



SATISFACTION WITH THE QUALITY OF DIGITAL EDUCATIONAL PLATFORMS IN 4TH AND 5TH YEAR STUDENTS OF THE FACULTY OF MEDICINE AND SURGERY, URSE

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AUTHOR'S CONTRIBUTION

The sole author designed, analysed, interpreted and prepared the manuscript.

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Short Communication

ABSTRACT

Within the framework of the quality conditions that make it possible to compete in the international market, together with the precarious development of training in virtual environments in Mexico and specifically in Oaxaca, it forced us to be cautious when proposing the minimum guidelines that training courses in order to be considered training programs in virtual environments, virtual environments in the context of education must be met to be considered as those spaces generated to create and recreate the training, teaching and learning processes; spaces that exhibit as a particular characteristic the appropriation of information and communication technologies to classroom components (ICT's); In other words, virtual environments have the essential purpose of contributing to the provision of the teaching service, in terms of facilitating didactic communication.

Keywords: COVID-19; virtual environments; medical students; pandemia.

1. INTRODUCTION

At the end of 2019, the world underwent the onset of a new pandemic caused by the so-called SARS-CoV-2 virus, which led to massive alveolar damage and progressive respiratory failure [1-5]. Training in virtual environments has touched, as in all latitudes, the Mexican context without there being evidence of an organizational, technical, political, pedagogical, and didactic disposition to appropriately appropriate it in the training processes of Mexicans. In this circumstance, the system of assurance, improvement, and consolidation of the quality of training in virtual environments by students does not include in its

components, methods, strategies, approaches, criteria, or attributes that account for the presence of quality in the courses and programs offered in the country in virtual environments [6]. The precarious development of training in virtual environments in Mexico and specifically in Oaxaca, forced us to be cautious when proposing the minimum guidelines that online training courses must meet to be considered training programs in virtual environments; that is, those with specific curricular designs, in which the teaching service was mediated by network communication systems and on web platforms, which identify the institution and the particular course. Training in virtual environments emerges as a new methodological paradigm, both for

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research and for the generation of new educational strategies and processes; it forces educational institutions, which implement these models in their processes, to take on the challenge of demonstrating the cohesion between pedagogical quality and technological quality [7,8]. Virtual environments in the context of education are then outlined as those spaces generated to create and recreate the processes of training, teaching, and learning; spaces that exhibit as a particular characteristic the appropriation of information and communication technologies to classroom components; in other words, virtual environments have the essential purpose of contributing to the provision of the teaching service, in terms of facilitating didactic communication [9]. Virtual environments in the context of education are then outlined as those spaces generated to create and recreate the processes of training, teaching, and learning; spaces that exhibit as a particular characteristic the appropriation of information and communication technologies to classroom components; in other words, virtual environments have the essential purpose of contributing to the provision of the teaching service, in terms of facilitating didactic communication [6-9]. The virtual educational model integrates three essential elements: a) Learning resources; b) collaboration; and c) support. It is also important that online platforms present targeted spaces and designs appropriately to meet the objective of virtual education. UNESCO in 2013 stated that "Technologies can expand access to learning, improve quality and guarantee integration, allow education and training to be offered, impart training content, and facilitate communication between teachers and students" [8-13]. The objective of this work was to analyze the satisfaction of the quality of digital educational platforms in 4th and 5th year students of the Faculty of Medicine and Surgery, Universidad Regional del Sureste (URSE) during the academic cycle August-December 2020.

2. MATERIALS AND METHODS

2.1 Type of Study

This is a study in the line of institutional research, of a descriptive transversal type.

2.2 Universe of Study

It is made up of 4th and 5th year students from the Faculty of Medicine and Surgery of the Universidad Regional del Sureste (URSE). The total is considered, including the students.

2.3 Sample

A simple random sampling will be carried out among fourth- and fifth-year students, with substitution of the exclusion elements. Studying clinical cycles in the IMSS and ISSSTE Hospitals in the city of Oaxaca de Juárez in addition to being enrolled in the 2020-2021 cycle.

