

Chapter 10 The function of the academic tutor in virtual modality postgraduate studies

Capítulo 10 La función del tutor académico en estudios de posgrado modalidad virtual

CARMONA-GUZMAN, María Esther†*, ENRÍQUEZ-GÓMEZ, María del Pilar and AGUILAR-CANSECO, Elena

Sistema de Enseñanza Abierta, Universidad Veracruzana, México.

ID 1st Author: *María Esther, Carmona-Guzmán* / **ORC ID:** 0009-0002-8824-6656, **CVU CONAHCYT ID:** 1271855

ID 1st Co-author: *María del Pilar, Enríquez-Gómez* / **ORC ID:** 0009-0004-8671-8108, **CVU CONAHCYT ID:** 829782

ID 2nd Co-author: *Elena, Aguilar-Canseco* / **ORC ID:** 0009-0000-4751-9457, **CVU CONAHCYT ID:** 523819

DOI: 10.35429/H.2023.10.101.117

M. Carmona, M. Enríquez and E. Aguilar

* marcarmona@uv.mx

M. Reyes, Y. Rejón and D. González (AA. VV.) Resilience from the practice of mentoring to contribute to the permanence of students T-II. Handbooks-©ECORFAN-México, Campeche, 2023.

Abstract

Worldwide, Higher Education Institutions (HEIs) have incorporated and implemented both in their undergraduate and postgraduate study programs (in-person and virtual), institutional tutoring systems that allow optimizing the academic career of students through processes of personalized accompaniment and improve school performance, terminal efficiency indices, autonomy and development of professional and self-learning skills, the latter are essential in virtual educational programs. Given that tutoring has become a very useful strategy for students, there is a genuine interest in analyzing the functions performed by the academic tutor, specifically in a postgraduate program in virtual mode, to determine if they are in accordance with the demands and requirements. of students, where accompaniment must not only be timely, but also overcome the barriers of space and time. The academic tutor in postgraduate studies in virtual mode must establish a plan that allows specific actions to be carried out in a systematized manner, generating necessary elements for periodic evaluation and subsequent attention to the identified areas of opportunity.

Tutor efficiency, Trajectory, Postgraduate

10.1 Introduction

The undergraduate and graduate study programs (in-person and virtual) have established institutional tutoring systems to optimize the academic career of their students through personalized accompaniment processes, in order to improve academic performance, develop study habits, avoid failure, lagging behind and dropping out of school, increase terminal efficiency rates, promote autonomy and develop professional and self-learning skills, the latter essential in virtual educational programs. That is why the genuine need arises to analyze the functions of the academic tutor in a newly created postgraduate program in virtual mode and determine if these are in accordance with the requirements and demands of students who receive distance education, where virtual tutoring requires support, accompaniment and advice in a timely manner synchronously or asynchronously, overcoming the barriers of time and space. Consequently, distinctive qualities are demanded that allow, among other things, to encourage the development of independent study.

Given the above, the structure of this research allows, from the beginning, to show the context of higher education and tutoring, highlighting the importance of the latter in virtual mode, followed by the functions of the academic tutor and the methodology applied to a study of case in particular, which lacks historical data because it is newly created, to finally show the results obtained through the interpretation of graphs and conclusions.

10.2 Higher education and tutoring

Nowadays, higher education implies a great challenge for students at both the undergraduate and postgraduate levels, since university life presents various processes and demands derived from national and international educational quality standards. Students must become familiar with these new processes and meet the demands that arise throughout their academic career and thus achieve their adaptation to new environments, whether in face-to-face or virtual study programs, to cover the required credits and complete successfully their undergraduate or graduate studies.

Derived from the above, Higher Education Institutions (HEIs) worldwide have implemented tutoring programs that allow, among other aspects, to provide support to students throughout their academic career with the aim of providing follow-up during their curricular progress, supporting their school, personal, and psychological situations and keeping them motivated and interested in their studies, this in turn facilitates the corresponding transition in the study programs to reach their completion and thereby raise the terminal efficiency rates at the universities.

The personalized attention given to students through the tutorial function represents a resource of great value because it contributes directly to their adaptation to the new school environment and strengthens their study skills, as well as promoting their social evolution and personnel, helps reduce failure, lag and reduces dropout rates, thereby improving terminal efficiency. It is considered essential to improve the conditions of higher education and the school career of young university students to have support such as tutoring. (Badillo, 2007, p. 5)

Therefore, it is through academic tutoring that Tutors are able to approach and understand the problems that students face regarding their adaptation to the university environment, the individual conditions they require for ideal performance and the achievement of their academic objectives educational programs, which will allow them to face the challenges of their future professional practice. At this point it is important to present some concepts of academic tutoring from the point of view of this document, since this term can have different meanings depending on the HEI and the context, which is why the tutoring that is being considered is that which does not imply a transmission of knowledge in a teaching-learning process, but it carries out punctual monitoring throughout the student's academic career. In order to expand this concept, a definition by ANUIES is presented below:

From ANUIES, tutoring is conceived as a modality of teaching activity that includes a systematized set of educational actions focused on the student; It is different and at the same time complementary to group teaching, but it does not replace it; It involves various levels and models of intervention, it is offered in spaces and times different from the study programs; and has undoubted effects on the institutional achievement of raising the quality and terminal efficiency of higher level students. (Badillo, 2007, page 6)

On the other hand, tutoring can be conceived as an innovative strategy to improve educational quality, since it represents a viable alternative to help reduce academic dropouts and lag in higher education. This practice is not actually a recent creation, still, it is important to consider that its operation and impact from an innovative perspective depends on the ways in which it is implemented and organized in an institution. (Romo, 2011) In this sense, García et al. (2016) cites Romo (2010) who mentions that: Mentoring is not something new in our culture; There has always been the person who guides, accompanies and initiates young people into the world of adults; Nor is the existence of the tutor new in education, since there has always been a teacher who, in addition to teaching classes, cares about the students and their development as people. (Garcia et al., 2016)

In another order of ideas, academic tutoring can be defined as a systematic preventive action aimed at detecting potential adjustment problems in the student (mainly new entrants) and the joint search for alternative solutions. (Romo, 2011) The tutorial function is the exercise of educational guidance tasks that the teacher performs with respect to his students. (Garcia et al. 2019)

Therefore, tutoring can be defined as a process that provides guidance and support from academics to university students during their academic training period, carried out through personalized attention or in small groups, and aims to improve the achievement of students and promote their comprehensive development.

It is worth mentioning that there are various areas of academic tutoring, which involve different types of interventions by the Tutor, this can be focused on the academic performance of the Tutees, identifying learning styles, developing strategies focused on the abilities of each student, establishing goals and recognizing learning difficulties or obstacles, objectively assessing school performance, among other aspects.

Tutoring can also be focused on the professional field, referring to expanding the horizons of the Mentees so that they take into account the possibilities of professional and work development; Similarly, there is tutoring focused on the personal sphere in which the student is guided with respect to his interpersonal relationships rather than his academic ones, considering his emotional ties, family situations, particular interests, hobbies, etc., it is essential that the tutor be aware of their training and in certain situations, if necessary, refer the student to specialized entities for their attention.

