

Glossophobia in postgraduate degrees. Online public speaking in times of Covid-19

Glosofobia en la universidad. Oratoria online y covid-19



Joaquín Marqués-Pascual. PhD in Communication (awarded *cum laude*) recognized by ANECA, AQU & ACCUEE. Master's in Political Analysis (UOC) and in Economic Journalism (UAB). Post-graduate diploma in Catalan Civil Law (UB). Law degree. Graduate in Political Science. As a researcher he has focused on the intersection between three disciplines: politics, communication, and legal regulation. He is the author of half a dozen books, collectively or alone, as well as numerous scientific papers in indexed journals. Lead researcher of the group COMM.RESEARCH-EAE. He is currently a Senior Lecturer at EAE Business School on topics related to its three areas of specialization: Communication, Political Science and Law. He has worked as a political and economic journalist for two decades. Furthermore, he has worked as a communication consultant in the fields of business and politics.

EAE Business School, Spain
joaquin.marques@campus.eae.es
ORCID: 0000-0002-7696-4661



Miguel-Ángel Violán. He is currently doing his PhD in Communication at the UIC, where he works as Professor of Persuasive Communication in the degrees of Journalism, Audio-visual Communication, and Marketing & PR. He has directed the Master's on Corporate Communication Management at the EAE Business School in Barcelona (UPC) for 12 years, as well as the roster of Spanish Professors in the Master on Communication Management at the PUCMM in Santo Domingo (Dominican Republic). He has a degree in Journalism (UAB), and Law (UB), and an MBA from ESADE Business School (URL) and was a Fulbright scholar on European Politics and Geostrategy in the Salzburg Global Seminar (Austria). He works as an expert public speaking coach for managers and public figures and does research into the genres of contemporary public speaking. His book "Pep Guardiola: The Philosophy that Changed the Game", on football and management, has been published in nine languages.

EAE Business School, Spain
miguel.angel.violan@campus.eae.es
ORCID: 0000-0003-1663-5134

Received: 15/05/2021 - Accepted: 24/11/2021 - Early access: 05/12/2021 - Published: 01/01/2022

Recibido: 15/05/2021 - Aceptado: 24/11/2021 - En edición: 05/12/2021 - Publicado: 01/01/2022

Abstract:

This study focuses on the fear of public speaking, or glossophobia, among postgraduate students in Spain. The main objective is to evaluate the levels of glossophobia in this group, with special attention paid to online public speaking. COVID-19 has forced the online performance of multiple academic activities, including the defence of Master's Theses (MT). A mixed research method (qualitative-quantitative) has been employed by means of a survey (500 responses) of the student

Resumen:

La investigación se focaliza en el miedo a hablar en público, o glosofobia, de los estudiantes de postgrado en España. El objetivo principal es evaluar los niveles de glosofobia de este colectivo, con especial atención en la oratoria on line. La COVID-19 ha obligado a la realización on-line de múltiples actividades académicas, entre ellas las defensas de Trabajos Finales de Master (TFM). El artículo presenta los resultados de una investigación mixta (cualitativa-cuantitativa) mediante una encuesta

How to cite this article:

Marqués-Pascual, J. and Violán, M. A. (2022). Glossophobia in postgraduate degrees. Online public speaking in times of Covid-19. *Doxa Comunicación*, 34, pp. 139-153.

<https://doi.org/10.31921/doxacom.n34a848>

body conducted at the time of presentation of their MT (June-July 2020). Fifteen experts had previously validated the questionnaire. The resulting Cronbach's coefficient alpha, which measures its reliability, was 0.82. The main result is that the vast majority of the group is aware of their oratorical weakness. Almost all show interest in improving this competence and consider that presenting the MT has been the greatest speaking challenge in their lives. Among the main conclusions, the need to introduce specific training in public speaking in the students' curriculum stands out. It should be included in the curriculum of postgraduate programs, regardless of their specialty, with particular emphasis on online interactions. Glossophobia has been shown to be transversal and affects all types of students. The proposal made herein is currently non-existent in Spain.

Keywords:

Glossophobia; fear; public speaking; social phobia; rhetoric communication; COVID-19.

(500 respuestas) entre el colectivo estudiantil realizada en la época de presentación de su TFM (junio-julio de 2020). Previamente una quin-cena de expertos validó el cuestionario. El coeficiente Alfa de Cronbach resultante, que mide su confiabilidad, fue de 0,82. El principal resultado es que este colectivo es consciente, de manera muy mayoritaria, de su debilidad oratoria. Casi todos muestran interés por mejorar esta com-petencia y consideran que presentar el TFM ha constituido el mayor reto de oratoria en sus vidas. Entre las principales conclusiones destaca la necesidad de introducir una formación específica en oratoria en el cu-rrículo de los estudiantes de los programas de postgrado, con indepen-dencia de su especialidad, y con especial énfasis en las interacciones on line. Se ha demostrado que la glosophobia es transversal y afecta a cual-quier tipo de estudiantes. La propuesta que se hace es inexistente en la actualidad en España.

