

## Anxiety in University Teachers and Virtual Education

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### Abstract

*The purpose of this research is to analyze whether university teachers show signs of anxiety due to the new modality of virtual education due to confinement due to the health emergency. A bibliographic review has been carried out and there has been the collaboration of university teachers who now teach their classes through virtual means, to whom a structured survey was applied to determine how they face the virtual education modality, at the same time the Scale was applied of Hamilton Anxiety, which evaluates anxiety levels (give the results). The research has a correlational, descriptive scope since it seeks to know if teachers present anxiety regarding the virtual education that they had to implement at the time of teaching classes. The investigated population was made up of 24 university professors from the University of the Armed Forces, Latacunga headquarters. University teachers have serious anxiety indicated that in the context of the health emergency added to the change of modality in education.*

**Keywords:** Anxiety, Virtual Education, University Teachers.

## INTRODUCTION

### Anxiety

The concept of anxiety is defined from a biological point of view as a response of the central nervous system to novel, intense or threatening situations coming from the environment, allowing the body to prepare a response that adapts to those situations Capul et al. (2018). Anxiety is also defined as an unpleasant and painful state, it is a consequence of an anticipation of situations, circumstances or problems that represent some evil, doubts about the nature of the disease itself, and beliefs of threats about supposed danger Hollander and Stein (2010). Thus, such symptoms are presented that if it prevails over time it would become a pathology deteriorating several areas of the human being in which several physical and somatic symptoms appear, one of the diagnostic criteria according to the DSM 5 refers that anxiety is pathological when worry and physical symptoms cause clinically significant discomfort there is a social deterioration, affecting other important areas of functioning. In congruence with this, it is evident that anxiety can be very harmful to the health of the human being, presenting several symptoms at a physical and psychological level in this way Arreaga (2018) divides it into physical symptoms such as: muscle tension, agitation and psychomotor restlessness, fatigue, tension headaches, tremors, dizziness, nausea, diarrhea, chest pain, sweating, tachycardia, epigastric discomfort, vertigo, dry mouth.

Psychological symptoms such as: excessive worry, inadequate assessment of facts and situations, negative thoughts, low tolerance to frustration, feelings of overwhelm, irritability, psychomotor block, obsessions or compulsions, feeling of overflow, feeling of depersonalization, lack of meaning in life, lack of decision-making, feeling of oppression.

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Anxiety is categorized by levels in this way, Celis et al cited by Castellanos, M., Guarnizo, C., Camargo, Y. (2011) refers that there is a level of anxiety called emotional threshold or normal state of anxiety, favoring the performance of the person, however, when the level of anxiety is exceeded, a deterioration of daily activities appears, appearing a drop in performance, appearing the onset of an anxiety disorder.

(Anxiety Levels, Mild, Moderate, Severe) Also put figures or results of other previous research.

### **Virtual Education**

Virtual education refers to the development of programs that aim at a teaching and learning context in cyberspace. Including virtual media as tools of the new teaching modality, taking into account the economic and social environment of the context in which this will take place (Melo & Díaz, 2018). Hence, both the teacher and the educational institution can incorporate them to move from traditional teaching to a more collaborative and networked learning, that is, the teacher with the participation of the students, and build the subject (Jam et al., 2018). The development of communication and information technologies has allowed access to them in a new and interesting way, in which students are allowed to have several new options in various aspects of their daily lives, connecting them to the virtual world. (Calviño, 2015)

Not only the skills and competencies of teachers must be subject to change, but also their practices, models to improve learning must have the commitment to evolve; integrating the characteristic elements of the virtual environment in order to achieve a pedagogical coupling where the stages of the learning process can be evaluated and examined, all this according to the environments in which it is being developed. (Martínez, Steffens, Ojeda, & Hernández, 2018) Virtual education is about doing education through electronic media and devices as tools to improve access to training, communication and interaction that entail new ways of understanding and developing learning.

The role of the teacher is significant in the development of the teaching-learning process, that is, that teachers develop basic competencies such as technology management, digital pedagogies, group management skills; In addition, reinforce with key material and information such as texts, videos, articles and in this way generate a system supported by the content together with the guide, accompaniment of the teacher. (Álvarez O & Zapata D, 2002).

However, for Gutiérrez and Villegas (2004) the use of technology in educational processes is a new alternative to higher education as distance education, the use of ICTs are educational strategies that are currently adapted in virtual educational programs.

