

Transitioning from face-to-face classes to emergency remote learning

Transición de clases presenciales a aprendizaje remoto asistido

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Abstract

The COVID-19 pandemic forced higher education institutions to pivot their traditional face-to-face teaching to emergency remote teaching (ERT), causing a shift in delivery modalities. Recent studies have described ERT's existing experiences as an emerging transitioning methodological alternative to comply with the social distancing and safety guidelines stipulated globally. This research study merges data from two sources in a convergent parallel mixed method design. Thus, the study presents a systematization of the action plan undergone by the faculty authorities of Universidad Nacional of Costa Rica and a follow-up trace analysis of newcomer's experiences in the Bachelor major in English Teaching as a Foreign Language (BA TEFL) at the school of Literature and Language Sciences (ELCL, Spanish initials) during the first term of 2020. Results evince the students' experience in tech possibilities, electronic device ownership, and healthy, economic, social, or physical learning setting issues. Lastly, the researchers propose an empathetic design thinking further research study to determine where to integrate technology at the BA TEFL major.

Keywords: COVID-19 pandemic, face-to-face teaching, emergency remote teaching, newcomer students' experiences, higher education

Resumen

La pandemia de COVID-19 obligó a las instituciones de educación superior a cambiar la modalidad de enseñanza tradicional presencial a la remota asistida con herramientas tecnológicas. Estudios recientes han descrito las experiencias existentes de la enseñanza remota asistida como una alternativa metodológica de transición emergente para cumplir con los lineamientos de distanciamiento social y seguridad estipulados a nivel mundial. Este estudio fusiona datos de dos fuentes por medio de una metodología paralela convergente y mixta. Se presenta una sistematización del plan de acción por parte de las autoridades docentes de la Universidad Nacional de Costa Rica y un análisis de seguimiento de las experiencias de los estudiantes de primer año de la carrera de Bachillerato en la Enseñanza del Inglés como Lengua Extranjera durante el primer ciclo 2020. Los resultados evidencian la experiencia de los estudiantes en cuanto a sus posibilidades tecnológicas, dispositivos electrónicos que cuenta para conectarse y los salientes problemas en los ámbitos de la salud, la economía, lo social o del espacio físico de aprendizaje. Por último, los investigadores proponen un estudio de investigación empático adicional basado en el modelo de *design thinking* para la integración de herramientas y recursos tecnológicos en la carrera.

Palabras clave: pandemia COVID-19, enseñanza presencial, enseñanza remota asistida de emergencia, experiencias de los estudiantes de primer año, educación superior

Introduction

Life is a changing process, whether humans or natural events cause it. Like in any area in this evolving world, education has been in constant adaptation in one way or another. Alfred North Whitehead, philosopher, and educator foresaw this concept in his essay *Aims of Education* (1967), stating that education is a temporal and growing process in which subjects and students advance progressively. Whitehead's assumption entails that education moves with the different global world circumstances and re-directs its goals and teaching methods towards a suitable system for the giv-

en conditions. The current worldwide events caused by the new pandemic outbreak caused by the novel coronavirus COVID-19 (Sars CoV 2) make scholars' academic lifestyles lopsided with adjustments and changes.

In late 2019 and early 2020, COVID-19 became an all-too-familiar worldwide part of people's everyday life. With the world facing this pandemic, there were restrictions implemented by each countries' local governments. In Costa Rica, the pandemic broke out in March after confirming the first case of a doctor from Alajuela who returned from Panamá infected and spreading the virus among relatives and coworkers (Cordero, 2020). Next, on March 1st,

a couple of New Yorkers visited the country, and one of them carried the virus, leveling up the cases and spreading it around (Ávalos, 2020). Shortly afterward, these first cases tested positive, the Costa Rican government and the Ministry of Health mandated and started a national prevention campaign that, among other controls, ordered the temporary closing of public and private schools by the executive order 42227 signed on March 16th, 2020 (Presidencia, 2020).

Additionally, national higher education institutions opted for alternatives to implement contingency plans. Whitehead (1967) foreseen that education needs to readjust its curriculum following the changing world. In this line, all of a sudden, the Costa Rican educational institutions replaced the traditional face-to-face teaching modality, also known as an in-person teaching modality, to virtual or emergency remote teaching (ERT) to keep teaching and to offer their courses.

Regarding the shift in modality due to the COVID-19 pandemic, the Universidad Nacional of Costa Rica (UNA) decided to implement emergency remote teaching (ERT) to observe the governmental executive order of social distancing and follow the safety guidelines during the rest of the first school term (from April 13th to June 13th). To comply with the new restrictions, the university executed an adjustment plan to ease the transition to remote learning for two weeks (March 23rd-April 5th):

1. The COVID-19 institutional committee designed a survey to interview students via email to know about their internet access, quality of connectivity range, and type of electronic devices available.
2. The Department of Information and Communication Technology (DTIC, initials in Spanish) offered optional online training to students and professors who needed to learn how to set up video conferencing accounts, learn how to use the virtual classroom, do online lesson planning, and receive/give synchronous and asynchronous lessons.
3. The university authorities sorted out remedial plans to reach vulnerable students who reported poor internet connectivity or no availability for electronic tools.

Based on the actions taken by UNA in this unusual situation, this paper serves two purposes. First, to systematize the data collected from the institutional instrument to gather information regarding students' tech possibilities and conditions. Second, to carry out a follow-up trace study on which the authors aim to identify the experiences to accomplish e-learning of freshmen students in the Bachelor major in Teaching English as a Foreign Language (henceforth BA TEFL). This BA belongs to the School of Literature and Language Sciences (ELCL, initials in Spanish) and the Faculty of Philosophy and Letters at Universidad Nacional of Costa Rica.

