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Artículos científicos

Inversión en programas en línea: caso de la maestría en Defensa del Contribuyente de la Universidad Michoacana de San Nicolás de Hidalgo en México

*Investment in online programs: the case for the Maestría en Defensa del
Contribuyente at the Universidad Michoacana de San Nicolás de Hidalgo in
Mexico*

*Investimento em programas online: caso do Mestrado em Defesa do
Contribuinte da Universidade Michoacana de San Nicolás de Hidalgo, no
México*

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Resumen

La maestría en Defensa del Contribuyente es el primer programa de la Universidad Michoacana de San Nicolás de Hidalgo que se oferta a nivel nacional completamente en línea, administrando el uso de tecnologías de la información de manera autónoma. En tal sentido, el objetivo de la presente investigación fue analizar a través de sus estudiantes el desempeño del programa para evaluar su alcance e identificar sus áreas de oportunidad para implementar medidas y estrategias de mejora. De igual manera, se pretendió mostrar evidencias de las ventajas y desafíos de este tipo de programas para que posteriormente puedan ser creados otros similares como una alternativa que requiere una reducida inversión.



Para la recolección de la información se aplicó una encuesta de 50 preguntas en escala del 0 al 10 a los 34 estudiantes del programa de la primera y segunda generación mediante la plataforma Moodle; posteriormente, se procesaron y analizaron los datos mediante medidas de estadística descriptiva. Dentro de los principales resultados se detectó un nivel de satisfacción alto con el programa, principalmente porque les permite trabajar, superarse académicamente y actualizarse, así como porque pueden tomar sus sesiones desde su trabajo, hogar o cualquier lugar que tenga internet estable. Como áreas de oportunidad se detectó la necesidad de implementar acciones para que los estudiantes desarrollen en mayor medida las habilidades necesarias para aprovechar la transferencia de conocimiento mediante esta modalidad. Podemos concluir que el programa tiene grandes oportunidades de crecimiento, así como fortalezas y áreas de oportunidad, las cuales pueden ser atendidas para otorgar un servicio de mayor calidad. Si bien hay estudiantes que no están preparados para este sistema educativo, se considera que el programa les proporciona herramientas que contribuyen a desarrollar tales habilidades. Adicionalmente, durante estos meses de confinamiento debido a la pandemia, el programa no sufrió ninguna modificación ni contratiempo, a excepción de las cuestiones administrativas que son ajenas al control de este, lo que demuestra otras de sus ventajas.

Palabras clave: aprendizaje electrónico, educación a distancia, educación tecnológica, inversión en tecnología, tendencias del desarrollo educativo.

Abstract

Master's in Taxpayer Defense is the first program at the Universidad Michoacana de San Nicolás de Hidalgo that is offered nationwide completely online managing the use of information technologies in an autonomous manner. The objective of this research was to analyze through students the performance of the program to evaluate its scope, identifying areas of opportunity and thus be able to implement measures and strategies for improvement in the program. Likewise, it was intended to show evidence of the advantages and benefits of this type of program so that later on others can be created under this modality as an alternative that requires a reduced investment. For information gathering, a survey of 50 questions on a scale of zero to 10 was applied to the 34 students of the first- and second-generation program through the Moodle platform and later the data was processed and analyzed through descriptive statistical measures. Among the main results, a high level of

satisfaction with the online program was detected, mainly because it allows them to work, improve academically and update their skills, as well as because they can take their sessions from their work, home or any place that has a stable internet. As areas of opportunity, the need to implement actions was detected so that students could adapt and develop to a greater extent the skills needed to take advantage of the transfer of knowledge through this modality. We can conclude that the program has great opportunities for growth, has many strengths and the areas of opportunity detected are important tools to provide a higher quality program. It was detected that there are students who are not yet prepared for this educational system, but it is considered that the program provides them with tools that contribute to the development of such skills. Additionally, during these months of pandemic confinement, the program did not undergo any modifications or setbacks, except for administrative issues that are beyond the control of the program, which demonstrates some of the advantages and benefits of this type of program.

Keywords: electronic-learning, distance education, technology education, technology investment, educational development trends.