10.3 Tutorials in virtual mode

Currently, education has completely ventured into technology, which has allowed the teaching-learning processes to continue during the COVID-19 contingency period and has increased its acceptance and use in schools and universities around the world. This gives rise to more and more educational programs that do not require face-to-face interaction and are taught entirely virtually. In this regard, the following quote is rescued:

Virtual learning spaces (VLS) represent an alternative in higher level educational training for students who for some reason cannot attend in person to interact with advisors from different courses, either due to lack of time or geographic barriers that separate them from the training centers, but by having access to the network, they can interact, discuss, share information and develop joint work through collaborative and cooperative learning to achieve the desired purpose. (Rincón, 2008, page 8)

Using Information and Communication Technologies (ICT), it has been possible to maintain constant and quality education in recent years, taking advantage of resources such as educational and communication platforms, Web pages, email, chat programs and other means of network communication; which have been pillars to provide education on a massive scale, helping especially in the open and distance modality, immediately establishing communication between the student, the academic and the institution, thus generating learning environments in line with reality and technological globalization that is currently being experienced, as mentioned below.

The forms of knowledge generation and its application have broken disciplinary barriers in the face of new paradigms of complexity, as have professional training models supported by new ICTs, which has given rise to the virtual university. (ANUIES, 2018, page 29)

The Academic Tutor has had to overcome some difficulties and accept role changes at times since in technological content many were apprentices and students were generally capable of serving as experts in the virtual field due to their previous experiences with ICT, so Understanding and adaptation had to be shown since communication was no longer in the traditional way and to differentiate instruction in digital spaces. (Wells et al., 2023)

The above requires that students be autonomous and have certain competencies to carry out self-learning, which are not always developed before entering virtual educational programs, therefore, the need arises to have the figure of the Academic Tutor who will be the guide and provide adequate support, allowing the student to integrate with greater ease to the demands of your educational program and your study center.

Tutoring in virtual mode has become a very useful distance education strategy for the student, since they can have information, support, accompaniment and advice in a timely manner and in a synchronous or asynchronous manner, overcoming barriers of space and time. In order to carry out virtual tutoring successfully, it is necessary to have a plan to follow, which allows establishing concrete actions in a systematized manner, generating necessary elements for periodic evaluation for subsequent attention to the identified areas of opportunity.

In this sense, the incorporation of tutoring into the academic activities of an educational institution requires the creation of an institutional system of academic tutoring, whose definition, objectives and intervention models are clearly specified. (Badillo, 2007). Therefore, to develop quality tutoring, it is necessary to formalize a tutoring plan that guides the student throughout their specific training, both in-person and in online teaching. (Barbera, 2013).

10.4 Tutorials in postgraduate studies

Once the importance of tutoring in higher education, as well as in virtual learning environments, has been reviewed, it is necessary to review the conception of tutoring in postgraduate studies, since in these educational programs the student is generally performing tasks full-time professionals and with this the relationship with the educational institution, academics, classmates and school subjects, becomes less close than with undergraduate students who spend most of their time attending to academic activities. As a result, postgraduate tutoring in virtual programs becomes essential for students to ensure a successful transition and complete their studies in a timely manner.

One of the main characteristics of postgraduate training is that attention must be personalized, due to the particularities and training expectations of students, seeking to provide attention that satisfies their requirements and needs. Tutoring and academic advising processes are seen in this context as the best way to realize this premise, supporting the development of skills, abilities and knowledge in the disciplinary areas of research or professional practice.

It is a fact that postgraduate programs in Mexico can be taught under two modalities, either oriented towards research or professionalization, the main task of postgraduate tutoring is to promote the comprehensive training of students and support their gradual inclusion in a community of investigative or professional practice.

As happens at the undergraduate level, the main problems that tutoring addresses at the postgraduate level are precisely the low terminal efficiency and graduation rate, thus, how tutoring has been fundamentally directed towards: the reduction of educational lag, low academic performance, difficulties in school adaptation and information deficiencies when selecting school trajectories and thesis topics. Consequently, postgraduate academic tutoring mainly pursues:

The provocation in postgraduate tutors of the development of work habits, organizational skills and establishment of priorities and decision making; among others. That is, postgraduate tutoring is oriented towards the facilitation of learning processes aimed at developing skills that allow them to enter and transform into unintelligible and uncertain situations of the prevailing needs of society. (Lopez & Rivera, 2017, page 4)

Postgraduate academic tutoring represents a guide and orientation that facilitates the student's adaptation to the school environment, to improve study skills, allows the student to make plans in their training process based on their needs and expectations, identifying areas of opportunity to improve their knowledge and skills.

10.5 Functions of the Virtual Academic Tutor

If an HEI seeks the comprehensive training of its students, the academic who carries out tutoring activities must also be a comprehensive Tutor, that is, one who is capable of carrying out the functions of guiding students in decision-making, establishing strategies of work that allow you to solve specific disciplinary problems or the development of skills and competencies necessary for meaningful learning. (Beltran & Suarez, 2003).

The Academic Tutor plays an extremely important role in the trajectory of university students, serving as an advisor and counselor during their studies, whether undergraduate or graduate, this figure becomes even more relevant when education is taught in virtual mode.

The way students interpret feedback must be contextualized to complement the virtual learning space, students crave feedback and instruction delivered in a more humanistic yet efficient manner through positive and constructive criticism delivered in an emotionally moderate tone. (Larson et al., 2023)

It is necessary to clarify that the functions of the Academic Tutor are different from the functions of the traditional academic, since the latter must carry out actions aimed at the teaching-learning processes, while the Academic Tutor attends to aspects related to the student's transit throughout his studies as shown in the following quote:

The tutorial action demands from the university teacher with a tutoring function competencies that differ from the teaching practice that is carried out within the classroom; for this reason, it is necessary to develop strategies and instruments for evaluating tutoring that are different from those that have traditionally been used to evaluate teaching in higher education. (Garcia, et al., 2016)

Given the above, an Academic Tutor who serves postgraduate students in virtual environments must have certain specific characteristics to be able to carry out their role adequately and address the needs and concerns of their students, some strategic points and competencies that they must meet. The Academic Tutors to achieve successful tutoring in virtual postgraduate courses are listed below:

- Mastery of digital tools that allow you to establish good communication with students whether via chat, email, video calls, educational platforms or other programs.
- Empathy with the student to establish special links between Tutor and Tutee and thus have a better understanding of each student's situation.

- Openness and confidence to get to know the student and guide them in their academic and personal life.
- Dialogue capacity for assertive, fluid and constant communication with Tutees.
- Respect for the human rights of students.
- Motivational potential to keep the student willing to face the academic challenges that the postgraduate degree implies.
- Availability of time to focus on providing the attention required by students.
- Update on academic and school topics inherent to the postgraduate educational program. (Garcia et al., 2019) (Sagastume et al., 2018)
- Now, once the characteristics suggested for the figure of the Virtual Academic Tutor have been reviewed, the main functions that it must perform must be reviewed, which are presented below:
 - Tutoring planning. - In this initial phase of the tutoring process, the Academic Tutor establishes a work plan in which he explains the mechanics of virtual tutoring, establishing means of communication, scheduling meetings and their duration, listing the activities contemplated according to the progress of the tutoring process each student and specific needs.
 - Orientation. - This is carried out at the times agreed in the work plan and consists of advising students on aspects such as: school procedures, scholarships, support, infrastructure, local, national or international mobility, work habits, selection of subjects, courses, workshops, conferences, forums, seminars, academic stays or other activities to be carried out during your school career, relevant to the development of your thesis topic and in line with your graduation profile.
 - Social support. - attending to situations that a student who is working remotely may present, such as isolation, loss of interest or lack of motivation, which is common to find in non-face-to-face educational programs.
 - Documentation and Monitoring.- It is suggested that during the sessions with the tutors and at the end of an academic period, the tutors make notes and records to systematize their functions and thus have personalized information about each student; allowing timely attention to the various problems that arise and following up on academic risk situations. (Velasquez, 2020)
 - Feedback.- Applying feedback in student learning plays an important role; it must be unambiguous, concise and focused to acquire knowledge. (Larson et al., 2023).

