

Exploring challenges of online education in universities 2021-2022: Mexico-Kuwait comparative analysis**Explorando los retos de la educación en línea en las universidades 2021-2022: análisis comparativo México-Kuwait**

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Abstract

Online university education during and after the COVID-19 pandemic underwent changes that this study sought to identify the main difficulty for students and teachers that prevent detaching education with quality and university efficiency. An electronic snowball survey was applied to collect information sectioned into information on isolation, access to technology and the value of emotions in education, with a mixed methodology and a hermeneutic analysis. The relevance of a comparative analysis between Kuwait and Mexico was analyzed, with a stratified random sampling in two population groups: students and university teachers. The data collection was applied in both countries between December 2021 and January 2022. The results from 2,247 participants show that in both countries, women are more receptive and assertive to educational challenges than men. Mexico entered the virtual university process quickly without guaranteeing electronic equipment or training, while Kuwait began by training teachers, guaranteeing electronic equipment with training, and staggering schedules for different levels of education throughout the day to ensure that female teachers were at home and time was used effectively.

Online university education, Values, Efficiency, Quality**Resumen**

La educación universitaria en línea durante y después de la pandemia del COVID-19 sufrió cambios que este estudio buscó identificar la principal dificultad para estudiantes y profesores que impiden detonar una educación con calidad y eficiencia universitaria. Se aplicó una encuesta electrónica tipo bola de nieve para recolectar información seccionada en información sobre aislamiento, acceso a la tecnología y el valor de las emociones en la educación, con una metodología mixta y un análisis hermenéutico. Se analizó la pertinencia de un análisis comparativo entre Kuwait y México, con un muestreo aleatorio estratificado en dos grupos de población: estudiantes y profesores universitarios. La recolección de datos se aplicó en ambos países entre diciembre de 2021 y enero de 2022. Los resultados de 2,247 participantes muestran que en ambos países, las mujeres son más receptivas y asertivas a los retos educativos que los hombres. México entró rápidamente al proceso de la universidad virtual sin garantizar equipo electrónico ni capacitación, mientras que Kuwait comenzó capacitando a las maestras, garantizando equipo electrónico con capacitación y escalonando los horarios de los diferentes niveles educativos a lo largo del día para asegurar que las maestras estuvieran en casa y se aprovechara el tiempo de manera efectiva.

Enseñanza universitaria en línea, Valores, Eficacia, Calidad

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Introduction

Two years after the COVID-19 epidemic and its variants, nations implemented measures to protect their populations, among them, the first measure was the suspension of face-to-face classes, forcing the migration of face-to-face education to distance or online education. This highlighted the first difficulties in not having the skills and competencies of the teaching teams and the students often lacking not only the skills, but also the optimal tools, knowledge and skills for their use and remote application, as well as the stable connectivity to stay online continuously without failures.

As a consequence of the above, UNICEF in its report 2021 on the subject of education points out that "the progress of education worldwide has been set back a decade due to the closure of schools". In the specific case of universities, the dropout rate reaches 49%, which represents a loss of social capital in preparation for their entry into working life, since students also drop out in advanced semesters.

Currently, not knowing clearly the root difficulties of online education leads to face a generation of students to various dilemmas such as: to continue or not with the professional preparation, to seek alternative income in the short term and perhaps with better results than professional life, to remain isolated and lonely in front of the comfort of connectivity but thereby losing the ability of real social contact. These dilemmas demand from higher education institutions an emerging transformation that two years later they still do not end up realizing, and not only that, now they return to traditional processes condemning their processes to failure before generations "Z" and "Alpha" who are not willing to return to conventional methods, on the contrary they demand greater digitization and exponential progress in educational processes overcoming borders, not only in the connection, but in the exchange, contact and why not: in their physical migration to any part around the world.

