

Towards Multimedia Education at UAM-A

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How to cite this paper: Caldelas, F. R. R., & Álvarez, M. A. M. (2024). Towards Multimedia Education at UAM-A. *Open Journal of Social Sciences*, 12, 131-147.

<https://doi.org/10.4236/jss.2024.127010>

Received: May 10, 2024

Accepted: July 12, 2024

Published: July 15, 2024

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Abstract

After the COVID-19 pandemic caused by the SARS-CoV-2 coronavirus, many professors created a variety of materials to teach their classes, including Zoom presentations, classroom lectures, PowerPoint presentations, and video collections. These materials were valuable, and the academics did not intend to send them to a repository of materials. With the return to face-to-face activities, more professors are using their own equipment. The objective of this text is to describe the current situation up to the beginning of 2023 at UAM-Azcapotzalco in terms of equipment distribution and some other issues. First, we reflect on modernity, as well as the use of the computer. Secondly, this text outlines three distinct pedagogical stages at the UAM-A: at the beginning of the pandemic, at the return to the classroom and towards a mixed proposal; these pedagogical proposals have already been applied and the last one that is in the pilot phase. This paper discusses the use of technology in the classroom, the current state of affairs, and the institutional efforts to provide infrastructure for teachers and students across different Divisions. The teachers are divided into three general types after the pandemic and finally we describe some issues that can hardly be resolved arising from the use of technology.

Keywords

Multimedia Classroom, Education and Pandemic, Technology in the University

1. Introduction

Since the beginning of the coronavirus SARS-CoV2 (COVID-19) pandemic, a number of teachers have created a wide variety of materials to teach their classes in Zoom, classroom, made presentations in programs such as PowerPoint, collected videos and carefully edited them, transformed their studies or bedrooms into places of material production or into small laboratories; later, at the end of

the pandemic, they had to return to the classrooms.

Upon their return, they recognized the value of the materials and determined that it would be unwise to send them to a repository¹ for semi-independent learning. Similarly, they recognized that the classrooms were not adequately equipped to utilize such materials, so they have invested in their own equipment to enhance the scale of understanding in their classes.

The UAM Azcapotzalco campus (UAM-A) is analyzed as a case study. The objective of this text is to provide a general description of the existing equipment situation in the Azcapotzalco campus with regard to the use of multimedia equipment in the classroom. In this context, it is first necessary to reflect on the meaning of modernity and to provide a brief description of the use of computers. Secondly, three distinct educational stages at UAM-A are referenced. PEER, PROTEMM, and PROPAAE: PEER corresponds to the beginning of the pandemic, PROTEMM concerns the return to classes with a mixed proposal for teaching one class per week of each subject remotely; educational proposals that were implemented and point to the last one as an example. The PROPAAE program is currently in the pilot phase. In this setting, the modernization of technology in the classroom, the current situation, and the institutional efforts at the level of general infrastructure with which it provides teachers and students of the unit in different sites² are discussed. The teaching body is perceptibly classified into three general categories following the pandemic. Finally, some issues that are difficult to resolve due to the use of technology are presented.

2. Understanding the Term Modern

The etymological root of the word modern refers to its origin in the Latin word “modernus”, which in turn comes from “mode”, and it indicates that something is happening in the present. Since the 14th century and especially before the Renaissance, it has been used to indicate that something is current or recent. (*Diccionario Etimológico Castellano Moderno, 2024*).

Historically, modern refers to that which is in accordance with the present time, that which is not yet part of the mediate past and which could be said to be in vogue. Modern ideas or customs are those that break with what was hitherto believed or tradition.

In contrast, modernity is a historical period distinguished by profound changes in various domains, including infrastructure, technology, the perspective of perceiving a new reality, haute couture, design, music, and clothing. Since the 1960s, the hippie social movement has played a pivotal role in shaping the collective consciousness, fostering a consumer sentiment towards products, a vast appetite for the modern, the novel, and the ephemeral (Depeche Mode),

¹Since the teachers mostly privilege in-person education.

²It should be noted that the figures and numbers presented in this text may not be entirely accurate due to the decommissioning of equipment, the repair of equipment, the remodeling of spaces, the presence of stock in the warehouse, and the difficulty of verifying reality on paper in contrast to observable reality.

while simultaneously denigrating the past. This has led to the intensified ascension of youth culture in various domains.