Palabras clave:

Glosophobia; miedo; oratoria; fobia social; retorica; COVID-19.

"To conquer fear is the beginning of wisdom"

Bertrand A. Russell (Philosopher & Nobel for Literature 1950)

1. Introduction

Public speaking, or oratory, has been, for many centuries, a key element of social development. There were treatises on the subject back in the ancient Greek and Roman Empires. Training in these techniques, which have been seen as an art form, have also been looked on as a recurring resource throughout history. Some of the most popular public speaking manuals were published at the beginning of the XXth century. For example, "The Art of Speaking" by J. Berg Esenwein and Dale Carnegie (1915). Another, more recent, classic is the work of Stephen E. Lucas (2015; 12th edition In Spanish) which, three decades later (1983, 1st ed.) is still being re-printed, having been adapted to modern times, with a DVD and online complements.

Societal changes, due to new technologies introduced over recent decades, have brought drastic change in numerous areas. One of them is the focus of attention of this paper and is centred on the training which both students and professionals must have to be able to speak in public, such training being orientated towards the new virtual contexts that have developed so spectacularly during the Covid-19 experience (videocalls on Zoom and similar platforms).

This paper, including this introduction, follows the classic lines of scientific papers, wherein the first part presents a synthesis of the scientific literature on the central subject, public speaking, indicating new tendencies. The second part sets the methodological framework of the empirical research carried out. The third presents and analyses the results which lead to the conclusions reached in the fourth and final part, which includes the enumeration of the matters to be discussed and subjects for future debate.

2. Theoretical framework

Glossophobia means the fear of speaking in public. The expression comes from the Greek: 'gloso' = word; 'phobia' = fear. It can also be termed 'stage fright' (Miranda *et al.*, 2020). The term 'stage' alludes to the idea of exposing oneself before the public on a stage, something common in the arts, be they concerts or plays, although it also includes the act of public speaking and oratory, while stage fright may sometimes be termed PSA - Public Speaking Anxiety.

Amongst the more common fears, glossophobia is the most frequent of all, even more than the fear of flying, fear of death (thanatophobia), claustrophobia or its opposite - agoraphobia (the fear of open spaces). The differing intensities in which a phobia, such as stage fright, can manifest itself can affect up to 90% of the population. Glossophobia is found among the so-called social phobias, a term coined by Janet (1903) and later defined by Marks & Gelder (1966), Nichols (1974) and Amics, Gelder & Shaw (1983). Glossophobia is considered a specific social phobia as opposed to a generalised social phobia (García López, 2000).

Fear of speaking in public is the number one amongst the fears that haunt us in professional life. It has an origin: our school [...] has had consequences over time; the first and most pernicious, insecurity. This comes from the conviction that we are doing something wrong. It is hard to fight against because it is usually tied to a sense of guilt. When you are convinced that you are doing something wrong, you are paralysed if no one steps in to help you. Something similar happens when it comes to public speaking. We feel paralysed, as we see the public as a judge who views us through inquisitor's eyes (Pastor, 2018, p. 7).

Stage fright is seen by half the population as the greatest fear in their day-to-day lives (Lucas, 2015: 9) affecting decisions of importance such as the choice of the field of professional development. It constitutes a complex mental problem with profound psycho-emotional consequences, and is thus defined:

Intense fear and anxiety experienced when you face a situation in which you feel observed. You feel that life is narrowing, your throat feels knotted, your heart races, you start to sweat, your hands shake, you lose your voice and symptoms of profound anguish may appear, a feeling of loss of control, of wanting to escape, of fleeing from the situation. It is a tremendous fear. It is a situation you cannot really control [...] The fear of being once again in that scenario and feeling those symptoms is so inexplicable and irrational (Lusilla, 2014, m. 1-3).

Glossophobia brings together a series of characteristics that make it different from other fears: it is irrational, it erupts without apparent motive or reason and limits one's rational capacity to reflect on the situation; it is excessive, it appears and grows to cover all emotional reactions; it is persistent over time. It is a social anxiety disorder, known as an SAD. From a clinical viewpoint, patients have traditionally been helped using psychological and pharmacological treatment, as well as a combination of the two (Byers & Weber, 1995).

Episodes of stage fright appear from time to time in the media when they involve famous performers, accustomed to dealing with the public but who suddenly succumb to the symptoms described. Cases such as those of the singers Joaquín Sabina or Paloma Soler are the most common and may be related to Imposer's Syndrome (Fernández & Bermúdez, 2000; Galán Bravo, 2018: 101), which is defined as an intense feeling of falsehood or lack of authenticity as regards one's self-image of competence, experienced by people with a notable background of success (Clance, 1985).