Resumo

O mestrado em Defesa do Contribuinte é o primeiro programa da Universidade Michoacana de San Nicolás de Hidalgo oferecido em todo o país de forma totalmente online, gerenciando o uso das tecnologias de informação de forma autônoma. Nesse sentido, o objetivo desta pesquisa foi analisar por meio de seus alunos o desempenho do programa para avaliar sua abrangência e identificar suas áreas de oportunidade para implementar medidas e estratégias de melhoria. Da mesma forma, pretendeu-se evidenciar as vantagens e desafios deste tipo de programa para que, posteriormente, outros semelhantes possam ser criados como alternativa que requeira um investimento reduzido. Para a coleta de informações, foi aplicado um levantamento de 50 questões em uma escala de 0 a 10 aos 34 alunos do programa de primeira e segunda geração utilizando a plataforma Moodle; posteriormente, os dados foram processados e analisados por meio de medidas estatísticas descritivas. Dentre os principais resultados, foi detectado um alto nível de satisfação com o programa, principalmente por permitir que trabalhem, se aprimorem academicamente e se atualizem, bem como por poderem realizar suas sessões no trabalho, em casa ou em qualquer lugar que tenha um Internet. Como áreas de oportunidade, detectou-se a necessidade de implementação de ações

para que os alunos desenvolvam ainda mais as competências necessárias para o aproveitamento da transferência de conhecimentos por meio dessa modalidade. Podemos concluir que o programa apresenta grandes oportunidades de crescimento, bem como pontos fortes e áreas de oportunidade, que podem ser aproveitadas para prestar um serviço de maior qualidade. Embora existam alunos não preparados para este sistema de ensino, considera-se que o programa disponibiliza ferramentas que contribuem para o desenvolvimento dessas competências. Além disso, durante esses meses de confinamento devido à pandemia, o programa não sofreu qualquer modificação ou retrocesso, com exceção de questões administrativas que fogem ao seu controle, o que demonstra outras vantagens.

Palavras-chave: e-learning, educação a distância, educação tecnológica, investimento em tecnologia, tendências de desenvolvimento educacional.

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Introduction

Distance education, unlike face-to-face, can be conceived from a perspective that encompasses various forms of teaching and learning that are not under the continuous and immediate supervision of tutors in a conference room or in the same facilities, but which They also benefit from the planning, orientation and teaching of these professionals (Kok, Bester and Esterhuizen, 2018).

Over the past two decades, distance education has moved from the periphery to the center of the general education provision. This is especially the case in the higher education sector, where in some countries - with the support of large investment programs and state funding - they have promoted various distance education programs, mostly known as online, flexible or blended learning. Each year the enrollment of students in distance education increases, as does the number of academic programs offered. Among the countries that have experienced the greatest growth in distance and online higher education in recent decades are the United States, China, India, Russia, Australia, among others. Flexibility, time and cost savings have generated this notable increase, which is why in most developed countries this modality has become an important part of higher education, since a degree obtained through higher education has the same relevance. a distance program than a face-to-face one, although it is worth noting that in other countries it is still difficult to achieve the latter (Zawacki and Qayyum, 2019).

For this reason, it can be said that higher education has undergone various transformations, mainly in terms of the rise of internationalization and student mobility, the expansion of online and mixed learning opportunities, as well as the proliferation of internet services. . These changes, however, demand to improve and guarantee the quality and recognition of the programs, and require governments and institutions to implement innovative policies to encourage equality and accessibility, as well as the growth of education (United Nations Educational, Scientific and Cultural Organization [Unesco], 2019). In this way, non-face-to-face teaching forms have had a favorable impact as a training alternative for social groups that cannot adjust to the rhythms of school-based teaching. (Moreno y Cárdenas, 2012).

Since the Paris Declaration on Open Educational Resources (OER) in 2012 (which recommends to States, to the extent of their possibilities and competences, ten strategies to promote distance education), only a small number of countries has developed national policies to promote distance and online education. Even so, interest in this modality with or without political implications has grown. In this regard, countries are formulating various approaches to implement initiatives that can lead to addressing national educational challenges, from increasing access to improving quality and reducing costs in education. The focus of the use of these modalities has been extended from higher education to other levels and sectors of education (Unesco, 2016).

Different nations and education systems are responding differently to the macro-process of digitization. Some national systems are more advanced and working to make the digitization of teaching and learning a strategic objective for development and innovation (such is the case of South Korea), while in other countries distance education was recognized as a validated and accredited form of education provision only. Currently, there are high enrollment growth rates in distance and online education with private institutions that enter this market en masse (eg, Brazil). However, the transformation of teaching and learning in a digital age presents a dramatic challenge of innovation and change for most “mainstream” universities.

Distance learning institutions have always led the implementation of new and emerging media, as in this system the latest technology has always been used to bridge the gap between students and educational institutions, as well as between students themselves. In the mid-1990s, the Internet and new information and communication technologies paved the way to overcome the notion of distance education as an isolated form of learning (Zawacki and Qayyum, 2019).