In essence, the modern is the antithesis of the old, that which is already obsolete and was once modern (*Diccionario de la Lengua Española, 2024*), given that everything is contingent upon the passage of time. What is perceived as modern today will inevitably become obsolete in the near future, as new developments emerge to supersede it. The concept of modernity can be understood in relation to accelerated industrial or technological development and epistemology, which is the study of science and knowledge. The study of these two concepts allows us to gain insight into the evolution of both knowledge and subjectivity in different historical and cultural contexts, which are currently influenced by marketing manipulation.

In light of the ever-evolving landscape of technology and its integration into the classroom, a gradual evolution of modernity in educational settings and the utilization of diverse devices has been observed over the past several decades. With respect to the nexus between teaching and learning, this technological advancement has consistently been perceived as a catalyst for both the advancement of modernity and the advent of a novel approach to learning.

It is worth doing a little object archeology to understand how this myth was created. Originally the term “personal computer” appeared in print in *The New York Times on November 3rd, 1962*, which according to the minutes issued at a meeting of the American Institute of Industrial Engineers. John William Mauchly noted, “There is no reason to suppose that the average boy, or girl, could not own a personal computer.” It certainly took decades for that dream to become a reality.

The personal computer was first introduced in the 1970s. Companies such as Apple, IBM, and Microsoft played a fundamental role in the development of both hardware and software, thereby giving the modern computer its distinctive form. The Apple I and II personal computers were already established in the collective consciousness as the archetype of what is commonly understood as a personal computer.

At that time, the mere possession of a computer prompted a multitude of interpretations. It was commonly believed that individuals who owned such devices were wealthy, that both the device and the user were intelligent, and that they were familiar with mathematical concepts. Consequently, there was a great deal of apprehension about interacting with computers, due to the possibility of damaging them or appearing foolish³.

From this premise, multimedia education⁴ has been taken as an almost mythical point of arrival, as if it were the wonderful philosopher’s stone of the alchemists that transformed any metal into gold and cured all kinds of diseases. In

³This techno-phobia is still observed in certain older people who could not be able to dedicate the time to learn and practice what they wanted to get from the multiple potentialities of this machine.

⁴Strengthened by the learning to learn approach, constructivism and taking the student and his independent management as a central focus.

recent years, multimedia has become a viable option in various contexts and economic settings, serving as a didactic resource. Its use in teaching and learning has become a near-universal requirement in educational institutions, particularly those with a reputation for excellence⁵.

Since the 1990s, with the advent of the Internet, there has been a great deal of discussion about the potential impact of information technologies and the development of various multimedia components in the form of software that could be used as tools for communication in the classroom. At all educational levels, institutions have sought to leverage the advantages and possibilities offered by these resources to enhance their teaching-learning processes.

PEER, PROTEMM and PROPAAE: A Teaching Continuity at UAM-AZCAPOTZALCO

In December 2019, the SARS-CoV2 Coronavirus (COVID-19) emerged in China, subsequently spreading globally and precipitating the first pandemic of the 21st century. In light of the circumstances, UNESCO called upon the highest educational authorities to devise creative solutions to ensure the continuity of student education. This entailed the utilization of all available institutional capacities and various resources, including information and communication technologies. In essence, it was evident that the interruption of education was untenable and that efforts should be made to enhance efficiency to the greatest extent possible (UAM, 2020).

In light of the unprecedented situation, the Universidad Autónoma Metropolitana (UAM) approved the Emerging Remote Education Project (PEER) with the objective of ensuring the continuity of university education and the continuation of the University's core functions, including teaching, research, and the dissemination of science and culture. Despite the closure of the facilities, the University remained operational (Ibid) (Table 1).

Secure access to information and communication technologies (ICTs) was established. The technological platforms and options proposed were designed to provide, to a certain extent, privacy protection, data security, technical assistance, and institutional formalization. The various units had already established technological infrastructure, which was further reinforced through PEER. This infrastructure was extended to encompass the university units and academic divisions (Ibid).

Two years after its emergence, the SARS-CoV-2 virus (COVID-19) had become less prevalent, prompting the authorities to relax some sanitary restrictions. Consequently, the Mixed Modality Teaching Transition Program (PROTEMM) was approved at the 500th session of the UAM's collegiate body. In this context, the five university units will offer and teach teaching-learning units (UEA) in a face-to-face mode, in accordance with the approved study plans and programs. In certain instances, the divisional councils were able to determine

⁵It would seem that learning takes place by osmosis just from being in contact with a keyboard and a screen.

