Ecuadorian and Uruguayan Teachers' Perceptions and Experiences of Teaching Online during COVID

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Ecuadorian and Uruguayan Teachers' Perceptions and Experiences of Teaching Online during COVID

Abstract

Purpose: The COVID-19 pandemic is a unique event that forced K-12 schools to rethink the delivery of instruction to protect the well-being of school system stakeholders. Teachers, school administrators, and parents had to adapt to and embrace new ways of teaching and learning by utilizing available technology. The purpose of this study was to examine the challenges encountered by in-service teachers when moving from face-to-face to online teaching.

Design/methodology/approach: This study utilized a qualitative phenomenological research methodology to examine Ecuadorian and Uruguayan teachers' perceptions and experiences transitioning from face-to-face to online teaching during the COVID-19 pandemic. This comparative study used convenience sampling to include 12 K-12 teachers from Ecuador and Uruguay.

Findings: The results of this study produced two themes that evidenced the demands placed on educators. The first theme was job demands, relating to teachers' perceptions about workload, preparation time, and curriculum issues. The second theme related to available support provided by the school administrators and technology issues faced by teachers and students. Even though the teachers demonstrated adaptability for educating students during the pandemic, the experiences from both countries should be considered by teacher training programs and in post-graduate professional development.

Originality:

This article examined how COVID-19 affected teachers in Uruguay and Ecuador. Data analysis documented the challenges encountered by teachers transitioning to online learning during the pandemic. Findings inform a larger audience about the needs of teachers working online.

Introduction

The 2020 pandemic (COVID-19) forced a global transition for K-12 education to move from in-person teaching to an online environment. This unprecedented event disrupted the educational system, forcing teachers across the world to change their methods of instruction. Across contexts, teachers struggled to utilize unfamiliar methods (Fagell, 2020; Kaden, 2020; Reich et al., 2020). They were challenged to teach utilizing materials inappropriate for online environments and/or using technology neither they nor students had previously used (Kaden, 2020). The transition to online learning produced deficiencies in teaching due to educators' limited preparation to teach online and students' difficulties logging into online platforms to receive instruction or complete assignments (Middleton, 2020). Additional issues documented in the transition included teachers teaching less new material (Herold and Yettick, 2020; Kaden, 2020) and variations in the pedagogical approaches of educators who were unfamiliar with online instructional processes (Middleton, 2020; Schwartz, 2020).

At the start of the pandemic, Uruguay was able to move quickly into online instruction due to the nation's prior investments in technology (ANEP, 2020; CEPAL, 2020), while Ecuador was at the beginning phase of this process (Peñaherrera, 2011). The two countries offered the opportunity to examine educational realities within Latin American schools, and to delve into teachers' perceptions of challenges when moving quickly to online environment. In this research, conversations with primary and secondary level teachers focused on educators' ingenuity and zeal to overcome the challenges of teaching and learning online. We consulted the reported readiness of the educational systems of Uruguay and Ecuador before examining the instructional demands of online learning during the COVID-19 pandemic (Mendoza-Bozada, 2020; Perez Zorrilla, 2020; Presa et al., 2020). This study investigated teachers' pedagogical, technological, and school concerns when COVID-19 made traditional in-person schooling impossible.

Pandemic Educational Challenges

The pandemic mandated an overnight move of teachers and students from schools to their homes before sufficient research was conducted to establish the inter-personal and technology skills a K-12 teacher must have to teach online (Kaden, 2020). Learning was assumed to be enhanced through technology applications prior to the pandemic, but face-to-face delivery was considered a more effective strategy for teaching and learning. Insufficient research had examined how to facilitate learning online to diverse learners of different ages and at various stages of personal and academic development (SH!FT, 2020), and during the pandemic, it quickly became evident that curricular resources and internet availability varied across countries, school systems, and communities. Teachers needed to develop a different type of expertise to plan and teach learners to concentrate on the computer screen in ways they had never done before. Parents with more than one child found themselves needing several tablets and more rooms in their homes so their children could participate in online schooling without interfering with their siblings' schooling or with their parents' business transactions.

