

# FACTORS INFLUENCING STUDENT SATISFACTION WITH THE VIRTUAL ENTREPRENEURSHIP MODALITY AT A PRIVATE UNIVERSITY IN LIMA

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## ABSTRACT

*The purpose of this research work is to know the influence of the virtual technological environment implemented in a private university in Lima in relation to student satisfaction and how they meet the requirements accepted by traditional education. The evaluation was carried out in a correlational explanatory way developed with a sample of 153 students of the Business career randomly selected in the courses of Statistics and Computer Tools in the virtual modality of a private university in Lima, to whom the Distance Learning Environment Survey (DELES) was applied, supported by a referential study carried out in 2003. This study has shown that most of the students are satisfied with the teaching methodology in the virtual modality and the knowledge developed has been more applicable than in traditional education. Consequently, it can be affirmed that there is a direct relationship between the degree of influence of the factors of the virtual environment and student satisfaction, culminating in the importance and approval of the student. This result is based on constructivist theory.*

**Keywords:** Virtual Mode in Education, Student Satisfaction, Virtual Education Services, Virtual Environment.

## INTRODUCTION

Online education since its beginnings in the nineties in Australia, New Zealand, North America and the United Kingdom was a revolutionary example of innovative education aimed at areas where schooling by traditional means was difficult. Its first uses were applied in companies in the leisure industry with training needs. Educational software developers have undoubtedly demonstrated a progressive and diversified growth as a support strategy in this modality, presenting to date a wide variety of platforms that have been moving from dot-edu to dot-com (Nagles, 2017).

As a result of the novel implementation of virtual programs by universities, arguments have been expressed that support dissatisfaction on the part of students, some experiences has discredited the quality from the platform to the contents of these. Among the various negative references, there are teachers without methodology or limited in the use of computer tools with fear to new technologies, lack of technical skills of specialized courses, unstable student attention spaces, limited attention in response time to the need for academic reinforcement, limited interaction necessary in face-to-face classes, limited

research by educational institutions that do not take advantage of the potential of this modality (Cabral, 2018).

In educational institutions linked to a growing technological development hand in hand with certifications and permits, a series of virtual courses have been presented focused on a commercial rather than academic objective which neglects the experience and talent of teachers with excellent academic competencies, accepting limited professional profiles for a course that requires minimal experience, discrediting the quality of the educational services presented (Banco Interamericano de Desarrollo (2020).

Currently, higher education institutions have been forced to guarantee the right to education through virtual media due to the pandemic generated by Covid-19, so the challenge of these institutions is to maintain the quality of their face-to-face programs by migrating their pedagogical processes to a change never seen before, put 2019, the virtual modality was optional for students who demand this type of service, but because of the global situation, it became mandatory thanks to the measures of compulsory isolation (Inter-American Development Bank, 2020). This implies challenges for the management of education, since there must be an efficient process of training and training for teachers in the use and implementation of digital strategies to implement their academic plans (Artavia & Castro, 2019). The number of questions that this pandemic decreed by the World Health Organization (WHO) on March 11, 2020, with respect to education worldwide and the pedagogical processes to which it would have to be subjected to meet the academic objectives, are innumerable. However, the future of education, although it cannot be foreseen, everything indicates that it will maintain guidelines based on the use of digital platforms with the firm purpose of reaching more and more people interested in their professional training, which undoubtedly for the university authorities is a goal in quality and satisfaction of all stakeholders (Pérez-López et al., 2021).

As positive references, strategies have been supported to order the implementation of these courses with a successful technical experience of the teacher that involved a selection process, in turn the accompaniment of updated computer tools and constant training that allowed the teacher a constant improvement in the academic dynamics with the implementation of feedback strategies to improve the interaction of the teacher with the student (Education, 2016). It is precisely the commitment on the part of teachers, which have driven the different educational institutions, to the constant training and education of the same with the purpose of having teachers prepared to perform their task and perform their work of sharing knowledge under circumstances never experienced before, but with the full confidence that their commitment to society allows them to be flexible to changes (García Aretio, 2020).

The use of digital platforms for the development of academic activities requires an effort not only from the administrative management of universities, but also from the faculty, which must align strategies to achieve student satisfaction (Castellano Gil et al., 2021) (Educación, 2016). Taking into account the imminent change in teaching methodologies, including the transformation of learning that had never before been necessarily exposed to the mandatory migration of academic processes from the classroom to the screen of mobile devices, computers, among others (Covarrubias Hernández, 2021)

The importance of the present research is to evaluate the factors linked to student satisfaction with the virtual teaching modality implemented in a private university in Lima related to the aforementioned background. The study developed supports as a hypothesis

the importance of establishing a department with the technology and professional team with the methodological academic competencies to direct, coordinate, organize and control the teaching process, evaluating specialized teachers not only in technical skills and professional experience but with an updated scope of methodologies and information technology according to the courses.

The interest of this research begins with the evaluation of the implementation of virtual audiovisual tools in education, generating a scope of definition between the relationship that exists between the factors that impact student satisfaction in a virtual modality environment, taking into account that in studies conducted, under this modality, 99% of teachers use e-mail to carry out the assignment of academic activities, 96% use videoconferencing stating that these are the tools that help in a better way in the teaching-learning process (Torres et al., 2021). The studies of González (2011) state that the aspect that best represents the quality of a University is student satisfaction, as well as Sánchez (2018) who emphasizes that one of the fundamental factors that determines the quality of the training received is student satisfaction. This study aims to address issues that are not widely used such as the importance of the development of courses in virtual modality and student satisfaction, given that the ideal for a company that aims at quality would be to satisfy its customers in all its transactions.

## GENERAL OBJECTIVE

To determine the degree of influence of virtual courses on student satisfaction in the university context in Lima, Peru.

## Hypothesis

- The research presented will provide an analysis of the students' perception and the formulation of new academic methodologies in virtual education in which the teacher will be able to establish a facilitator link with the student with technological orientation for the success of their curricular activities.
- The research seeks to improve the efficiency of the learning units by meeting the expectations and needs of the students, which will serve as an indicator for continuous improvement, demonstrating the contribution of virtual courses.