Given this cognitive need, this research was conducted in a first exploratory stage in the master's degree in international graduate studies at the Universidad Azteca with a bilateral context Mexico-Kuwait. It is worth mentioning that this research arises from deep academic reflections to identify and transform subjects and their contents, while the virtual classes are offered from Mexico with nine hours of difference with Kuwait during the holidays and face-to-face in Mexico. Despite the differences between the two countries: cultural, institutional, religious and social organization, they share very similar needs and cultural essences, especially in the role of women students and teachers, as analyzed in the results of this study.

State of the Art

Several studies emerge to analyze in a multidisciplinary and multifactorial way the difficulties of online education in post-COVID periods and its variants. From issues of apparent simplicity such as scheduling of class schedules (face-to-face, virtual and blended), university entrance exams, chronological evaluations, advising, tutoring, scheduling and planning of courses, laboratories and trainings, meetings, seminars, stays, exchanges, breaks and vacations of teachers and students, to the lack of metaheuristic techniques, moments of tension and conflict, dropout and desertion. The most accurate state of the art on the subject is presented by Ceschia et. al (2022) where the review of ninety-seven specialized documents shows how the reality of university education currently exceeds all previous metrics in the face of the challenges of optimization and restrictions, in the face of high efficiency and results by applying more with less. Karimi-Mamaghan et.al. (2022) present another state of the art where they point out the challenges to advance in the use of automatic learning techniques in metaheuristics whose objective is to improve performance with convergence solutions and maximum optimization of material and human resources.

Papers such as that of García-Morales et. al. (2021) stand out, which delve into the radical transformations that universities around the world are undergoing due to the need to digitize educational training processes in record time, in the face of teaching teams lacking technological capabilities and tools for online teaching. They contribute to the debate to synthesize technological resources and digitalized methodologies to overcome the educational crisis in the face of the disruption caused by COVID-19 and subsequent diseases. An interesting contribution on the perspective of teachers and their experiences is analyzed by Kruszewska et. al (2022) where difficulties are transformed into opportunities and where cooperation is a fundamental element. Finally Stewart & Lowenthal (2021) report on a case study with fifteen international students in Korea during the pandemic, highlighting above technological difficulties the importance of social contact versus isolation and loneliness. The latter coincides with the analyses, dilemmas and results of the present study, which have an impact on recognizing that in addition to scientific difficulties, disruptive technological advances and the need to optimize resources with complex methodologies, social contact and the need for emotional management when making decisions are fundamental.

An exploratory search was carried out in the repository of the intelligo platform with the SciELO.org search engine with the words: online university education, COVID and Mexico. What was found was the scientific production of 15 sources of information: 4 related to health, 7 on agronomic topics and biodiversity, 1 on geographic research, 1 on region and society, 1 on social studies and only 1 on educational profiles. Below is the map with the clusters and nodes associated with the scientific production of topics and subtopics.

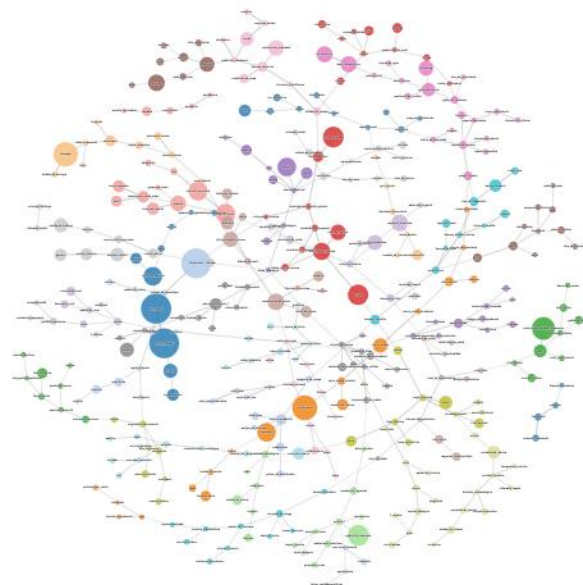
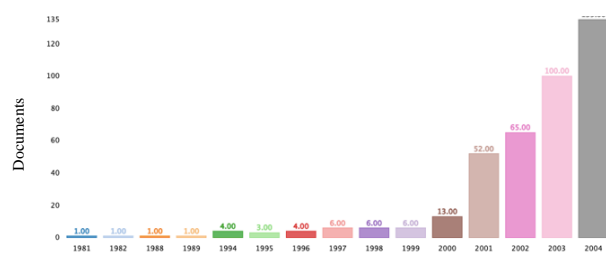