Certainly, the evolution of technology has played an important role in maturing distance learning into an “alternative” form of education to the mainstream. Distance learning is very different from traditional classroom instruction, as different presentation skills and teaching strategies are needed (Kearsley, 1998).

For Bossu (2016) the opening of nations has contributed to transforming education at all levels. Higher education has benefited students, educators, universities, institutional designs and investments in research. She has brought national leaders together to discuss how the richest nations could help the less well off to increase access to free and open education.

Over the next decade we will see a new generation of instructors taking their degrees through distance education, so they will have the experiential experience to build on. Much more complicated is the question of institutional change, since distance education requires schools, universities and training departments to make important changes in the way they do things. Furthermore, almost all policies and procedures dealing with registration, class scheduling, grading, graduation, and attendance will likely have to be transformed to accommodate distance learning (Kearsley, 1998).

Currently, the volume of digital educational resources imposes new demands on higher education systems and institutions in terms of the development of new and innovative educational programs, curricula and learning processes, as well as in the access routes to higher education. All of this has been fostered by the existence of models for the provision of online learning services (open and mixed education and short courses) based on the acquisition of competences, such as mass and free access online courses (MOOC) and open educational resources (OER). The enormous potential for online learning in general and the form of MOOCs in particular opens up new avenues of access to higher education, as well as increasing educational possibilities through flexible alternative solutions (Unesco, 2019). In this context, the most recent generations are distinguished, mainly, by the intensive, extensive and more accessible use of technologies, which facilitates learning processes and their management. This new impulse is evidenced by the emergence not only of distance education programs or entities in digital environments within traditionally schooled universities, but also with the foundation of new public and private higher education institutions, which shows a greater dynamism of the latter in the generation of distance academic programs (Moreno, 2017).

In this way, with the advent of the Internet, the threat of competition from new virtual educational organizations has forced traditional institutions to rethink how they provide

instruction and to develop policies and procedures more conducive to distance education, since in this the geographic boundaries are not relevant. This means that every school or university in the country and the world could compete with each other, forcing institutions to think about the quality and uniqueness of their offerings. In this sense, now virtual interaction can be achieved through a two-way videoconference, which can reduce costs and be more generalized, especially for adult students who study part-time to learn according to their convenience, and not according to those of their educational institution. Distance education that fulfills this desire is much more acceptable to them and therefore successful. This is how distance education meets the needs of the 21st century civilization (Kearsley, 1998).

However, Kok et al. (2018) point out that although students can have access to well-supported infrastructures and technical support, they do not use technology in favor of education unless they have a positive attitude towards it, which they can only achieve by developing technological skills and aptitudes.

Online or distance higher education has benefited students and educators and influenced the way that senior university executives approach institutional strategic plans and policies. Indeed, it has shaken established university business models and influenced the development of new ones, bringing together national leaders to discuss how richer countries could help the less well off to increase access to free and open education (Unesco, 2016).

Based on the above, the present work focused on the case study of a graduate academic program that is offered completely online in a Mexican university. To do this, first a general contextualization of distance education in Mexico is offered; later, the academic program of study and the method used are described; then the results and discussion are presented, and finally the conclusions are explained.

Distance education in Mexico

Under the influence of world dynamics, in Ibero-America and in our country the emergence of collaboration networks between higher-level educational centers, government agencies and civil society organizations to renew the existing relationship model between them and to open channels of communication and cooperation that will expand the possibilities for an increase in coverage in meeting demand (Coronado, 2017).

In Mexico, distance education —also known as online, virtual or e-learning— has reported broad growth in the field of higher education through various forms and expressions (Zubieta and Rama, 2015). Even so, this system is still incipient (Moreno, 2015), since it is mainly private educational institutions that offer the most online educational programs (table 1), although as Moreno and Cárdenas (2012) point out, growth does not necessarily imply quality or adequacy.

Tabla 1. Especialidad, maestría y doctorado, sistema no escolarizado

	Lugares ofertados	Matrícula total	Egresados total	Graduados total
Instituciones públicas	11 126	20 833	7 591	4812
Intituciones privadas	85 659	91 151	35 373	21 299

Fuente: Elaboración propia con datos de la Anuiés (ciclo escolar 2017-2018) (inicio de cursos)

It was not until the 1970s that universities in Mexico ventured into distance education with the influence of the large European universities that adopted this modality. The Autonomous University of Mexico (UNAM) was the pioneer in the implementation and growth of these programs.