## General Assumptions

- a) There is a relationship between the degrees of influence of virtual mode courses on student satisfaction at a university in Lima.
- b) There is a relationship between the degrees of influence of virtual courses on student satisfaction in the university context in Lima.

## Specific Hypotheses

- a) There is a contribution of virtual courses in the positive academic results of students in the university context, in Lima.
- b) There is student satisfaction in relation to their experience in the virtual modality courses in the university context, in Lima.

## METHODOLOGY

### Type of Research

The present research is applied for evaluating the satisfaction of students in the virtual modality.

The methodology for the study considers a diagnosis of the current situation with the objective of identifying the problems of the student of virtual courses of a university of the Los Olivos district in the city of Lima in the year 2018, where different proposals for solutions were formulated, in an academic referential order, and the method used is descriptive correlational (Moses et al., 2021).

### Population and Sample

The present research work has the purpose of knowing how the factors of the virtual environment influence student satisfaction, based on a descriptive correlational analysis. The main evaluation institution was the Universidad Privada del Norte with an average of 2017 and 2018 entrants from the business schools. The detail of entrants is published on the website of the evaluated institution with the reference "Number of undergraduate and graduate applicants and entrants in the years 2017, 2018 and 2019" (UPN, 2020). Of the total number of new students at Los Olivos campus of "University A", an average was calculated between 2017 and 2018 as shown in the tables below.

Table 1 presents the total number of male and female students entering the schools of administration, banking and financial administration, administration and business management, marketing, administration and marketing, administration and international business, administration and tourism services, which accumulated a total of 1,403 students entering in the 2017 period. In Table 2, which corresponds to the 2018 period, a total of 1,185 students are presented. The average ratio of both periods is equivalent to 1,294 students between the periods 2017 to 2018.

	<b>Female</b>	<b>Male</b>
Administration	187	167
Banking and financial administration	37	34
Administration and commercial management	22	18
Marketing	0	0
Administration and marketing	117	105
Management and international business	294	220
Tourism administration and services	159	43
<b>Total of entrants</b>	<b>816</b>	<b>587</b>

	<b>Female</b>	<b>Male</b>
Administration	165	145
Banking and financial administration	39	31
Administration and commercial management	16	10
Marketing	0	0
Administration and marketing	111	95
Management and international business	238	204
Tourism administration and services	96	35
<b>Total, of entrants</b>	<b>665</b>	<b>520</b>

According to references from the national institute of statistics and informatics (INEI) denominated number of students enrolled in private universities, 2007-2017, it was observed that in the period 2017, at the national level, the total number of entrants in the private university of the north at the national level corresponds to 84,226 students (INEI, 2020). Calculating the representative percentage of the average number of students admitted in Los Olivos in the periods 2017 to 2018 of 1,294 among the 84,226 admitted nationwide, it can be noted that the district of Los Olivos has an indicator of 2% as shown in Table 3.

	<b>Private Universities</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015 P/</b>	<b>2016 P/</b>	<b>2017 P/</b>
<b>Code.</b>	<b>TOTAL</b>	<b>618</b>	<b>697</b>	<b>762</b>	<b>898</b>	<b>979</b>	<b>1 017 720</b>	<b>965 709</b>
		<b>974</b>	<b>581</b>	<b>002</b>	<b>404</b>	<b>896</b>		
055	U. P. del Norte	23 226	23 226	26 782	42 289	55 117	66 960	84 226
057	U. P. St. Ignatius of Loyola	12 257	14 587	17 693	19 381	22 157	22 811	22 028
059	U. Alas Peruanas	96 165	112 374	119 932	115 480	121 427	113 059	102 310
061	U. P. Norbert Wiener	5 400	5 380	4 673	13 730	7 677	7 732	8 372
062	U. St. Paul Catholic University	4 986	5 494	6 167	7 835	8 112	7 947	8 320
064A	Private University Association "San Juan Bautista".	9 441	10 148	10 495	15 489	16 767	17 748	17 320
065	U. Tecnológica del Perú	14 028	19 345	21 554	...	27 617	45 074	1,750
068	U. Científica del Sur	4 069	4 490	5 389	5 428	6 566	7 686	8 438
067A	U. Continental	7 489	9 841	10 429	17 465	22 391	26 428	28 270

069	U. Catholic University Santo Toribio de Mogrovejo	5 875	6 678	7 028	8 751	8 672	8 936	9 389
070	U. P. Antonio Guillermo Urrelo	3 097	3 678	4 076	4 380	5 143	4 756	
072	U. P. Señor de Sipan S.A.C.	12 146	13 883	15 120	21 247	22 692	19 414	17 919
071	U. Catholic University Sedes Sapientiae	6 180	7 464	8 514	9 168	9 653	9 526	10 112
074A	U. Catholic University of Trujillo Benedict XVI	324	506	571	1 537	1 898	1 805	2 011
081	U. Peruana de Ciencias e Informática	1 204	1 429	1 653	4 039	4 053	3 803	3 617
078	U. Peruana de las Américas S.A.C.	2 202	2 946	3 689	12 096	6 454	7 264	...
080	U. Antonio Ruíz de Montoya	625	857	877	1 373	1 767	2 226	2 097
079	U. ESAN	2 732	3 495	3 396	4 472	4 661	4 554	4 781
083	U. P. Telesup S.A.C.	3 986	4 507	4 584	...	...	...	27 937
082	U. for Andean Development				246	293	309	-
085	U. P. Sergio Bernales S.A.C.	572	649	1 342	1 199	1 198	1 589	1 521
086	U. P. de Pucallpa S.A.C.	1 247	1 842	2 376	2 802	2 081	1 940	1 474
063A	U. P. of Ica	91	91	91	-		549	-
087A	U. Autonomous University of Ica	937	937	937	937	998	718	1 331
092	U. Peruvian University Simón Bolívar	494	1 582	1 106	1 081	986	988	855
090	U. P. of Trujillo	479	287	223		...	311	...
091	U. P. San Carlos	495	813	1 130	1 281	2 410	2 989	3 729
094	U. Peruana del Oriente S.A.C.	696	779	855	853	873	840	913
097	U. of Sciences and Humanities	1 365	1 834	2 302	2 494	2 462	2 588	2 590
093	U. Peruana de Integración Global	1 133	1 133	1 322	1 235	1 479	1 597	1 638
096	U. Autonomous University of Peru	2 504	2 504	3 081	4 788	4 343	11 348	5 951
	U. Jaime Bausate y Meza 1/	1 484	1 893	2 302	1 901	2 246	2 110	...