Teachers had used technology applications, online reading programs, and flipped classroom strategies (Author, 2014) to support instruction, but few educators believed such approaches

could replace what takes place in the onsite face-to-face classroom until teaching online during the pandemic. Tomczyk et al.'s (2017, 2020) research documented educators' attitudes toward e-learning on their teaching effectiveness and developed four categories to describe teachers' ability to use current technologies: techno-optimist, techno-realist, techno-pessimist, and techno-ignorant. The techno-realist teacher is wary of new technologies but accepts the need to modify personal pedagogies in the midst of a pandemic. The techno-pessimist teacher denies the need to develop new approaches to education based on current technology applications and unconsciously rejects the notion that teachers' refusal to innovate delimits student learning. It is possible that the forced move to online learning may have created a new category of educators. These may be teachers who blend the attitudes of the techno-realist and techno-pessimist into their teaching and learning philosophies.

The world crisis required human beings to isolate and use masks to cover human faces, smiles, and expressions that contribute to communication and convey our complete thoughts. The teachers did not wear masks when teaching online; however, they struggled to interact and observe learning processes of entire classrooms of learners on a screen. Platforms such as Zoom, Google Meet, WhatsApp, and Apple FaceTime helped address learning challenges, but many questions remain related to whether online learning aligns to teachers' attitudes and students' learning style, intelligences, affective and academic needs.

Background
COVID's impact on the educational system in Uruguay
On March 13, 2020, the Uruguayan government confirmed a national health emergency due to COVID-19, enforcing social distancing measures and the closure of all educational institutions (ANEP, 2020; Failache et al., 2020; Presa et al., 2020). Thus, Uruguayan teachers and students were forced to move from face-to-face to online instruction just two weeks after their 2020 academic year had begun. Unlike other countries around the world, Uruguay's past investments in educational technology and digital connectivity allowed for a rapid move to online education (Perez Zorrilla, 2020; Presa et al., 2020; UNICEF Uruguay, n.d.). School administrators, teachers, and students at primary and secondary schools moved onto CREA (Contents and Resources for Education and Learning), a classroom management online platform first introduced in 2012 to promote educational access to students at primary, secondary, and tertiary education levels and contexts (private and public; Presa et al., 2020). Additionally, a state policy mandated that each student enrolled at a public educational institution in Uruguay receive a laptop or tablet (ANEP, 2020; CEIBAL, 2020; CEPAL, 2020). By early March 2020, access to a laptop device, Internet connection, and CREA placed Uruguayan schools, teachers, and students in a privileged position, allowing them to quickly transition to online instruction and continue their educational practices (Failache et al., 2020; Pais, 2020; Presa et al., 2020; UNICEF Uruguay, n.d.). At the beginning of the online instruction transition, Uruguayan educators were offered training addressing instructional strategies and resources to improve their use and management of information and communication technologies (CEPAL, 2020) and support the transition.

UNICEF Uruguay (n.d.) reported that around 77 % of students were able to continue their education online, while 23% did not have access to Internet connectivity and were at high risk of school disengagement. To avoid disengagement, Uruguayan educators used social media

platforms (Facebook, WhatsApp, Youtube) and videoconferencing tools to reach more students (Failache et al., 2020; Presa et al., 2020). School administrators asked teachers to make hard copies of materials and assignments available for students and parents to pick up at their respective schools. Teachers created groups on WhatsApp to communicate with students and parents in each course section. Students experiencing issues accessing CREA were able to submit assignments via WhatsApp, while students with no access to internet connections submitted hard copies at the institution for teachers to grade.