2.4 Instruments to be Used

These qualities are called indicators and must be achieved from the theory studied. The explanation of the indicators is of utmost importance, since the items or questions that will constitute part of the research instruments are then made from them [10].

2.5 Analysis of Data

The statistical analysis of the results will be carried out through descriptive statistics using the SPSS program and the generation of the database will be carried out through Excel.

3. RESULTS

Sampling was carried out from a universe of 540 students enrolled in the first to fifth year of medicine, a confidence interval of 0.95 and 0.5 probability of error was considered, resulting in a sample of 225 students. Of the sample, 42.6% were men and 57.4% were women, the average age of the study group were 22.8 years, with a minimum of 21 and a maximum of 30 years (Table 1). The sample was distributed between 98.1% regular students and 1.9% irregular students. Of the total of the surveyed students, 93.2% said they had their own computer and internet, while 6.8% said they went out to rent the necessary equipment (Table 2). 58.6% said they reside in the city, while 41.4% indicated they reside in a town in the state, of them 56.2% are in central valleys, 16.7% on the coast, 13% in the isthmus, 5.6% in the Mixtec, 3.7% in papaloapam, and the rest in the other regions of the state.

Regarding the category of virtual learning resources, the students considered it high, and based on specific items such as didactic materials, 67.9% agree with the said materials while 32.1% disagree with the materials used in the courses. Regarding the quality of Technology, 67.9% of those surveyed agreed while 32.1% did not. 82.2% of undergraduate doctors consider learning resources favorable, while 17.8% do not consider it adequate. In the area of Virtual Accompaniment, the students considered it high, this

Table 1. Sample data obtained

MEN (%)	WOMEN (%)	AVERAGE AGE (YEARS)
42.6	57.4	22.8

Table 2. Sample distribution

Regular students	Irregular students	Own computer and internet	No equipment required
98.1 %	1.9 %	93.2 %	6.8 %

area is made up of the guidance offered by the tutor/teacher flexibility during the course in addition to the virtual consultations. 77.3% consider the guidance received from their tutor/teachers adequate, while 22.7% do not consider it adequate. 74.3% consider that there is flexibility on the part of their tutors/teachers, and 88.3% consider the virtual consultations provided adequately.

Regarding virtual collaboration, students consider it high, this item is made up of guidance, support, timely response, and personalization provided. 87.1% consider the guidance provided to be consistent, 79.2% consider that their tutors/coordinators support them in a timely manner when there is any concern about their virtual course, 81.5% consider that, in the event of any inconvenience in their virtual course, their teaching tutor or coordinator will give them give a timely response. 84% consider the didactic orientation of the virtual course to be personalized when requested from the tutor/teacher.

4. DISCUSSION

Regarding the competence category, the students considered it a medium, and this category is made up of the training of competencies and the study modality. For the training of skills, 63.8% consider that the virtual course contributes to the training of skills in students. 53.3% mention that virtual education is a study modality that does not allow to achieve the objectives of the course. In the document entitled *Virtual Education: From Theoretical Discourse to Pedagogical Practices in Colombian Higher Education*. It was concluded that there are numerous and varied concerns expressed in advanced research on education and Technology of information and communication (ICT's) in university contexts, for example, the scarce existing regulations on the use of digital environments in educational processes makes it quite complex to follow a governmental and legislative discourse; the prevalence of and instrumental tendency in discourses, practices and environments that surround the intervention of ICT's in the educational world, as well as a scarce awareness and training of educational communities in the face of the digital divide, generates that the studies

yield rather poor results in relation to production and innovation on the subject; As a result, much of the research that has been carried out appears to be basic diagnostic reports on the subject [14].