Speaking or performing in public creates emotional stress. Numerous surveys have found this sensation in speakers before they begin to speak. It appears frequent that even the most experienced may feel a degree of anxiety that they manage to contain and redirect thanks to having learnt certain public speaking skills.

The fear originates in personal insecurity, which is the result of deficient education, generally repressive and incapacitating where the use of language tends to be associated with situations of emotional pressure which may occur in school or at home (Lafuente Zorrilla, 2012; Pastor, 2018). The level of fear the victim suffers can vary, extreme cases reaching a point where the subject is completely blocked, some cases (20-30%) being related to traumatic experiences in the past linked to public speaking, typically during adolescence (Bados, 2005; Nikitina, 2011:14). Up to seven causes have been identified which cause such blocking (Puigpelat & Rubio, 2005). Each one calls for a different response.

In such a situation, training is seen as a basic element of emotional control. The earlier the better. Best if provided during infancy or adolescence. It is vitally important to eradicate the fear of error at school (Robinson, 2006; Pratiwi *et al.*, 2018; Tafur-Muñoz & Armesto-Argüelles, 2020). Also essential are ties within the family group. Some subjects in Communication Studies contemplate in their curriculum some training in this ability, it being a requirement in their professional toolbox (by all, Tejedor & Cervi, 2017).

It has been suggested that the best way to overcome this fear is to convert it into pleasure. Stage fright is avoidable. As it is a problem of personal insecurity, it is a question of strengthening one's self-respect. The singer Joe Kowan, driven to overcome his stage fright, composed a song describing the symptoms of singing when suffering stage fright by thinking that any imperfections in his performance were justified by the fact that the song was about stage fright. He gave a TED Talk on the subject: "How I beat stage fright", with almost three million viewers. It can be seen that some research has looked at the power of inner courage to break the barriers of fear (among others, Sweeney, 2020; Sanders & Karmowska, 2020).

Galán Bravo echoes the concepts of self-esteem and hetero-esteem: "Self-esteem refers to the love we feel for ourselves, while, when I refer to hetero-esteem, I am talking of the love we receive from outside, from other people" (2018: 93). The overcoming of this fear sits at a halfway point between the two concepts. It requires therapy to accept the problem as well as the development of specific exercises. Also of help here is the development of processes of meditation and mindfulness (Finkelstein, 2017; Abella & Cutamora, 2019; Viejó & Quinto, 2019).

Training in public speaking should be among the abilities of university students when they go out into the labour market (Beardsley, 2001). There has been very little scientific production applied to glossophobia and universities. One study in Portugal has been analysed (Miranda *et al.*, 2020), but nothing has been found dealing with post-graduate students, for which reason we felt it pertinent to look more closely at this matter.

3. Methodology

In order to achieve the objective proposed for this study, we decided to carry out an internet survey (Google Forms) as a method of gathering information from a certain population group, post-graduate university students who may potentially suffer from glossophobia, in line with similar experiences (Iwu *et al.*, 2021). Naturally, this instrument only takes a snapshot of the current

situation and predictions of the future cannot be made. But at least it gives us a clear image of the situation. Given the very scarce research currently available, this study is believed to make a contribution of undoubted value.

The construction and validation of this instrument of measurement is complex. An extensive bibliographical review did not find any questionnaires that matched the needs of this research; thus, we deemed it necessary to produce one ad hoc. Initially 24 questions were prepared, structured in four blocks: contextual, on public speaking, on glossophobia and, finally, situational questions (see appendix 1 at the end).

To determine their scientific validity and internal consistency, that is, the correlation between the items, the questionnaire's content was submitted to a validation process measured utilizing the criteria of a series of experts on the subject. Fifteen public speaking professionals were asked to collaborate, people of tried and tested experience. Each was asked to give an opinion on the questions in the questionnaire, mostly by using a five-point Likert-type scale (1. Totally disagree; 2. Partly disagree; 3. Indifferent; 4. Partly agree; 5. Totally agree), to be able to quantify their answers. In addition, some open questions were directed to the experts which, optionally, allowed them to approach certain questions and go more deeply into some of the subjects covered by the questionnaire.

The questions asked of the experts related to the survey that was to be sent to the graduate students. The questions were divided into two groups: relating to the form and to the content. In the former, they were asked to evaluate the survey in the following aspects: clarity, pertinence, the scale utilised and its extension, as well as the homogeneity and correlation of the questions. As regards the survey's content, they were asked about: its coherence, purposes, the possible redundancy of some questions, the pertinence of the information being requested, the novelty of the subject matter, whether it was necessary to reformulate the methodology and if the variables asked for were the right ones, as well as whether or not the resolution of the survey created awareness among the students themselves of the issue of glossophobia. Methodology proposed by Moriyama (1968) was followed, whereby the basic structure of the instrument is examined as well as the questions' transcendence, allowing the experts to add those aspects that they consider may be of relevance, in the light of their experience.