Figure 1 Network Map 1. First scientific information search in Intelligo Mexico-Kuwait: online university education, COVID, Mexico Kuwait

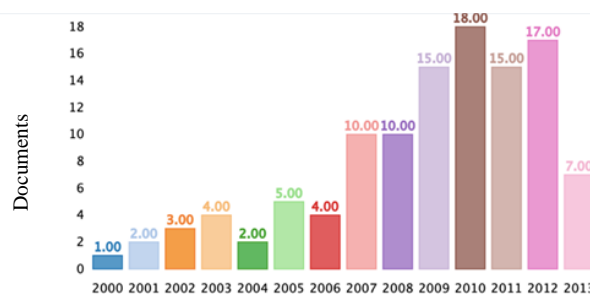
Source: own elaboration with Intelligo platform

With respect to scientific production, the following graph shows the production that focuses on journals and documents on a multidisciplinary range of topics more associated with health and does not fall under the weight of education until 2004 in the case of Mexico since 1992 until 2004 total production of, and until 2013 in the case of Kuwait. The following graphs show on the left Mexico and on the right the results for Kuwait.



Graphic 1 México scientific production on Online university education

Source: Own elaboration with Intelligo platform. Electronic consult, last consult 12 May 20:11 hrs.



Graphic 2 Kuwait scientific production on Online university education

Source: Own elaboration with Intelligo platform. Electronic consult, last consult 12 May 20:11 hrs.

Value added

The importance of this study has two direct impacts:

1. Public and private university institutions to accurately direct their reengineering strategies, transformation and conversion of planning, schedules, careers, incentives, evaluations, inclusion and extracurricular linkage, thus maximizing their tangible and intangible resources and optimizing two critical variables: time and money.
2. Students, teachers, counselors, evaluators, directors, tutors, grandmothers, grandmothers, fathers and mothers linked to the hope of quality education to form full persons, capable of facing global challenges in an intelligently assertive way from recognizing their vulnerability and their transforming potential in three essential elements: values, family, life commitment.

The main objective was to explore and detect the difficulties of distance education with university teachers and students in Mexico and Kuwait in order to identify the factors that impede educational quality and efficiency.

Methodology, method and instrument of work

The mixed methodology applied in this research star with next hypotheses:

The main difficulty of distance education with teachers and students to detonate educational quality and efficiency in universities is the emotional spirit over technological, economic and institutional problems.

Mixed methodology consisted of designing, validating and applying a mixed questionnaire: ten closed questions and three open questions. Taking into account the conditions of confinement, the whole process was developed online: institutional contacts with cooperating universities in Kuwait and Mexico, as well as the links between peers allowed the socialization of the questionnaire link through the "snowball" technique whose only conditions were: to be a student or university professor and to respond.

The application of the questionnaire began in December 2020 and closed in January 2021. The collection of information closed with two thousand two hundred and forty seven questionnaires answered between both nations by students and teachers of the main public and private universities.

The analysis began with the delimitation of the topic, followed by a sweep of information between both nations and at a global level, concluding with determining the relevance and practical usefulness of the topic. The principal question for this research was:

What is the main difficulty of distance education with teachers and students to detonate educational quality and efficiency in universities?

In the process, the following research questions emerged, which reflect the concerns inside and outside this research, because of the dialogue with peers on the subject:

Is it the lack of emotional support and time face to face for university students that gives disinterest in studies, career, friends and family?

Is it the lack of TIC's, platforms and virtual tools training for teachers that gives rise to educational inefficiency?