This modality has grown so much in our country that currently registered postgraduate enrollment in the non-school system represents 47% of the enrollment in the school system. In Table 2 we can see the current importance of this modality in postgraduate education.

Tabla 2. Posgrado por sistema: especialidad, maestría y doctorado

	Lugares ofertados	Matrícula total	Egresados total	Graduados total
Escolarizados	135 991	239 948	81 635	66 016
No escolarizados	96 785	111 984	42 964	26 111

Fuente: Elaboración propia con datos de la Anuiés (ciclo escolar 2017-2018) (inicio de cursos)

According to the Virtual Universities in Mexico page, currently more than 2300 bachelor's degrees, master's degrees and courses are offered in the online and distance modality, with a list of 25 public and 32 private universities with various programs in these modalities, although it is believed that there are many more private ones. In the ranking of the best online universities, UNAM is placed in the first position, followed by the Open and

Distance University of Mexico (UNADM) and the Virtual University of the State of Guanajuato (UVEG), to mention some of the best Scored (Online Bachelor's Degrees, 2019).

In Mexico, 37% of students receiving online education are between 25 and 29 years old, 27% between 18 and 24 years old, 19% between 30 and 34 years old, and 44% are 35 years old or older. Only 1% are under 18 years of age. Also, 40% study a bachelor's or engineering degree and only 7% study a master's degree. When speaking exclusively of those who currently study online, the flexibility of schedules is the main aspect considered when deciding on this modality (Internet Association MX and OCC Mundial, 2018).

On the other hand, 39% of the enrollment in postgraduate or specialty in the non-school system are between 24 and 29 years old and 33% between 30 and 39 years old (Table 3).

Tabla 3. Matrícula por especialidad, maestría y doctorado en sistema no escolarizado

Matrícula menores de 23 años	8623
Matrícula 24 a 29 años	43 269
Matrícula 30 a 39 años	36 525
Matrícula 40 años y mayores	23 567

Fuente: Elaboración propia con datos de la Anuies (ciclo escolar 2017-2018) (inicio de cursos)

Historically, there is constant concern about the need to reach agreements for work and inter-institutional endorsement, either by higher education institutions (HEIs) or by the Government, whose efforts have had ups and downs and have not been consolidated in largely due to the lack of real agreements - not just documentaries - between some instances; for example, between the National Association of Universities and Institutions of Higher Education (Anuies) and the Ministry of Public Education (SEP), agreements that have been reached between higher education institutions (Moreno, 2015).

In general, we can say that distance education is a mixture of tradition and modernity that develops in a struggle between routine and innovation, since on the one hand new academic conditions are fostered and, on the other, bureaucratic school practices persist . Undoubtedly, there are technological changes in research that takes these educational modalities as an object of study, as well as in social positioning and international recognition; but the changes are minor in policies, organization and styles of administrative management (Moreno, 2015). Additionally, Moreno (2015) points out the existence of broad sectors of the

population that, due to their socioeconomic, academic and labor conditions, become potential applicants to enter e-learning systems; However, their possibilities of adapting to the system are diminished by their limited mastery in the use of technological resources and, above all, by the existing deficits in terms of acquired self-regulatory skills. In contrast, Espinosa (2017) points out that it is not very difficult to characterize the current scenario, where there are probably “hooked” students, capable of connecting and accessing the “most up-to-date” knowledge quickly and with “disconnected” teachers, “ old-fashioned ”, which generates an imbalance in the relations between the two and the possible fallacy of displacement towards a preponderance of students in their ties with teachers.

The accelerated development of the information society has posed challenges for education and learning. In this sense, the incorporation of information technologies in education is a key element to carry out the necessary transformations in online and distance programs, as well as the integration, training, updating and adaptation of teachers and the implementation of strategies for the transfer and acquisition of knowledge by students, who must develop self-taught behaviors.

The master's degree in Taxpayer Defense

The Master's Degree in Taxpayer Defense (MDC) is a recently created program, approved by the University Council of the UMSNH in August 2016. The first call was issued at the end of 2016 and the beginning of the first semester of the first generation occurred in August 2017.

It is the first UMSNH program to be offered nationwide completely online, managing the use of ICT autonomously. In July 2019, the first generation graduated, although their degree was complex because there were students from various states of the Republic and there is only the traditional mechanism to carry out administrative procedures. The program is semester and is divided into two trimesters: in the first two subjects are taken and in the second another two. Beginning in the 2019-2020 semester, for greater use, the intensive study of one subject at a time was implemented.