With the Likert_5 answers of the 15 experts, a statistical measure was utilised, Cronbach's coefficient alpha, with the idea of validating the consistency and internal trustworthiness of the survey, this being a quality incorporating elements of formality, integrity and credibility (Voutssás, 2017: 102) and which generates greater trust in the data the survey may provide. Since its appearance in the middle of the last century (Cronbach, 1951), this system has established itself as a simple, reliable standard for the validation of the construction of a scale as well as a measure which indicates if the correlation between the items contained within is adequate.

It is true that the use of a Likert-type scale in unison with this type of coefficient, such as Cronbach's alpha, is subject to debate (Gliem & Gliem, 2003) but it seemed to the authors that its employment is very common as it is the measurement most frequently used in the scientific literature related to the social sciences to quantify and validate the correlation between the questions in a survey. This has been found by several studies (Gadermann, Guhn, & Zumbo, 2012) which point to a generalized usage of Cronbach's alpha by many researchers to test a survey's validity (76% of published papers). "It often appears in the bibliography as a simple and reliable way to perform the validation of the construction of a scale and as a measure that quantifies the correlation existing between the items it is composed of" (González Alonso & Pazmino, 2015: 65).

Cronbach's coefficient alpha is a measurement of trustworthiness which goes from 0 a 1; values from 0.60 to 0.70 are considered to be the lower acceptable limits (Hair, Black, Balbin & Tatham 2009). Other authors (Sierra Bravo 2001) establish that limit at 0.6. The result given by the coefficient for the survey was 0.82. Therefore, the instrument is considered valid and adequate as the results for its homogeneity and internal consistence approach the maximum value of 1. "The closer the value of Cronbach's alpha to 1, the greater the internal consistency of the items analysed" (Hernández y Pascual, 2018: 160).

The survey on glossophobia concentrated on recently graduated postgrads in Spain, regardless of nationality. It is well-known that a considerable part of students carrying out postgraduate studies in Spain come from other countries, especially from Latin America.

It was no easy task to define the population. There is little data about the corpus and that complicates the correct determination of the sample. In this case, statistical data from the Spanish Ministry of Science and Innovation was utilised, this ministry being responsible at national level for Spanish universities.

In Spain, data from the 2017-2018 academic year (the most recent available) shows 3,567 Master's courses (65.7% at public universities), with 190,143 students matriculated (data from 2016-2017). Of this total, centres in the regions of Madrid and Catalonia made up 21.7% and 14.8% respectively. Distance learning universities accounted for 21.4%.

Additionally, we should point out that the largest group (110,905 students) were studying social and legal sciences (over 58% of the total). At a considerable distance we find engineering and architecture (18.26%), health sciences (10.62%), arts and humanities (8.42%), and other sciences (4.36%). Provisional data on matriculation for 2018-2019 shows growth of 8%, following the tendency of recent years.

From these students, the number of graduates from 2016-2017, according to the official data, was 99,413 (64,7% graduated from public universities). Of these, almost 63,000 correspond to social and legal sciences. It should be noted that almost 60% of graduates from this field were women.

The survey is limited to postgraduates in social and legal sciences, mainly from 2019-2020, although it was extended to include 2018-2019, as some Master's count 90 and 120 credits and last longer than one academic year.

Specifically, the total number of recipients of this title in recent years was searched for. The number of postgraduates over the last three years in Spain, from the available official data was: 2016/17: 99,413; 2017/18: 112,122; 2018/19: 114,320. In total, some 325,000 people. Taking only the data for graduates from social and legal sciences (58% of the total) in the last two years, we have the figure used to define the size of the population.

This group were the object of non-statistical sampling as a true representativeness could not be established. The lack of desegregated data on the postgraduate population (the principal variables which identify the population: sex, age, profession, income, etc.) made statistical sampling impossible. A non-random selection of the sample was chosen combined with the input of a group of experts.

Despite this, the survey was processed with the maximum rigour so that the data obtained could serve to make useful and illustrative extrapolations.

The sample size, the units that should be included, must comply with the criteria that a probabilistic survey would have had. It was determined that 500 would represent the required level of exactitude. For a population of 130,000 graduates over the last three years and a sample of 500 units, with a reliability of 95%, the resulting margin of error is 4.37%.

4. Results

We need to distinguish between several types of results. As regards the evaluation performed by the experts of the questionnaire designed for the postgraduates, it should be pointed out that evaluation of the consistency and internal trustworthiness utilizing Cronbach’s alpha was seen to be satisfactory, with a reliability level 0.82.