**Source:** National Superintendence of University Higher Education (SUNEDU) - University Documentation and Information Unit, 2014 - 2017.

By identifying an average population of 1,294 students in the business science careers at the Los Olivos branch of University A, a representative sample of N= 297 students taking courses in Statistics and Computer Tools in the virtual modality was calculated, to whom the distance learning environment survey (DELES) was applied.

A simple random probability sample was applied, which will be loaded into the SPSS Statistics system, with identical probability. The sample was selected with stratified random probability sampling technique.

$$\frac{Z^2 N \sigma^2}{d^2(N-1) + Z^2 \sigma^2} \quad (1)$$

$$n = 297$$

Where the variables used are: (n) the size of the sample to be obtained, N the population composed of 1,294 students surveyed at the close of the 2018 period with a confidence level of 95% and a statistical error of 5%. Resulting in a statistical sample of 297 surveys.

It should be noted that the surveys were applied in person in order to guide the perception of the responses to the study with the minimum margin of error in the interpretation.

In order to prepare a comparative analysis of the sector, two universities with a comparative pseudonym were considered with the purpose of establishing equivalent confidentiality guidelines. The San Ignacio de Loyola University called "University B" and the Technological University of Peru called "University C".

University B, according to the report Number of students enrolled in private universities, 2011-2017 INEI, show a total number of entrants at the national level of 22,028 for the code "University B". It is worth noting that Los Olivos district represents 2%. This reference allows to obtain a population of 441 students for university B. The sample was selected using a stratified random probability sampling technique.

$$\frac{Z^2 N \sigma^2}{d^2(N-1) + Z^2 \sigma^2} \quad (2)$$

$$n = 206$$

Where the variables used are: (n) the size of the sample to be obtained, N the population composed of 441 students surveyed at the close of the 2018 period with a confidence level of 95% and a statistical error of 5%, resulting in a statistical sample of 206 surveys.

University C, according to the report Number of students enrolled in private universities, 2011-2017 INEI, show a total number of entrants at the national level of 1,750 for the code "University C". It is worth noting that Los Olivos district represents 2%. This reference allows to obtain a population of 45 students for university C.

The sample was selected using a stratified random probability sampling technique.

$$\frac{Z^2 N \sigma^2}{d^2(N-1) + Z^2 \sigma^2} \quad (3)$$

$$n = 33$$

Where the variables used are: (n) the size of the sample to be obtained, N the population composed of 36 students surveyed at the close of the 2018 period with a confidence level of 95% and a statistical error of 5%, resulting in a statistical sample of 33 surveys.

## Techniques and Instruments for Data Collection and Analysis

These data collection techniques were selected as the most appropriate for the development of the information systems relevant to the proposed study was developed:

**Surveys:** in person in order to have a perception of the student's attention and experiences, interpreting additional values to the study that allowed us to consider additional criteria and suggestions of satisfaction in virtual courses by the students.

**Interviews:** where teachers will be interviewed on the basis of students and students on the basis of teachers to obtain their answers in relation to both interviewees.

**Flowchart:** to organize the theoretical framework and have a concise reference before implementing the hypothesis of the study.

Table 4 summarizes the justification techniques and instruments used for data collection:

<b>Technique</b>	<b>Justification</b>	<b>Instruments</b>	<b>Applied to</b>
Observation	The student's behaviors, perceptions and characteristics of perception will be observed. The student will be able to freely relate some references not perceived in the study of the virtual courses implemented by the institution.	Notebook. Pencils. Recorder. Camera or cell phone.	Students in out-of-class environments located inside the institution.
Interview	It will allow to know the current status of the virtual courses and additional student ratings before applying the survey.	Interview guide. Pencil.	Students who are registered in the institution's virtual courses.
Survey	It will allow to define the satisfaction and specific requirements of the students regarding the virtual courses.	Notebook. Pencils. Recorder.	Students in out-of-class environments located within the institution who are registered in the institution's virtual courses.