Finally, it is necessary to mention that academic tutoring will allow virtual postgraduate students to be accompanied, motivated and oriented at all times, thus facilitating their transition through the study program, thereby avoiding cases of lag or school dropout, raising terminal efficiency rates in HEIs. Next, the methodology used to carry out this research will be reviewed.

10.6 Methodology

The present study contemplates a postgraduate program in virtual mode, which, because it is newly created, lacks historical data, indices or antecedents that allow for some comparative analysis. Despite that, given the need to identify the functions performed by the Academic Tutor and determine the competencies that they must have and that are in accordance with the requirements and demands of the students, this study arises with a view to identifying areas of opportunity in favor of training. strengthened integral of its student community.

The methodology used presents a non-experimental-cross-sectional quantitative vision with a descriptive scope. The spatial dimension covers the 2022 new students of the first call of a newly created postgraduate program in virtual mode in a public HEI, belonging to the economic-administrative area in Mexico, whose enrollment consists of a universe of 29 students and It covers the school period August 2022 January 2023, where technological tools and platforms offered by the IES are used.

The data collection technique included a questionnaire prepared with 14 closed questions, mostly using a Likert scale with 5 degrees. This questionnaire was applied by electronic means, through a digital survey design on a free form platform, in order to easily reach the respondents through technology and process the information using technological applications that provide accuracy for the count and graphs of the results.

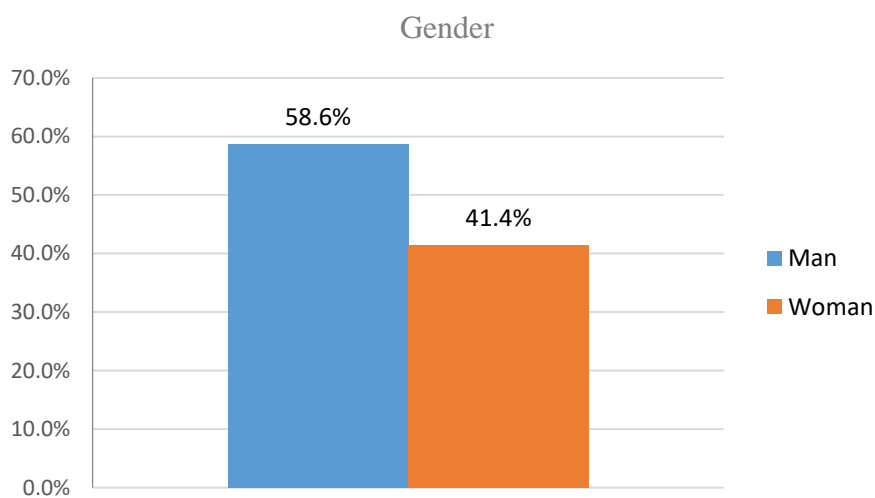
10.7 Results

The questionnaire applied in this research was directed to the entire universe of graduate student enrollment subject to study in virtual mode, which was answered in its entirety, by each of the members of the universe, who were assigned for the first time an academic tutor and whose results are presented below.

Graphics 10.1 to 10.6 show generalities of the population to be studied, gender, age, area of undergraduate knowledge, geographical area, demographic behavior, as well as the university where they completed their studies. These data serve as a reference for subsequent studies that impact lines related to educational quality, statistical data, among others.

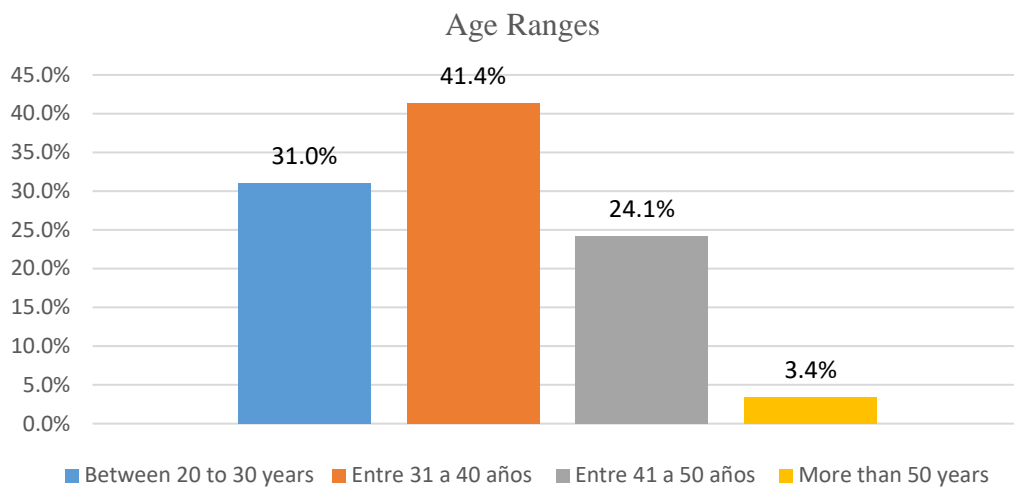
Below are the following graphs:

Graphic 10.1 Gender



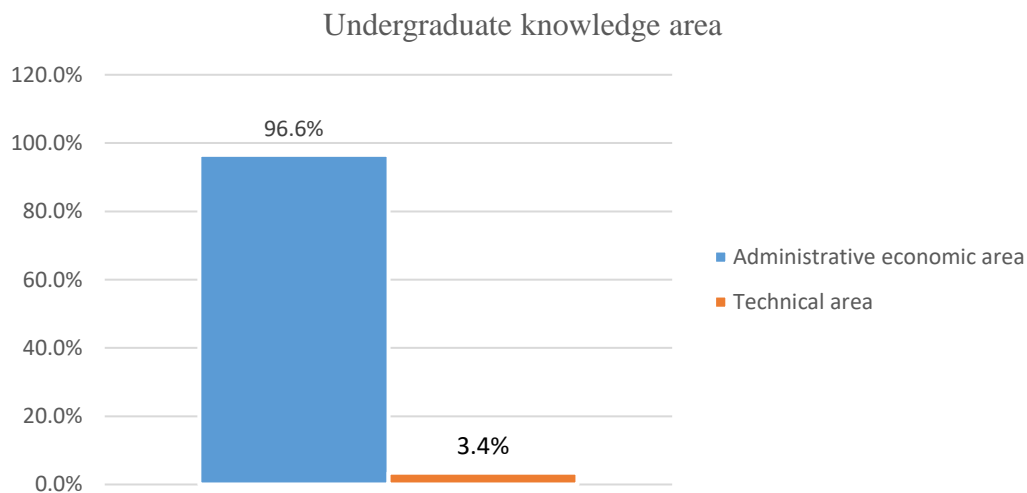
Source: Own elaboration

Of the 29 students, 17 are men and 12 women. The graph shows that 58.6% are men and 41.4% are women. This graph will be useful for data on gender and inclusion, terminal efficiency or lag, among others.