The survey’s representativeness is clear, whether we focus on the total of postgraduate students or analyse the collectives of education, social sciences, management subjects, pure sciences, humanities, or other studies.

Concerning the number of postgraduate students in Spain, the available official data for recent years indicates an annual volume of around 100,000 graduates with an increasingly unequal tendency (see Table 1).

Table 1. Distribution of the number of students doing Master’s courses in Spain in recent years

Academic year	Total # of graduates	Percentage increase
2015-2016	90,392	
2016-2017	99,413	9.98 %
2017-2018	112,122	12.78 %
2018-2019	114,320	1.96 %

Source: created by the authors with data from the Spanish Ministry of Science, Innovation & Universities. Data & figures for the Spanish university system

Table 2. Distribution of the number of students matriculated on Master’s by age group & field (2017-2018 academic year /Social Sciences)

	- 25 years of age	25 - 30	31 - 40	+ 40
Total	35.1 %	35.6 %	19.4 %	10%

Source: created by the authors with data from the Spanish Ministry of Science, Innovation & Universities.
Data & figures for the Spanish university system (2017-2018)

For this study, the values for the participants’ ages are 21.3% (18 - 25 years-of-age), 56.6% (26 - 35), 13.1% (36 - 45) and 9% (+ 45) respectively.

Regarding foreign students matriculated on Master’s courses, the latest official data (2017-2018) indicated they make up almost 21% of the total, very similar to the number of graduates (20,3%). The figure has been growing for the last decade. 2009-2010 saw

14,516 matriculations of foreign students on Spanish Master's, while the 2017-2018 figure was 42,638. Latin Americans made up 60% of the total.

The following comments refer to the answers to the questionnaire given by 500 people, 65% women. The statistical data for the 2016-17 academic year indicate that 60% of postgraduates were women. Presupposing that the percentage remains constant in 2020, the survey reflects 5% greater female participation compared to the men.

Representation on the survey by countries shows an ample foreign contingent, especially from Latin America. Thus, with participants from 31 nations, Spanish students make up around a third of the total.

Table 3. Distribution of participants by country of birth (top 10)

COUNTRY	%
Spain	31.18
Peru	13.73
Colombia	10.00
Dominican Republic	7.25
Ecuador	6.86
Argentina	5.49
Mexico	3.53
Chile	3.12
Bolivia	2.34
Uruguay	1.27

Source: created by the authors

Regarding training in public speaking, firstly, it is noteworthy that 92% of those surveyed show interest in receiving it. Only 8% show no interest. A proportion of 2 -1 would prefer traditional in-person training (59.2%) as opposed to on-line, remote training (32%).

Regarding the importance of online public speaking, the two modes are essentially given the same importance, the traditional and the new, with particular importance in current circumstances (51%) but, when judging the relative weight of one over the other, the percentage who think that on-line training will become more common (20.6%) is very similar to those who think the opposite (23.2%). On the other hand, the percentage who prefer to learn public speaking in-person rather than on-line is clearly higher.

The use of platforms such as ZOOM which offer remote public speaking is clearly accepted by the majority, 72.2% admitting to habitually using platforms of this type. No-one denied using them, which is revealing of the paradigm shift derived from the COVID-19 pandemic (the period during which opinions were canvassed).

The loss of physical presence, reflected in not seeing others, constitutes the principal concern in on-line presentations. 47,4% say this. It will be interesting over coming years to see what happens to this figure as remote communication becomes the norm and not an exceptional circumstance as has been the case for many students in 2020.

47.2% of those surveyed prefer to give their speech in-person. Only 7.8% would choose to do it on-line and the rest, depending on circumstances. The high number of responses (43.4%) from those who say that they would choose depending on circumstances is noteworthy. It would be of interest to know what type of circumstances these respondents have in mind. It may be that they are open to using either method.

Regarding the term 'glossophobia', a large majority (82.8%) said they were unaware of its meaning, it is an academic term. However, once informed, 65.5% acknowledge feeling fear of speaking in public. This is a very similar percentage to those (64.1%) who say they have never received training to help them against glossophobia, from which it can be inferred that one leads to the other: not having received training *ad hoc* contributes to the feeling of stage fright.

When respondents are asked if it would be a priority for them to improve their public speaking, the vast majority (84.3%) say that it would (the question does not specify how to do this, though the implication is that it be by means of training). Note that the question suggests it would be a priority (and therefore something of importance), and with an achiever's mindset, of solid improvement ("speak confidently and effectively").

Focusing the questions on the presentation of their MTs and asked if this has supposed the biggest public speaking challenge of their lives to date, 4 out of 5 said yes. This figure is of importance when reflecting –from the point of view of those centres that offer post-graduate training– on the usefulness of giving students greater competence in public speaking than they say they need and desire to attain.