Literature Review

Introduction

Adapting to the "new normal," which unlike online courses implemented after a long stage of pre-planning and curricular design, ERT emerged as an alternative transitioning methodological change from an in-person teaching environment to an online/distance delivery mode done within a timeframe allotted by university committee leadership, but most importantly for students, faculty, and staff safety. Therefore, as stated by the World Health Organization (WHO):

2020 will be remembered as a pivotal year in human history. Never in living memory has a virus held the entire world captive in such a manner. The pandemic has revealed to us both the depths of human vulnerability and the strength of human resilience. (2020, p. ii)

As a result, teaching and learning in times of crisis due to the COVID-19 has become an unexpected challenge in higher education and other sectors in our society. As this pandemic has completely changed lifestyles since the social distance was mandated, many universities and institutions opted for ERT. Consequently, many educators were involved in adapting themselves to planning and adjusting their courses into a range of virtual learning environments as a feasible solution worldwide. Online distance education has marked and scaffolded the nurture of this new way of teaching and learning. The purpose of this literature review is to analyze existing experiences

on ERT that colleges or universities in other parts of the world have adopted as a result of COVID-19.

Critical Review

Globally there has been an echo regarding the fact "that COVID-19 is a virus that is here to stay, at least until a safe vaccine or effective treatments become available." (WHO, 2020, p. vi). Consequently, pedagogical methodologies shifted since the first reported case in Wuhan city in Hubei province, China (WHO, 2020, p.3) was diagnosed in December 2019. As for this study's focus on BA TEFL students, it is imperative to state that, fortunately, complementing the teaching and learning processes with technological tools is not a new trend, nor is online/distance education. To illustrate, Elkeles et al. (2014) signposted the "knowledge broadcast model," referring mainly to slideshow presentations, as the initial customary technological resource for instruction in the early 1990s. Following this, learning management systems (LMS) arose as learning platforms to deliver online learning and document materials and resources in combination with face-to-face classes (Yaron, 2019). Likewise, in the 2000s, e-learning proliferated since language instruction initiated the implementation of virtual classrooms, video streaming, social networks, mobile learning, and game-based learning as innovative and enhancing teaching aid resource tools (Hung, 2012). Continuing within this area of supporting the teaching processes in a narrow preparation window and limiting transmission of the virus, Hogdes et al. (2020) discussed that shifting from in-person environments to online settings

is a complex transition because "typical planning, preparation, and development time for a fully online university course takes six to nine months before the course is delivered. Faculty are usually more comfortable teaching online by the second or third iteration of their online courses" (paragraph 13).

On the other hand, ERT snowballed a contextualized solution in which distance and online education delivery modes aided education. Examples of these modes include mobile learning, interactive videoconferencing, web-based courses (MOOC), LMS, blended learning, hybrid learning, flipped learning, and other forms of integrating technology into people's lives (Elkeles et al., 2014). As a result, experiences among colleges and universities from different parts of the world addressed opportunities as different alternatives for students learning continuance during this pandemic.

The researchers conducted a review of these "journeys" of different higher education institutions (HEIs) to situate and measure the disruption and impact of COVID-19 on higher education worldwide. The following boards of education were active protagonists of this massive study: the International Association of Universities (IAU), the Institute of International Education (IIE) in the USA, the European Association for International Education (EAIE), and the Erasmus Student Network (ESN) in Europe (Marinoni et al., 2020). China was the first country to start with the mandated social distance measurements during these challenging times. Consequently, in response to the call and to support these institutions, the Republic of China, Ministry of Education (MoE, 2020a) stated that colleges

and universities should "ensure the progress and quality of teaching during the epidemic prevention and control period, and realize [the emphasis on] 'stopping classes without stopping teaching, and closing classes without stopping school'" (para. 3). These last phrases are also known by UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED) as the "Disrupted classes, Undisrupted Learning" initiative of the Chinese MoE (Huang, R.H. et al., 2020, Statement page). Besides, this MoE requested and recommended: "22 online platforms that approximately provided 24,000 higher education courses free of charge, covering 12 disciplines at undergraduate level and 18 disciplines at higher vocational education level" (MoE, 2020b). As part of all the changes that China made during the emergency, the Australian Government, Department of Education, Skills and Employment (2020) reported that "on April 10 also consolidated English Language materials provided by universities in China and launch and English language online education platform to support students around the world" (para. 13). Based on the Chinese experience, Huang, R.H. et al. (2020) shared that:

online education should effectively support 'Disrupted Classes, Undisrupted Learning' according to the following seven factors: (a) reliable communication infrastructure, (b) suitable digital learning resources, (c) friendly learning tools, (d) effective learning methods, (e) instructional organizations, (f) effective support services for teachers and learners, and, (g) close

cooperation between Governments, Enterprises and Schools (G-E-S cooperation). (p. 13)

This Chinese experience noted that "all universities should rely on telecourses to provide learning experiences for those in remote areas without Internet or without cable TV" (Huang, R.H. et al., 2020, p. 40). However, these factors can be addressed depending on society and culture to contextualize and enrich the learning processes.

Continuing with a representation of the Asian continent, the Republic of South Korea had universities such as "the Korea University in Seoul that have provided week-long seminars for all faculty members to successfully live-stream classes, pre-record lectures and teach students through online platforms. Staff members have also been 'forced' to come up with innovative ways to carry out administrative tasks in response to the changing times" (Hong, 2000, paragraph 9 - 10). Furthermore, the government expanded public infrastructure to support millions of students by increasing e-learning platforms' capacity (Kalenzi et al., 2020). Besides these significant changes based on the IAU – COVID 19 Global Impact Survey, Marinoni et al. (2020) reported that in Europe, Africa, and Asia & Pacific (which were the regions that had more representation based on the number of replies) the survey allowed identifying HEIs mainly three "interconnected dimensions that impact the feasibility and quality of the distance learning provided, namely: a) technical infrastructure and accessibility, b) distance learning competences and pedagogies, and c) the field of study" (p.24). Technical infrastructure

and accessibility marked two different trends: regions could not move to online teaching and learning because they do not have access to the internet from home; that was the case of Africa and low-and middle-income countries. However, those regions with better accessibility emphasized that they did not have the technical infrastructure to optimize this shift. As mentioned by the same authors, "some referred to the financial implications of investing in tools and online licenses" (Marinoni et al., 2020, p. 25). As a result of this first-dimension analysis, the IAU – COVID 19 Global Impact Survey reflected that not necessarily all students could complete their academic year for accessibility problems. Leading to the next dimension regarding Distance learning competences and pedagogies, Marinoni et al. (2020) reported that "the level of readiness or preparedness of teachers to lift this challenge is very diverse...it is reported to be still better than providing no education" (p. 25). As revealed by some institutions, this shift often "...resulted in 'learning by doing' approaches or attempting to imitate what would have been the face-to-face way of proceeding yet using distance mode" (Marinoni et al., 2020, p. 25). Lastly, this study's third dimension deals with how every discipline varies from one to another. That is the case of labs in medicine courses, orchestra courses in a Music major, among others, and their maintenance of the quality of the learning experience will depend very much on the current social distancing context, which relies on uncertainty and the change of the delivery mode.