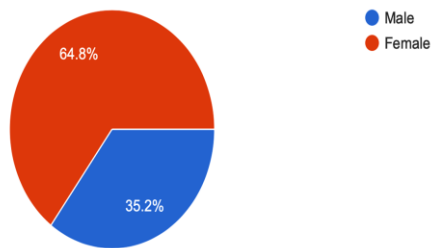
What is the value of emotions in students and teachers to not only maintain but advance in the achievement of personal and professional goals?

The hermeneutic technique was applied for the analysis of the electronic information, the analysis of basic descriptive statistics for the results of the questionnaire in the first questions, and the qualitative analysis of the narratives of the answers to the last three questions. In addition to institutional and economic contexts, two fundamental elements were added to this study: cultural and religious environment. Finally, contact was made by telephone or video call with key informants, who were previously selected for the value of their open-ended responses and who agreed to answer the call or video call. With all this information, the results presented below were obtained.

Results

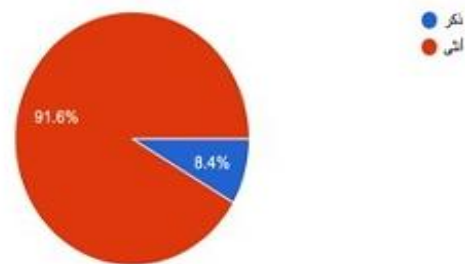
The answers of 2,247 participants start to analyze who are they, next graph shows the people who participate giving us information. In both countries, the majority of respondents were female teachers and young female students who answered the data collection instrument. From this first result it can be said that women are more receptive to the topic of education than men: students and teachers. Regarding age, respondents in Mexico were between 18 and 24 years of age, which suggests that 64.8% of the respondents were students, in contrast to Kuwait, where 91.6% the age range was 35 years and older, inferring that they were teachers. In this sense, the analysis is oriented to information from students in Mexico and teachers in Kuwait.

Gender:
640 responses



Mexico

الجنس:
1,606 responses



Kuwait

Graphic 3 Gender comparison between participants
Source: Own elaboration

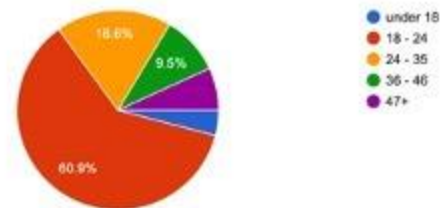
Teachers in Kuwait are mostly women who responded that they are more comfortable with distance education from home as they do not have to spend time and money. This situation coincides with the position of teachers in Mexico. In contrast with the response of students in Mexico who responded that online education was acceptable, this is due to the fact that this is a population of adolescents whose personal development is outside the home, and that confinement was not comfortable for them.

العمر:
1,606 responses



Kuwait

Age:
640 responses



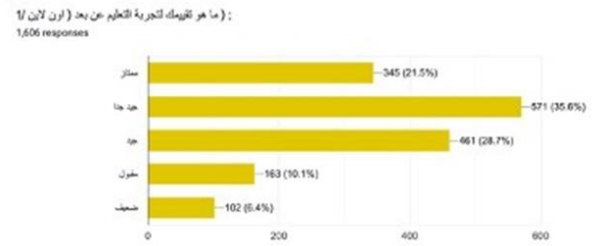
Mexico

Graphic 2 Ages of participants

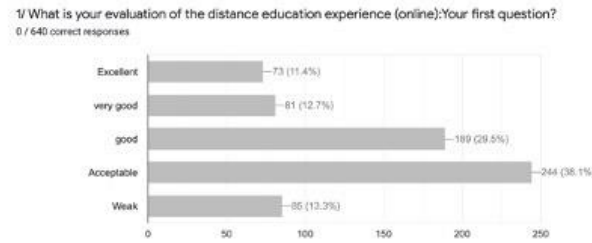
Considering the mayor participants were women teachers in Kuwait, students mix in México, about countries participants answer because the education topic is of their interest. The questionnaire is voluntary tool for answer from the experience, position and experience with online education on pandemic time 2020 to 2022. At he begin the national context was analyzed to México and Kuwait, interesting and principals differences were identify as shows the next table.