Graphic 10.2 Age ranges

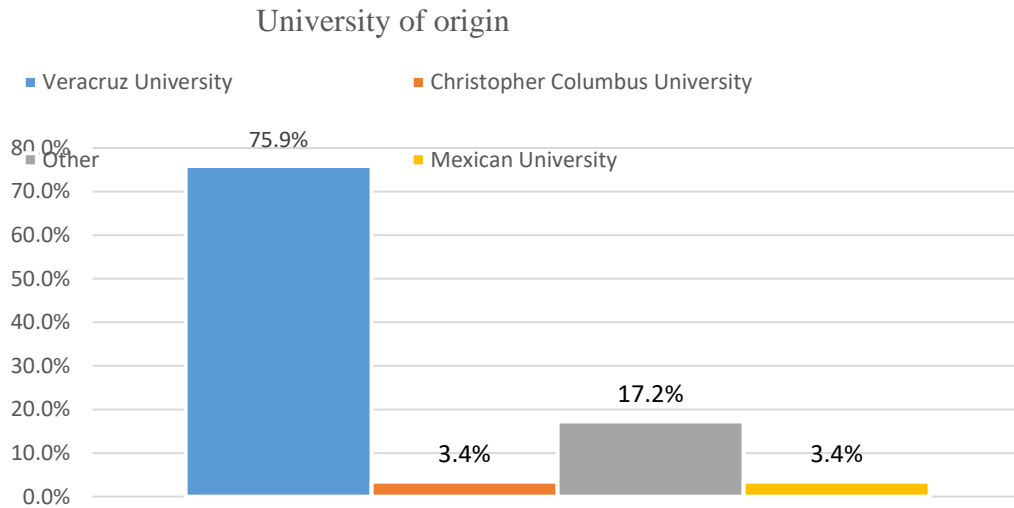
Source: Own elaboration

This graph denotes the age ranges, where 9 students represent 31% of those in the range of 20 to 30 years, 12 students represent 41.4% in the range of 31 to 40 years, 7 students represent 24.1% of the range from 41 to 50 years old, and only 1 represents 3.4% of the range over 50 years old, with the most prevalent age range being 31 to 40 years old. It is relevant for the purposes of statistical data to have a range of ages of students pursuing a postgraduate degree.

Graphic 10.3 Undergraduate knowledge area

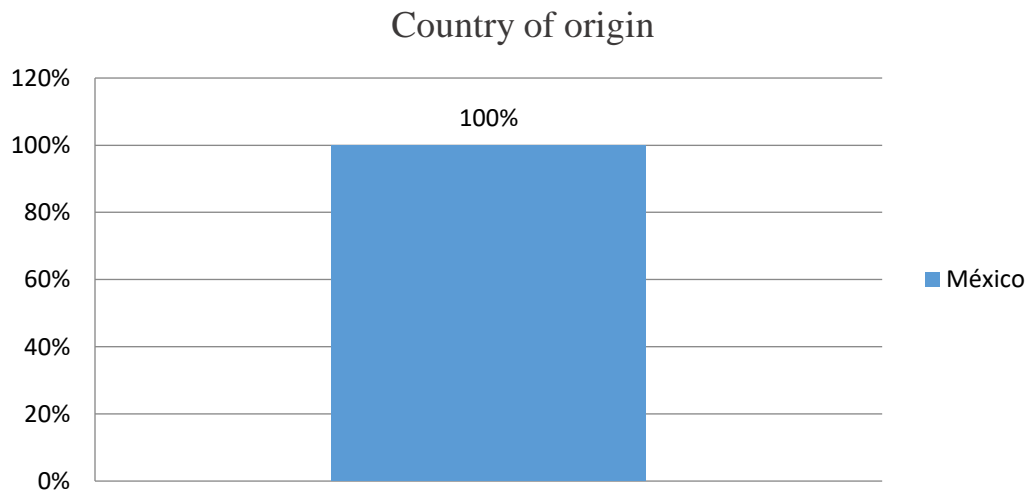
Source: Own elaboration

28 students, representing 96.6%, completed their degree in the Economic-Administrative Area, and only 1, representing 3.4%, came from the technical area. The area of origin of the bachelor's degree allows you to locate part of the postgraduate entry requirements.

Graphic 10.4 University of origin

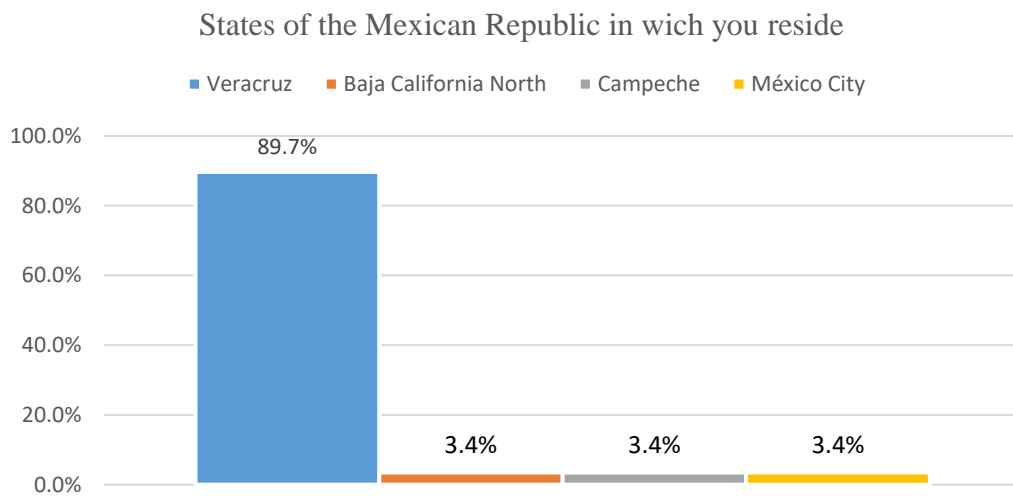
Source: Own elaboration

This graph shows 22 students representing 75.9% and coming from the Universidad Veracruzana, 5 students representing 17.2% from other universities, 1 representing 3.4% from UVM and 1 representing 3.4% coming from UNIMEX. These universities indicated by the students belong to the state of Veracruz, there is one public university, 2 private universities and 5 universities classified among the “others” that are listed from other states.

Graphic 10.5 Country of origin

Source: Own elaboration

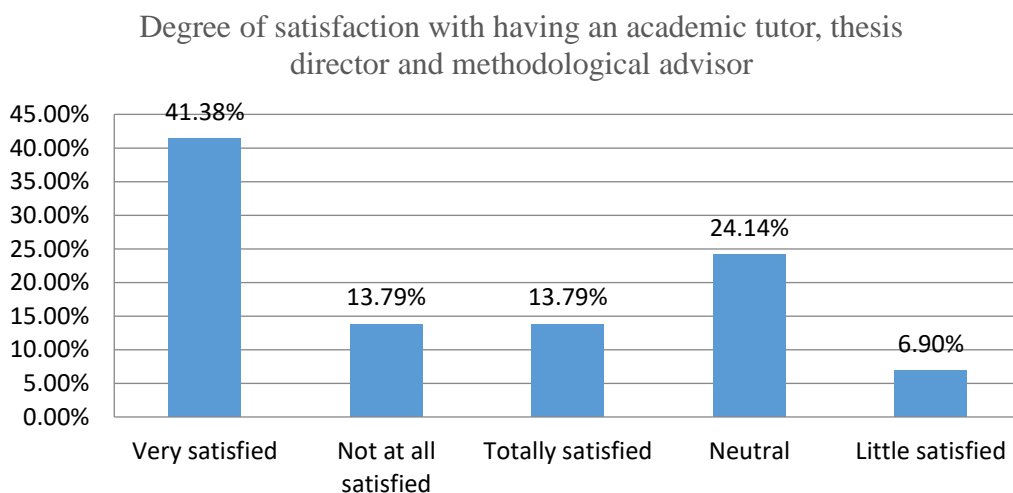
This graph indicates that the 29 students surveyed are Mexican, that is, 100%, and since the postgraduate course is virtual, it can be taught anywhere else in the world, in case a foreigner is interested.