Moving to the USA and Latin America, the panorama of ERT has its

similarities and minor variants compared to the different contexts in other areas of the world. The Institute of International Education (IIE) from the US studied the effects of coronavirus on their country. They reported that around March 13, 2020, "U.S. higher education institutions decided to end in-person instruction, moving student engagement to virtual communication" (Martel, 2020, p. 2). Consequently, by the time this second report was made, "over 93% [of the HEIs] created a website for students and staff, providing updates on COVID-19" (Martel, 2020, p. 4). Similarly, with Asia, Europe, and some African countries, institutions in U.S.A. also reported how they helped faculty and students adapt with technical assistance, deliver webinars, and train on conducting ERT. "Approximately 51% adapted asynchronous learning options for students in other time zones. Over 74% of institutions altered their grading policies (e.g., moving to pass/fail, universal pass)" (Martel, 2020, p. 4). This last, in other words, means that a "universal pass" became a type of pass/no record policy in which students will not receive traditional letter grades (e.g., A+, A, A-, B+, B, etc.); instead, they will receive grades represented as: pass, incomplete or no-record. It prevents students during this pandemic from failing any of their classes. Martel (2020) also reported that if some students or faculty needed arrangements with their internet services or hardware loans, they would temporarily give them solutions.

As the case of Latin American countries, the Institute for Higher Education in Latin America and the Caribbean (2020) (IESALC-UNESCO, initials in Spanish) is promoting a regional

reflection project on the role of universities facing the current health crisis, especially emphasizing the lifestyle and study conditions of millions of students who abruptly entered unplanned emergency remote learning courses. It also affects students' daily lives, bill expenses, but more importantly, in the development of their learning skills, college life, and in/out mobility. Another issue is the case of faculty members in some Latin regions who unfortunately had temporary work suspension because some universities did not have continuity strategies during the pandemic.

Consequently, during March 2020, this temporary closure [of campuses] affected approximately 23.4 million students and 1.4 million faculty members in Latin America and the Caribbean, representing more than 98% of the population in HEIs affected in the region (IESALC, 2020). As a result, aspects of inequality reflected in Latin America and Caribbean regions were the consequence after seeing in the student population these three priorities that emerged after the pandemic started: 1) Internet connectivity, 2) financial issues, and 3) difficulties in maintaining the regular course schedule or study habits (IESALC-UNESCO, 2020). These concerns reflected, for example, the fact that students who were studying abroad approximately more than 260,000 students have signed a formal petition to the English government to have a significant portion of the tuition amount refunded because students consider that the online teaching being proposed to them is not worth the cost of annual tuition which is, on average, 9,250 pounds annually (IESALC-UNESCO, 2020).

Besides these aspects, a paradox that was in the discussion by IESALC-UNESCO was the fact that the statistics from 2018 revealed household connectivity rates, for example, Chile (with the highest) and Bolivia (with the lowest), and on the other hand, mobile line rates were too high and, in many cases, exceeded the number of one line per person, as shown by IESALC-UNESCO (2020) “Costa Rica had the highest rates and Cuba the lowest rates” (p.21). Significantly, this exposes an opportunity for HEIs to take advantage of, focusing their efforts on technology solutions and content to use on mobile devices.

Based on the previous information, the most noticeable impact was how faculty and students coped with the uncertainty of the continuity under ERT's modality. At least in theory and politically, virtual education is present in most HEIs worldwide, and it is difficult to find a university or college without a virtual campus or virtual classroom (e.g., an LMS as Moodle or another as the case of the use of Microsoft Teams or Google Classroom as virtual classrooms) for each course offered as an extension (or virtual component-complement) of the physical classroom.

Accordingly, this literature review section includes discussions of studies in which scholars agreed that in various countries, each professor's use in his or her virtual class would in practice depend on a large extent on his or her ability to continue updating, contextualizing, and renovating his or her ways of teaching. Nonetheless, the disciplines that seek to develop of skills through practice, for example, field practicums in areas such as medicine, teaching, design, engineering,

experimental sciences, and others, generate more significant uncertainty in these ERT settings affecting each HEI. Even though many Latin American and Caribbean colleges and universities have taken adjusting actions in their education programs to comply with variability in quality and completion rates, other HEIs, located in remote rural areas reported not having efficient internet or even essential connectivity services; that is the case of Argentina, Bolivia, Colombia, and Peru, whose students have returned to their homes and confronted worse connectivity conditions to the ones they used to have when living near their university campuses or dorms (IESALC-UNESCO, 2020).

In general, there is disaffection with the ERT modality in Latin America, the Caribbean, and other parts of the globe, because its content was not designed within a distance higher and online education. Additionally, students' expectations regarding enrollment were different from the beginning; for example, in a face-to-face course, social elements are naturally included to accompany the learning experience, which is not present in ERT settings and as part of the interactive and non-verbal modes. Simultaneously, online and ERT courses genuinely require more outstanding discipline and commitment on the student's part. In other words, course schedules or study habits must be imperative. Researchers from the IESALC-UNESCO (2020) mentioned that graduate students compared to undergraduate or vulnerable ones had more success in coping with the challenges that ERT presented to them in terms of access to the internet, technological skills, emotional intelligence, and learning

skills in general because they had previous opportunities for interaction in areas such as the ones offered in a university campus or sometimes in a job where they could strengthen those social, emotional and cognitive skills. For these reasons, distance online education should nurture the design and demand of this new learning setting where principles can be set as there were set for virtual campuses, for example, to facilitate a quality online course Boud and Prosser (as cited in Bennett et al., 2006) mentioned that an outstanding learning design must:

- Engage learners by considering their prior knowledge and desires, and build on their expectations;
- Acknowledge the learning context by considering how the implementation of the learning design is located within the broader program of study;
- Challenge learners through active participation, encouraging them to be self-critical and to go beyond what is provided, and
- Provide practice by encouraging learners to articulate and demonstrate to themselves and their peers what they are learning. (p. 109)

Using these principles, HEIs programs and faculty can create consciously online setting environments for their courses.