**Procedure**

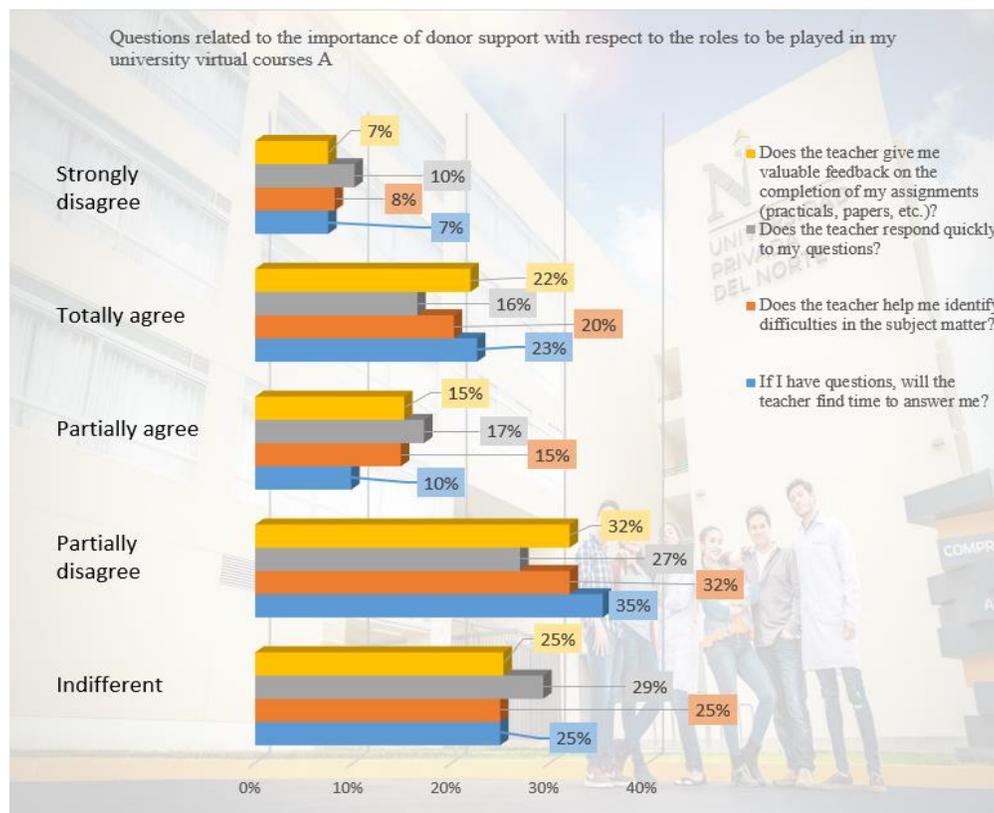
Direct observation is carried out following the requirements below:

- Be present during the hours of a virtual course with a group of students to validate informative competencies and procedures prior to activation.
- Record the data measured during the investigation of this process.

**RESULTS**

The results of the first three questions of the implemented tool are presented in this document. According to the graph presented in Figure 1 with the title "*How important is the professor's support with respect to the functions to be performed in my virtual courses at university A*", with the relational results of 4 questions that are classified by the items that indicate: *The professor finds time to answer me, helps me identify difficulties in the subject of study, the professor responds quickly to my questions, gives me valuable feedback on the completion of my assignments.*

The question related to "*If I have doubts, the teacher finds time to answer*", the most representative result indicates the value "Partially agree" represented by 35% (105 students). This reference shows that the teacher manages to divide and take advantage of the time, giving time for the students, helping them in any difficulty of understanding that may arise when studying their subjects. In reference to the specific objective that measure the answers to the following question: In what way the factors linked to teaching in virtual modality are related to the teacher's support with the student's satisfaction in a private university in Lima in 2018? The result reflects that it is a very important factor that students have their ideas clear and do not present doubts in relation to some subject, and who better than the teacher to help regarding these issues.



**FIGURE 1**  
**DETAIL OF SURVEY CONDUCTED ON THE SAMPLE OF 297 BUSINESS SCHOOL STUDENTS APPLIED AT UNIVERSITY A IN 2018 PERIOD.**

The question related to "*The teacher helps me to identify the difficulties in the subject of study*", the most representative result indicates the value "partially agree" represented by 32% (95 students). This reference shows that the teacher does reach out to the students helping them in the difficulties they face when studying the subject and this in turn provokes in the students an interest to continue studying. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to the teacher's support with the student's satisfaction in a private university in Lima in 2018? The result, according to commented

realities, show that it is a very important factor, first starting with the teacher-student relationship generating satisfaction by having all their ideas clear.

The question related to "*The teacher responds quickly to my questions*", the most representative result indicates the value "Indifferent" represented by 29% (87 students). This reference shows that the student does not feel committed and does not recognize the importance of the virtual teaching modality. In this section, it can be interpreted in turn that the students do not give the necessary value to the virtual courses dictated and this disinterest will generate problems in their grades. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to the professor's support with the student's satisfaction in a private university in Lima in 2018? the result, according to realities commented, show a very determinant factor in the importance given by the student. In this case, more follow-up should be done to students with these evaluation surveys.

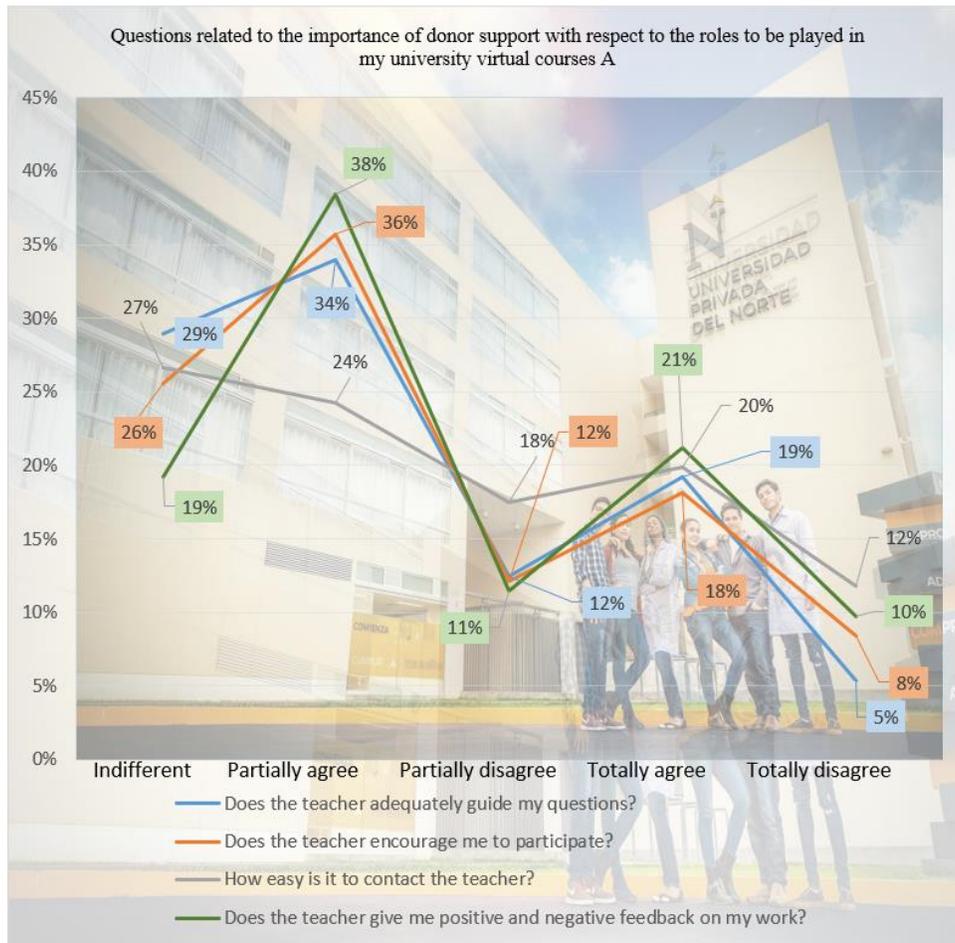
The question related to "*the valuable feedback given by the teacher*", the most representative result indicates the value "Partially agree" represented by 32% (95 students). This reference shows that there is still a percentage of students who do not consider the total support of the teacher. This detail is an intermediate point in important reference of the degree of student satisfaction on the virtual teaching modality. In this section, it can be interpreted that the teachers who teach virtual courses are not yet adapted to the appropriate methodology of monitoring and audiovisual interaction to validate whether students effectively understood. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to the teacher's support with student satisfaction in a private university in Lima in 2018? it can be interpreted, according to commented realities, that it is still in the process of improvement and it is necessary to make more feedback workshops to students.

