

PAPER

Hybrid Learning in Times of Pandemic Covid-19: An Experience in a Lima University

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ABSTRACT

Hybrid learning became more important in the context of the Covid-19 pandemic. In this sense, the University of Sciences and Humanities implemented adequate strategies to guarantee the continuity of the teaching and learning process. At first, the virtual modality was chosen in its entirety, and then it went to a hybrid modality; however, the teachers were not trained; students had problems with connectivity and access to technological resources, which led more than 35% of them to drop out of their studies. Therefore, the purpose of the study is to know the perception of students about the hybrid modality, through a questionnaire applied to 142 students of the 2021-1 cycle, considering 19 integrated questions in 4 dimensions using the Likert scale with ordinal data: didactic strategy, didactic resources, evaluation and tutoring system – all this in order to evaluate the strategies of the hybrid model proposed by the university. The results obtained in the dimensions show the highest score in the evaluation dimension, with an average of 4.51, specifically in the planning of the study program; however, the lowest average is found in the tutoring dimension, with an average of 3.22, which corresponds to participation in psycho-pedagogical workshops to improve academic performance. It is concluded that the didactic strategy in the hybrid modality has been satisfactorily approved by the students. However, tutoring must be strengthened through academic counseling, so that the beneficiaries of this research are students, teachers and parents.

KEYWORDS

hybrid learning, teaching strategies, teaching resources, evaluation system, tutoring, hybrid modality questionnaire, Covid-19 pandemic

1 INTRODUCTION

The health crisis has had an impact not only on the development of academic activities, but also on the continuity of university studies. The UNESCO International Institute for Higher Education in Latin America and the Caribbean (UNESCO-IIESALC) [1] points out that from one moment to the next, schools and universities worldwide had to cease their activities, affecting 1.57 billion students in 191 countries.

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The survey, conducted by the International Association of Universities (IAU) in 2020, indicates that about 67% of higher education institutions turned their teaching to virtuality, 25% suspended classes and 7% completely canceled their academic activities [2]. To address this problem, higher education institutions worldwide have promoted hybrid education, which has become the most common mode of education in almost all regions except Europe [3].

In Latin America and the Caribbean, approximately 23.4 million higher education students and 1.4 million teachers have been affected by the pandemic, representing more than 98% of the region's higher education population. Among the main concerns of students in the region in this context are social isolation, financial issues, and Internet connectivity, which reaches only 45% of the population. According to the Economic Commission for Latin America and the Caribbean (ECLAC), more than 190 countries in the world suffered educational disruptions in the course of 2020. It is also estimated that more than 1.2 billion students will be affected, of whom more than 160 million are in Latin America [4]. Currently, Latin American and Caribbean countries are taking measures for the return to schools and universities under a virtual or hybrid approach. These programs are oriented to certain programs or classes; likewise, institutions may present some open or face-to-face classes and remain closed for virtual classes [5]. It is expected that in the region there will be an increase in the demand for distance education, which has been experiencing a growth in the region of approximately 73% since 2010 compared with the face-to-face modality with a growth of 27% [4].

In the Peruvian context, data presented by the National Superintendence of University Higher Education (SUNEDU) show an increase in the university dropout rate, which was 12.6% in the 2019-2 semester and which increased to 18.3% during the 2020-1 semester with the arrival of Covid-19 [6]. Likewise, Peruvian universities, especially public universities, were not prepared to modify their educational proposal towards virtuality; however, 100% of licensed universities guaranteed continuity of service as of semester 2020-1 [3]. By 2022, the Peruvian government, through Vice-Ministerial Resolution No. 076-2022-MINEDU, stipulated that universities "resume the provision of educational services in the face-to-face and/or blended mode, in a flexible and gradual manner, through the exceptional implementation of hybrid teaching models, in strict compliance with the prevention and control measures of COVID-19", in the second academic semester of 2022 [7].

In this context, educational institutions are proposing a return to face-to-face classes, which represents a new challenge for higher education globally through a hybrid approach. However, online learning is not new, nor has it emerged in the context of the Covid-19 pandemic; previously, higher education institutions had already incorporated e-learning strategies either fully online or in formats that combine online and offline activities [8].

This new hybrid educational model combines the simultaneity of students connected online with students in the classroom. On the other hand, the hybrid modality seen as the duality in its teaching modality – that is, that students develop academic activities both at school and at home – is not a new practice, but has been developing since before the Covid-19 pandemic, with the implementation of the virtual classroom. The hybrid model brings together a group of students face-to-face in classrooms and another group through online platforms, which seeks to address the problem of face-to-face contact between students and teachers; in addition, this model combines the best features of face-to-face learning with online learning based on technology. However, the adaptation of classrooms requires investment in technology [9].

Within this context, the issue of education in particular, hybrid learning has emphasized the development of an integrated pedagogy and flexible learning [10], [11] in which students practice a greater depth and/or investigation of the topics worked on in class. Such synchronous teaching seeks to connect virtual and face-to-face students and is referred to as “blended learning” [11]. These authors, in spite of starting from an exploratory, experimental and qualitative study, seek to find a very specific motivation of the future professional within a scenario where synchronous learning prevails, applying the Self-Determination Theory. Based on this, it was determined that intrinsic motivation on the part of students is very low in relation to hybrid-virtual learning. Hybrid classrooms can be part of this educational rethinking in the new normal, since the context of the health crisis has highlighted the benefits and challenges of hybrid learning, which has become an option that can be part of long-term educational proposals [12].