The ICTs that began using the master's degree were the Moodle platform and videoconferencing in Adobe Connect. Currently, taking advantage of the resources that have been made available free of charge by the university, Adobe Connect has been replaced by

Google Meet, thus reducing the annual cost of this tool. In addition, teachers are trained and tutorials are developed for students to learn how to use these resources.

Due to the growing interest on the part of people of various ages in pursuing the master's degree, it can be inferred that the program is performing adequately; However, questions such as the following arise: to what extent have the technological tools and resources that have been invested to implement the Master's Degree in Taxpayer Defense worked and what has been the level of acceptance of the students regarding their use? To what extent is it feasible to create other programs at the university that use the same resources for their operation?

For this reason, in the present research we tried to analyze, through the opinion of the students, the performance of the Master's program in Taxpayer Defense in order to evaluate its scope and identify the areas of opportunity to implement measures and strategies of improvements. To do this, evidence of the advantages and benefits of this type of program is taught for future similar initiatives.

Method

To meet the established objective, the evaluation was carried out by measuring and analyzing the students' perception of the performance of the program and its way of using it. This made it possible to identify areas of opportunity that could be used to develop strategies that contribute to their improvement.

Data

A survey of 50 questions was applied to the 34 first and second generation students using the Moodle platform.

A scale from 0 to 10 was used for the students in relation to their perception of various variables related to the master's program. The choice of variables was based on a literature review that served to select the following (Table 4):

Tabla 4. Variables y número de ítems considerados en la encuesta

Variables	N.º de ítems
Organización	3
Estructura curricular	1
Mecanismos de operación y recursos tecnológicos invertidos	5
Interactividad	8
Accesibilidad	9
Flexibilidad de tiempo	6
Horarios de videoconferencias	2
Incorporación de recursos	4
Colaborativa	3
Comunicación	9

Fuente: Elaboración propia

Here is a brief explanation of the meaning of each variable:

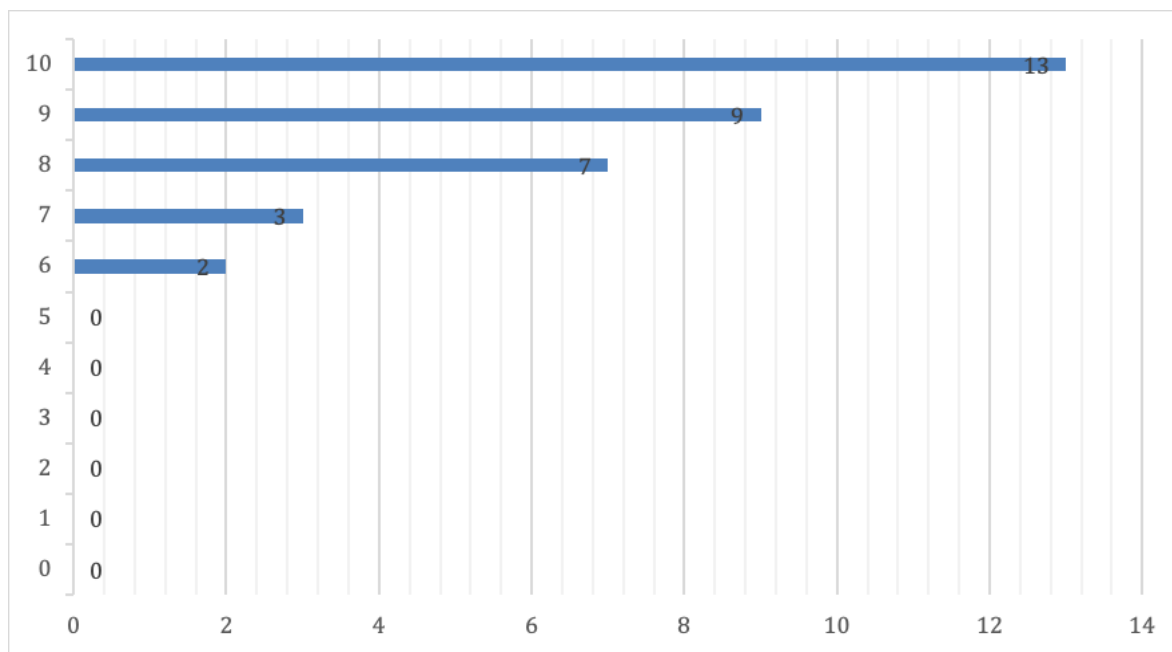
- Organization: How adequate is the planning and structure of the educational program.
- Curriculum structure: How attractive and / or appropriate is the curriculum of the educational program.
- Operational mechanisms and technological resources: How adequate and efficient are the technological resources used and the operational mechanisms in the educational program.
- Interactivity: How much the student can connect in a more dynamic way with their classmates, teachers and with the educational material.
- Accessibility: How much the student can access their online education courses from wherever they are, at any time of the day.
- Time flexibility: How much flexibility exists in the curriculum in relation to video conferencing and how much in the activities that are carried out without this synchronization.
- Incorporation of resources: How useful are the resources used, both technological and methodological, according to the requirements of society and the changing environment.
- Collaborative: How much interaction and contact there is between students (such as collaborative research work between students) and student-teacher using resources such as chats or discussion forums.
- Communication: How much communication is facilitated by the ICTs used in the program (Enfoque estratégico, 2019).