Uruguay was the first country in the region to gradually resume face-to-face instruction at primary and secondary school levels (Perez Zorrilla, 2020). On April 22, 2020, students in rural areas were allowed to go back to the physical classroom; on June 29, 2020, urban students moved back to face-to-face instruction (ANEP, 2020; CEPAL, 2020; Pais, 2020). By July of 2020, over 70% of secondary school students, 63% of primary students, and 60% of students had resumed face-to-face classes (Pais, 2020). Primary and secondary educators kept using CREA and social media platforms to communicate with students and families, share materials, and grade assignments, allowing access to students regardless of their choice of instruction.

COVID's impact on the educational system in Ecuador
Paralleling the world, the Ecuadorian government grappled with educational demands posed by COVID-19. As the number of infected citizens increased, the government suspended in-person classes in K-12 schools and higher education institutions, and stay-at-home orders were mandated on March 16, 2020. By April 6, the Ministry of Education announced that students would finish their school year in online learning (Trujillo, 2020a).

Rosero (2020) conducted an interview with the Minister of Education Monserrat Creamer regarding the transition to online learning. Creamer indicated that parents would need to increase their engagement with their children's education at home to fully address students' academic, technology, and emotional needs. Moreover, the curricula would be reduced to address essential topics of academic disciplines and teachers, as online facilitators, would suggest academic exercises to develop students' skills and competencies for the 21st century. Creamer indicated that challenges were not only about the teachers' approaches to online teaching but involved technology and Internet connectivity. Asanov et al. (2020) reported that 74% of students had access to the Internet and 59% had a computer or tablet at home. However, when groups were divided based on socioeconomic status, only 57% of students at the bottom of the wealth quartile had access compared to 87% at the top wealth quartile.

Trujillo (2020b) explained that the level of parents' education impacted students' access to the Internet. Differences in parental education were reflected in financial differences; for instance, parents with higher education levels (e.g., bachelor's degree) had home computers for children to access online school platforms. Parents from lower education levels (e.g., up to the high school level) tended not to have a computer at home. This required parents to pick up academic materials from educational institutions for students to complete homework using hard-copy materials and then returning them to the school for grading. Another concern was students' academic achievement gaps; Trujillo (2020b) explained that prior to the pandemic the Instituto Nacional de Evaluación reported academic differences between learners in private and public institutions. The differences between private and public institution demonstrated at 6th grade

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were 47 points, at 9th grade 54 points, and at the 12th grade 44 points with students in private institutions performing at higher levels.

Although Ecuadorian schools presented their Education Continuity Plans to resume in-person learning, the 415 schools approved to resume face-to-face had to return to online education due to substantial increases in the number of COVID-19 cases. All schools were closed to in-person education during the entire 2020-2021 school year (UNICEF Ecuador, 2021).

Ecuador's and Uruguay's technology in classrooms

Ecuador had been slowly improving technological capacity for teachers and students before the pandemic. According to Mendoza-Bozada (2020), investment in technology was scant from 1980 until 2000, leading to a lack of preparation of teachers and students to use technology in the classroom. Ecuador designed a plan to improve the use of technology in schools and developed an educational infrastructure by agreement with the United Nations (Peñaherrera, 2011). After 2007, the national investment in education increased to 4.34% of the gross domestic product, which tremendously increased the technology infrastructure in Ecuador. Asanov et al. (2020) presented statistics to point out that about half of the school age population did not have Internet access. Today, although some schools and universities have computers, professional development (PD) to prepare teachers to use technology in the classroom is still lacking. According to Peñaherrera (2011), only 60% of teachers have received PD focused on instructional technology.

In 2007, Uruguay created Plan Ceibal (PC) to ensure inclusion, promote social equity, and support Uruguayan educational policies through technology (Plan Ceibal, n.d.; Presa et al., 2020) by mandating the distribution of laptops or tablets for students enrolled in public primary and secondary schools (ANEP, 2020; CEPAL, 2020; Plan Ceibal, n.d.). Moreover, PC also ensured free Internet connections at every school and provided resources, educational programs, and teacher training to integrate technology in the classroom using high-quality video conferencing network to connect over 1,500 schools across the country (Plan Ceibal, n.d.). PC significantly narrowed the digital divide by rapidly increasing Internet connectivity and providing students a device for home use, especially those in the lowest income quintile (UNICEF Uruguay, 2020; Uruguay XXI, 2019). PC utilized CREA to build educational communities online and ensure access to all students (Presa et al., 2020).

