Administration).

The participants mentioned the academic conferences organized by the university to address issues about the different educational programs. The dialogue with the exhibitors was an enriching experience for the university students: *"Now they have organized more conferences and talks about our area. These people also know how to use the platforms and they explain to us the topics that they come to teach us... at the university they don't know so much"* (P3, Bachelor's degree, Civil Engineering).

Regarding the online evaluation, although some students mentioned that the teachers made adaptations to the evaluation criteria in this new modality with a view to comprehensive learning, others did not like the changes in the way of evaluating: *"[some teachers] seek to comprehensively evaluate what we are doing... I think that this has also been very good because it means adapting to what is happening"* (P15, Master's,

Psychology of Work and Organizations). *"The part of the exams sometimes I didn't like very much online because the teachers also changed their methods to take the exams"* (P13, Master, Advanced Manufacturing Engineering).

Institutional and educational support for the promotion of positive emotional states

Regarding the perception of institutional actions that fostered positive emotional states in the student body, the follow-up to administrative processes in which communication was established in a clear, timely and friendly manner stood out. However, some university students in their initial semesters reported having experienced confusion in certain processes, due to their lack of familiarity with their implementation.

According to the interviewees, the educational institutions made various efforts to contribute to the improvement of their affective states, mainly from the student support departments, through talks and workshops aimed at both the academic and emotional aspects; consultancies and tutorials, as well as the possibility of scheduling a session for therapy. However, despite having these services, some students mentioned having preferred to request external support, either because they were in another state of the Republic, because they did not want to involve the emotional with the institutional, because they had other people -such as their family-, or because they were able to counteract certain states by carrying out activities such as exercise, a hobby or with professional support.

Other arguments for not approaching were not having needed it, not having promptly followed up on emails or institutional notices and, in the case of master's students, not having enough time to take advantage of

them "at a certain point the university began to send some communications of *this psychological help, because I consider that many of us go through certain moments of emotional instability... at one point I hesitated to use it and later I got closer to them, I began to investigate what it was about, although it worked more for me to seek help from another side*" (P12, Bachelor's Degree, Mechatronics) ; "...I could not enroll, because as I study and work, we have really had a large administrative burden and we continue to learn as well" (P9, Master's, Educational Leadership and Management) . It is worth mentioning that only one student interviewed reported not having felt sufficient support from the institution on emotional issues.

On the other hand, some university students indicated that they benefited from the type of subjects taken during the confinement at home depending on the study program, for example, from the subject "Emotional Education", as part of the Master's program in Human Development and others from the Bachelor's Degree in Psychology, where group dynamics were worked on that favored emotional containment and were referred to as spaces for expression and learning to better manage frustrations and emotions in general.

Regarding the support received from the teaching staff, most of the students interviewed reported that the adaptations made for online work had a positive impact on their emotional state. The adaptations made to the planning and the adjustment to the qualification criteria were important. In turn, the support was valued by providing them with timely information, both on the subject and on institutional aspects, in addition to having virtual advisory spaces, which contributed to their emotional stability.

At the same time, the effort made by some teachers to generate good learning

environments was noted; It was considered favorable for the emotional state to carry out dynamics, practices and activities that made it possible to feel integrated and encouraged to participate, promoting teamwork to facilitate both coexistence and support among colleagues, as expressed in the following testimonials: " *[The teacher] always seeks to give greater value to its content, it provides us with dynamics, information... it greatly enriches the entire program. Another teacher was also providing us with a lot of information... there has been added value to their subjects*" (P15, Master's, Psychology of work and Organizations); "*Team practices have been possible..., a harmony is noticeable and it is strange to think that you can generate links, but I have not stopped feeling the closeness as if I were in person*" (P6, Master, Human Development).

At the same time, they highlighted attitudinal aspects on the part of the teachers. The students reported that the majority were accessible, understanding, empathetic (even when they had difficulties with the Internet connection), that they showed humanism - congruent with institutional principles- and sought not to push excessively, as well as motivate students. "*Most of them were supportive, accessible, they helped us, they didn't put so much pressure on us... and they understood the situation*" (P3, Bachelor's Degree, Civil Engineering).

Although it was observed that there was a greater perception of support when a critical personal or family situation was experienced, such as in the case of having lost a close member or other economic problems. In less critical conditions, support was perceived mainly as accessibility and interest, reflected in comments or questions such as how are you? how do you feel? or recommendations to take care of yourself. " *The condescension of the teachers and the accessibility in terms of messages and comments... It seems that I am mentioning very simple things, but I*

feel that they have been a good basis for carrying out this process " (P19, Master's, Education). In turn, it is expressed that, although the teachers did not openly offer support, there was the possibility of requesting it at any time.

However, it was also mentioned that the teachers, due to the limitation of direct contact, had some difficulty in noticing the emotional state of the students, because despite the fact that some students became depressed or experienced despair and demotivation, by continuing to give everything what was requested was not evident to their teachers. It is important to mention that, regardless of the support received directly from the institution or from the faculty, some students agreed that they felt safe by being at home in a pandemic, with the ease of taking classes online.

DISCUSSION

The transition from face-to-face to remote emergency teaching, caused by the pandemic, has impacted the learning experiences of university students. Based on the proposed objective, the study evidenced the emotional and learning experiences in relation to the institutional and educational support received during COVID-19, after a year of remote education.