The university under study faced several problems due to the change from the face-to-face mode to the hybrid mode. The face-to-face modality has been implemented since the creation of the university; on the other hand, the hybrid modality is a recently implemented proposal. Among the problems encountered, one of them is related to teaching strategies in this modality. This is related to the study conducted by Amaya et al. [13], whose results show that students consider learning to be less effective; therefore, teachers should evaluate their teaching methods and redesign learning models and approaches.

Likewise, the didactic resources used by teachers are of vital importance in online courses. For Núñez-Canal et al. [14], the role of the educator is fundamental in the hybrid educational model; this confirms the need for adequate technical resources and qualified educators in order to improve students' competence and can succeed in the digital economy. Likewise, the study conducted by Almahasees et al. [15] indicates that teachers and students agree that online education is useful in the current context; but they observed that its effectiveness is lower compared with face-to-face teaching. Among the challenges of online learning, students remarked on the adaptation to online education with respect to technology.

In addition, the evaluation system in this hybrid modality is the one that presented the greatest difficulty to teachers, since this modality requires specific mechanisms and dimensions. According to Pavlič et al. [16], evaluation in the distance modality was one of the most challenging educational activities in this context, due to the lack of available resources and counseling. According to Marciniak and Sallán [17], virtual education is organized and operates differently from traditional education; therefore, the same parameters and mechanisms cannot be applied to evaluate learning, since these must be based on the context in which they are produced and developed; however, the dimensions that must be addressed in this evaluation do not respond to a unified criterion.

Finally, tutoring is a fundamental area since it allowed the relationship and academic contact between the learning mediator and the students. Thanks to this action, an analysis of the progress of learners can be performed through the collection of information on knowledge needs to guide them and provide feedback on learning [18]. However, several educational institutions do not have a comprehensive tutoring service or are limited to specific activities of information gathering and personal guidance.

Faced with the problems that the educational sector is going through, the University of Sciences and Humanities (UCH), a private university located in the northern cone of the city of Lima, Peru, has implemented a series of measures to meet the new demands of students. This university, which is based on an academic proposal of

humanistic, scientific and technological professional training, has implemented a series of measures that seek to meet the new demands of students. Among these new proposals is the implementation of hybrid teaching for the 2022-1 semester. In this way, it proposes an educational service to students considering the option of studying in person or virtually. The beneficiaries of these services are generally students who for various reasons cannot access the university campus because they work, have an illness or live far away, among other reasons.

Likewise, we must point out that the university already has a first stage of implementation of this modality before the pandemic, with the use of the virtual classroom, but under this new context it has become a necessary tool. In this sense, the objective of this research is to analyze the experience of hybrid learning developed at this university in Lima in times of pandemic Covid-19 through the development of a questionnaire-type instrument that is focused on collecting information about the educational strategies used by teachers for learning, such as knowledge of the use of teaching resources used by the teacher, the evaluation system used by teachers and the tutoring work done by the teacher, all within the hybrid learning.

2 METHODOLOGY

2.1 Type of research

The present work is part of a quantitative approach with a non-experimental design, basic and cross-sectional type of research, with an exploratory, descriptive scope. It aims to analyze the hybrid learning experience developed at the University of Sciences and Humanities in times of the Covid-19 pandemic.

2.2 Population and sample

The research population was made up of students of the UCH of the city of Lima in Peru, who were in the first semester of all academic programs: Accounting, Marketing and Communication, Business Administration and International Business, Nursing, Psychology, Early Education, Primary Education and Interculturality, Industrial Engineering, Electronic and Telecommunications Engineering, Systems Engineering, who were taking courses in hybrid modality. The sample was probabilistic, random, simple. The population was made up of 221 students. Eight classrooms were taken as a sample out of a total of 10 hybrid modality classrooms of the first semester of the morning shift at the University of Sciences and Humanities. To determine the sample, the following formula was applied:

$$\text{Sample size} = \left(\frac{Z^2 * p(1 - P)}{e^2} \right) / \left(1 + \frac{Z^2 * p(1 - P)}{e^2 N} \right) \quad (1)$$

Where:

Z = Confidence level (95%)

p = Probability (0.5)

e = Margin of error (0.05 = ±5)

N = Population size

The sample size was determined, resulting in 142 students. Only students enrolled in the first cycle of the morning shift who were taking courses in hybrid modality

participated. Students who did not take courses in this modality or who did not belong to the first semester of the morning shift were excluded.

2.3 Instrument

The instrument used was developed entirely by the researchers based on the 4 dimensions of the study: learning strategies, teaching resources, evaluation system and tutoring. The instrument used is a questionnaire consisting of two sections. The first section is oriented to sociodemographic data: age, years, residence. The second section is made up of 19 questions divided into 4 dimensions (see Figure 1).

In the present study, we worked with ordinal variables using the Likert scale from 1 to 5, where 1 represents: almost nothing and 5: quite a lot.