According to the graph presented in Figure 2 with the title "*How important is the professor's support with respect to the functions to be performed in my virtual courses at university A*", with the relational results of 4 questions that are classified by the items that indicate: *The professor guides me in an adequate way, encourages me to participate, is easy to get in touch with and provides me with Feedback.*

According to the results related to the question that mentions "*The professor adequately orients my questions*", the most representative result indicates the value "Partially agree" represented by 34% (101 students). This reference shows that not all teachers manage to provide a correct orientation so that some students are not left without an orientation regarding their questions and this would be very detrimental in their university career. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to the methodology applied to solve problems in a private university in Lima in 2018? it can be interpreted, in accordance with commented realities, that groups of teachers should be used with a correct number of students so that in this way all of them can be oriented.

According to the results related to the question: "*The teacher encourages me to participate*", the most representative result indicates the value "Partially agree" represented by 36% (106 students). This reference shows that the students do manage to participate in

their virtual classes, showing that there is interest and that they know about the class topic. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to student satisfaction in a private university in Lima in 2018? it can be interpreted that there are students who fail to understand the class provided by the teacher, in this way, it is evident that all students participate in class, so the classes have to be more dynamic to call the attention of the student.

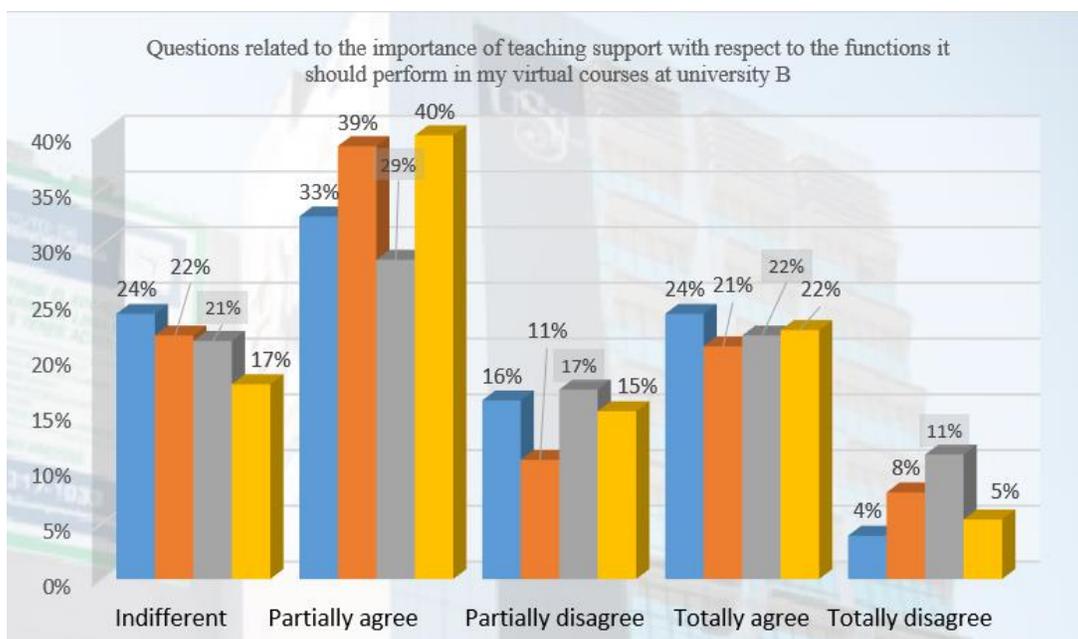


**FIGURE 2**  
**DETAIL OF SURVEY CONDUCTED ON THE SAMPLE OF 297 BUSINESS SCHOOL STUDENTS APPLIED AT UNIVERSITY A IN 2018 PERIOD.**

According to the results related to the question: "It is easy to get in touch with the teacher", the most representative result indicates the value "Indifferent" represented by 27% (79 students). This reference shows that not all students are able to reach the level of trust towards the teacher, demonstrating shyness in their interventions in virtual classes. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to the teacher's support with the

student's satisfaction in a private university in Lima in 2018? It is interpreted that there are students who find it difficult to make an intervention in class and the teacher has to provide confidence and make them understand that there is no problem in making mistakes.

According to the relational results to the question: "*The teacher provides me with positive and negative feedback (information) about my work*", the most representative result indicates the value "Partially agree" represented by 38% (114 students). This reference shows that the teacher verifies the information obtained by the student and in reference to that provides them with information depending on whether they need it or on the contrary should take it away. In reference to the specific objective that measures the answers to the question: In what way the factors linked to teaching in virtual modality are related to the teacher's support with the student's satisfaction in a private university in Lima in 2018? It can be interpreted that the teacher does not perform the constant support to all, and student pages should be used to facilitate the information to the students.