Table 1. The platforms and options proposed during the pandemic for the use of technologies.

Group: Basic		
Communication	Storage	Creation of tasks
E-mail	Hard disc	Office automation
Social Networking	E-mail	
Group: Medium		
Communication	Storage	Creation of tasks
Collaboration forums	In the cloud	Office automation
Audio conferencing		
Group: Advanced		
Communication	Storage	Creation of tasks
Virtual platform	Virtual platform Others decided by the teacher	Office automation
(Moodle, Sakai, Classroom)		Virtual library (BiDi)
Video conferencing		Web Publishing
Others decided by the teacher		Others decided by the teacher

that certain UEAs would be programmed in a mixed and hybrid mode⁶ (UAM, 2021).

In the event that students are unable to attend in person for extraordinary reasons, the coordinating departments will consider the matter. If necessary, the divisional councils will then consider scheduling mixed and hybrid mode options. The academic staff were grateful for the university's support in attending academic activities in any modality. (Ibid)

In our estimation, the PROTEMM initiative represented an effort to firmly integrate hybrid teaching methodologies⁷, which included one online session per week and the remainder as one or two face-to-face classes. The CAMVIA platform was employed to accommodate the disparate configurations of virtual classrooms devised by individual teachers, which included exercises, videos, and tasks (UAM, 2022: p.2). For some teachers, this platform served as a support⁸, while for others, it functioned as an ad hoc space for following up on classes and observing a light follow-up. However, the precise manner in which the evaluation process was carried out remains unclear. This represents a spectrum of flexibility for the student body that is opaque and difficult to assess.

It is in this context that the Universidad Autónoma de México (UAM) Azcapotzalco is able to comprehend the various scenarios that may arise in the event of an unforeseen health crisis. At the end of April 2022, the Academic College

⁶The term "mixed or hybrid mode" refers to a teaching approach that combines in-person and online learning. In this approach, the virtual classroom serves as a support for the classes, and the content can be completed synchronously or asynchronously. This approach optimizes time and facilitates independent learning, while experimental activities are conducted in person, alternating with others at home or using simulators.

⁷In order to avoid contagions.

⁸In a good didactic collection of exercises.

recommended that the relevance of taking advantage of the learning and experiences derived from PEER and PROTEMM be analyzed with the purpose of promoting the necessary changes for the innovation and strengthening of current study plans and programs. In addition, the creation of alternative study plans and programs, tailored to the local and national context of higher education, is encouraged⁹ (Ibid).

In accordance with the provisions of the 2024 Annual School Programming Criteria, which were approved on February 1st, 2024, by the Divisional Council of Social Sciences and Humanities (DCSH) in its session No. 634, the Pilot Program for Student Support to Improve the Academic Career Path (PROPAE) is hereby initiated. The aforementioned objectives are aimed at maintaining quality through innovation in teaching practice¹⁰ (UAM, 2023).

In this sense, each Division: Engineering Sciences (CBI), Sciences and Arts of Design (CYAD) and Social Sciences and Humanities (CSH) divisions will rely as much as possible on the CAMVIA platform as an alternative solution to address the unit's long-standing challenges, including the lack of classrooms, crowded schedules at certain critical hours from 10 am to 1 pm, and the inefficient use of space in the classrooms (Ibid). This includes small classrooms that are often overcrowded with students, or conversely, large classrooms with few students taking classes. In other words, classrooms of varying sizes and configurations are observed, with some containing a large number of students seated on the floor, while others are much larger with a smaller number of students.

3. The State of Things

Now, in 2024, after 60 years of development of a cyberculture¹¹ around the computer and with the explosion of knowledge that constitutes the Internet, the broad panorama of what is happening positively becomes almost impossible to narrate in a single article. The development of machines interconnected in networks amplifies the work of human thought with its peers. The computer has contributed to the creation of educational theories for implementation in school environments, such as the cognitive approach, the learning to learn approach and the cognitive theory of multimedia learning¹².

In those 60 years, a wide variety of programming languages, platforms, devices, screens, and applications have been created; each component promotes a particular advancement through privilege:

⁹Resolution 509.5, approved in Session No. 509 of the Academic College, held on April 27, 2022.