57% of the students say that the quality of their sleep worsened when faced with the challenge of presenting their MT. This figure is similar to the concern shown in the previous question where 65.5% recognise they are glossophobic. Poor quality rest before speaking in public is a symptom of glossophobia which is accentuated if the audience is composed of strangers.

68.1% are convinced that public speaking helps to achieve life goals and in the following question –by a notable majority– 89% consider it fair that expressing oneself well is rewarded by a good grade. Given that 65.5% had previously declared themselves to be glossophobic, it is interesting that they admit that expressing oneself well "has to count for something" and do not fall into the temptation of devaluing that which they do not do well.

What influence does speaking before strangers have? For the great majority it is calming or at least irrelevant. Only 10% are discomforted by it. This is related to the fact that the camera "imposing" itself is corroborated by 40.6%, who see this as one of the causes of their discomfort. But the majority do not feel such nerves or are unconcerned about speaking on camera. Two thirds of respondents think that the way they expound corresponds to their level of expertise (these tend to coincide) while the other third see discordance.

The classic advice, often repeated by public speaking trainers, to "practise, practise and practise", is clearly appreciated. 71.9% agree that good preparation allows you to speak well in public. However, 23% of answers state that preparation alone is not enough. That it is not everything. It is not a case of "where there's a will, there's a way". On the other hand, it is true that practically

all respondents think that the better your preparation, the better the presentation will be: 93% say this while 7% state that whatever you do, there is no guarantee it is going to end well.

Is group speaking easier than individual? It is noteworthy that 45.2% do not think doing it in a group offers an advantage. The survey finishes with a gender question: are women better at public speaking than men? An 87% majority think not, though 65% of respondents are women.

5. Discussion and conclusions

It is striking to observe that the number of graduates compared to the number of matriculated students in post-graduate courses (Master's and PhDs) in the years analysed shows a low success ratio. For example, in 2017-2018, 205,049 students matriculated, but fewer than a hundred thousand graduated (see Table 1), something that occurs year after year.

The reasons behind the low pass rate for Master's courses have not been studied. It may be pertinent to look into this in the future. Official data shows that there is hardly any relationship between the age of Master's students and this failure.

The data obtained from the survey allows us to see a representative snapshot of the Spanish panorama in the area studied, permitting us to affirm that there is evidence of a change in postgraduate training, which affects traditional in-person education. Postgraduate students are now familiar with remote learning, this being so common, although at the same time there is still a desire to receive in-person education, this being seen as offering an extra something that on-line education does not provide. Even in public speaking training, in-person is preferred to on-line. In short, in-person has not lost its appeal.

Glossophobia becomes apparent as a general problem in the world of post-graduate students, with the use of cameras in online presentations introducing an added element of tension to the issue. Another conclusion is that the percentage of glossophobic people within the collective studied is similar to those who confess to not having received public speaking training. The need is clear, therefore, for training in this area that should be offered by educational establishments at the different levels. As regards this last point, it would be interesting to see the change in this figure in future, if specific training in this area was generally on offer.

The research data corroborates that public speaking is seen as something important, glossophobia being a major handicap for command of this skill. One of the symptoms that respondents recognise sharpens the fear is poor quality sleep at night.

Moreover, it should not be forgotten that each generation demands that training be adapted to their context. Millennials and centennials who are currently at university and in postgraduate studies are no exception. Their learning should be adapted, in this case concerning communication, rhetoric and oratory, to the demands of their environment. Therefore, bearing in mind the conditioning of the ecosphere and the circular economy, a new concept of public speaking competence could be developed (Rata, Birnaz & Nadejda, 2019). Similarly, the values of these generations, which incorporate certain human characteristics of a spiritual nature, should be included as they may help in the process of learning to speak in public (Bennet & Bennet, 2007).

Finally, it should be said that in the context of a digitalised society where interactions via online spaces are increasingly common, a line of research could be pursued that analysed speakers' behaviour and potential errors via automated systems which help with later training. Along the same lines and with the goal of combatting glossophobia, the use of VR and AI programs as training

tools could be considered. In fact, this is already being looked at in the development of some automatic instruments, such as electronic games (El-Yamri *et al*, 2019; Vishwanath, 2019).

6. Acknowledgements

Article translated by Brian O'Halloran.