**FIGURE 3**  
**DETAILS OF THE SURVEY CONDUCTED ON A SAMPLE OF 206 BUSINESS SCHOOL STUDENTS AT UNIVERSITY B IN 2018.**

According to the graph presented in Figure 3 with the title "*How important is the teacher's support with regard to the functions to be performed in my virtual courses at university B*", with the relational results of 4 questions that are classified by the items: *if I have any doubts the teacher finds time to answer me, helps me to identify difficulties in the subject of study, answers my questions quickly, gives me valuable feedback on the completion of my tasks* (practicals, assignments, etc.).

According to the results to the question: "*If I have any doubt, the teacher finds time to answer me*", the most representative result indicates the value "Partially agree" represented by 33% (67 students). This reference shows that the teacher does not divide the

necessary time to solve the doubts of the students, creating a discomfort on the part of the students. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? This result can be interpreted according to the realities commented that it is very important that students have clear ideas and do not have doubts in relation to any subject and who better than the teacher to help with regard to these issues?

According to the results of the question: "*The teacher helps me to identify the difficulties in the subject of study*", the most representative result indicates the value "Partially agree" represented by 39% (80 students). This reference shows that some students do manage to receive help from the university teacher in the difficulties they may encounter in each subject, leading to an interest in continuing to study that course. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? This result can be interpreted according to the realities commented that a timetable should be established in class where students can raise their difficulties that arise in relation to the course and because it is a very important factor that they have a teacher-student relationship generating satisfaction by having all their ideas clear.

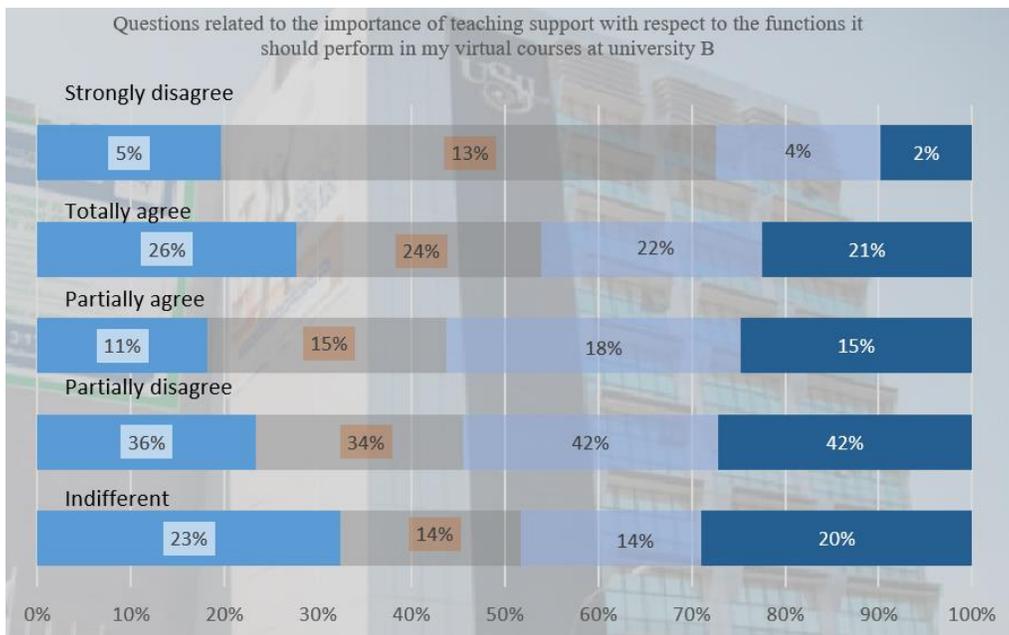
According to the results of the question: "*The teacher responds quickly to my questions*", the most representative result indicates the value "Indifferent" represented by 29% (59 students). This reference shows that some students do not find an interest on the part of the university teacher and do not recognize the importance of the virtual teaching modality, giving an unnecessary value to asking questions in class. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in 2018? This result can be interpreted according to the realities commented that the importance given by the student is a very important factor, in this case it is necessary to follow up the students more closely with these evaluation surveys.

According to the results to the question: "*The teacher gives me valuable feedback on the completion of my tasks (internships, assignments, etc.)*", the most representative result indicates the value "Partially agree" represented by 40% (82 students). In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the professor with student satisfaction in a private university in Lima in the year 2018? It can be interpreted that it is still in the process of improvement and it is necessary to hold more feedback workshops for students.

According to the graph presented in Figure 4 with the title "*How important is the support of the teacher with regard to the functions to be performed in my virtual courses at university B*", with the relational results of 4 questions that are classified by the items on whether the teacher: *encourages me to participate, gives me adequate guidance, provides me with positive and negative feedback on my work, it is easy to contact the teacher.*

According to the results related to the question: "*The teacher encourages me to participate*", the most representative result indicates the value "Partially agree" represented by 36% (74 students). This reference shows that students do manage to participate in their virtual classes, showing that there is an interest and that they know about the subject of the

class. In reference to the specific objective that measures how the factors linked to virtual teaching are related to student satisfaction in a private university in Lima in 2018? The answer to this result is that there are students who do not manage to understand the class given by the teacher, in this way it is evident that all students participate in class, for that the classes have to be more dynamic to attract the student's attention and not be boring.