¹⁰...the Coordination of Innovation and Educational Technologies of the Azcapotzalco Unit, invites the academic staff to take advantage and benefit from digital tools such as the CAMVIA platform, in order to enhance virtual spaces and their application.

¹¹It is a neologism that combines the word culture and the prefix cyber, in relation to cybernetics, as well as things related to virtual reality. It is the information and communication technologies that have created a great revolution in the way information is accessed, appropriated and transmitted, generating new educational, social, political and economic developments (Kerckhove, 1999).

¹²Without dismissing all the contributions of learning theories not mentioned since Plato, Skinner, Vygotsky and Piaget. Likewise, the importance of the central figure of the teacher or facilitator in the theory of multimedia learning is emphasized.

- The two most widely used information platforms are both Apple and Microsoft and, to a lesser extent, other operating systems such as Linux, Unix, Chrome Os, etc., in which all types of software that the user needs or wants will be inserted¹³.
- The processing speed, that is, the speed of turning it on and off with a lot of information stored and multiple programs loaded, which gives us operational speed.
- Multitasking, given that when a person works on the computer they can have several programs on and operating, it is possible to work on an image retouching or design, at the same time listening to radio music over the Internet, and reading texts and researching bibliography to make a schoolwork or research.
- Interconnectivity between multiple devices.
- The vast storage given that we are increasingly capable of storing more and more information.
- Admissible applications.
- The protection of our data through programs designed to protect computers from cyber viruses.

It could be said that there are many positive things thanks to the mythical object that is a computer, but on the negative side, this way of conceptualizing the modern world inscribed in a digital culture has several undesirable aspects to varying degrees, such as:

- The digital divide understood by Cabero (2014) as a term which alludes to the inequality between people with respect to the possibilities in terms of access, quality, use and training both in their role as consumers or producers of information and communication technologies called "ICT"¹⁴.
- The price of updated licenses for both Mac and Windows platforms, as well as Adobe and Office software, updates, and all the other necessary software makes it very difficult to have the desired or ideal performance.
- The same can be said for the monthly cost of an Internet connection at home.
- Due to the current economic conditions, many students do not have a dedicated space to study at home, the usual is to have a shared bedroom or use the dining room table to do homework.
- The most mundane use of a computer has become an ideal companion for leisure, for frivolous interaction in multiple social networks, for erotic fantasy, for braking news, for musical rapture, consequently, an algorithm emerges that companies develop from our data of age, nationality, internet browsing and tastes; with them they project a marketing of news, commercials and notes that absorb a considerable amount of time.

¹³Including Linux on personal computers, which is a free open source alternative.

¹⁴This inequality is related to aspects such as: geographical location, economy, society, culture, age, gender, etc., that is, a direct consequence of social differences that limit the possibilities of the individual, whether at the social or personal level.

- Software updates.
- The programmed obsolescence of computer equipment.

It is commendable to note that despite all these factors, public universities have taken extraordinary measures to provide computerized spaces to their students to improve their performance, in the case of UAM Azcapotzalco, where we can observe the creation, adaptation and underutilization of these virtual environments.

4. Technological Enabling of Institutional Multimedia Spaces

Clearly, the Computer Center of UAM-A¹⁵, known as Building T, stands out as the greatest institutional effort for students who lack equipment to be able to do their school work; it is a vast space located on the second floor called John Von Newman Room, which is composed of 350 computers distributed for the work of students of the three divisions (CYAD; CBI and CSH), contains 64 Mac-Apple computer machines for CYAD students and 296 PC computer machines equipped with Windows, which are used for mass testing of various subjects as well as for foreign language placement exams and survey voting (**Image 1**).

The first level of the facility contains two computerized rooms for CBI students, each with a flat layout. The second level comprises three computerized rooms, two of which are programmed by reservation only according to the number of attendees, with a flat layout. The third room is of a stadium type and is designed to accommodate 36 attendees (**Image 2**).

All of the above-mentioned classrooms have air conditioning, videoconferencing equipment and a 60-inch flat screen for videoconferencing, as well as a motorized retractable screen. In short, they are equipped computerized classrooms reserved for students to carry out their work and to take classes in this



Image 1. The computer center with personal computers.

¹⁵Located behind the cafeteria and next to the COSEI Library.