Prior to the pandemic, Uruguay had reached higher levels of internet connectivity and hardware availability for students and teachers, and many teachers were trained to use hardware and software as part of their teaching. In contrast, students in Ecuador experienced technology gaps because access to the internet was not equal for all school age students. Parents' ability to finance technology was affected by their socioeconomic level and only a limited number of teachers had participated in PD to be prepared to teach online. Prior to early 2020, few Ecuadorian school administrators had budgeted to purchase tablets and computers for learners; while Uruguayan educators for many years had worked in online platforms and used current technologies across public primary and secondary schools.

Teachers' experiences related to online learning were unique for both countries; nevertheless, all teachers needed more time to learn what Internet requirements were needed when instruction

was moved to 100% online (Bowyer, 2017; Trust and Whalen, 2020). According to Kaden (2020), the pandemic created a situation requiring teachers and students master new ways of learning and collaboration. Challenges regarding online/remote teaching strategies, teaching tools, communication tools, and communication strategies were found among all teachers (Trust and Whalen, 2020). Even though online communication is not a new method for delivering instruction, research has indicated online models cannot be compared to face-to-face education (Ahn & McEachin, 2017; Rapanta et al., 2020).

This study investigated the technological, pedagogical, and school-context challenges of COVID-19 pandemic on K-12 schooling from the perspectives of six Ecuadorian and six Uruguayan educators. The researchers conducted this work without placing undue credibility on any pre-conceived notions gathered from the professional literature of e-learning in higher education because of the unprecedented nature of events in 2020. The following questions led this study:

1. What are teachers' technological challenges/concerns when delivering instruction online during the COVID-19 pandemic?
2. What are teachers' pedagogical challenges/concerns when delivering instruction online during the COVID-19 pandemic?
3. What are teachers' school-context related concerns when delivering instruction online during the COVID-19 pandemic?

Methodology
Transformative learning developed by Mezirow (1997) is defined as "the process of effecting change in a frame of reference" (p. 5) consisting of experiences, knowledge, and skills learners gain throughout time to help them understand and solve new challenges. Mezirow explained that change comes through a person's self-reflection of assumptions (beliefs, habits, and points of view) determining future steps. Research indicates that the quality of online learning, online teaching, and online course design are the result of adherence to the design process (Hodges et al., 2020) and teachers' commitment to use current technologies (Tomczyk et al., 2017, 2020). This research used Mezirow's transformative learning theory to examine an almost unexplored area in schooling: teachers' pedagogical, technological and school-context related challenges when working learners in an online environment.

Qualitative phenomenological research was utilized (Stake, 2000) to examine Ecuadorian and Uruguayan teachers' perceptions and experiences with the process of transitioning from face-to-face to online teaching during COVID-19. Stake (2000) explained the importance of researchers within the context being studied to understand participants' viewpoints and behaviors. A phenomenological approach tries to understand the points of view formed by people due to their social reality in particular situations (Gall et al., 2003; Selvi, 2008). Greene (1978) explained that constructs are created socially through interactions with others, thereby bringing meaning to their interactions. When participants describe and explain their feelings, experiences, and thoughts, researchers learn from the phenomena impacting participants' responses at the individual level. Phenomenology yields insights into "the meaning of the world and the basic meanings" (Selvi, 2008, p.40) in real-life experiences (Stake, 2000).

The intent of comparing Ecuador and Uruguay was to examine the teachers' perceptions regarding the new teaching reality due to COVID-19 in these nations. The open-ended questions asked: What type of training prepared you to implement e-learning in your classroom, What type of school activities/tasks (development of curricular materials, lesson planning, grading, online meetings, etc.) did you implement in the COVID-19 e-learning environment, What concerns do you have about the school activities/tasks that you implemented, and What is your main takeaway of the COVID-19 forced transition to online learning? The researchers utilized a convenience sampling to recruit in-service teachers from Ecuador and Uruguay from private and public institutions.