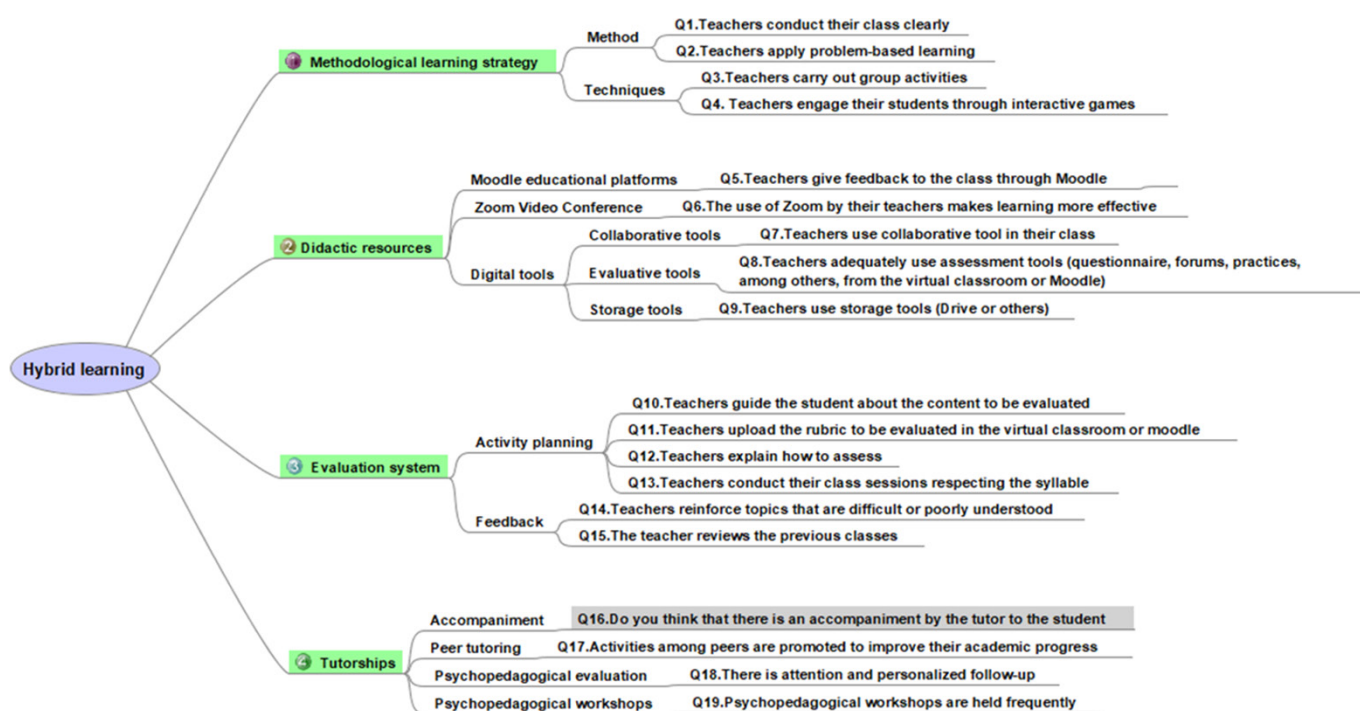


Fig. 1. Dimensions of the study

In the present study, we worked with ordinal variables using the Likert scale from 1 to 5, where 1 represents: almost nothing and 5: quite a lot.

2.4 Validation and reliability of the instrument

Validation and reliability of the instrument is very important because it allows validation of the degree to which the instrument measures the specific content domain as well as the extent to which the instrument produces consistent and coherent results.

Validation of the instrument. First, validation by expert judgment was carried out, which is a procedure validated by scientific methodology that consists of submitting the instrument to validation by experts with proven knowledge and experience in the field. For this procedure, nine experts were chosen who showed proven experience and knowledge of the instrument.

Likewise, the validation by judges was reinforced by statistical analysis using Aiken's V software in order to determine content validity. For this purpose, the formula:

$$V = S/(n*(c-1)) \quad (2)$$

Where:

V: V AIKEN

S: Sum of item results

n: Number of judges

c: Number of rating scale values

To validate each item, the score obtained had to be greater than or equal to 0.8 to be acceptable.

In Table 1, the criteria relevance, coherence and clarity were considered for the evaluation by the experts. It is observed that items 3, 8, 10 and 14 obtained an average of 0.98, close to the value of 1, which is the maximum. In the same sense, item 4 is the one that stood out with a score of 0.99, close to the value of 1, which is the perfect value. While it is true that the scores were acceptable, the lowest value was found in items 16 and 1; however, they are above the minimum value. From this, it was concluded that the instrument is valid.