Image 2. Stadium-type classroom in building T.

environment. Secondly, the L building for Design Arts and Sciences is a notable feature. In 2010, the CYAD Division made a prudent decision to transition the teaching of Design towards a multimedia environment, while maintaining the central importance of the teacher. It was necessary to provide training for teaching staff in the use of technology in the classroom, with a particular focus on the Industrial Design and Architecture faculty, in order to enable them to create ad hoc materials for their students.

The architectural layout of the L building consists of two levels and a central section in the upper part, which houses the four undergraduate departments and other administrative offices. The first level of the L building comprises 30 classrooms, all equipped with projectors, speakers, retractable screens and blinds. Of these, only 13 have obsolete computers. Two multimedia computer rooms with 25 new computers serve as computerized classrooms for students to acquire the necessary knowledge to integrate into the digital modernity in their specialty. In this manner, specialized software such as AutoCAD, Illustrator, and Rhinoceros, among others, is taught in these spaces on the first level of the L building (**Image 3(a)** and **Image 3(b)**).

The second level of Building L comprises 23 classrooms, with half of these equipped with projectors, retractable screens, and speakers, while the other half are equipped with TV monitors and speakers. Furthermore, there are three additional rooms: Room C1, which contains 28 desktop computers; Room C2, which has 30 laptops (one of which is damaged physically); and Room C3, which contains 28 Macintosh computers (**Image 4**).

Although the preceding observations appear to be beneficial in the context of institutional discourse, it is important to acknowledge that computers deteriorate rapidly (within a period of three to four years), the speakers are of a relatively small size, they do not emit high-quality sound, the screens are utilized for

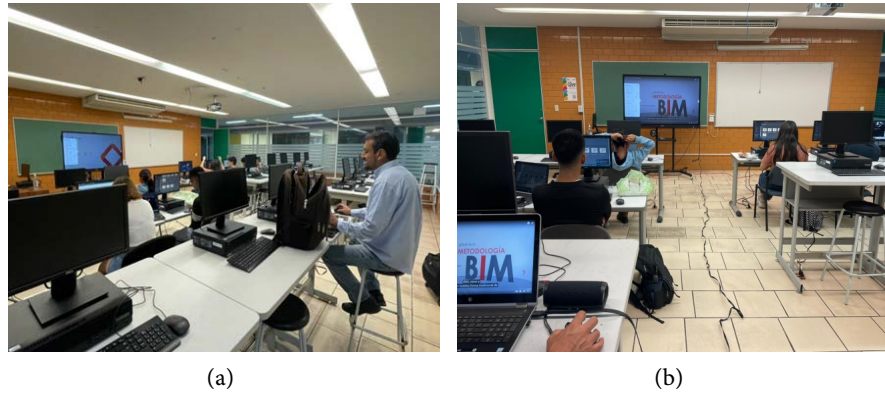


Image 3. (a) and (b) Multimedia classrooms to learn the use of specialized software, in Building L.



Image 4. Classrooms with flat-screen monitors in building L.

the projection of PowerPoint presentations or movies, and connecting to the Internet is a challenging process. It is worth noting that each room in the L building is equipped with security code badges (powered by batteries) to prevent equipment theft. These unfortunate incidents have occurred despite the implementation of various preventive measures.

However, from the perspective of pedagogical praxis, the architectural distribution of the equipment in the classrooms is anomalous. The monitor is situated at a distance of approximately three meters from the screen on the shortest side of the parallelepiped. This configuration has the effect of reducing the visual field of the room, which is disadvantageous for students and teachers alike. It is also less convenient for the teacher to move towards the blackboard on the longest side of the room to provide clarification, exemplification, or relevant explanation. For students, the necessity to constantly turn and rearrange themselves is a significant source of discomfort (**Image 5(a)** and **Image 5(b)**).



Image 5. (a) and (b) Misplaced location of retractable screen and projector in the classroom.

Building B comprises 36 classrooms distributed across the three upper levels (12 per floor). Each classroom is equipped with 31 installed devices, although some of these are already somewhat outdated. In some cases, the projector is stored in a box with a key and a small control panel, allowing it to be connected to a computer with a VGA cable. This enables the user to operate both the retractable screen and the projector simultaneously.

It is notable to establish that Building B houses large classrooms, which are not entirely utilized. Humanities classes and the core curriculum of CSH subjects are taught in these classrooms, as well as law, sociology, and engineering subjects. However, the professors do not utilize the equipment in these classrooms, with the exception of those who teach history subjects. Only a few professors use the equipment, and they often bring their own equipment, as they must bring their laptop and connector cable to the panel (**Images 6-8**).