Participants and setting

Twelve participants were part of this study: six Ecuadorian teachers and six Uruguayan teachers. The participants were credentialed to teach in their respective nations. The researchers are Spanish-English bilinguals and are familiar with the educational systems of Uruguay and Ecuador prior to this investigation. Table 1 shows the characteristics of the schools and teachers. The assigned teacher code used to reference comments in the data analysis. The range of students in the classroom reflects the number of learners in each course section. In Ecuador, teachers are assigned classes to meet their maximum teaching assignment of 30 hours a week (Monday through Friday). In Uruguay, primary school teachers work with one or two classes, each for 20 hours a week. Secondary school teachers choose the number of hours they want to work, ranging from a minimum number of hours required to teach one class up to 60 hours a week (Monday through Saturday).

[insert table 1]

Table 1: Participants' characteristics

Country	Teacher Code	School Type	School Location	Range of students	Gender	Education Level	Teaching experience	Teaching Level
Ecuador	E1	Private	Urban	35-45	Female	Master's	23	HS
	E2	Private	Urban	25-30	Female	Master's	19	MS
	E3	Private	Urban	20-25	Male	Bachelor's	15	MS
	E4	Public	Urban	35-45	Male	Master's	20	MS
	E5	Public	Urban	35-45	Female	Master's	21	HS
	E6	Public	Urban	35-45	Female	Bachelor's	20	MS
Uruguay	U1	Public	Rural	15-20	Female	Bachelor's	14	MS/HS
	U2	Public	Urban	35-40	Male	Bachelor's	19	MS
	U3	Public	Urban	25-30	Female	Bachelor's	17	HS
	U4	Public	Urban	30-35	Female	Bachelor's	5	PS
	U5	Public	Urban	25-30	Female	Bachelor's	12	MS/HS
	U6	Public	Urban	30-35	Female	Master's	10	MS

High School (HS), Middle School (MS), Primary School (PS)

Data analysis

The researchers collected qualitative data through one-hour phone interviews (one-on-one)

conducted in Spanish using WhatsApp, complying with IRB protocols. The interviews were audio recorded, transcribed, and analyzed utilizing a constant comparison technique. The iterative process of associating existing data to new data was used to inductively generate codes that were categorized into themes based on the meaning of the data (Glaser and Strauss, 1967).

Results
Participants' individual answers expressed common issues due to the transition from face-to-face to online teaching and learning. Themes suggested that teachers drew from their experiences and prior knowledge to confront and resolve the challenge before them. Emerging codes from each group of Ecuadorian and Uruguayan teachers are presented as case studies. Similarities and differences were extracted through data analysis. The data produced two themes: *teachers' job demands* that pertain to workload, preparation time, and curriculum issues in the context of online teaching, and *school supports,* including school leadership, logistical issues regarding technology, and parental supports (Tuxford and Linda, 2014).

Analysis of Ecuadorian teachers' comments
The transformative learning process that Ecuadorian teachers underwent during the transition highlighted two themes: teachers' job demands included the changed the day-to-day teaching activities, lesson plan preparation, and curriculum to meet mandates from the school leadership as well as the ministry of education and school support evidenced the limited attention placed on teachers' and families' needs for assistance with technology from school leadership.