Once the surveys have been answered, the data are processed and analyzed using descriptive statistical measures.

Results

In figure 1 we can see the grade that the students gave to the MDC program in general. The results indicate that 65% of the students give it a grade between very good and excellent.

Figura 1. Calificación otorgada al programa de la maestría en Defensa del Contribuyente



Fuente: Elaboración propia

Regarding the organization variable, the general average given to the program was 8.8. Likewise, the grade 10 was the one that was repeated the most times, with a median of 9.

Table 5 presents the main results of the statistical measures of central tendency.

Tabla 5. Resumen de resultados de encuesta de percepción a estudiantes de la MDC

Preguntas	Promedio	Moda	Mediana
1. En general, ¿qué calificación le otorgarías al programa de la maestría?	8.8	10	9
2. ¿Consideras adecuado que la planeación del programa sea semestral?	9.1	10	9.5
3. ¿Consideras adecuado que el semestre se divida en dos partes: en la primera para cursar dos materias y en la segunda otras dos?	9.6	10	10
4. ¿Consideras adecuadas las materias que se imparten en el programa?	9.1	10	9
5. ¿Qué calificación le otorgarías a la página de la maestría?	9.3	10	9
6. ¿Qué tan sencillo te resulta encontrar la información que buscas en la página de la maestría?	9.3	10	9
7. ¿Qué calificación le otorgas a la plataforma de Moodle de la MDC?	9.2	10	9
8. ¿Qué calificación le otorgas a la Adobe Connect para las videoconferencias?	9.0	10	9
9. Considerando que el sistema de educación en línea es en su mayoría autodidacta, ¿qué tan adecuados crees que son los recursos didáctico-metodológicos en esta maestría?	8.9	10	9
10. ¿Qué tan fácil te ha resultado utilizar la plataforma de Moodle para revisar las actividades, tareas, investigaciones, etc.?	9.1	10	9
11. ¿Qué tan fácil te ha resultado utilizar la plataforma de Moodle para subir las actividades, tareas, investigaciones, etc.?	9.3	10	9
12. ¿Qué tan fácil te ha resultado utilizar la plataforma de Moodle para comunicarte con tus maestros?	8.7	9	9
13. ¿Qué tan fácil te ha resultado utilizar la plataforma de Moodle para comunicarte con tus compañeros?	8.5	9	9
14. ¿Qué tan fácil te ha resultado utilizar la plataforma Adobe Connect de videoconferencias semanales para comunicarte con tus maestros?	9.0	10	9
15. ¿Qué tan fácil te ha resultado utilizar la plataforma Adobe Connect de videoconferencias semanales para comunicarte con tus compañeros?	8.9	9	9
16. ¿Qué tan fácil te ha resultado utilizar la plataforma Adobe Connect de videoconferencias semanales para aclarar dudas con tus maestros?	8.8	9	9
17. ¿Qué tan fácil te ha resultado utilizar la plataforma Adobe Connect de videoconferencias semanales para efectuar alguna solicitud?	8.6	9	9
18. ¿Qué tan fácil te resulta ingresar a la plataforma de Moodle para poder realizar tus tareas y actividades semanales?	9.2	10	9.5