Regarding the Institution Quality item, the respondents consider the value of medium quality, this item is made up of facilities and infrastructure; supporting services; enabling environment; communication technologies. Regarding facilities and infrastructure, 70% consider that the virtual classroom was friendly to develop their studies. 79.7% considered that the virtual classroom was available when they wanted to access it. 77.3% mentioned that they were able to develop activities within a conducive environment. 66.3% consider that the institution maintains communication according to the student's needs. For the category of student expectations, the respondents considered it to be an average quality value, this category includes: Qualified forums; application work, new virtual formats and questions to the tutor. For the section of qualified forums, 77.3% considered that the Qualified Forums were useful for their learning, 80.4% considered that the Application Work was useful for their learning. 67.6% of the students stated that they were able to learn through the new virtual education format. 76.1% of students feel comfortable asking questions to the facilitator of the course. For the teaching area, the respondents stated that they considered a high-quality value, for this area, it includes training, skills to interact and observations of the tutor. For the training, 71.2% of the respondents stated that the teaching tutors are correctly prepared for the development of the virtual course. 84.7% considered that the teaching tutors show skills to interact with the students, 87.7% said that the observations made by the tutor/teacher on their participation were clear and useful. In the document entitled *Satisfaction of the use of the virtual classroom in second-specialization students at the Army's Public Technological Higher Education Institute*. In the descriptive part, the majority of the students (91%) stated that they were satisfied with the use of the virtual classroom; in addition, there are significant differences using the Kruskal-Wallis test, in the level of satisfaction with the use of the virtual classroom,

according to age group and specialties, with a level of significance= 5%. Likewise, from the level of satisfaction with the use of the virtual classroom according to the three specialties raised, it shows that there are significant differences. That is, the communications specialty presents a higher level of satisfaction than the administration and telematics specialties [9].

In the document entitled ICT's competencies, academic performance, and satisfaction of students of the master's degree in Administration in the face-to-face and virtual modality of the Faculty of Accounting and Administration of the Autonomous University of Chihuahua. It was concluded that traditional exposure prevails in face-to-face education, with a significant difference of ($t= 12.185$ and $p= 0.000$), as well as the practice of exhibition by students, where ($t= 10.380$ and $p= 0.001$), and group tutoring with values of ($t= 2.034$ and $p= 0.043$), with a significant difference in favor of the face-to-face modality, while the virtual modality students highlight the use of online exhibitions ($t = -7.387$ and $p = 0.000$), debates and forums ($t= -3.005$ and $p= 0.003$), case studies ($t= -2.547$ and $p = 0.012$), problem solving ($t= -2.082$ and $p= 0.039$) and individual tutoring ($t= -3.784$ and $p= 0.000$), teaching techniques that reflect a significant difference in favor of the virtual modality. In online learning, activity forms the central core of training design. When designing a course, one should ask about the type of activities that students must carry out to achieve the expected knowledge and skills. Once the activity is established, it is necessary to design the spaces and resources that favor its execution. Centralizing the teaching action on the student means focusing teaching on the design of learning spaces and situations. Starting from the students' learning activities within a virtual environment implies taking into account a series of specific elements that affect the design of possible learning situations in a transversal way and from different perspectives. The virtual educational model integrates three essential elements that converge in the design of learning activities. A) Learning resources, b) collaboration, and c) accompaniment. Student satisfaction is a key element in assessing the quality of education, since it reflects the efficiency of academic and administrative services: their satisfaction with the learning units, with interactions with their teachers and classmates, as well as with the facilities and equipment. The student's vision, the product of her perceptions, expectations, and needs, will serve as an indicator for the improvement of the management and development of academic programs [15].

5. CONCLUSION

In conclusion, it can be said that the fourth- and fifth-year undergraduate students of the Faculty of Medicine and Surgery of the Southeastern Regional University consider the virtual education received at a high level with respect to learning resources, support and virtual collaboration are it referred but regarding student satisfaction they consider it at an average level with many aspects to improve such as: Communication technologies implemented forum improvement in the training of teachers with respect to platforms and virtual environments.

ETHICAL APPROVAL

The study project, in the form of a protocol, must be approved by the Research Committee of the Faculty of Medicine of the Universidad Regional del Sureste. The research units (students) must sign the informed consent prior to entering the study, leaving them clear freedom in their decision to participate or not in the study. The information collected will be kept confidential and anonymous, it will be stored in a place with access only to the researchers in charge of the study. Because it is a descriptive study in which a survey was applied, it does not put the physical integrity of the research subjects at risk. The disclosure of results will be generalized and never alludes to a single individual or group of people.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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