Table 1. Questionnaire

Questions	Relevance	Coherence	Clarity	Media
Q1. Teachers conduct their class in a clear manner.	0.93	0.89	0.74	0.85
Q2. Teachers apply problem-based learning.	0.96	0.96	0.85	0.93
Q3. The teachers carry out group activities.	1	0.96	0.96	0.98
Q4. Teachers engage their students through interactive games.	1	1	0.96	0.99
Q5. Teachers provide class feedback through Moodle.	1	0.93	0.92	0.95
Q6. Use of Zoom by your teachers makes learning more effective.	0.96	0.92	0.89	0.93
Q7. Teachers use collaborative tools in their classrooms.	1	0.93	0.89	0.94
Q8. Teachers make adequate use of evaluation tools (questionnaires, forums, practices, among others in the virtual classroom or Moodle)	1	0.93	0.96	0.98
Q9. Teachers use storage tools (DRIVE or others)	0.96	0.93	0.93	0.94
Q10. Teachers guide the student on the contents to be evaluated.	1	0.96	0.96	0.98
Q11. Teachers upload the rubric to be evaluated in the virtual classroom or Moodle.	0.96	0.93	0.92	0.94
Q12. Teachers explain how they will be evaluated.	0.92	0.82	0.81	0.85
Q13. Teachers conduct their class sessions respecting the syllabus.	0.96	0.96	0.962	0.96
Q14. Teachers reinforce topics that are difficult or difficult to understand.	1	0.96	0.96	0.98
Q15. At the beginning of the class, teachers review the previous class.	0.92	0.82	0.85	0.86
Q16. Do you think that the tutor accompanies the student?	0.81	0.89	0.81	0.84
Q17. Promoting peer-to-peer activities to improve academic progress.	0.96	0.96	0.96	0.96
Q18. Has received personalized attention and follow-up from the tutoring area.	0.85	0.89	0.89	0.88
Q19. Participate in psycho-pedagogical workshops to improve their academic performance.	0.85	0.85	0.89	0.86

In Table 2, the summary of the averages of the dimensions is observed, where dimension 2 obtained the highest score with 0.95 and dimension 4 obtained the lowest score with 0.89, having an acceptable average. On the other hand, the highest value of the average of the criteria is that of relevance with a value of 0.95, and the lowest value is that of clarity with a score of 0.90.

Table 2. Average by dimensions and criteria

	Relevance	Coherence	Clarity	Average
DIMENSION 1	0.97	0.95	0.88	0.94
DIMENSION 2	0.98	0.93	0.92	0.95
DIMENSION 3	0.96	0.91	0.91	0.93
DIMENSION 4	0.88	0.90	0.90	0.89
Average	0.95	0.92	0.90	

As corroborated, the averages of the dimensions obtained an acceptable average, which validates the instrument.

Reliability of the instrument. The reliability of the instrument was estimated using Cronbach's alpha in order to estimate internal consistency. The questionnaire was applied to 28 students, representing 20% of the total (142). The result obtained was 0.92, where the value should range between 0 and 1 (see Table 3).

Table 3. Cronbach's alpha

Cronbach's Alpha	No of Items
0.92	19

Thus, we approve the reliability of the instrument, since the value must be greater than 0.70.

2.5 Procedure

Once the hybrid learning instrument had been validated and the reliability analysis had been carried out, participants were selected from a random sample. For data collection, the questionnaire was presented to the students. For this purpose, a direct contact was made in the hybrid modality classrooms of the university, in order to invite the students to participate in the questionnaire through an informed consent. The questionnaire was carried out in the university's computer laboratories, after coordination and approval by the Academic Direction. This was carried out through an online form (Google form) and was applied in the middle of the 2021-1 semester.

Once the data were obtained, they were processed. The data were exported to a Microsoft Excel file for analysis with the help of SPSS statistical software, for which the types of variable data were identified. A descriptive statistical analysis of frequency distribution, percentile values and central tendency was applied.

The data were first organized according to the questions established in the study and finally categorized into three levels: low, intermediate and high.

3 RESULTS

3.1 Descriptive analysis

Sociodemographic analysis of the survey. Figure 2 shows that the percentage of female students coming from public schools is approximately triple that of male students. With respect to those coming from private schools, the percentage of female students is approximately 3.5 that of the male students.