Graphic 10.6 State of the Mexican Republic in which you reside

Source: Own elaboration

This graph shows that 26 students live in the state of Veracruz, representing 89.7% of the student population belong to the state of Veracruz and only 3 students, representing 3.43% respectively, live in other states such as Baja California Norte, Campeche and Mexico City. These data, apart from statistical purposes, serve to identify where they are taking the virtual postgraduate degree from.

From graphics 10.7 to 10.14, the satisfaction of the students with respect to the tutorials and in general with the ways of carrying it out is shown. The results in these graphs allow us to focus attention on quality and innovation and determine the students' expectations regarding the academic tutor, the degree to which they know their functions and what they expect from them; It also allows us to identify the desirable qualities in tutors, the importance of tutoring, among other parameters. These graphs are presented below:

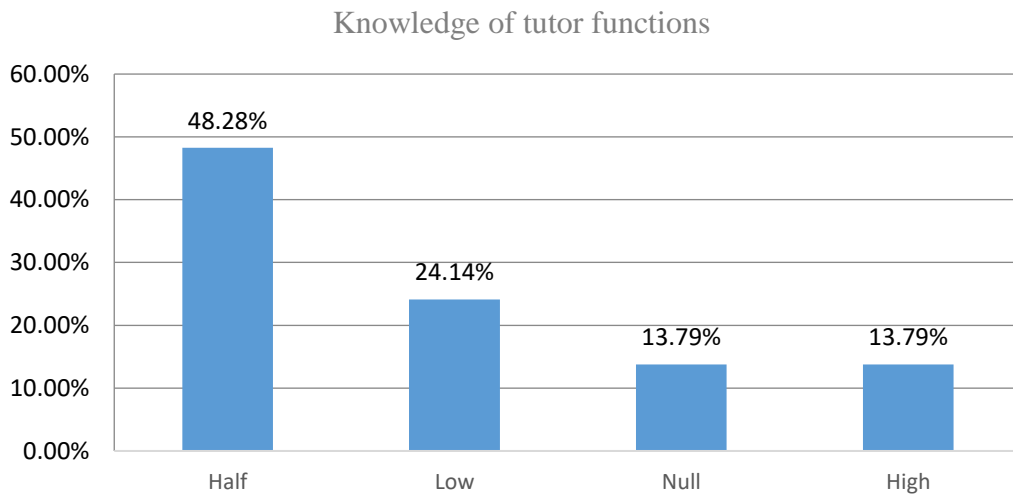
Graphic 10.7 Degree of satisfaction with having an Academic Tutor, Thesis Director and Methodological Advisor

Source: Own elaboration

Reading this graph reflects that 12 students representing 41.38% admit to being very satisfied with having been assigned a Tutor, followed by 7 students representing 24.14% who express a neutral degree of satisfaction, 4 students representing 13.79% state that they are completely satisfied, another 4 students representing 13.79% are not at all satisfied and 2 students representing 6.90% stated that they were slightly satisfied.

The degree of satisfaction that prevailed was very satisfied, however, work must be done on neutral, slightly satisfied or not at all satisfied students, which represents more than 50% of students, and an area of opportunity is identified where the tutor academically, must fully resolve and attend to the needs of the students since the latter have probably not been able to understand the specific functions of the tutor or there has been a lack of greater communication between the two.

Graphic 10.8 Knowledge of Tutor Function



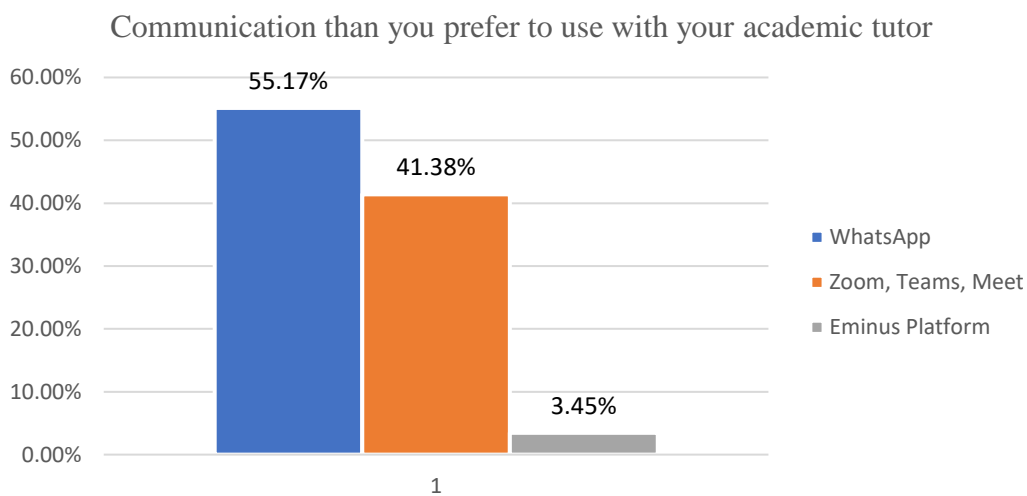
Source: Own elaboration

The degree of knowledge of the functions of the Academic Tutor are as follows, 14 students representing 48.28% have average knowledge, 7 students representing 24.14% expressed low knowledge, finally 4 and 4 students representing 13.79% respectively responded who have high knowledge and the same amount has zero knowledge.

The above allows us to see that it is necessary to reinforce, disseminate and verify that all students know 100% of the functions of the academic tutor since almost half of the students surveyed are unaware of these functions.

This shows the need to implement meetings where detail the types of tutoring that exist and at the same time be very close to them in their school career so that they feel motivated and accompanied.

Graphic 10.9 Communication that you prefer to use with your Academic Tutor

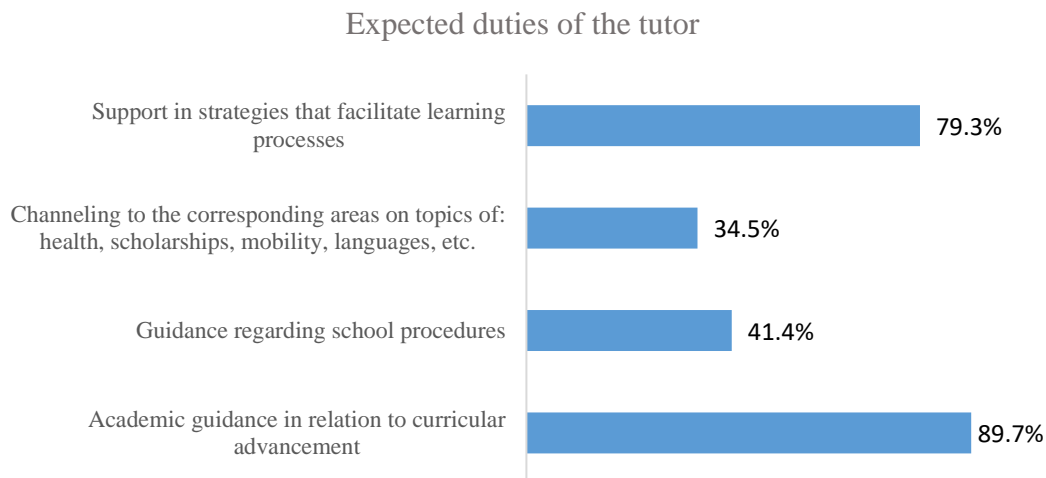


Source: Own elaboration

16 students representing 55.17% prefer communication via WhatsApp, 12 students representing 41.38% opted for Zoom, Teams or Meet and only 1 student representing 3.45% chose the institutional platform EMINUS as a means of communication.