7. Bibliographic references

- Abella, R. C. & Cutamora, J. C. (2019). Approach to public speaking skills development in an educational organization: a grounded theory. *European Journal of education Studies*, 6 (3), 232-264. <http://dx.doi.org/10.5281/zenodo.3261608>
- Amies, P. L.; Gelder, M. G. & Shaw, P. M. (1983). Social phobia: A comparative clinical study. *British Journal of Psychiatry*, 142 (2), 174-179. <https://doi.org/10.1192/bjp.142.2.174>
- Bados, A. (2005). *Miedo a hablar en público*. Repositorio de la Universidad de Barcelona: <https://bit.ly/3g1YI6v>
- Beardsley, R. S. (2001). Communication skills development in colleges of pharmacy. *American Journal of Pharmaceutical Education*, 65 (4), 307-314.
- Bennet, A. & Bennet, D.H. (2007). The knowledge and knowing of spiritual learning. *VINE*, 37 (2), 150-168. <https://doi.org/10.1108/03055720710759937>
- Berg Esenwein, J. & Carnagey, D. (1915). *The art of public speaking*. Publishers Home Correspondence School. <https://library.um.edu.mo/ebooks/b17773544.pdf>
- Byers, P. Y. & Weber, C. S. (1995). The timing of speech anxiety reduction treatments in the public speaking classroom. *Southern Communication Journal*, 60 (3), 246-256. DOI: 10.1080/10417949509372983.
- Clance, P.R. (1985). *The impostor phenomenon: When success makes you feel like a fake*. Bantam Books.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16 (3), 297-334. <https://doi.org/10.1007/BF02310555>
- El-Yamri, M.; Romero-Hernandez, A.; Gonzalez-Riojo, M., *et al*. (2019). Designing a VR game for public speaking based on speakers features: a case study. *Smart Learning Environments*, 6 (12). <https://doi.org/10.1186/s40561-019-0094-1>
- Fernández, E. & Bermúdez, J. (2000). El pesimismo defensivo y el síndrome del impostor: análisis de sus componentes afectivos y cognitivos. *Revista de psicopatología y psicología clínica*, 5 (2), 115-130.
- Finkelstein, D. (2017). Conquer Glossophobia: Help Students Overcome Their Fear of Public Speaking. En, *Innovations in Teaching & Learning Conference Proceedings*, Vol 9: Learning in a Digital World. <https://doi.org/10.13021/G8ITLCP.9.2017.1806>
- Gadermann, A. M.; Guhn, M. & Zumbo, B. D. (2012). Estimating ordinal reliability for Likerttype and ordinal item response data: A conceptual, empirical, and practical guide. *Practical Assessment, Research & Evaluation*, 17 (3), 1-13.
- Galán Bravo, M. (2018). *Método Bravo: La herramienta definitiva (y divertida) para hablar en público de forma brillante*. Alienta.

García López, L. J. (2000). *Un estudio de la eficacia entre tres modalidades de tratamiento para la población adolescente con fobia social* [tesis doctoral Universidad de Murcia]. Repositorio institucional consultable en: <https://bit.ly/3fOtYFL>

Gliem, J. A. & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. *Midwest Research to Practice Conference in Adult, Continuing, and Community Education*. Columbus. Recuperado de: <https://bit.ly/3cTPHKD>

González Alonso, J. & Pazmino, M. (2015). Cálculo e interpretación del Alfa de Cronbach para el caso de validación de la consistencia interna de un cuestionario, con dos posibles escalas tipo Likert. *Publicando*, 2 (1), 62-77. Recuperado de <https://bit.ly/3wz4FNY>

Hernández, H.A. & Pascual A.E. (2018). validación de un instrumento de investigación para el diseño de una metodología de autoevaluación del sistema de gestión ambiental. *Revista de Investigación Agraria y Ambiental*, 9 (1) 157-162.

Iwu, C.G.; Promise Opute, A.; Nchu, R.; Abimbola Babatunde, A.; Iwu, CH. & Franklin Eze, I. (2020). The antecedents of University Students' Entrepreneurship Intention. The Theory of Planned Behaviour Viewpoint. *Harvard Deusto Business Research*, 9 (2), 221-242. <https://doi.org/10.48132/hdbr.305>

Janet, P. (1903). *Les obsessions et la psychasténie*. F. Alcan

Lafuente Zorrilla, Á. (2019). Hablar en público. *Cursos de verano de la UPV/EHU*. Recuperado de <https://bit.ly/3us20ni>

Lucas, S. E. (2015). *The art of public speaking*. (12a. ed. en español). McGraw-Hill Education. 1ª Ed. (1983). Random House.

Lusilla, P. (2014). *Entrevista a la Dra. Lusilla sobre pánico escénico*. Recuperado de <https://bit.ly/3moxE2m>

Marks, I.M. & Gelder, M.G. (1966). Different ages of onset in varieties of phobia. *The American Journal of Psychiatry*, 123 (2), 218-221. <https://doi.org/10.1176/ajp.123.2.218>

Moriyama, I.M. (1968). *Indicator of social change. Problems in the measurements of health status*. Rusell Sage Foundation.

Miranda, H. (2020). Medo de falar em público: estudo piloto da glossofobia em contexto de alunos universitários. *International Journal of Developmental and Educational Psychology INFAD Revista de Psicología*, 1 (1), 263-272.