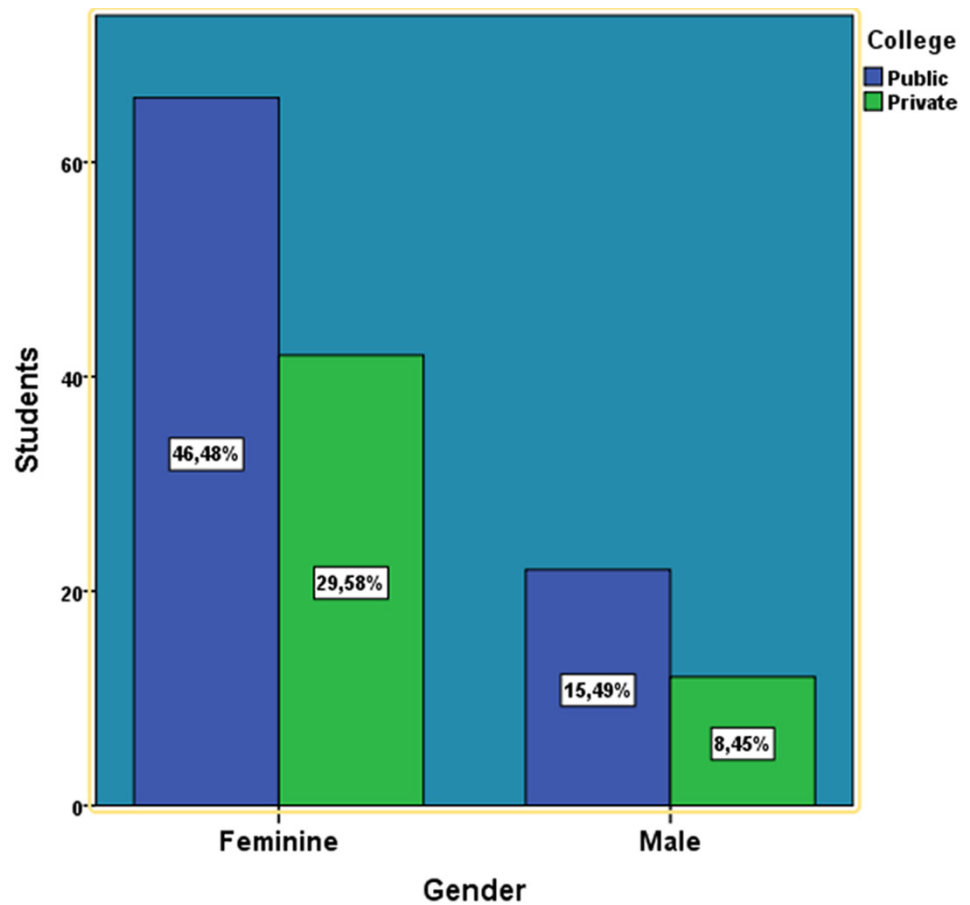


Fig. 2. Gender comparison by school origin

Figure 3 shows more outliers in the females than in the males: 12 students, who range from 22 to 46 years; while in the males, there is only one outlier, of 27 years. In addition, the median in the female group is slightly higher than in the male group, which is approximately 18 years old.

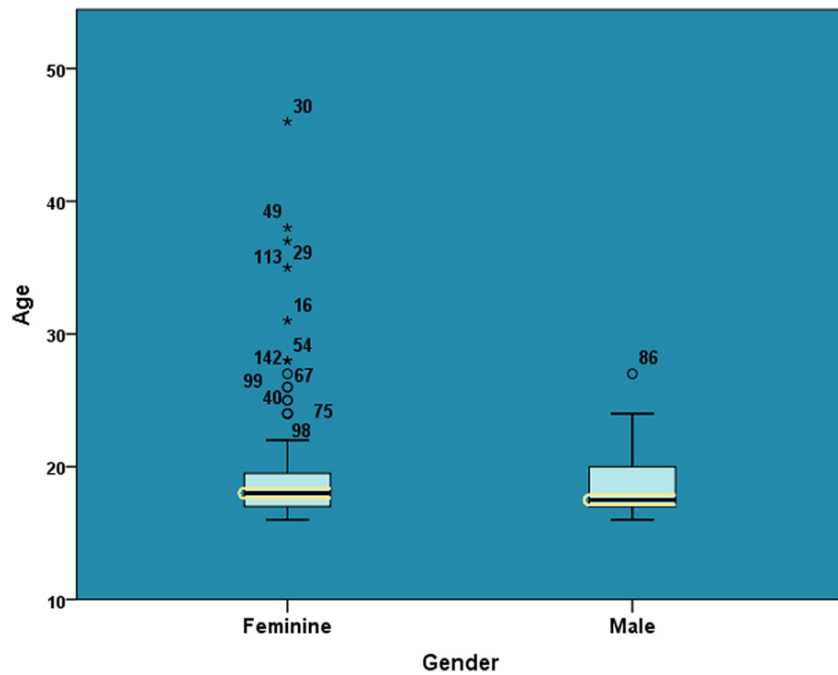


Fig. 3. Gender by age comparison

Analysis by dimensions of the survey. For the analysis, a scale of only 3 values was used, where 1 represents low; 2, medium; and 3, high. All this was adapted to the SPSS program.

Figure 4 analyzed dimension 1, which represents the methodological strategy of learning. It is observed that the middle and high part have a minimal difference, while the low part has a nonsignificant value.

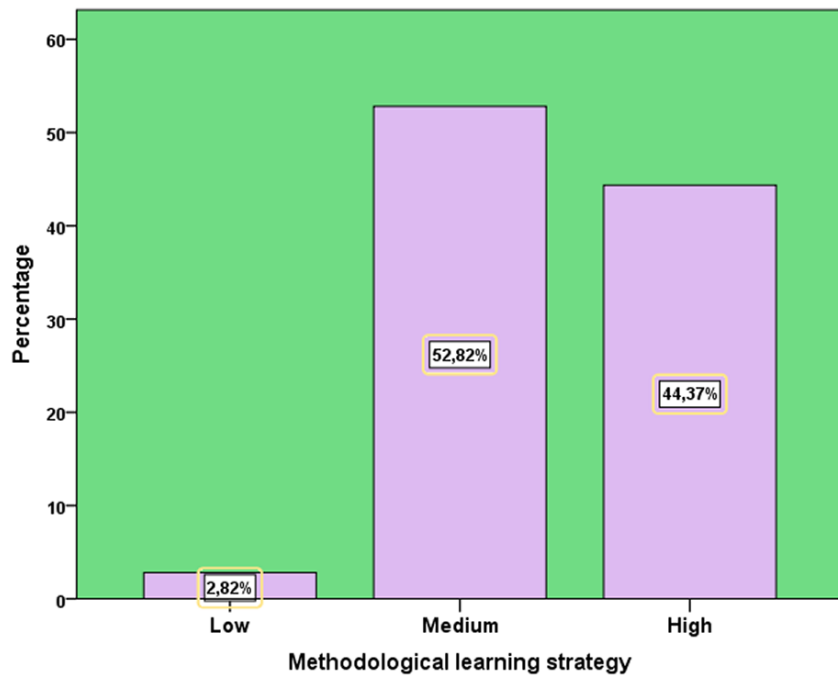


Fig. 4. Analysis of dimension 1: Methodological Strategy

According to the results obtained by items, it is observed that within dimension 1, learning strategies, the mean obtained is valid. Likewise, the standard deviation allows us to have a more rigorous analysis of the mean, finding that the means of the four items of dimension 1 are above the average.