The research develops design patterns and design languages, especially in the pedagogical field, and underlines the importance of having a specific pedagogical pattern language for virtual learning environments, so that teachers can have a pedagogical tool that guides them in the specific characteristics of virtual education. (Rodríguez Jiménez, 2009)

Teaching is a social process and needs contact to function, several teachers affirm that learning is a social process that needs direct contact to function properly. (Ralón V & Vásquez M, 2004) For Domínguez and Pérez (2007), virtual education is not accessible to the entire population as it will widen the so-called digital divide, because not everyone has a computer, or Internet access at home or knows how to handle these technologies properly.

### **MATERIALS AND METHODS**

The research is qualitative in nature, the type of study is descriptive, there was a population of 24 university professors between men and women, The representation of a non-probabilistic sample is defined by Espinoza (2016) as: "a sample that is available in the time or in the research period". This is due to the ease of exploring the relationships between the variables: anxiety and virtual education. This choice of a non-probabilistic sample for convenience allows the selection of those accessible cases that accept to be included in the collection of information, based on flexibility and proximity for the researcher, allowing the exploration and analysis of the results obtained. (Revise wording).

### Instruments

To develop the descriptive analysis, a semi-structured interview of approximately 17 open questions related to virtual education was used.

For the evaluation of anxiety, the Hamilton anxiety test was used, which consists of 14 questions in which the psychic symptoms correspond to the items (1, 2, 3, 4, 5, 6 and 14) and to somatic anxiety the items (7, 8, 9, 10, 11, 12 and 13). Each question is graded from 0 to 5 points according to the intensity as detailed below:

0 = Absent 1 = Mild intensity 2 = Medium intensity 3 = Strong intensity 4 = Maximum intensity (disabling).

The test measures a total score by determining the following levels:

There is no anxiety when the total score ranges from 0 to 13 points, mild anxiety with a total of 14 to 17 points, moderate anxiety if the score is 18 to 24 points, and severe or severe anxiety if the overall score is from 25 points onwards.

The study modality was scientific and we worked with 24 university professors who provided the openness and ease of access for the research, which was carried out through telephone calls, online surveys, and other technological means.

### RESULTS

The analysis of the sociodemographic characteristics manifested by the study participants. First, the personal characteristics are presented and then the work characteristics of the same, in reference to the virtual education variable.

Table 1.

1.8%

| Variable      | Frequency | percentage |
|---------------|-----------|------------|
| <b>Gender</b> |           |            |
| Women         | 8         | 42.30%     |
| Men           | 16        | 57.70%     |
| <b>Age</b>    |           |            |
| 25 – 39       | 16        | 57.70%     |
| 40 – 49       | 5         | 38.50%     |
| 50 – 64       | 2         | 2.00%      |
| More that 65  | 1         | 1.80%      |

The analysis of personal characteristics of the sample allows us to determine the percentage of distribution of the participants according to the criteria of gender, age, as. In terms of gender, 57.7% of the population was male, over 42.3% of the females. This also indicates that there is a considerable presence of the male gender in the population studied. The average age range is between 25-39 years old with a total of 57.7% of the total, as the next figure is obtained 38.5% ranging between 40-49 years of age. This also indicates that there is a considerable presence of the male gender in the population studied. The average age range is between 25-39 years old with a total of 57.7% of the total, as the next figure is obtained 38.5% ranging between 40-49 years of age. This shows that in the institution there are teachers who are in the range of young adults, thus it is important to open up classes and not promote traditionalism.

The table shows the distribution of virtual education variables such as: hours of daily work, type of contract, academic activities, knowledge about the new way of teaching classes, which are distributed as follows:

Table 2.

61.5%

| Variable   | Frequency | percentage |
|--|-----------|------------|
| <b>Before the health emergency you have taught virtual classes</b> |           |            |
| Si   | 6         | 38.50%     |
| No   | 18        | 61.50%     |

As can be seen in Table 1, teachers had not taught virtual classes before the health emergency with 61.5%, followed by 38.5% who have provided this type of virtual education. It also indicates that most of the research population is not familiar with the management of virtual education.

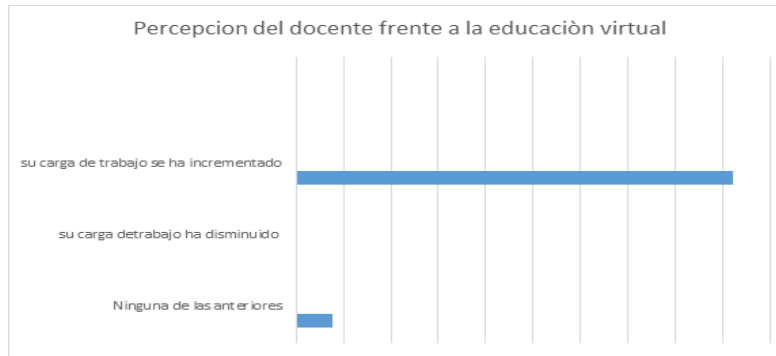


Figure 1.