The means of communication requested by the majority of the tutored students was WhatsApp, which is a fast messaging application. This response is understandable due to the degree of ease in communicating with their tutor, so the suggestion will be made to the academic tutors. Of the request made by the tutors through this questionnaire, they will also be informed that a good percentage wants communication through an online platform that allows video calls, sending files and presenting them, so it is also very practical to teach tutoring without ceasing to make them aware that at the same time other means can be used to complement the tutoring such as the EMINUS institutional platform.

Graphic 10.10 Expected duties of your Academic Tutor



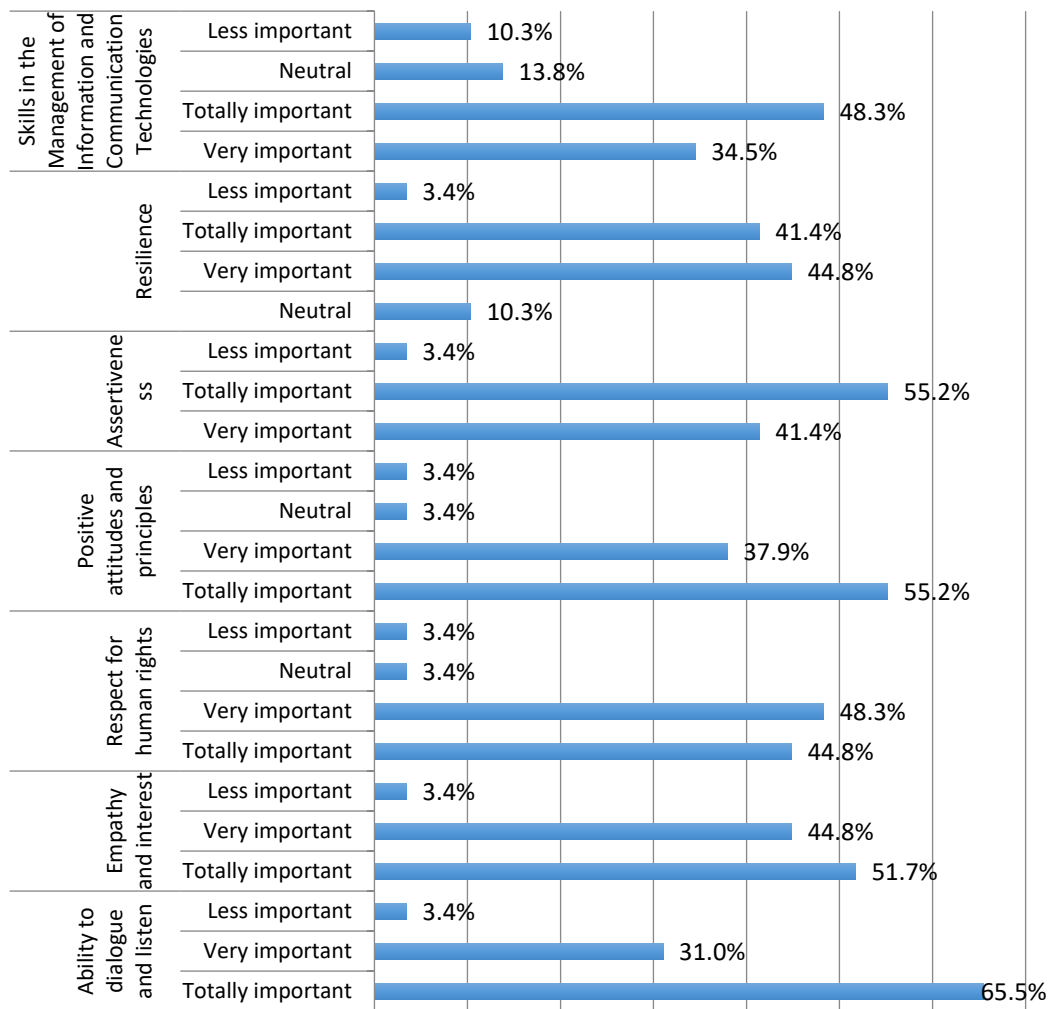
Source: Own elaboration

The results indicate that of the 29 students who answered the questionnaire, 23 of them, representing 89.7%, expect academic guidance in curricular advancement, another 23, representing 79.3%, expect support in strategies that facilitate learning processes, 12 representing 41.4% stated that they require guidance in school procedures and only of the 29 students, 10 representing 34.5%, are waiting to be channeled to issues of scholarships, health, mobility and languages.

The trend of these results is towards academic orientation in relation to curricular advancement and support in strategies that facilitate learning processes, although, it is worth mentioning that the academic tutor must have a wide range of functions that also include the orientation of school procedures, strategies that facilitate the teaching-learning processes and channeling to diverse areas in foreign language issues, scholarships, mobility and health, among others, since they are beneficial for the trajectory of the tutored student and for their terminal efficiency, because it is a postgraduate program in virtual mode, it is implemented to use technological tools.

In the following graph, the tutors identify from their point of view the most important qualities that their Academic Tutor must possess, being the following:

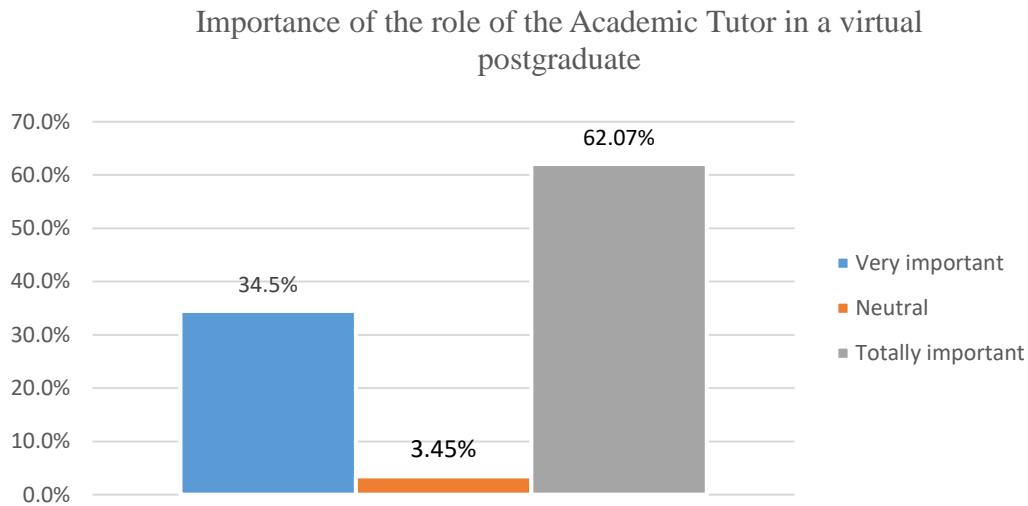
- Skills in the management of ICT
- Resilience
- Assertiveness
- Positive attitudes and principles
- Respect for human rights
- Empathy and interest
- Ability to dialogue and listen

Graphic 10.11 Most important qualities of the Academic Tutor

Source: Own elaboration

For the results of the qualities that the academic tutor must possess, of the 29 students who answered the instrument, they present different behaviors in order of importance, reading for the “totally important”: ability to dialogue and listen (65.5%), attitudes and positive principles (55.2%), assertiveness (55.2%), empathy and interest (51.7%), respect for human rights (48.3%), resilience (41.4%) and ICT skills and management (48.3%). In that order of ideas, the qualities that are “very important”: respect for human rights (48.3%), empathy and interest (44.8%), resilience (44.8%), assertiveness (41.4%), positive attitudes and principles (37.9 %), ICT skills and management (34.5%) and ability to dialogue and listen (31.0%).