Table 4. Mean obtained by dimension 1 items

Item	Mean	Standard Deviation
P1	4.05	0.75
P2	3.98	0.97
P3	3.99	0.86
P4	3.22	1.00

Figure 5, analyzed dimension 2, which is technological resources, where a significant difference was obtained between each of the parts: low, medium and high. Likewise, the low part has a nonsignificant value. This value (3.52%) compared with the high value (64.79%) shows a wide gap. This means that students accept the use of technological resources by teachers in an adequate way.

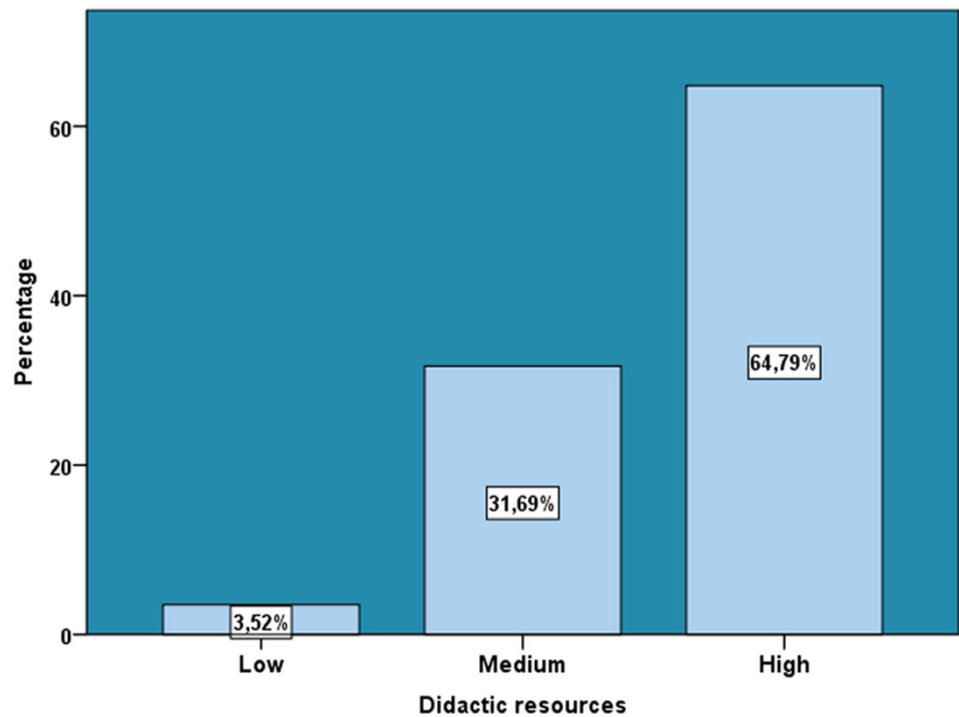


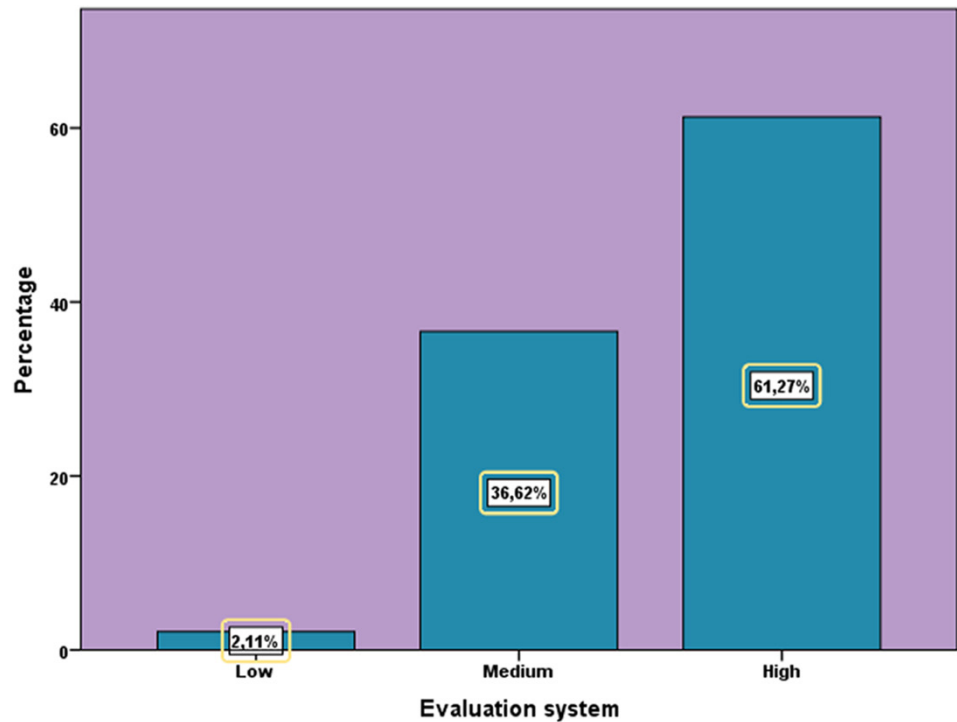
Fig. 5. Analysis of dimension 2: Teaching resources

With respect to Table 5, dimension 2 has a minimum value in its mean of 3.66, with a standard deviation of 1.15. Its maximum value is 4.18, with a standard deviation of 0.83. Likewise, its value is above the average, which is 3.00.