Summary and Interpretation

Overall, after this literature review, what became apparent were the examples of educational planning in HEIs in which, in times of crises, pedagogical scenarios required creative

problem-solving. New needs for learners, faculty, and staff emerged, and they had to be met by various delivery modes, methods, and media. Thus, this shift to ERT required faculty to take more control and extra effort to design, develop, and implement processes. Even though it was a rapid approach, faculty and students needed to adapt, try out, and adjust over time to cope as much as possible and as much as they could during difficult times. This flexibility in the process positioned ERT as a viable option to emphasize the teaching and learning moments of a course and those moments where both students and professors need to stay in tune and communicate to achieve a more functional transition from face-to-face learning to this type of mode. It is imperative to mention that to foresee what impact the change of teaching and learning modalities can have in the medium- and long-term period for students can take years or less according to the stakeholder's perspectives. All will depend on analyzing what has happened globally and how the return entirely to in-person learning should take tremendous advantage of the opportunities offered by the technologies used during this pandemic.

The transition from face-to-face to ERT was not for everyone. Paradigms of learning to some students were moved as the case for those who were not computer literate and lacked the discipline and time management skills that generally are important when taking an ERT course or even an online course. There is no doubt that many disciplines were able to convert face-to-face instruction into ERT instruction. However, the success depended on the professor's vision in adapting traditional

classroom practice on the web according to his or her group particularities. These rapid changes in pedagogies demonstrated that faculty members had adaptability to redirecting their courses towards a "new learning era" mentioned by UNESCO General Director Audrey Azoulay (UNESCO, 2020, Timestamp 0:14). As a result, education boards worldwide are encouraging HEIs to approach a self-reflection and assessment on the practices done during the pandemic to achieve and polish what is being offered to students to have a more functional continuity either to a future ERT setting or new face-to-face realities.

Methodological Review

Context and Participants

The researchers conducted this study during the first semester of the academic year 2020 at the Universidad Nacional of Costa Rica (UNA), Omar Dengo campus. The academic year consists of two academic terms of 17 weeks each. UNA is one of five public universities in the country whose main campus, Omar Dengo, is located in the province of Heredia. The university offers a Bachelor's major in Teaching English as a Foreign Language. This BA TEFL aims to prepare professionals who predominantly work as EFL teachers in secondary and tertiary education. The curriculum includes both language and pedagogical content courses.

According to the open-access institutional system of statistics, participants in this study came from six of the country's seven provinces, all of whom are studying English as a

foreign language. At the time of the selection, they were on week 7 during the first term of the BA TEFL. Of the 52 freshmen students, 41 come from urban and 11 from rural territories. The system classifies the age range into two main groups: the first group, which represents 55,77% of the students, are 18 or 19 years old, while the second group, 44,23% of the students, are 20 to over 23 years old (Vicerrectoría de Docencia, 2020b).

The researchers carried out the study with the 52 freshmen students of the BA TEFL enrolled in the first language course named Integrated English I. When enrolled in the major, the total number of students split into two Integrated English I groups. Integrated English I is the first language course in the BA program and the only language course offer during the first semester since the rest of the term courses are pedagogical and other typical core courses taught in Spanish. The course fosters the integration of the following macro basic language skills: listening, speaking, reading, writing, and the micro skill of grammar. The course has a schedule of 3 days a week, with 4 hours of instruction per day. Two professors co-teach the course; one focuses on listening, speaking, and reading while the other focuses on writing and grammar.

The program has an elective course called LLM447o Technological Innovation for the Teaching of English, often offered every other year during the first term of the third year because this course alternates with the other 12 elective courses. Hence, during the second term of the third year, the course DEY 468 Didactic Resources for learning English includes digital and technology resources as one of the content

areas (Bolaños et al., 2012). In other words, these are the two instances in which students receive training on the use and design of Information and Communication Technologies (ICTs) and digital resources or materials.

Method

This research study merges data from two sources in a convergent parallel mixed method design. The initial phase synthesizes an institutional contingency questionnaire numerical result about technological possibilities applied to the students' population while transitioning from face-to-face classes to ERT classes. The final phase deciphers the students' experiences transitioning the first semester during the emergency through a follow-up trace Remote Learning Experience web survey. The anticipated teaching shift to ERT aims to answer these research questions:

1. What kind of accessibility and electronic devices do students report having to receive ERT classes?
2. What types of technology tools and resources do teachers implement in the classroom?
3. How does the COVID-19 pandemic impact students' daily lives?
4. How do students perceive the unforeseen transition from face-to-face classes to ERT classes (tech tools or resources, social) to facilitate or hinder students' learning?
5. What forms of ERT resources are more valued by the students?
6. What ERT opportunities (tech tools or resources and healthy, economic, social, or physical-learning-setting issues) arise based on students' experiences?

For this study, the collected data to answer the above questions seek to explore, analyze, and systematize the freshmen students' experiences. Lastly, the researchers propose an empathetic design thinking further research study to determine where technology fits today's digital world at the BA TEFL major.

Description of the Instruments

The first instrument this investigation used was a questionnaire carried out by the university authorities. This questionnaire was applied university-wide and had information for all university instances, departments, professors, and students. However, for this study, some pertinent data facilitated by students were taken to see what they thought about transitioning into ERT classes. This data gathered information about accessibility, technological devices, changes in students' lives and educational behavior, and the opportunities ERT classes could provide. The second instrument aimed to survey the participants via an online questionnaire designed by the investigators to be applied to BA TEFL major students. This instrument consists of 11 closed and open questions; six were closed questions, and five were open ones. In addition, the questionnaire contained multiple-choice questions, rating scale questions, checklist-style questions to obtain quantitative insights, and open questions to give students the chance to express their opinion about the purpose pursued. The questions asked were intended to gather information from the BA TEFL students regarding their perspective about ERT classes vs. face-to-face classes. Also, what

changes they needed to do to receive virtual instruction, house accommodations, technological and internet accessibility, and some benefits seen while getting ERT classes.