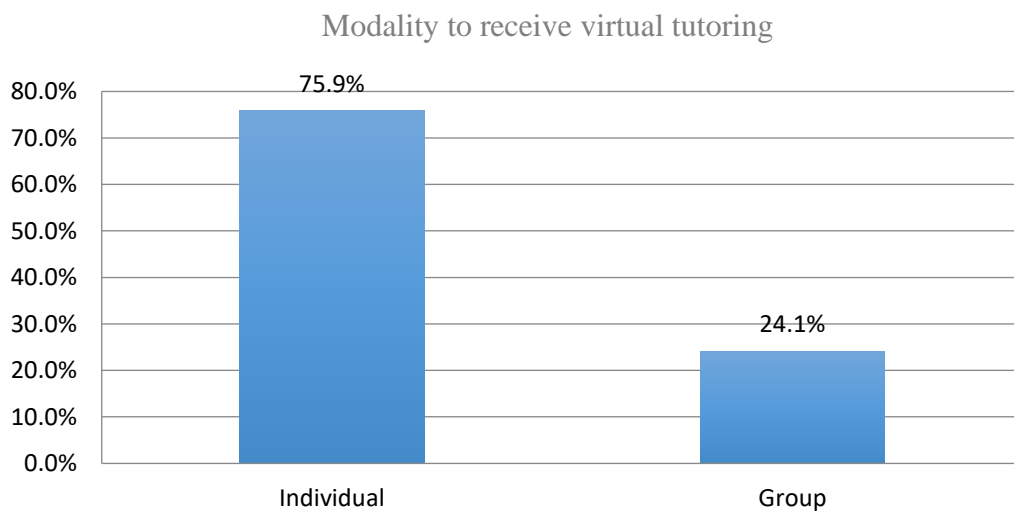
It is seen that within the “totally important” parameter, the quality of greatest choice is the “Ability to dialogue and listen”, in that same parameter they prefer “Positive attitudes and principles” and “Assertiveness”, already in the “very important” parameter, they prefer “Respect for human rights”, anyway, it is evident that all the qualities were chosen (although in different proportions), it leads to timely follow-up so that they are applied and integrated by the academic tutors since this result clearly shows what their tutors want from them.

Graphic 10.12 Importance of the role of the Academic Tutor in a virtual postgraduate

Source: Own elaboration

This graph shows that 18 students, that is, 62.07%, consider the role of the academic tutor to be totally important in a virtual postgraduate course and 10, representing 34.5%, consider it very important, with only 1 representing only 3.45% indicating that they are neutral.

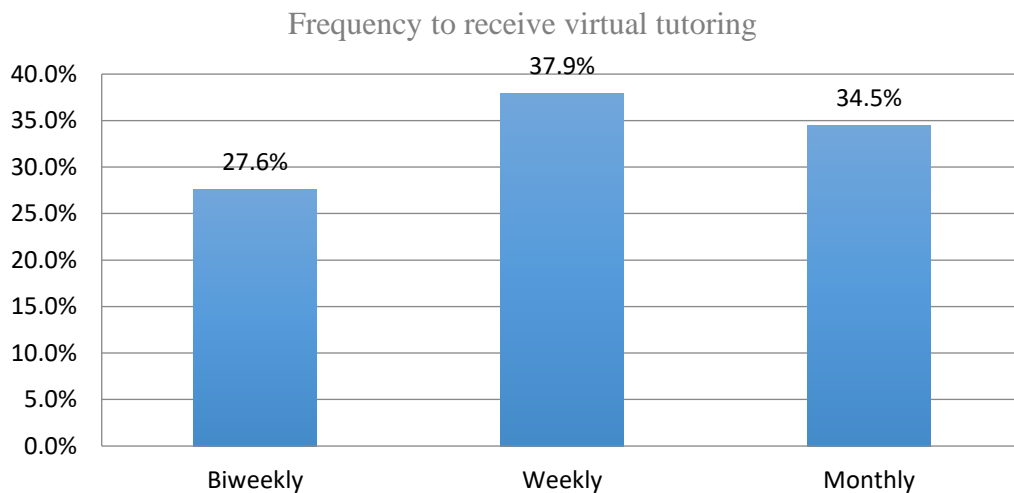
Regarding the importance of the role of an academic tutor in the virtual postgraduate course, the majority indicated that it is totally important or very important, it is relevant to make the tutored students see that communication at all times between them and the academic tutor is essential since it is the means by which they can share their needs and clarify doubts that arise during their academic career.

Graphic 10.13 Modality to receive virtual tutoring

Source: Own elaboration

Graphic 10.13 shows that 22 students representing 75.9% prefer individual tutoring, and 7 students representing 24.1% prefer group tutoring.

Regarding the modality in which they requested to receive the tutoring, the majority indicated that individually, it is understandable that they request this modality since each tutored student lives and creates different needs during their career, nevertheless, group tutoring could be given when it is required to treat general topics that cover the majority of tutored students.

Graphic 10.14 Frequency to receive virtual tutoring

Source: Own elaboration

The results reflect that 8 students representing 27.6% prefer biweekly tutoring, 11 students representing 37.9% indicate their preference for receiving weekly tutoring, 10 students representing 34.5% indicate that they want monthly tutoring. The frequency for students to receive virtual tutoring depends not only on their needs, but also on the planning of the academic tutors and the communication between the parties, so it will be suggested to the academic tutors to be able to identify the pressing needs of their students tutored students and that with each one they reach an agreement on the periodicity that they require tutoring by establishing days and times.

As a general conclusion to the interpretation of the graphs, it is essential to take into account the students' responses, their feelings regarding tutoring, their desire to be guided and to provide their academic tutors with the necessary information so that, based on in this analysis, the most praiseworthy measures are taken, since the reason for this study is to provide quality care and venture into virtual tutorial innovation, adapting to the needs of the tutored students, as well as the availability of the tutor and the involvement with their tutors in matters of curricular advancement and school situation of their tutors in combination with ICTs.

10.8 Conclusions

The functions performed by the academic tutor in a postgraduate program in virtual mode are essential and must be in accordance with the requirements and demands of the students, where the accompaniment must not only be timely, but also overcome barriers of space and time.

In addition to the above, the academic tutor requires having a plan to follow, which allows establishing concrete actions in a systematized manner, generating necessary elements for periodic evaluation and subsequent attention to the identified areas of opportunity.

Since virtual tutoring has become a very useful strategy for distance education students, it requires information, support, accompaniment and advice in a timely manner and in a synchronous or asynchronous manner. Consequently, virtual tutors with distinctive qualities that allow, among other things, to encourage the development of independent study are in demand.