Teachers' job demands
As teachers shared details of prior experience teaching online and their perceptions of their technological competence, they acknowledged having limited knowledge using apps like Zoom (zoom.us) and Google Meet (https://apps.google.com/meet/), or platforms such as Google Suite (https://gsuite.google.com/) to deliver instruction. The teachers explained that at the beginning of the transition they "used free software to meet with students to deliver instruction; however, there were issues with software due to the limited number of free minutes (E2)." For example, "Utilizing Zoom to communicate with students – Zoom is free the first 40 minutes (https://zoom.us/pricing). After 40 minutes, Zoom does not work. Using Google Meet, it gives you 60 minutes and then stops working (E4)." Thus, teachers had to adjust their instruction to the available software. To mitigate the limited technological competence of teachers, school leadership set up training for teachers to learn to use technology and upload instructional materials. Participants (E4, E5, E6) indicated that "we were in training from 4:00pm to 6:00pm every Tuesday and Thursday until the school year ended to learn how to use the educational platform provided (E5)." A teacher (E2) explained, "It took us 2 to 3 weeks to learn to navigate the platform to upload instructional materials." The training was intensive to help teachers develop technological knowledge needed to deliver online instruction.

Teachers shared that instructional delivery was affected by the change to online teaching. One teacher mentioned the transition provided an opportunity to learn about other ways teachers instruct and students learn: "The teacher guides students to find knowledge; the student is the owner of his/her own learning. We teachers need to be more flexible to changes (E6)." A teacher also pointed out the increased demand in the number of hours needed to complete the work to develop academic materials to meet pedagogical needs. All participants (E1, E2, E3, E4, E5, E6)

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shared that "the school mandated that teachers and students had to be logged in the system by 8:00 am each day (E5)." One indicated, "Homework had to be sent via email, and invites for online meetings needed to be sent. I had to send up to three invites for each activity, collect homework via email, and grade them…I am doing all of this until 10:00pm or 11:00pm (E4)." The same teacher stated that in spite of all the effort to send information to students, "somehow students and parents were not receiving the information (E4)." The amount of instructional time was also impacted. A participant indicated that in the face-to-face model, two instructional hours were equivalent to 80 minutes. Due to the restrictions of the video apps, the two face-to-face instructional hours were reduced to 60 minutes. One teacher indicated, "educational requirements were reduced compared to those for face-to-face instruction, so the level of knowledge students and types of learning activities offered were different during the pandemic (E3)." Another explained that "there was a reduction of about 50% of the subject matter content [and] I had to change my classroom activities to mostly writing activities because using speaking activities was difficulty to implement (E5)." Another teacher supported the statement by indicating "It is hard to organize group work with students while online because not all students have Internet…students do not participate during the lecture. They [students] do not ask questions or participate (E6)."

School supports

The Ecuadorian teachers indicated the mandate from the Ministry of Education was that students should not be left behind; thus, additional learning activities were provided to help students reach desired academics. One teacher mentioned the administration forced teachers to collaborate with other teachers, social workers, principals, and psychologists to support students. An example was given of a student who wanted to quit school. "We supported the student by providing all the homework and the psychologist visited the student to help with the needed homework to be promoted (E5)." Several teachers (E1, E4, E5, E6) stated that once "students learned that they would not be retained in the current grade level, they lost motivation and interest to learn and do homework. (E5)." All teachers (E1, E2, E3, E4, E5, E6) agreed about insufficient PD from the government to support teachers and students during the pandemic. Several teachers (E3, E4, E5, E6) indicated "it was up to the students and/or parents to connect via online and participate during lectures, (E2)" and "the Ministry of Education should investigate evidence-based strategies for online learning to support teachers with materials, resources, and policies (E3)." Moreover, participants indicated that "the principal assessed online materials, delivery, and communication with students weekly instead of conducting twice a year observations (E2)" and "then the principal sent comments and recommendations for me to adjust my instruction. It was a lot of work (E2)." More shared that feedback from principals about ways to improve online teaching and additional support with online pedagogies would have been useful.