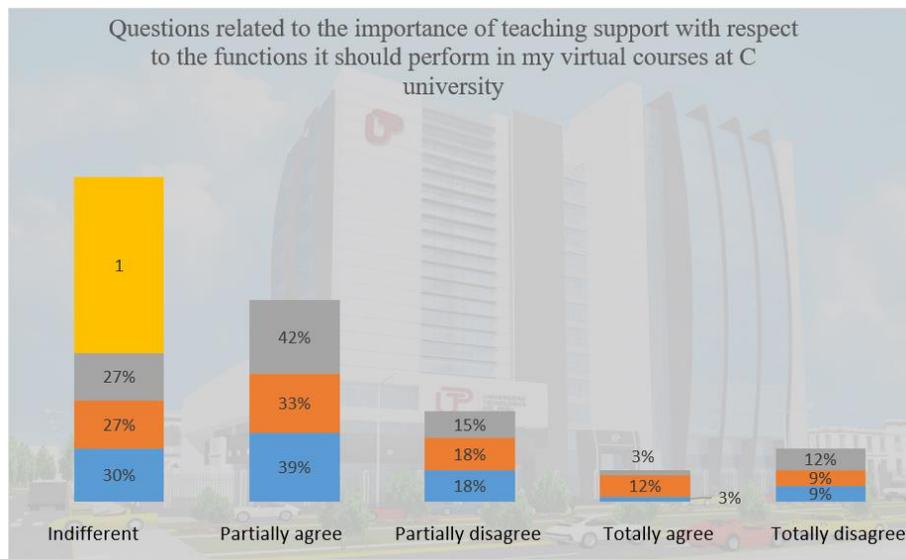
**FIGURE 4**  
**DETAILS OF THE SURVEY CONDUCTED ON A SAMPLE OF 206 BUSINESS SCHOOL STUDENTS AT UNIVERSITY B IN 2018.**

According to the results related to the question: "It is easy to get in touch with the teacher", the most representative result indicates the value "Partially agree" represented by 34% (70 students). This reference shows that not all students are able to reach the level of trust towards the teacher, demonstrating a shyness in their interventions in virtual classes. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? The answer to this result is that there are students who find it difficult to intervene in class, so the teacher has to give them confidence and make them understand that everyone can make mistakes without being judged.

According to the relational results to the question: "The teacher gives me positive and negative feedback on my work", the most representative result indicates the value "Partially agree" represented by 42% (86 students). This reference shows that the teacher verifies the information obtained by the student and in reference to that provides them with information depending on whether they need it or on the contrary should take it away. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a

private university in Lima in 2018? This result can be answered in accordance with the commented realities that dates of work should be carried out in which teachers can review and provide information on the work done by the students.

According to the results related to the question: "The teacher gives adequate guidance to my questions", the most representative result indicates the value "Partially agree" represented by 42% (86 students). This reference shows that the teacher does not manage to provide all the students with a correct orientation and answer in relation to the questions that are provided by the university students. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? This result can be interpreted in accordance with the realities commented that groups of teachers should be used with the correct number of students so that in this way everyone can be guided and can facilitate their learning by being clear about everything that is provided to them.



**FIGURE 5**  
**DETAILS OF THE SURVEY CONDUCTED ON A SAMPLE OF 33 BUSINESS SCHOOL STUDENTS AT UNIVERSITY C IN 2018.**

According to the graph presented in Figure 5 with the title "*How important is the teacher's support regarding the functions to be performed in my virtual courses at university C*", with the relational results of 4 questions that are classified by the items: *If I have any doubts the teacher finds time to answer me; the teacher helps me to identify difficulties in the subject of study, the teacher answers my questions quickly, the teacher gives me valuable feedback on the completion of my tasks.*

According to the results related to the question "*If I have any doubts, the teacher finds time to answer me*", the most representative result indicates the value "Partially agree" represented by 39% (13 students). This reference shows that not all students receive due attention from the teacher, which would cause discomfort if their doubts were not

answered. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in 2018? This result can be interpreted according to the commented realities that are in process, a specific timetable should be used where students can ask all their doubts to the teachers.

According to the results related to the question: "*The teacher helps me to identify the difficulties in the subject of study*", the most representative result indicates the value "Partially agree" represented by 33% (11 students). This reference shows that the student does not receive full support from the teacher to identify and help with the difficulties that each university student encounters. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with the satisfaction of the student in a private university in Lima in 2018? This result can be interpreted according to the realities commented that it is a very important factor that students are given the necessary time to solve their difficulties, as this would help them to academically improve their knowledge of each subject.

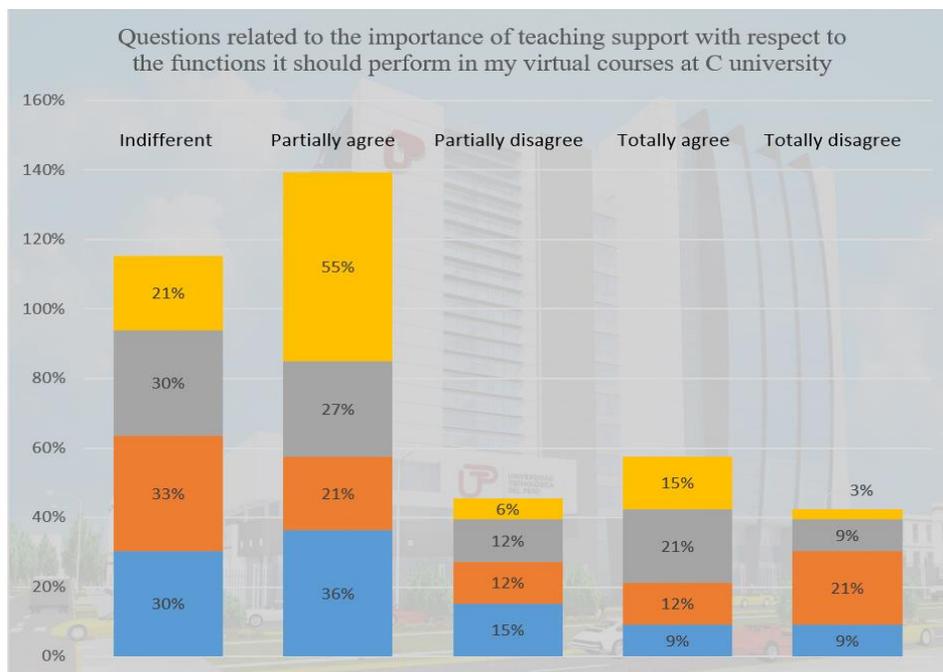
According to the results related to the question: "*The teacher responds quickly to my questions*", the most representative result indicates the value "Partially agree" represented by 42% (14 students). This reference shows that students have difficulties in their studies due to the fact that the teachers do not manage to have a timetable to be able to answer the students' answers and questions. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in 2018? This result can be interpreted according to the realities commented that the importance given by the student is a very determining factor, in this case it is necessary to follow up the students more closely with these evaluation surveys.