Data Analysis

The analysis presented here stands on two stages. During the first stage, the data collected comes from an institutional questionnaire instrument designed by the COVID-19 institutional committee to identify the students' internet access possibilities, type of electronic devices available, and learning environment appropriateness. The second stage analyzes and systematizes the data collected utilizing a students' experience instrument designed by the researchers. Thirty-seven students completed the first instrument, while 45 students completed the second one.

Stage 1

As mentioned in the introduction, on March 20th, 2020, the Costa Rican government, run by the president M.Sc. Carlos Alvarado Quesada, officially declared a national emergency concerning the novel coronavirus disease (COVID-19) outbreak (Presidencia, 2020). Consequently, the UNA authorities decided to cancel in-person classes and move to remote learning classes. To do this, the university postponed classes for two weeks, from March 23rd to April 5th. During these two weeks, professors adjusted the course contents, objectives, methodology, and evaluation to promptly transition from a face-to-face class mode to an emergency remote learning class mode.

Afterward, UNA Academic Council (CONSACA, Spanish initials) appointed a select committee to design and apply a questionnaire to gather information concerning students' technological possibilities. This questionnaire collected data mainly about electronic devices ownership, access and use of technology, and internet connectivity; therefore, the aim of this instrument sought to identify students' possibilities to stay connected during the COVID-19 health emergency. The rough results of the instrument are of free access and consultation here <https://www.docencia.una.ac.cr>. The UNA faculty authorities applied the instrument to the full student community during week 7 of the semester, and 61,46% (51430) of the target population responded. The university staff with expertise in statistical analysis used the Microsoft Power Bi tool to gather and analyze the data collected (Vicerrectoría de Docencia, 2020b). The institutional electronic mail service and social media channels were the primary means to contact students. Additionally, professors and school authorities tried their best to notify and reach students by email or telephone when possible.

For this study, the target population is newcomer students of the BA TEFL. This group consists of 52 people. The questions analyzed for this study inquired about Internet connectivity and ownership of electronic devices and learning environments. The following tables 1 and 2 comprise 71.15% representing the 37 sample students out of 52 who completed the questionnaire instrument.

Table 1
Access to the Internet

Classification	# of students	%
Use a prepaid phone plan	4	10.8
Use a postpaid phone plan	2	5.4
Have wired broadband connection at home	28	75.6
Have to move to a neighbor, friend, or relative's home to access the Internet	2	5.4
Do not have access to the Internet at all	1	2.7

Note: Own elaboration based on the results of the Students' Technological Possibilities Questionnaire, Vicerrectoría de Docencia, Universidad Nacional

Table 1 classifies students' type of access to the internet into five categories: use a prepaid phone plan, use a postpaid phone plan, have wired broadband connection at home, have to move away from home, and do not have access to the internet at all. In the right-hand column, the comprise 71.1% represents the 37 sample students out of the 52 who answered the questionnaire. This 71.1% breaks down as follows: 10.8% of the students connect to

classes through prepaid phone plans contrasting with the 5.4% of students who connect to classes using a postpaid phone plan. In addition, over two-thirds of the students, 75.6, reported having wired broadband connection at home, and just a small number, 5.4%, informed having to move to a neighbor, friend, or relative's home to connect to class while 2.7% affirmed not having access to the internet at all.

Table 2
Electronic devices ownership and learning environment

Category	Yes		No	
	# of students	%	# of students	%
Electronic devices ownership	30	81.0%	7	18.9%
Appropriate learning environment	30	81.0%	7	18.9%

Note: Own elaboration based on the results of the Students' Technological Possibilities Questionnaire, Vicerrectoría de Docencia, Universidad Nacional

Table 2 shows that 81.0% of the students indicated ownership of electronic devices such as tablets or computers and that the environment where they receive remote learning classes is appropriate. Contrariwise, 18.9% of the students reported not having an electronic device or an appropriate learning environment.

From the perspective of helping students who do not have access to electronic devices, the UNA Academic Council approved reorienting the budget directed to academic intern consultants (UNA, CONSACA 2020) to help out vulnerable students under the university scholarship system. This adaptation provided students with 3,000 phone chip cards to have internet and 500 tablets for those who do not have any means to obtain the availability to reach the classes, professors, and learning materials (UNA, Comunicación, 2020). The purchase of the tablets and chip cards represented an investment of 157.000 million colones, and it is going to last as long as the pandemic endures. Needless to say, that those devices borrowed must return to the university if students do not need

them anymore or when the institution comes back to in-person instruction.

Stage 2

This stage deals with the data gathered from the survey applied to BA TEFL first-year students. There are 52 students enrolled in the two English Integrated I courses during the first semester, from which 45 of them answered the survey, a number representing 86.5% of the population. Therefore, according to survey validation standards, the survey responses are considered a statistically valid sample size (Dillman, 2000). Survey responses are broken down into more descriptive data to expand on the results and represent them in a percental means.

Question number one has a threefold purpose: to know how students saw the changes from in-person instruction to ERT due to the current pandemic. Also, it entails using the tools used to carry out the classes and, finally, unveiling the professors' preparedness toward this remote learning process. The following table summarizes these three aspects.

Table 3
Changes from face-to-face instruction to ERT

Statements	Very dissatisfied		Neutral		Very satisfied	
	#	%	#	%	#	%
Experience about the emergency route of switching from in-person learning to ERI.	14	31.1%	23	51.1%	8	17.7%
Preparedness of professors to transition from in-person classes to ERI.	17	37.7%	18	40%	10	22.2%
Technology tools used by professors are sufficient, relevant, and appropriate for the course.	30	66.6%	10	22.2%	5	11.1%

Note: Own elaboration based on Remote Learning Experience Survey, designed and applied by authors.