19. ¿Qué tan común es que ingreses a la plataforma de Moodle de la MDC desde tu trabajo?	8.9	10	10
20. ¿Qué tan común es que ingreses a la plataforma de Moodle de la MDC desde tu casa?	8.7	10	9
21. ¿Qué tan común es que ingreses a la plataforma de Moodle de la MDC desde otros sitios (central de autobuses, aeropuerto, un evento, etc.)?	6.2	8	7.5
22. ¿Qué tan fácil te resulta ingresar a la plataforma Adobe Connect de videoconferencias semanales?	9.0	9	9
23. ¿Qué tan común es que ingreses a la plataforma de Adobe Connect de videoconferencias semanales desde tu trabajo?	8.4	10	9
24. ¿Qué tan común es que ingreses a la plataforma de Adobe Connect de videoconferencias semanales desde tu casa?	8.0	10	9
25. ¿Qué tan común es que ingreses a la plataforma de Adobe Connect de videoconferencias semanales desde un café o restaurante?	5.9	8	7.5
26. ¿Qué tan común es que ingreses a la plataforma de Adobe Connect de videoconferencias semanales desde otros sitios (central de autobuses, aeropuerto, un evento, etc.)?	5.4	0	7
27. ¿Lo más común es que realices tus tareas y actividades en horario matutino entre semana?	4.8	0	6.5
28. ¿Lo más común es que realices tus tareas y actividades en horario vespertino entre semana?	7.1	9	8
29. ¿Lo más común es que realices tus tareas y actividades en horario nocturno entre semana?	9.3	10	10
30. ¿Lo más común es que realices tus tareas y actividades durante los fines de semana?	8.9	10	10
31. ¿Te resulta adecuado el tiempo que dispones para efectuar las actividades semanales?	7.0	9	8
32. ¿Qué tan accesible te ha resultado que la planeación de las actividades sean semanales?	7.8	10	8.5
33. ¿Qué tan accesibles te han resultado los horarios establecidos para las videoconferencias?	7.9	9	9
34. ¿Qué tan probable es que un maestro acceda a cambiar el horario de la videoconferencia cuando lo solicita el grupo?	8.6	10	9
35. ¿En qué medida consideras adecuados los recursos utilizados por los maestros para transferirte conocimiento?	8.6	9	9
36. ¿En qué medida consideras adecuados los recursos utilizados por los maestros para consultar material y bibliografía?	8.7	9	9
37. ¿En qué medida consideras adecuados los recursos utilizados por los maestros para motivarte al aprendizaje autodidacta?	8.6	9	9

38. ¿En qué medida consideras adecuados los recursos utilizados por los maestros para estimular la investigación?	8.4	8	8.5
39. ¿Qué tan frecuente es que los profesores organicen actividades en las que tengas que trabajar en conjunto con algunos de tus compañeros?	7.1	8	8
40. ¿Qué tan frecuente es que consultes a tus compañeros para aclarar alguna duda?	8.2	10	9
41. ¿Qué tan frecuente es que te organices con algunos de tus compañeros para desarrollar alguna actividad aunque no lo haya solicitado de esa manera el profesor?	6.6	9	8
42. ¿Cómo calificarías la comunicación que brinda la plataforma de Moodle entre profesor-alumno?	8.2	9	8.5
43. ¿Cómo calificarías la comunicación que brinda la plataforma de Moodle entre alumno-alumno?	7.8	9	8
44. ¿Qué tan útil te resulta que se publiquen los comunicados en la pestaña de avisos de la página de la maestría?	8.9	10	9
45. ¿Qué tan útil te resulta que te envíen correo de los comunicados de la maestría?	9.8	10	10
46. ¿Cuando necesitas comunicarte con la coordinación de la maestría es más común que lo hagas por correo electrónico?	8.7	10	10
47. ¿Cuando necesitas comunicarte con la coordinación de la maestría es más común que lo hagas por teléfono?	6.0	10	6
48. ¿Cuando necesitas comunicarte con la coordinación de la maestría es más común que lo hagas por la plataforma de Moodle?	6.2	8	8
49. ¿Cuando necesitas comunicarte con la coordinación de la maestría es más común que lo hagas por Whatsapp?	5.9	10	7.5
50. ¿Cuando necesitas comunicarte con la coordinación de la maestría es más común que lo hagas físicamente en la coordinación?	3.8	0	2.5

Fuente: Elaboración propia

Students consider the MDC program very good. Most believe that it is very appropriate for the semester to be divided into two parts, taking two subjects in the first part and two in the second part.

Regarding the structure, they perceive the subjects taught as adequate and they think that the master's page is very good, since it is easy to find the information they are looking for.

Regarding the operating mechanisms and technological resources that the program uses to teach the subjects, as well as the interactivity, they believe that the Moodle platform is very good, as is the Adobe Connect program for conducting videoconferences, since it is

accessible to review assignments, upload them, clarify doubts, communicate with teachers and colleagues, and make any request.

Likewise, they consider the didactic-methodological resources adequate, although a deficit has been detected in several students to be self-taught.

Regarding accessibility, the most common is that they enter the Moodle platform and the weekly videoconferences from their work, although they also do it (but less frequently) from home, and even less from other places such as the bus station, the airport, an event, etc.