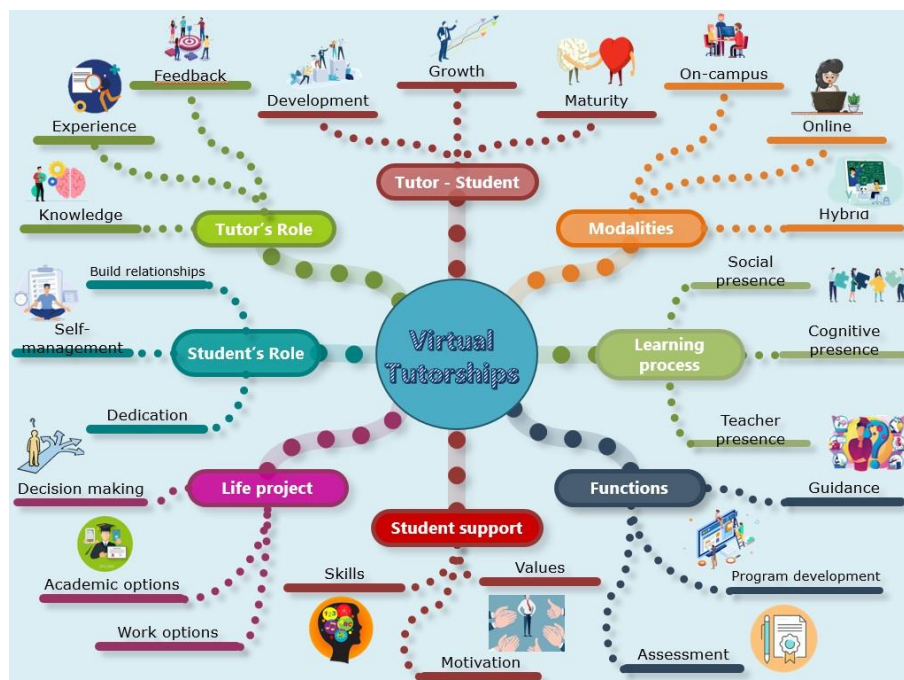
In order for the role of the academic tutor in virtual postgraduate studies to be optimal, the following actions are suggested:

- Develop a work plan each school period, considering virtual environments that includes: scheduling of activities or sessions (at least at the beginning, during and at the end of the school period), objectives of the sessions, topics to be addressed according to credit progress, schedules, platforms or digital media to use.

- Create a database with student information: emails, cell phone number, social networks, ICT domain, etc.
- Know the regulations and/or legislation applicable to postgraduate studies, tutoring and students, as well as the postgraduate study plan, curriculum map and review it with their students.
- Maintain close communication with the student, considering the recurring application of instruments that allow collecting relevant information from the tutor, such as diagnostic evaluation, curricular advancement, research skills, thesis direction, learning strategies, areas of opportunity, strengths, among others.
- Use technological tools, as well as a virtual and/or institutional platform in which the student is offered information, resources and tools available at all times.
- Establish virtual work rules (response times, application times, participation standards, synchronous and/or asynchronous activities, communication channels, individual and/or group modality, etc.).
- Promote constant multidirectional participation through established communication channels.
- Promote values, personal self-esteem, life plan and resilience in accordance with globalized standards of high competitiveness and ICT management.
- Provide support, guidance and timely and permanent monitoring of the needs of students, from the beginning of their studies, during their school career and until the end of their postgraduate studies, under the standards of the entry and exit profiles.
- Receive permanent training in topics inherent to postgraduate studies, the use of technological tools and platforms, as well as the development of pedagogical skills and competencies in virtual environments.

Definitely, the functions of an academic tutor at a postgraduate level in virtual environments require more specialized training and greater feedback to their students, which is why this research concludes by presenting the design of the following figure, which includes elements to consider for a virtual tutoring and which in turn aims to lay the foundations for future research.

Figure 10.1 Virtual Tutoring Environment



Source: Own elaboration

10.9 References

- ANUIES. (2018). *Visión y acción 2030 Propuesta de la ANUIES para renovar la educación superior en México*. México, D.F.: ANUIES. Recuperado en: http://www.anuies.mx/media/docs/avisos/pdf/VISION_Y_ACCION_2030.pdf
- Badillo, G. J. (2007). La tutoría como estrategia viable de mejoramiento de la calidad de la educación superior. *Reflexiones en torno al curso*. CPU-e, *Revista de Investigación Educativa*, 1-22. Consultado en: <https://www.redalyc.org/pdf/2831/283121712006.pdf>
- Barbera, E. (2013). Los fundamentos teóricos de la tutoría presencial y en línea: una perspectiva socio-constructivista. *Educación en Red y Tutoría en Línea*, 151-168. Consultado en: https://nanopdf.com/download/los-fundamentos-teoricos-de-la-tutoria-presencial-y-en-linea_pdf
- Beltran, C. J., & Suarez, D. J. (2003). *El quehacer tutorial, guía de trabajo*. Xalapa, Veracruz: Universidad Veracruzana. Recuperado en: <https://www.uv.mx/dgdaie/files/2012/11/zElquehacertutorial.pdf>
- García, N. R., San Juan, B. M., Sánchez, M. E., & Hernández, P. I. (2019). Consideraciones actuales sobre la tutoría en el posgrado de Medicina Familiar. *Medisur*, 670-684. Recuperado en: <https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=96077#:~:text=Se%20pudo%20concluir%20que%20los,reunion es%20en%20que%20han%20participado>
- García, C. B., Ponce, C. S., García, V. M., Caso, N. J., Morales, G. C., Martínez, S. Y., . . . Aceves, V. (2016). Las competencias del tutor universitario: una aproximación a su definición desde la perspectiva teórica y de la experiencia de sus actores. *Perfiles Educativos*, 104-122. Recuperado en: https://perfileseducativos.unam.mx/iisue_pe/index.php/perfiles/article/view/54918
- Larson, A., & Kebritchi, M. *Feedback Strategies and Modalities in Online Higher Education*. COLLEGE OF DOCTORAL STUDIES| PERIODICAL FOR RESEARCH & SCHOLARSHIP, 34. Recuperado en: <https://www.phoenix.edu/content/dam/edu/research/doc/phoenix-scholar/vol-6-issue-1.pdf>
- Lopez, L. M., & Rivera, O. M. (2017). El Concepto de Tutorías en Posgrado una Propuesta Innovadora desde su Conceptualización. *Memorias de la Séptima Conferencia Iberoamericana de Complejidad, Informática y Cibernética (CICIC 2017)*, (págs. 181-184). Recuperado en: <https://www.iiis.org/CDs2017/CD2017Spring/papers/CB987RV.pdf>
- Rincón, M. L. (2008). Los entornos virtuales como herramientas de asesoría académica en la modalidad a distancia. *Revista Virtual Universidad Católica del Norte*, 1-20. Consultado en: <https://www.redalyc.org/articulo.oa?id=194215513009>
- Romo, L. A. (2011). *La Tutoría, Una estrategia innovadora en el marco de los programas de atención a estudiantes*. México, D.F.: ANUIES. Recuperado en: <https://tutoria.unam.mx/en/node/162>
- Sagastume, F., Morales, M., Amado, H., & Hernández, R. (2018). La importancia del tutor en los cursos virtuales: experiencia, buenas prácticas y recomendaciones. *Proceedings of the Digital World Learning Conference CIEV 2018*, (págs. 91-97). Consultado en: <https://www.galileo.edu/page/wp-content/uploads/2019/02/13.pdf>
- Velasquez, M. B. (2020). La Educación Virtual en tiempos de Covid-19. *Revista Científica Internacional*, 19-25. Recuperado en: <https://revista-cientifica-internacional.org/index.php/revista/article/view/8>
- Wells, M. S., Irish, C. K., Peck, K. A., Davis, J. S., & Clayton, C. (2023). Innovations in Intern/Mentor Relationships and Conceptions of the Technological Pedagogical Content Knowledge (TPACK) Framework. *Teacher Educators' Journal*, 16(1), 1-26. Recuperado en: <https://eric.ed.gov/?id=EJ1383746>.