Source: Survey of university professors . In original language: Spanish.

Of the 100% of those surveyed, 92.3% stated that their workload has increased, claiming that they have more responsibilities when teaching classes and achieving learning with students.

Table 3.

11.5%

| Which of the following education modalities do you prefer to work with? |    |        |
|---|----|--------|
| Virtual education   | 0  | 0%     |
| Face-to-face education  | 24 | 100%   |
| What type of contract do you have?                                      |    |        |
| Occasional  | 15 | 61.50% |
| Permanent contract/definitive appointment                               | 6  | 26.90% |
| Casual contract/provisional appointment                                 | 3  | 11.50% |

In the case of the face-to-face education variable, 100% of the participants mentioned that they opt for face-to-face education. This indicates that the entire research population prefers to go to the classrooms and have contact with the students, guaranteeing their learning.

61.5% have a casual contract, while 26.9% have an indefinite/permanent appointment, 11.5% have a provisional appointment. This shows that the university professors surveyed are concerned about the occasional contract, that is, they say they feel job instability.

Within the Anxiety variable, we found the following results:

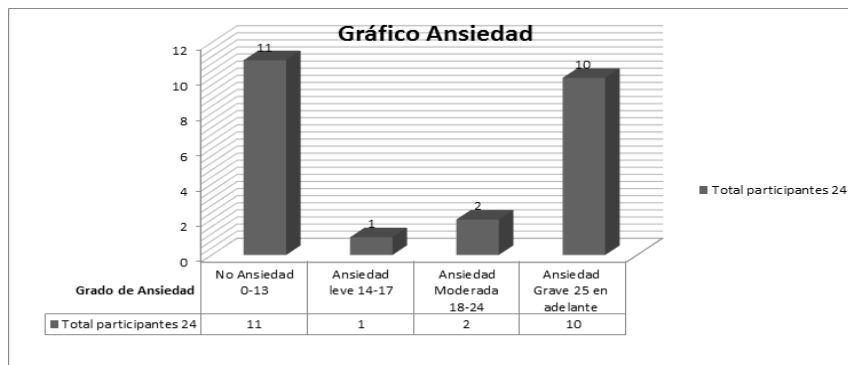


Figure 1. Descriptive analysis of anxiety and cut-off points for non-anxiety, mild, moderate, and severe anxiety.

Source: Hamilton Anxiety Scale Applied to Higher Education Teachers. In original language: Spanish.

According to the results obtained, it is evident that of the 24 university professors, 11 of them do not present symptoms of anxiety: that is, these people do not have a state of mind, apparently they do not present fear or constant worries, they reflect self-confidence, however 1 teacher presents mild anxiety, 2 refer moderate anxiety, while 10 higher education teachers report severe anxiety; this symptomatology is related to virtual education and the context of the COVID-19 health emergency in the country. That is to say, half plus one have anxious symptoms that could be linked to the fact that most of the population is not familiar with education in the virtual modality and, on the other hand, teachers report having constant concerns about job instability, since a large number work with an occasional contract.

## **CONCLUSION**

This study analyzed the variables of virtual education and anxiety in higher education teachers in confinement during the health emergency, with a population of 24 teachers to whom a semi-structured survey and the Hamilton anxiety test were applied.

According to the data obtained in the anxiety test and the semi-structured interview on virtual education, it is evident that higher education teachers present mild to moderate and severe anxious symptoms since there is a recurrent concern about job instability because most of them have occasional contracts, in addition to the change of education modality, teachers have perceived a considerable increase related to the workload and not all of them They are completely familiar with virtual education.

It is also shown that a significant percentage (of the total population investigated % and &) of university professors have severe anxiety, indicating that in the context of the health emergency added to the change of modality in education, these people show symptoms of restlessness, emotionally unstable, could have psychomotor block, low tolerance to frustration, irritability, Feeling overwhelmed, all these symptoms are a clear indicator that teachers urgently need emotional support.

Virtual education is about doing education through electronic media and devices as tools to improve access to training, communication and interaction that entail new ways of understanding and developing learning. Despite the confinement due to the health emergency, teachers' perception of virtual classes is negative, according to the results obtained through the survey.

To contribute to the development of virtual education, 100% of respondents indicate that they prefer to work in face-to-face mode, taking as a reference that it facilitates work.

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