Concerning the flexibility of the times, knowing the period they have (one week) to deliver jobs and tasks, the most common is that they do them at night during the week, followed by weekends and less frequently in the evening hours between week, and even less in the morning hours during the week.

Regarding the time they have to carry out weekly activities, they consider it regular, which denotes a certain lack of planning and organization. In terms of accessibility for video conference schedules, the average is good, as they are regularly held on Thursdays or Fridays after 6:00 p.m. m. Also, when most students have trouble attending, the teacher agrees to change the time and / or day.

In relation to the incorporation of the resources used by teachers to transfer knowledge, to consult material and bibliography, to motivate self-taught learning and to stimulate research, they are considered as good and very good.

Regarding collaborative activities, they think that teachers encourage them on a regular basis. However (according to the testimony that some students have given in a particular way), sometimes in teamwork only one person does all the work, so they believe that it is not an adequate strategy.

Regarding communication, a very good communication has been detected between the group, either to resolve doubts about the tasks, general doubts or to agree on a proposal or request. In this sense, WhatsApp is the most widely used medium, while the Moodle platform and videoconferences seem more appropriate for communication with teachers.

Finally, it is more useful for them that the communications of the master's coordination are sent by email. In fact, this resource seems to be the most suitable for contacting said instance, and to a lesser extent by WhatsApp or personally.

Discussion

Based on the information collected, it can be affirmed that a good performance of the MDC program was identified, with a level of student satisfaction that ranged between good and very good; However, some areas of opportunity were also detected, such as establishing strategies to contribute to the development of students' self-learning skills.

Regarding the organization, although they gave it a very good rating - since they indicated that the time they have for the delivery of works and tasks and to attend the videoconferences is between fair and good - a new strategy has been proposed in terms of to the planning of the courses. In this sense, from the 2019-2020 semester, students will study one subject at a time intensively, since it is considered that in this way it will be easier to focus efforts on a single subject.

For greater flexibility in relation to videoconferences, these are recorded so that they can later be seen by those who have not been able to attend or to reinforce knowledge.

In relation to the tool used for video conferencing, it is considered that Adobe Connect can be improved or replaced by a less expensive and more computer-friendly tool.

Regarding the communication student-coordination of the MDC (even when using the Moodle platform, videoconferencing and chats, as well as e-mail), some students still opt for the telephone. This shows the lack of adaptation to the use of the most used technologies in the virtual modality; However, we must also bear in mind that the age range of the master's students is very wide, ranging from 27 years to more than 40 years, the latter being those that have taken a little more to get used to the resources implemented technology.

Regarding didactic and technological materials, a training meeting is held each semester with the aim of continuing to improve, detect faults and seek solutions.

Finally, regarding the administrative processes in all stages (from enrollment to graduation), the UMSNH carries them out in a traditional way, that is, the student must go in person to deliver original documents that are then digitized. Likewise, for the delivery of credentials and for the review of the file, the interested party must attend, which constitutes an obstacle. For this reason, the UMSNH must work on implementing administrative strategies to facilitate these types of procedures.

In short, it is a fact that society currently demands greater diversification of education in order to access it. In this sense, the UMSNH must be integrated into this system not to eradicate face-to-face education, but to have the capacity to offer programs to which more

people can choose, which requires substantial modifications both in administrative and academic matters.

Conclusions

From the results taught in this work, it can be concluded that the students consider that the MDC program has a good performance, with a level of satisfaction that ranges from good to very good.

Likewise, it can be indicated that the lack of adaptation to the use of the most used technologies in this modality occurs among older students, so - as an area of opportunity - communication via telephone should be improved and consideration should be given to the development of videos that explain in detail the use and application of the tools.

In addition, it has been detected that the drop-outs of students in the program are related to the lack of skills and / or attitudes to take an online program, that is, lack of organization of the time available, poor preparation to receive a self-taught education, absence reading habit, etc. To address these shortcomings, however, didactic tools can be improved, which also implies greater preparation of teachers.

On the other hand, it should be taken into account that the Internet connection in our country (an essential tool for this type of program) has many flaws, which can represent a difficult obstacle to overcome.

Even so, we can conclude that the program analyzed has great growth opportunities, with strengths and areas of opportunity that must continue to be evaluated to try to offer the best possible service. In this sense, we cannot deny that society demands a greater diversification of education, which can be achieved with online training. In this regard, keep in mind that this is a methodology that could serve to increase enrollment with a reasonable monetary investment, although this requires substantial modifications both in administrative and academic matters.

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