Kuwait		México	
Before online education was an option for short courses of a specific subject or area of knowledge, it has a cost and it is only for adults, not everyone has access due to internet access problems.		Before online education was open free of charge for rural areas, for literacy and education of older adults, complete online careers of the National Autonomous University of Mexico.	
COVID-19 2020-2022			
(+)	(-)	(+)	(-)
95% of families with internet access.	Incremental cost of internet with the pandemic.	82% of families with internet access.	Fixed internet cost but connectivity problems.
Government gives different schedules by educational level:	There are still men's universities and women's universities.	Government orders to enter online education in March 2020 to all educational levels without distinction of schedules or previous training to teachers.	Mixed universities but with high levels of violence, harassment and sexual harassment.
Elementary school 3 to 4 pm. Most of the moms are teachers or are working, at this time they return home and there is always someone with attention to the school children.	Kuwait starts online classes in September 2020.	Teachers buy their electronic equipment to work.	Mexico went online in March 2020.
All schools have trained teachers both in person and online to teach online classes.	Families had to buy more than 1 computer.	Students receive support to obtain a tablet.	Families got tablet support but of short duration.
Teachers buy their own electronic equipment to work.	Online class schedules at universities flexible, but with strict restrictions for personal meetings. Teenage students open to online communication but closed to face-to-face communication.	National online libraries are opened free of charge for the entire population.	Online class schedules in universities all day, impacting the mood of university teenagers for not being able to go out. Modification of closed behaviors and introverted people to talk about their emotions.
Kuwait has no college dropouts in public education because the schools were flexible.	Government postpones school fee payments in the first 6 months of 2020 to match technology at home.	June 2022: All universities are with face-to-face education and only 15% with online education for special cases.	Government does not reduce fees or give payment extensions on school fees since public education in Mexico is free
June 2022. 90% of university students are attending university in person and have resumed their daily life.		Universities and Technological Universities are working with the implementation of action protocols to eradicate all forms of violence, harassment and sexual harassment against university women.	In Mexico, university public education dropouts are due to the economic crisis where students must start working.

Table 1 Comparative online education experience: México & Kuwait
Source: Own elaboration



Graphic 4



Graphic 5

Finally, the following key excerpts from the testimonies of 5 female teachers interviewed illustrate and reinforce the conclusions offered at the end:

"I suffered from seeing my depressed students trying to help without being a surrogate mother, ... they wanted to talk about their fears, about not being able to see the person they had fallen in love with, ... about the violence between father and mother fighting ... about their personal changes and their friends ... about their loneliness.... By talking I achieved empathy to move them to a proactive attitude, with a positive attitude and to become aware of their responsibility towards themselves. To the girls to take care of themselves and not to show themselves openly to others to avoid problems or major cybercrimes, but to fight for their first places for their skills and intelligence, especially in the hard sciences."

Source: Interview professor 04 MX.

"I live alone and many times I was afraid of catching, more than COVID of the negative energy of classmates and students due to their lack of control in the face of loneliness, pressure and affective need.... I had a good time, I was able to read the books I had long wanted to read for pleasure, paint or write. I do believe that male teachers have a hard time because they are always looking for someone to solve everything on their own".

Source: Interview professor 04 MX.

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To the Universidad Azteca for its support, especially to the Founding Rector; Dr José Agustín López González Pacheco.

To the Kuwaiti embassy in Mexico for their valuable cooperation.

Finally we dedicate this article to our sons and daughters:

- Samuel Trueba-Monsalvo
- Khadejah Alkhurainej
- Balqees Alkhurainej

Conclusiones

The main difficulty of distance education with teachers and students to detonate educational quality and efficiency in universities. Online education have to continue as a strategic tool for university education in order to open frontiers.

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