For question 1, participants rated the given statements based on three absolute categories: very dissatisfied, neutral, and satisfied. Related to the experience about the emergency route of switching from in-person learning to ERT, 31.1% responded to dissatisfaction, 51.1% felt to be neutral, and, lastly, 17.7% expressed total satisfaction. Concerning the professors' preparedness to transition from in-person classes to ERT, 37.7% agreed to be very dissatisfied, 40% were neutral, while 22.2% were very satisfied. Regarding rating technology tools used by professors as sufficient, relevant, and appropriate for the course, 55.5% indicated dissatisfaction, 22.2% expressed neutrality, and very few participants, 11.1%, displayed satisfaction. There is a ranking orientation towards neutrality regarding the experience during ERI switching and preparedness of professors, whereas more than half of the

students revealed discontent in terms of their professors' technology tools.

The second question intended to determine the type of delivery modality the professors used the most to carry out the classes. In this regard, 8.9% indicated receiving classes synchronously, while 91.1% inclined their answer to the delivery modality of combining synchronous and asynchronous teaching. Finally, whereas question 3 aims to discover if the professors reached them during the two-week transitioning to ERT, 84.4% (38 students) were contacted and informed about the switching process, while 15.5% (seven students) answered negatively.

Question 4 inquiries about the different technological tools used during ERT classes for this purpose, six main categories were provided with tech tools examples for students to select the ones used by their professors; figure 1 summarizes the results.

Figure 1
What type of technological tools did professors use during ERT classes?

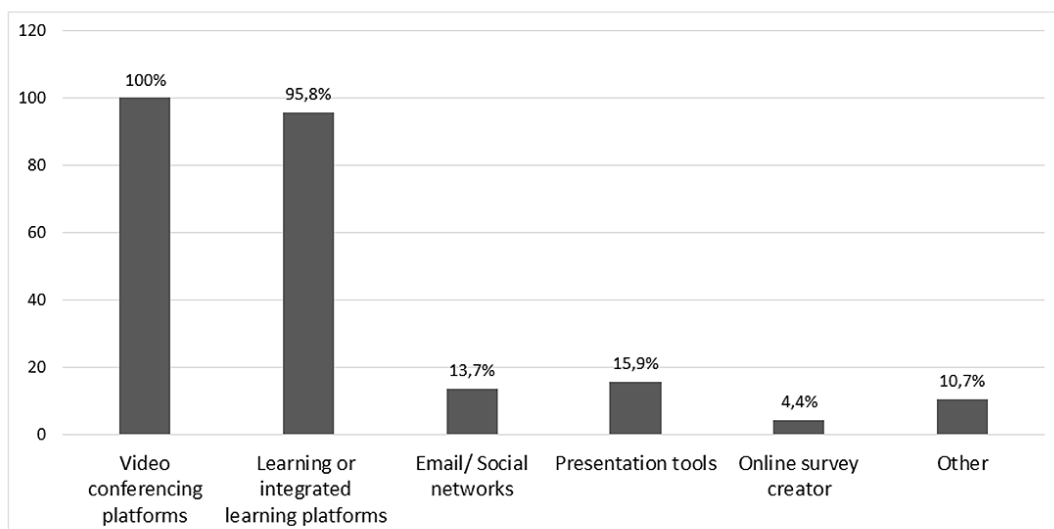


Figure 1 shows that 100% of the professors used video conferencing platforms. This percentage breaks down into the following percentages: 6% used MS teams, 90% connected through Zoom, and 4% conducted class meetings in Google Meet. Approximately three-thirds of the students emphasized Zoom as the most used means to hold ERT live classes. Moreover, 95.8% of the ERT classes used learning or integrated learning platforms for course content management. This percentage divides into four leading platforms, 33.3% corresponds to Virtual Classroom, 52.7% to MS Teams, 2.2% Edmodo, and 7.6% Google Classroom.

13.7% of communication and interaction between students and professors employed social networks or email distributed into 7% WhatsApp, 2.7% Facebook, and 4% email. Furthermore, 15.9% of the class time uses presentation tools; of this percentage, 1.0% went to Nearpod, 4.2% used Canva, and 10.7% was PowerPoint. Thus, the latter is the

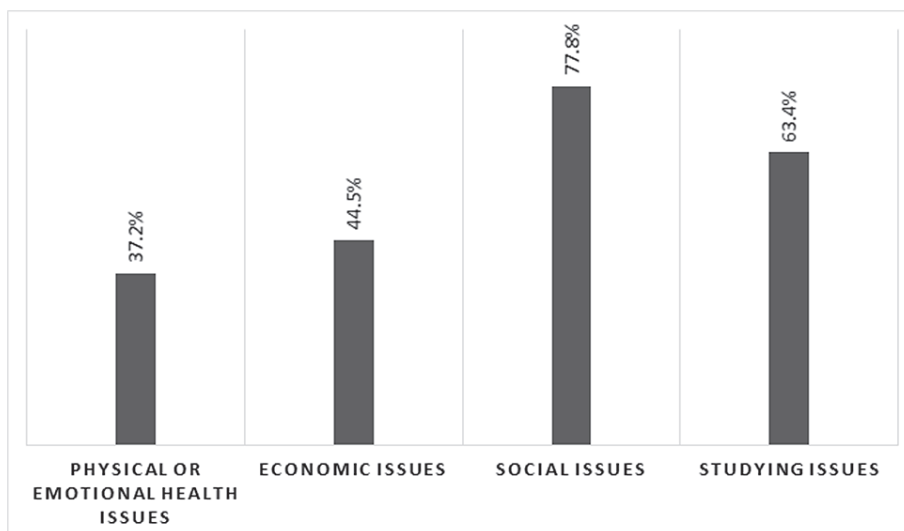
most often used to present slideshows in class. Additionally, 4.4% of students reported using Google Forms and Microsoft Forms for quizzes and exams 2,2% times, respectively. Finally, 10.7% represented other technological tools for developing and aiding instruction in class: online whiteboards 2.8%, Google Drive 1%, Mentimeter 1.0%, Kahoot 1.5%, e-books 0.5%, and YouTube 3.9%.

The open-ended fifth question asks individuals to pinpoint the two most used technological resources employed by the instructors. Though there were various resources, Zoom, email, and WhatsApp were principally underlined. Some mentioned Google Classroom, Drive, MS Teams, YouTube, and educational websites; however, these last less frequently.

Regarding the shifting from face-to-face classes to ERT students' experience and the impact that COVID-19 had on students' daily lives, figures 2 and 3 display the answers to the sixth and seventh questions.