According to the results related to the question: "*The teacher gives me valuable feedback on the completion of my tasks (practicals, assignments, etc.)*" the most representative result indicates the value "Partially agree" represented by 33% (11 students). This reference shows that not all students receive information from the teacher that helps them to consolidate their work. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? This result can be interpreted according to the realities commented that it is very important that the teacher provides the students with information either through papers, web pages or journals.

According to the graph presented in Figure 6 with the title "*How important is the teacher's support with regard to the functions to be performed in my virtual courses at university C*", with the relational results of 4 questions that are classified by the items: *the teacher guides my questions adequately, encourages me to participate, it is easy to contact the teacher, provides me with positive and negative feedback on my information.*

According to the results related to the question: "*The teacher gives adequate guidance to my questions*", the most representative result indicates the value "Partially

agree" represented by 55% (18 students). This reference shows that students do not receive the necessary guidance so that they are satisfied with some of the questions proposed to the teacher. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? It is important for students to have a good orientation in their academic studies as this will help them to avoid having problems in understanding their subjects.



**FIGURE 6**  
**DETAILS OF THE SURVEY CONDUCTED ON A SAMPLE OF 33 BUSINESS SCHOOL STUDENTS AT UNIVERSITY C IN 2018.**

According to the results related to the question: "*The teacher encourages me to participate*", the most representative result indicates the value "Indifferent" represented by 30% (10 students). This reference shows that students do not participate fully in class either because the teacher is very serious and they are afraid that if they make a mistake, they will be shouted at or embarrassed, or because many of the students are angry. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? This result can be interpreted according to the realities commented that it is a very important factor that the teacher is dynamic, transmits confidence and gives students the opportunity to share their ideas in class.

According to the results related to the question: "*It is easy to contact the teacher*", the most representative result indicates the value "Indifferent" represented by 33% (11 students). This reference shows that it is very difficult for them to get in touch with the teacher, either to ask for a correction or to clarify any doubts they may have in relation to

an assignment, an exam or a project. In reference to the specific objective that measures how the factors linked to teaching in virtual mode are related to the support of the teacher with student satisfaction in a private university in Lima in 2018? The answer to this result, according to the realities commented on, is that it is very important that it is still in process and that the timetables where the teacher provides attention to the student at the moment of contacting him/her should be improved.

According to the results related to the question: "*The teacher gives me positive and negative feedback on my work*", the most representative result indicates the value "Partially agree" represented by 36% (12 students). This reference shows that students receive information regarding some work, but not all of them manage to receive positive and negative feedback from teachers. In reference to the specific objective that measures in what way the factors linked to teaching in virtual modality are related to the support of the teacher with student satisfaction in a private university in Lima in the year 2018? This result can be interpreted in accordance with the commented realities that it is important for students to have a follow-up in their work so that in this way they can have good information and present a good university work.

## CONCLUSIONS

In reference to the importance of the teacher's support with respect to the functions to be performed in the virtual courses, the teacher's support for the student's doubts has been perceived with a partial approval by the students in university A. Similarly, in universities B and C of the sector, the same result can be validated, giving as a common answer that students are partially in agreement.

In reference to the level of relationship and communication among students regarding the virtual courses, it can be stated that there is support among university students, who socialize with each other and share their knowledge obtained from other sources from university A. Similarly, in universities B and C of the sector, the same result can be validated, giving as a common answer that students are partially in agreement.

In reference to the degree of personal development that the university environment provides with respect to the virtual courses, it can be stated that the students relate their life outside the university with their university life by applying what they have learned as a personal experience obtained from university A. Similarly, in universities B and C of the sector, the same result can be validated, giving as a common answer that students are partially in agreement.

In reference to the degree of work in which students relate their studies to real situations, students apply their personal experiences in relation to their studies, as well as learn things from life outside the university and are employed in day-to-day life by university A. Similarly in universities B and C of the sector, the same result can be validated, giving as a common answer that students apply their daily and personal experience in their studies.

In reference to the degree of work in which the students carry out strategies to solve their problems present in some work or research given where it can be referenced that the students explore their own learning strategies, they make an effort to find their own answers and, in this way, solve their problems presented in their subjects of studies by university A. Similarly, in universities B and C of the sector, the same result can be

validated, giving as a common response that students do not stay with what is provided by the teacher, and they investigate and seek to solve their doubts or problems presented.

In reference to the measures that students manage to have their own learning in their virtual courses where it can be referenced that the students play an important role in their university studies for better learning, generating their own study methods by university A. Similarly, in universities B and C of the sector, the same result can be validated, giving as a common answer that students are partially in agreement.

In reference to the degree of satisfaction that the students have with the teaching-learning methodology used in each subject of the virtual courses, the students were not at all satisfied with the distance training of the students in university A. Similarly, in universities B and C of the sector, the same result can be validated, giving as a common answer that students are partially in disagreement with the virtual classes.

In reference to the interviews conducted by the students of University A, it is referred that the students need more support from the teachers, since the methodology used is not at all satisfactory, thus generating a discomfort in the students and even more if they have a quality system.

In reference to the interviews used in University B, the same result can be validated in University A, adding that in their virtual university methodology they apply group work for a better review and also learning.

In reference to the interviews used in university C, the same result can be validated in university A and university B, confirming that it is very important the support of the teacher, having a good system or virtual platform and applying virtual group learning methods to create a socialization environment among university students.

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