Regarding technological issues, participants (E1, E2, E3, E4, E5, E6) indicated that issues included "many students did not have Internet connectivity or computers (E2)" and "some students did not have Internet plans so I had to pay their Internet connectivity (E3)." Other participants (E1, E4, E5, E6) explained, "children had to learn how to use technology, which increased barriers to learning. Parents tried to help the children but parents were not able to find the invites that teachers sent (E4)." The online teaching and learning process became harder because some parents showed a limited ability to use the Internet and software, which increased communication barriers between families and teachers. One teacher (E4) explained that

"through Google Suite I found a way to see my students when I asked them to perform a task and I realized that parents were behind the child interrupting while the student was completing the task." Another teacher indicated, "While working with my students, some parents were providing answers to the student about the academic assignments (E2)." Four teachers (E1, E3, E5, E6) clearly stated, "Parents interfere with the teacher while teaching (E3)." All participants (E1, E2, E3, E4, E5, E6) mentioned they faced more limitations to teaching online compared to face-to-face. A teacher said, "Not all students have access to the Internet, computers, and printers; while face-to-face we don't have to worry about these issues (E5)." Another teacher indicated that "face-to-face was moved to online learning without considering online teaching pedagogies (E5)." The teacher continued to explain: "I was prepared to teach in the classroom, not online, so I did what I could to support my students, but I needed to be prepared with online pedagogy to be an effective teacher (E5)." The same teacher pointed out that "I was not able to give feedback on assignments due to limitations with Google Suite or homework sent via WhatsApp. Technology needs to be improved to be able to deliver online instruction (E5)."

Concerning parental engagement, COVID-19 forced parents to become more involved with students' education because "the parent had to help the child get into the computer; accessing videos, materials, and homework; reviewing the results of the academic activity (E2)." These activities helped parents academically support their children to decrease knowledge gaps and support teachers in the classroom. One teacher indicated that "parents do not have any control over students' academic performance. Parents are trying to do the best to provide Internet connectivity with limited financial resources. (E3)" Parents need to have some level of technology competence because "homework is sent via WhatsApp (E6)." Comments showed the complexity of parent involvement; which varied based on parents' technological ability, resources, and students' level of needed support.

Analysis of Uruguayan Teacher's Comments

The transformative learning processes were categorized into two themes: teachers' job demands and school support. Teachers' job demands indicated changes in teacher-student interaction, planning, student assessment, and time management. Teachers agreed that online instruction was time consuming and hampered the creation of strong and supportive bonds with students. The second theme, school support, demonstrated teachers' willingness to improve online instruction; however, the available support overloaded teachers' schedules and failed to meet their needs to teach content online effectively.

Teachers' job demands

Regarding the first theme, participants had prior experience using technological tools for educational purposes. Two participants (U1, U2) had used CREA in previous years. One participant (U1) explained she had been using CREA and PAM (practice mathematical skills educational platform) to reinforce content taught in class since 2013. Another teacher (U2) had used the platform to store class materials for students to access during or after class when needed prior the pandemic. Two participants (U3, U5) had taught online through videoconferencing systems. All participants (U1, U2, U3, U4, U5, U6) indicated that although little was done at the national level, schools and national subject-areas supervisors created various opportunities to discuss specific software, educational platforms and other tools to support the transition to online

instruction. Schools used weekly online school meetings for PD; however, teachers indicated that at school meetings they "mainly discussed student demographics, background, and specific family situations (U6)." Three participants (U2, U4, U6) mentioned that supports provided during the school meetings were not fulfilling their needs for technological content and pedagogical knowledge, "meetings and talks at school are centered around emotions, coping with stress, and they don't provide us with support to manage online instruction (U4)." Participants also agreed that most of the training provided by their subject-area supervisors and other educational stakeholders focused on how to use technological tools without consideration of content. A participant (U3) explained, "It is not about working with computers […]. It's how to use different tools to teach content to students in interesting ways." All participants (U1, U2, U3, U4, U5, U6) agreed that further training was needed to effectively integrate technological tools with content. One participant (U1) said, training "gave me the tools to start, but then to go deeper; you need experience, time and sharing with colleagues." One teacher (U5) explained she mainly relied on her previous knowledge and learned as the year progressed due to lack of time to participate in workshops. Five participants (U1, U2, U4, U5, U6) emphasized their own curiosity to explore resources. One of the participants (U1) mentioned, "I had training because I'm curious," while another (U4) added, "Plan Ceibal has good resources, but my training is due to my own willingness to learn. The workshops provide you with the basics. Then, the rest depends on your own research and curiosity." Overall, participants' responses indicated some awareness of using technologies prior to the move to online instruction as well as their willingness to improve their online teaching; however, supports provided during the transition failed to adapt to these teachers' availability and needs to teach content effectively.