Figure 2

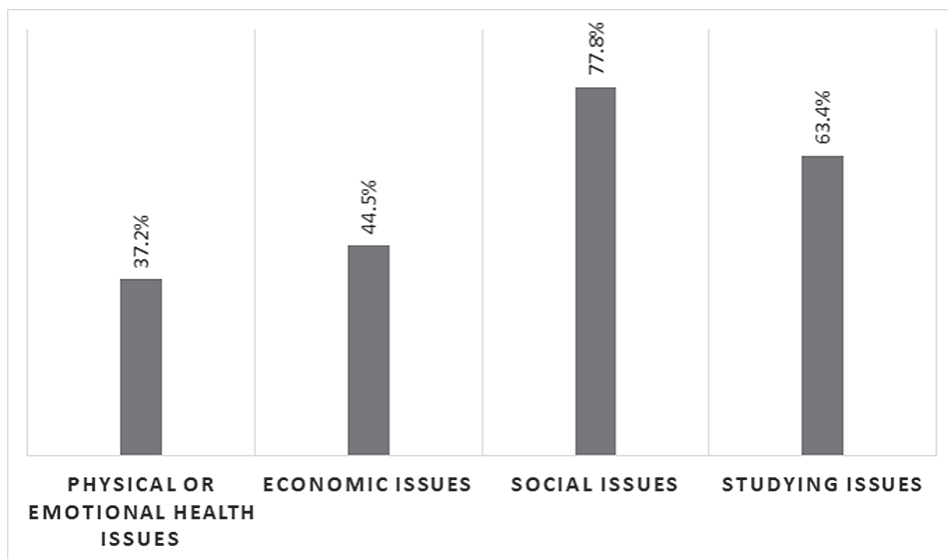
How would you describe the experience of shifting from face-to-face classes to ERT classes?



57.2% of the students experienced the shifting as difficult and abrupt, whereas 23.9% perceived it as untroubled and effortless, and lastly, 17.2% reported receiving ongoing guidance

and support from their professors to smooth the transition. Hence, the majority of the students described the experience as difficult and abrupt.

Figure 3
How have the COVID-19 pandemic impacted students' daily lives?



It is noticeable that COVID-19 lockdowns impact students' daily lives. First, they weighed up the physical or emotional health area as the less affected life issue (37.2%). Subsequently, the figure identifies economic and studying issues as somewhat affecting students, 44.6% and 63.4%, respectively. Ultimately, students recognized social issues as the most altered area of their lives (77.8%). In sum, students manifested how the pandemic has limited their social interactions among friends and relatives due to quarantine and social distancing guidelines.

In questions eighth and ninth, newcomers express their opinions about their learning process's benefits

and drawbacks through ERT. Though this questions' data serves more for the discussion section, it is relevant to single out that there is self-awareness of becoming more responsible for their learning process, time management, and difficulties accessing materials, reaching professors, and interacting in social environments. It showed the tiredness of the educational and living settings that did not change because most of them were at home.

The statistical data collected with this instrument widens the perspective of how the students live ERT during the first term of 2020, and the next section discusses the data collected.

Discussion

BA TEFL freshmen students face challenges and opportunities during the first semester of the coronavirus pandemic. The questionnaire and survey applied to the scholars revealed essential details about state-of-the-art technologies and how they perceive the shifting learning process and the taken actions on how to solve the anticipated educational matters. In addition, the institutional perception questionnaire was solved and carried out for students and instructors. For this reason, students and professors needed to take advantage of all platforms and other means available to transition and keep classes going.

Before the lockdown, teachers and students commonly used email, WhatsApp, Google Classroom, and Google Drive to share documents and communicate among teachers and students (Vargas and Gúzman, 2019). The data analysis shows that many more platforms widened the list to teach synchronously or asynchronously. Zoom's video conferencing platform came to satisfy the need for teaching remotely and synchronically among all platforms.

Second, the dynamic of face-to-face classes is one of the physical student-teacher interactions daily. Nevertheless, distance learning requires many other means to reach students. Methodologically speaking, instructors needed to use all sources of channels to get the subject matters across. Video conferencing has been the most popular one, followed by audiovisual material and social networking. Nonetheless, ERT education has exposed inequality related to internet availability.

In the open-ended questions, respondents expressed the frustration of not having good or even decent connectivity. Some of them live in rural areas where the internet is limited or needed to move to a different location to access the class. The benefits of remote learning seem to be not the same for all. Some expressed the frustration of not being able to be in class synchronously, leaving instructors to reach the pupils via other means.

Third, not only did students face challenges but also professors. Both were able to adapt to the new reality, learned to use different platforms, changed the delivery modality, methodology, or evaluation. However, it is interesting to see positive results from this new teaching experience. In the open-ended questions, some respondents said they have learned to be more autodidactic and autonomous learners, used the computer as an educational tool, improved their listening skills, acquired new computer skills, and even learned to organize time wisely. On the downside, there were some drawbacks appointed by the respondents. Some experienced more anxiety, stress, and mental exhaustion because of technological handling, learning incapability, or connectivity issues. Many articulated a pivotal point: the burden of doing several projects, tasks, assignments, and homework. In general, based on the students' additional comments, they claimed that professors had a hard time managing tech tools to assign the classroom works; thus, students grumbled at how professors bombarded them with tons of tasks to do in limited time. Working remotely requires different planning, and three-quarters of the students said that

professors did not quite get this change or are not computer literate. In other words, curriculum flexibility and instruction must vary and be distinct.

Lastly, as students and teachers were at home, the classroom became their houses. Respondents alleged that the conditions, in some cases, were not optimum. More than half of them did not have a private room or studio to be in class properly; so, they had to share their physical space with the rest of the family. Two-thirds of the students reported living close to busy traffic roads or crowded neighborhoods where silence and quietness were not part of the site, causing respondents to be distracted easily and lose concentration quickly. Moreover, a positive aspect reported is how ERT helped them save some money. For example, students stated that they stayed more at home, and by doing so, they spent less money on transportation, food, educational materials, clothing, and even socializing or entertainment.