The results showed, in general, a medium level of self-regulation of learning, in its four dimensions: planning, monitoring, control of changes made and reflection on the results, which is attributable, according to the testimonies of the participants, to the use of different learning strategies, resource management and environment, which is essential for optimal performance (Zimmerman, 2008). However, most of the interviewees also mentioned the challenges of learning during the emergency remote

education established in the confinement, which, in comparison with the face-to-face modality, in some cases, has diminished mainly due to the overload of activities, the difficulty to maintain attention and to the lack of organization and study strategies. These findings turned out to be consistent with those of Biwer et al. (2021), who found that in the online modality, students perceived less ability to regulate their attention, effort, and time.

The students experienced mostly positive emotions, although emotions related to anxiety/worry were also present, which, according to the interviews, were mainly associated with excessive homework and constant exposure to screens, which coincides with what has been reported in research. previous ones (Rahiem, 2020; Suárez et al., 2021). However, unlike other investigations (Biwer et al., 2021), the fact that apathy was the least reported state stands out, indicating the interest of the students to stay in their studies despite the situation, mainly in students' postgraduate studies, which is a fundamental aspect for the self-regulation of learning (Zimmerman, 2008). These results also corroborated what was observed by Johnson et al. (2020) in that, although there has been anguish, stress and fear, these new scenarios have opened up the possibility of increasing responsibility, as well as the appreciation of the other, in this case the relationship with classmates and teachers who were previously took for granted.

Regarding the perception of institutional actions, the results showed that the students appreciated different actions for the continuity of the educational processes. Similarly, to what was reported by Díaz-Roncero et al. (2021), most of the participants reported that access to virtual platforms facilitated the development of their classes, access to institutional information and talks or webinars. In turn, several students referred to institutional actions to

promote emotional well-being through psychological services (Rastegar Kazerooni et al., 2020), although most of them did not use this service.

It is worth noting that the greatest challenges for emotional management were for first-semester students, who were less familiar with institutional processes and had fewer emotional support networks, as they related to their peers mainly for academic issues. For their part, the master's degree students, although they had the challenge of combining study-work, found in this dynamic the opportunity to keep busy and feel supported by their peers. These results confirm the relevance of establishing close relationships and considering the affective dimension of each participant for the development of their learning (Espinoza et al., 2017).

In agreement with Abdulrahim and Mabrouk (2020), the findings show that, beyond recognizing the technological infrastructure in their universities, students appreciated the teaching strategies of the faculty; the effective organization of the subject materials, the adjustment to the contents, to the extent that they were supported by various tools and applications in the classes. The empathic attitude of the teaching staff was another aspect that influenced the positive emotional experiences of the students, which coincides with other studies (Tejedor et al., 2020). In addition, giving space for group activities facilitated the fulfillment of the activities, as well as staying focused, contributing to maintaining a positive mood and reducing stress. The foregoing confirmed the relevance of learning environments in terms of interactions, the activities carried out and the attitudes of teachers for collaborative work and the promotion of autonomy, responsibility in students (Espinoza et al., 2017).

From the findings there are several implications for educational practice. In the first place, it is essential in universities to remain attentive to the emotional states of students through psychological counseling spaces and programs focused on mental health, which has been a proposal frequently suggested in various studies during the pandemic. However, in the study presented, the existence of these supports, through pre-existing student assistance instances, was not widely used during the pandemic, since students have tended to seek help from external professionals when needed. has required. Likewise, several students relied on their teachers, which is why teacher-student communication was essential to detect students who required additional support.

To conclude, based on the findings presented, it can be said that, in general, the students manifested the development of various strategies to continue their studies, despite the challenges faced to adapt to remote education. For their part, the university students were satisfied with the perceived institutional and instructional measures, except in less frequent cases, where they indicated rigidity in the activities and evaluations that did not promote collaboration and the development of joint skills. The foregoing raises areas of opportunity in terms of the distribution of activities and tasks to generate learning environments in which encounter and dialogue are encouraged, together with effective instructional strategies that contribute to the autonomy and critical thinking of students, as well as experiences positive emotional relationships, with the mediation of technologies.

The level of self-regulation that the students presented during the emergency remote education was at a medium level above three points in each of its components. In turn, they manifested different strategies such as the use of calendars, planning, organizing their activities, establishing study schedules

and making adjustments with the use of digital resources and adaptations to the environment they destined to take classes and study at home. The experiences that stand out as difficulties in the modality were: paying attention to the class avoiding distractions at home, lack of organization and study strategies.

In relation to emotions, they reported having experienced a great variety of them, being gratitude, joy, hope and anxiety/worry the most frequently recorded, and frustration, anger and apathy with the lowest level. The causes that were mentioned as stress triggers by the students during their interviews are related to the demands of some teachers related to excessive homework and delivery times, however it was also highlighted that in some way this helped them when they felt busy and not get stressed by other situations such as the pandemic itself and the conditions that were being experienced "...it kept my mind busy" "...the emotional impact would have been stronger if I had not been studying postgraduate..."

The students alluded, in a differentiated way, to the supports that were provided to them, distinguishing those that they considered that the institution provided and those that were provided by the teachers. The first were identified as the actions or tools that were incorporated to attend to this new form of remote education, such as digital platforms, emotional support and/or psychological service, talks and webinars, teacher support, as well as those that were related to with attitudes and actions of the teacher during class as part of the teaching-learning process, such as counseling, the use of various communication resources such as WhatsApp and email.

It is rescued as important aspects for the achievement of learning objectives and in the promotion of positive emotional states in students: timely and constant

communication, the disposition of educational authorities and teachers and the understanding and empathy of teachers with the various situations. that were being experienced on a daily basis in remote classes, associated with the particular conditions of the new context, not only educational but also health and coexistence. Finally, it is considered valuable for future research to contrast the perception of students with other sources such as teachers and institutional authorities.

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The authors participated in the design and writing of the work, and analysis of the documents.

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