Table 5. Mean obtained by dimension 2 items

Item	Mean	Standard Deviation
P5	3.67	1.12
P6	3.66	1.15
P7	3.79	0.99
P8	4.18	0.83
P9	4.15	0.96

Figure 6 analyzed dimension 3, which is the evaluation system, where a significant difference was obtained between the medium and high part; while the low part obtained a nonsignificant value of 2.11%. Its highest value is 61.27%, showing the acceptance of the evaluation of the hybrid modality.

**Fig. 6.** Analysis of the dimension: Evaluation system

In the evaluation system dimension, P10 and P13 present the highest mean. It is observed that the items referring to evaluation planning obtained the highest score. However, its lowest value is 3.44, which refers to feedback at the beginning of the class.

Table 6. Mean obtained by dimension 3 items

Item	Mean	Standard Deviation
P10	4.20	0.97
P11	4.00	0.99
P12	4.18	0.95
P13	4.51	0.77
P14	3.70	1.09
P15	3.44	1.15

Regarding dimension 4, which is the mentoring analyzed in Figure 7, it is observed that the difference between the parts is significant. The middle part obtained the highest percentage (58.45%). This indicates that in this dimension, the students show through their answers a neutral or balanced score.

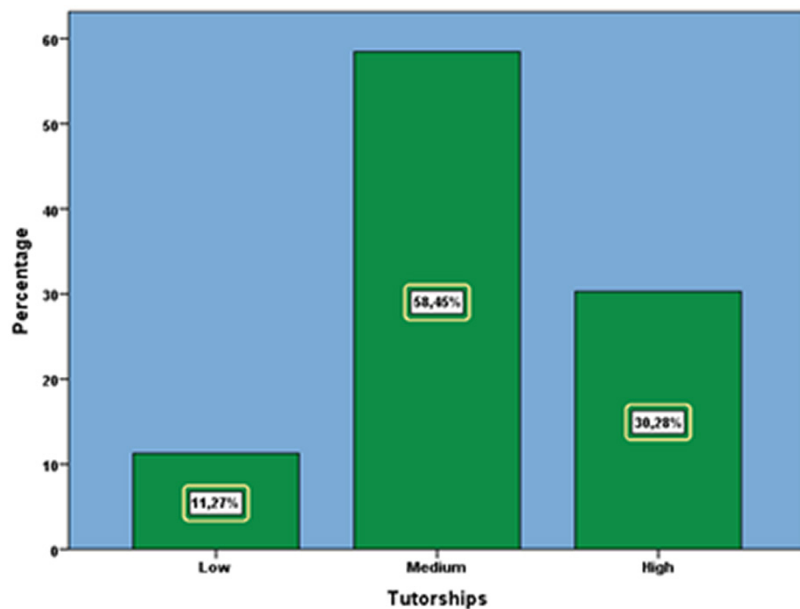


Fig. 7. Analysis of dimension 4: Mentoring

The items of the mentoring dimension have a lower score compared with the other dimensions. Likewise, the lowest score is observed in the follow-up and workshops criterion items (P18 and P19), being close to the mean, which is 3. Thus, it is evident that this dimension shows a balanced result both in the mean and in its standard deviation.

Table 7. Mean obtained by dimension 4 items

Item	Mean	Standard Deviation
P16	3.52	1.12
P17	3.70	0.92
P18	3.27	1.10
P19	3.22	1.19

4 DISCUSSION

With respect to the sociodemographic variables, Figure 2 shows a categorical predominance of the female gender over the male. In this regard, we should bear in mind that several studies show the differentiated effects of the pandemic according to gender. A study by Mercado and Otero [19] shows that the pandemic affected students differently according to gender, career and school trajectories. These results are corroborated by the findings of Chu and Li [20] in Taiwanese students, who conclude that during the period of online learning, male students are at greater risk of reduced physical activity compared with female students; but in terms of psychological distress and stress, no significant increase was observed.

Likewise, Figure 2 shows that with respect to the origin of the school, the majority of students come from public schools, both male and female. This correlates with the use of technology by these students, since in public schools the use of technological tools is minimal. This is corroborated in the survey of the Institute for Communication and Integration Analysis [21], where the vast majority consider that the use of technology improves learning; however, in public schools there is a delay or it is not guaranteed that the use of technology will improve learning. For this reason, it is necessary to train students in the first semesters in technological resources for the correct use of tools such as Jamboard and Zoom, among others. In this sense, students may have difficulties in their learning process, which can lead to student dropout. In comparison with the study conducted by Amaya et al. [13], one of the factors may be associated with skills in the use of technological tools.