In Building C, the following must be emphasized, only the Foreign Language Resource Center has two multimedia rooms, one with 25 computers for students and one for the teacher, and the other with 15 computers for general student use, in addition to CAILE, which has 35 computers. It should be noted that some of the equipment was damaged during the pandemic, so the rooms are gradually being readapted and rehabilitated (**Images 9(a)-(c)**).

In addition, the Resource Center has three classrooms with screens for teaching. Building D has classrooms with computers and projectors for the Design graduate program and the CSH graduate program. Building E has only two multimedia rooms with computers, but it appears that they are for CBI use only. Building K consists of 3 multimedia rooms and 2 other rooms with projector and retractable screen installation.

In general terms, the multimedia equipment of UAM Azcapotzalco unit can be visualized in the following floor plan (**Figure 1**).

As illustrated in the above floor plan, the Azcapotzalco campus has partially multimedia equipment in some of its buildings, including: B, C, D, E, and K. In contrast, the Computer Center and Building L are fully equipped for multimedia classes.



Image 6. Control panel for projector and retractable screen.



Image 7. Projector mounted on ceiling.



Image 8. A class using equipment in building B.



(a)



(b)



(c)

Image 9. (a)-(c) Spaces for foreign language practice, multimedia classroom, and classroom, in Building C.

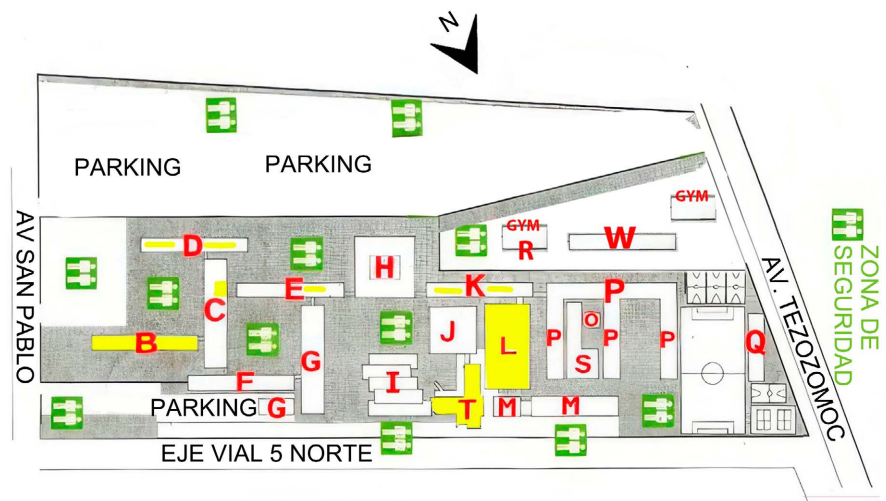


Figure 1. Buildings in yellow with multimedia equipment at UAM Azcapotzalco campus.

5. The Professorate after the Pandemic

Despite the fact that the Universidad Autónoma Metropolitana has been concerned about assigning courses for the teaching staff to be qualified for the tasks

that the academic cybersociety demands and that, “on paper” in some way, most of the professors in “institutional” terms have already been trained.

In reality, there are several types of teachers in the academic sphere:

- First, teachers who show a broad mastery of new technologies, i.e. those applicable to their specialty, and others, who make up a smaller group.
- Secondly, those who claim to be skilled but are not gifted in other areas, whose knowledge is only displayed in transferring simple exercises, videos to virtual classrooms and using the zoom as a video conference, who are the majority of teachers and some of them superbly promote themselves in the academic community as true experts in the field, learning enhancers, innovators in the classroom, experts in artificial intelligence and facilitators of education.
- Thirdly, a group of teachers who are modestly functional in terms of the use of ICTs and who always have to ask for help because they are not committed to this new way of learning. It should be noted very sensibly that not all generations, nor all human beings have an affinity for the use of computer tools, just as not all individuals can speak a foreign language or play a musical instrument.

When teachers returned to class, some had already prepared their materials for the pandemic and wanted to reuse them. But most of the classrooms are not equipped or the equipment is outdated, the projectors do not work in the best way, they have to be connected with cables to a control panel that is a bit outdated, the existing wireless network is not powerful enough and there are not enough power sockets¹⁶ in some classrooms.