Limitations and Further Research

Because the second stage of this study was done at the end of the first term, the vision of the students who participated was of uncertainty. Then, they wondered whether ERT courses would continue during the second semester or not. UNA faculty and university leaders had the vision to progressively come back to a face-to-face setting; these experiences cannot be generalized to all BA TEFL students. As a result, future research should also study the perceptions from students enrolled in other TEFL programs and levels, faculty members,

and administrative personnel. Thus, an empathic study between students, professors, and administrative staff can also be triangulated. The user experience of these ERT settings and, with the help of other perspectives from other external visions, help organize essential aspects of logistics can create a holistic and more objective view using the Design Thinking Approach. Based on Tim Brown (2008), the pioneer of the Design Think Approach mentioned that "many people outside professional design have a natural aptitude for design thinking, which the right development and experiences can unlock" (p. 87). For this reason, the five phases of this approach can be used to design new e-learning techniques, platforms, software, or mobile apps that can be used for more autonomous learning not only online but offline learning settings. That is why empathy (learning points of views and user needs), integrative thinking (analytical processes to come out with multiple opportunities or views), optimism (brainstorming of a creative and potential solution(s) among existing alternatives), experimentalism (posing questions to explore constraints to proceed in new directions) and collaboration (building a representation of reality(ies) with other interdisciplinary views) (Brown, 2008, p.88 - 89). In this way, the development of teaching axes with greater resilience to abrupt changes of either another pandemic or other events or situations related to natural disasters can be executed in a shorter or medium term.

Conclusions

Since the actual global scenario leads all areas into a more digitalized world to carry out businesses and daily human activities and has in mind what the technological world is denominating the 4th revolution, it is imperative to draw some conclusions from the actual data gathered in this study and align these with the research questions stated previously.

First, it is pertinent to state that neither students nor educators had the preparation to move from a face-to-face class interaction to ERT. Previous to the transition, digital contact was more a means of sharing information via mostly email and “aula virtual” (virtual classroom). After the transition, remote teaching forced instructors to utilize different platforms to reach students and allow learning. However, this change was not easy to make because some students did not have the digital conditions related to the apparatuses to carry their learning activities, as demonstrated in UNA's survey, where 18.9% of students reported not possessing a proper electronic device.

Regarding the second research question in terms and technological tools and resources, the most convenient platform was the web-based videoconferencing Zoom. Whether this one is the perfect one or not, it seems to be that up till now; Zoom is suitable to satisfy the actual needs in the teaching-learning process synchronically and in an asynchronous way. Instructors and pupils adapt quickly to the platform leading to a more interactive learning environment. In spite of the fact that Zoom is handy, respondents also mentioned using other electronic

ways such as Google Classroom, Aula virtual, MS Teams, WhatsApp, email, and even the traditional phone call.

Part of the investigation goal was to determine if the transition hindered or facilitated the learning process. To this point, there are a couple of issues to be taken into consideration. First, responders balanced the conditions where the instruction happened. Most of the participants received the classes in their houses. The findings showed that their settings were, for example, the living or dining rooms, the bedrooms, the kitchens, and, some were lucky, to have a cozier and more comfortable place to get classes and do the studying activities. However, there was a concern with interference with the learning due to the surroundings because they needed to compete with the sibling interruptions, street noise, house space, and even with domestic animals' sounds or intrusions. On the positive side, it seems to be that the transition helped students to become more autonomous learners, and autonomy is always good in any learning process.

Also, the respondents expressed their concern about not getting enough quality time from the instructors. Some wrote that some did not respond on time or at all. Some surveyed students indicated that working on projects was a nightmare, mostly because getting in contact with classmates was, sometimes, a hustle. Some students faced a very unhealthy environment in terms of noise contamination provoked by relatives, traffic, and even domestic animals.

Another germane conclusion is connectivity. Internet access is not equal to all. Some respondents could

not have the possibility to have 24/7 connectivity. There were respondents whose connection to the internet was via a phone chip in a very remote rural area where connectivity was on and off, absent or affected widely due to weather conditions. Connectivity has played a significant role in ERT, as seen in table 1; 24.3% did not directly wire internet connectivity. There is no excellent and equal remote learning if the individuals cannot have the accessibility to essential common means: internet connection.

Additional to the previous point, there is also time management. In this element, respondents were a bit divided. Some articulated that they could distribute time much better and more efficiently, whereas others the opposite. The latter uttered that they felt behind in doing the assignments, tasks, or projects even if they had a due date. These students felt they needed to contact the instructors or classmates because they were not used to having a personal agenda without others reminding them what or when to do the activities. In terms of opportunities pursued in this investigation, ERT allows students to be more independent and self-motivated to develop an educational environment that is less dependent upon direct instruction.

Another outstanding aspect pinpointed by the results is the lack of training shown by respondents in this new technological era of getting instruction via remote. As well, the respondents' perspective was that teachers lacked that too. For example, at the beginning of the transition, there was an uncomfortable moment of ERT void. Confusion and discomfort were

the initial reactions; nonetheless, providing space to reorganize the program and moving the course schedule to make the curriculum flexible to ERT helped put students and instructors at ease to continue with the learning-teaching process. Therefore, it is very relevant to see the intrinsic relationship between the data gathered from stage 1 and stage 2, where both instruments revealed that neither the university nor the students or professors were ready for such a sudden adjustment. The university made a pause for two weeks to let the administration, academic and administrative staff do the modifications, and students relocate themselves moving to their households to carry out their lives but in a very secure and protective way, taking care of their health as well.

Finally, this investigation exposes the need to create ways to help students and teachers by which both can learn more to perform better, proper, and relevant ERT instructions. This situation has put on the table this discussion. The educational institutions cannot pass this opportunity to modernize the traditional educational system. This is when educators, curricula development, technological companies, and governmental institutions must move following the 4th revolution to be ready for eventualities like COVID-19 in the future and offer a different way to see education where knowledge is there reach with a click.

In short, COVID-19 has forced daily primary human activities to be different, either by wearing a face mask or staying at home to perform the responsibilities. In other words, life has changed drastically due to COVID-19, and the educational system needed to

adjust to it, and it is still adapting to the remote instructive process. Therefore, it is overbearing to be prepared, equipped, and organized for future situations similar to COVID-19 that could oblige every educational institution, its staff, and educators to assimilate the learning-teaching process differently to a better didactical spectrum.

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