Regarding the age of the students, it is observed in Figure 3 that there is heterogeneity in the female gender presenting atypical values; while in the age of the males, it is more homogeneous and ranges from 18 to 20 years old. This is associated with the students' perception of virtual education. This coincides with the study conducted by Estrada et al. [22] with the participation of 283 Peruvian university students, which shows that younger students have a more favorable perception of virtual education compared with older students; it also shows a preponderance of digital illiteracy in older people, which affects learning. This situation will allow us to target students in order to train them in the use of technological tools.

Likewise, Figure 4 and Table 4 focus on learning strategies; they show that students consider that teachers manage and apply methodological strategies, coinciding with Andrade-Arenas et al. [23] regarding didactics in the virtual modality, and that students express satisfaction with the teaching-learning methodology through the use of various digital tools that have allowed greater dynamism and interaction between teacher and students; however, students consider that their participation through interactive games should be enhanced by the teacher.

In the dimension Didactic resources, shown in Figure 5 and Table 5, students recognize the good use that the teacher makes of these resources, mainly Moodle and Zoom, for a more meaningful learning. In addition, there is evidence of heterogeneity in the use of didactic resources such as Quizis for evaluation at the beginning or end of a class, as well as Kahoot to make it more integrated. This is supported by Andrade-Arenas et al. [23] on the satisfaction of students in the use of digital resources by the teacher, highlighting that Moodle is the most used tool; however, they also point out that teachers should continue to be trained in the use of these tools. Likewise, in the study of Austrian students on the use of digital media for learning during confinement by Covid-19 developed by Kovacs et al. [8], it is corroborated that beyond the digital and didactic competences to adapt to the needs of students and integrate

digital tools, teachers should develop motivating strategies and consider the virtual classroom as an important tool for learning.

The evaluation system dimension observed in Figure 6 and Table 6 shows a relative acceptance in the way of evaluating learning in the hybrid modality. Students emphasize the evaluation planning and feedback provided by teachers with the support of virtual tools; it is also suggested that teachers reinforce the topics where students present greater difficulty. These results are consistent with what was pointed out by Cavalcanti et al. [24] regarding feedback in online courses, since in this modality it becomes more critical due to the physical and geographical separation of students and teachers. In that sense, feedback allows personalizing the learning content according to the student's needs; but this becomes a challenging task for teachers. In contrast to the results obtained in the present study on feedback, Mercado and Otero [19] report that feedback from teachers to students' activities is insufficient.

In the tutoring dimension, as shown in Figure 7 and Table 7, the intermediate result shows that the monitoring and control of students is neither low nor high. The students point out that the activities proposed by the tutor-teacher are directly related to teamwork and academic accompaniment. Likewise, the accompaniment by the tutor and peer tutoring are highlighted. These results are related to the study of Johns and Mills [25], where it is emphasized that the use of technological resources should be included in the tutoring and accompaniment process, and tutors should be trained in the use of technology as well as in effective and motivating communication. However, the knowledge that students have about the tutoring actions developed by the university is minimal, as observed in the items on their participation in the activities proposed by the tutoring area. In this study, it was determined that the university mainly offers academic tutoring to students, which is planned in the university policy. Individual tutoring is carried out by the tutoring area according to personal demand, and it is the teachers, in their role as tutors, who offer students elements to cover their academic orientation needs. As a result of the pandemic, appropriate strategies had to be applied [26]. After carrying out the hybrid learning in times of pandemic, tutoring will partially return to face-to-face. Obtaining the positive part through feedback will be reflected in the future for progress in the pedagogical part, evaluation and use of technological resources [27], [28], [29].

5 CONCLUSION

It is concluded that developing a teaching strategy in the hybrid modality suitable for the implementation of hybrid classrooms generates student satisfaction, as evidenced in the figures and tables of the dimensions, which were shown not to be rejected by students: on the contrary, the perception of satisfaction is high. In addition to the didactic resources, teachers have concentrated on the use of Moodle and Zoom, which is a limitation, since they can explore other types of technological resources. Regarding the evaluation system, the teachers carry out an adequate planning of the activities; however, there was a restriction in the feedback criterion. Regarding the tutoring dimension, it received an intermediate score where the professor advises on the academic aspect, but students are unaware of the activities developed by the tutoring area.

A limitation of the research work – namely, the restriction of activities for public health reasons – was presented at the beginning of the study. In addition, there was lack of infrastructure and technology for the implementation of the virtual modality.

Another limitation was evidenced by the lack of analysis of the entrance profile that would allow identifying some deficiencies in the entering students. In addition, the difficulties in arranging personalized follow-up by the tutoring was a limitation for conducting interviews with the students and also with the parents.

It is suggested that an analysis of sociodemographic trends that contribute to the area of Marketing and Academic Management be carried out, as well as the design of learning and teaching strategies; also, the constant training of teachers in the use of technological resources for both teachers and students as well as the implementation of an integrated evaluation system and academic counseling activities are recommended. Finally, an emerging trend is the study of comprehensive training in the hybrid modality taking into account the pedagogical model of the university. It is proposed that future work carry out a mixed and longitudinal study that will allow complementing the analysis through interviews of teachers and students. It is also proposed that an inter- and multidisciplinary analysis be carried out in order to enrich the research work.

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