There are other teachers who bring their own projector, laptop, speakers, and extension, and it becomes a ritual of unpacking, plugging in, unplugging, powering up, powering down, and storing the equipment for each class, losing 10 to 15 minutes that ultimately add up to hours of very valuable instruction. This is without adding the movement of desks necessary to place the projector on a flat surface at the appropriate distance for projection.

However, in various texts, it is constantly mentioned that the problem of multimedia teaching turns out to be the teachers. Cabero (2014: 22-23) mentions that students surpass teachers in technological mastery, the teacher feels insecure in front of students in these areas and can sometimes appear incompetent, they are not updated on the latest versions of the software and its use.

In this student-teacher relationship, the student becomes a very selective consumer because he knows that only in the cell phone there is a small computer and he has access to many videos presented by the teacher via Internet. The same is the case when the teacher (and the student in silence) just reads slides loaded with text and it becomes a very boring class and they don't even take notes because they just take pictures of whatever is projected. More worrisome comments from students are about virtual classrooms, where they say that they

¹⁶It is unfortunate that some power sockets are stolen or vandalized.

do not even know their teacher visually and that evaluations turn out to be more lax than in face-to-face courses.

This vision projects a greater challenge for the teacher, he has not only to present slides, complete movies, interactive exercises, but also has to encourage the development of knowledge and social interactions; and that these tasks are derived from a projection of the core contents of the subjects and that he must remain vigilant to ensure that the classroom climate is respectful, pleasant, and that the attention process is not lost.

6. Situations with No Solution

From our point of view, regardless of the quality of the equipment that the university has, the excessive manipulation of the equipment by the students will quickly have consequences for them, because each computer works a little differently, and the students are not properly trained to maneuver the equipment properly. In the same way, every time a student inserts a USB flash drive into a computer, it can serve as a virus agent from home, from an Internet cafe, or from any other place, and therefore the equipment is affected. Another situation is that, from the moment the student and the teacher prepare their respective equipment for the class, there is a period of waiting for everything and everyone to be ready. This is a period of time that is lost in each class. Similarly, the equipment must be turned off, the materials collected, and the blackboard erased.

In some computer classrooms, the assistance of a technician is necessary to resolve any technical issues that may arise. Sometimes in the case of connecting to the network, it can be a significant challenge. For instance, during a graduate class, three laptops were used to connect for approximately 20 minutes for a teleconference Zoom session. In order to utilize technology effectively in the classroom, professors must purchase cables, speakers, adapters, projectors, and laptops. They must also hope that their equipment will not malfunction or suffer any loss of functionality.

7. Conclusion

In the general eagerness to identify a responsible party to account for unsatisfactory educational outcomes, it appears that all parties involved are quick to point the finger at one another, whether it be students at other students or at teachers, teachers at themselves or at their academic or political struggles, or at the inadequacies of secondary education. Some others blame the institutions and their teaching methods, whether traditional or technology-oriented.

At this time, a number of sensitive issues are being discussed in academic circles, including bullying, victimization, invisibilization, school harassment, gender violence, and the role of technology in the classroom. It is likely that each of these issues will require decades to find the most appropriate and kindest ways of resolution.

It is important to recognize that distance education, self-managed courses, blended courses, and virtual classrooms represent viable alternatives to traditional educational models to a certain extent. These alternatives require a specific type of student with certain unique characteristics, as well as a very correspondingly dedicated teacher. However, those of us who support these alternatives believe that technology cannot fully replicate the benefits of traditional classroom learning, including the positive socialization that occurs in a physical setting, the constructive engagement with ideas in a dynamic environment, and the unpredictable and enriching experiences that can occur in a classroom setting.

This illustrates the existence of educators who embrace the use of multimedia with great enthusiasm, and those who remain wedded to the traditional pedagogical methods of the blackboard, textbook, and rote knowledge transmission. This assertion does not imply that teachers are unsuccessful in any form of instruction.

The technology is there and will not be removed from the classroom. It is beneficial to utilize it, but not for every class or for the entire class. It is not uncommon for students to experience academic indigestion when viewing or reading uninteresting PowerPoint presentations or entire movies for only 10 minutes of the core content. The UAM is making a commendable effort to integrate technological means of education. However, the most significant challenge facing higher education is not the acquisition of equipment, but the maintenance and updating of electronic equipment in the context of a limited budget and the size of the student body and faculty.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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