Nichols, K. A. (1974). Severe social anxiety. *British Journal of Medical Psychology*, 47, 301-306. <https://doi.org/10.1111/j.2044-8341.1974.tb02294.x>

Nikitina, A. (2011). *Successful Public Speaking*. Ventus

Pastor, B. (2018). *Hablar bien en público con el Método Oratoga*. Larousse.

Pratiwi, T.; Suratman, B.; Riyanto, Y. & Arisgi, P. (2018). A Special Service of Guidance and Counseling Management to Reduce the Students' Glossophobia Level. *Advances in Social Science, Education and Humanities Research*, vol. 212, 2nd International Conference on Education Innovation.

Puigpelat, F. & Rubio, J. (2005). Com desbloquejar un orador. *LSC- Llengua, societat i comunicació*, 3, 3-9. <https://bit.ly/2PYGyHE>

Rata, L., Birnaz, N. & Nadejda, B. (2019). Ecological Approach to Learning and Communication: A Novel Model of Rhetoric Communication. En, E. A. Railean. *Handbook of Research on Ecosystem-Based Theoretical Models of Learning and Communication*. IGI Global (pp. 167-184). Doi: 10.4018/978-1-5225-7853-6.ch010.

Robinson, K. (2006). *Do schools kill creativity?* TED Talk. Recovered from: <https://bit.ly/31SSE7T>

Sanders, S. & Karmowska, J. (2020). Voluntary flexible working arrangements and their effects on managers and employees. *Harvard Deusto Business Research*, 9 (2), 197-220. <https://doi.org/10.48132/hdbr.304>

Sierra Bravo, R. (2001). *Técnicas de investigación social. teoría y ejercicios*. Paraninfo.

Sweeney, P. J. (2020). *Fear is Fuel*. Rowman & Littlefield.

Tafur-Muñoz, S. P. & Armesto-Argüelles, N. J. (2020). La opacidad de la oralidad en el aula de clase: un reto en la docencia. *Revista Oralidad-Es*, 5, 1-9.

Tejedor Calvo, S. & Cervi. L. (2017). Análisis de los estudios de Periodismo y Comunicación en las principales universidades del mundo. Competencias, objetivos y asignaturas. *Revista Latina de Comunicación Social*, 72, 1.626-1.647. <https://bit.ly/3dHDKqz>

Viejó Mora, I. & Quinto Saritama, E. (2019). Miedo escénico y la superación psicológica en estudiantes universitarios. *Revista Psicología Unemi*, 3 (4), 39-49. <https://bit.ly/3fLKYwo>

Vishwanath, G. (2019). Phobi: Combating stage fright through a virtual reality game. Tesis: <https://bit.ly/3rXda1M>

Voutssás, J. (2017). *Confianza e información digital: bibliotecas, archivos y web*. UNAM, Instituto de Investigaciones Bibliotecológicas y de la Información.

8. Appendices (the questionnaire utilised)

Table 1. Contextual questions

1	Respondent's gender	Man		Woman	
2	Age	18- 25	26- 35	36- 45	+ 45
3	Country of birth				
4	Country where most academic life has taken place				

Table 2. Questions on public speaking

	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4
1	Regarding public speaking training, which option is most attractive?	In-person training	On-line	A mix of the two	Neither
2	Do you think on-camera public speaking will become more common than in-person?	YES	NO	NO CHANGE	I DON'T KNOW
3	Do you regularly use videoconferencing (ZOOM or similar)?	YES	NO	SOMETIMES	NEVER
4	What most concerns you about on-line presentations?	Not seeing the real person	The camera makes me tense	I don't do myself justice	Other
5	Do you prefer to present on-line to doing it in-person?	YES	NO	SOMETIMES	I DON'T KNOW

Table 3. Questions about glossophobia

		YES	NO	NR/DK
1	Glossophobia is the technical term for the fear of speaking in public. Were you familiar with the term?			
2	Do you think you currently suffer from glossophobia?			
3	Have you at any time received training to help you overcome fear of public speaking?			
4	Do you feel it's a priority for you to improve your ability to speak in public effectively and confidently in future?			
5	Is the presentation of your Master's Thesis the most difficult act of public speaking you have so far faced?			
6	Have you noticed a clearly lower quality of sleep in the days before the presentation of your MT?			
7	Do you think that those who speak well in public find it easier to achieve their life goals?			
8	Do you think it right that the ability to express yourself well influences in the final grade of your MT?			

Table 4. Situational questions

		True	False	NR/DK
1	When I speak in public to people I already know I feel more at ease			
2	When I speak in front of a camera, I get more nervous			
3	The efficiency of my way of speaking is similar to the quality of the content I'm explaining			
4	Good public speaking is an option for the great majority if they receive the proper training			
5	If I present before a group, I feel much better and do it more effectively			
6	When I prepare a public presentation properly it goes much better			
7	Women are better at public speaking than men			