Regarding instructional practices, participants (U1, U2, U3, U4, U5, U6) referred to changes in teacher-student interaction, planning, student assessment, and time management. They agreed that they did not have enough time to get to know their students and build strong bonds due to the sudden move to online instruction. One participant (U2) said, "In online learning you don't truly get to know your students." These teachers expressed their concern for the lack of interaction and teacher presence in the students' academic life, "They need to feel we are there (U1)." Thus, some teachers at the lower grades (primary and middle schools) opted to use WhatsApp to stay in contact with students' parents, while high school teachers directly communicated with students.

About planning, four teachers (U1, U3, U5, U6) explained they decided to select concepts and skills most important for the next academic year. Three teachers (U3, U5, U6) said they designed "easy enough" activities to reduce student frustration. Others split activities to provide more scaffolding to students (U1) and prepared sample responses to guide students' work (U2). One teacher (U2) expressed that "online learning made us go back to a more traditional approach to teaching." Teachers prioritized students' task submissions and skill development over content learning when assessing their performance. They provided formative feedback on students' work and monthly school performance rather than assigning grades. However, they were uncertain, "I have to imagine what the kid is doing, whether they are doing the work themselves or what's happening (U4)." Regardless of the grades and contexts in which they teach, all participants (U1, U2, U3, U4, U5, U6) indicated that online instruction required more time to look for materials,

prepare lessons and assess student work. One of the teachers (U6) said, "If we quantify it, it's three times the amount of time we spent in face-to-face instruction."

School supports

The second theme related to support from school leadership, technological logistics, and parental engagement. Participants explained their weekly school online meetings were highly informative; however, they agreed their school meetings often turned highly "cathartic (U5)." One teacher (U2) said, "These spaces are necessary, but sometimes you don't want to listen to more problems." Another (U5) explained, "At the beginning, we discussed student's characteristics, but now some just use the space to complain and share frustrations." Only one participant (U4) expressed discontent with the demands from her principal, "The principal monitors our work, makes sure we do our job, evaluating the time we spend on the platform and on each kid. […] and well, he called and told me I missed this and that." Other participants (U1, U3, U5, U6) did not comment on how their work was monitored and instead stressed the lack of guidelines for online instruction.

Furthermore, participants' responses revealed two specific directions provided by the National Board of Education in Uruguay: teachers would only use informal assessments and provide feedback on students' learning process and CREA would be the main means of work and communication with students, although teachers could use additional educational resources and platforms to share materials and reinforce knowledge. All participants (U1, U2, U3, U4, U5, U6) agreed that no further guidelines were offered; "I had to plan all units from scratch without having a clear idea of what I'm planning for, how long, or how much (U3)." These responses showed the lack of school guidance posing greater burdens on teachers, especially for those with large a number of students who required technological support to access the platform and complete assignments.

Technology issues were present due to limited Internet access, connectivity in rural areas, and students' technological ability to access schoolwork. A teacher (U1) mentioned students used mobile phones to access the platforms: "Sometimes students had to wait for the beginning of the month to get mobile data on their phones." Also, three teachers (U2, U4, U6) mentioned the lack of students' technological knowledge. A teacher (U2) explained that although students are referred to as digital natives, "they lack basic technological skills to surf the platforms." Another teacher (U6) added, "They say 'I can't find the task' and we need to tell them step-by-step how to get there [or] they get frustrated." Two teachers referred to the physical spaces needed to work online. A teacher (U1) said, "Many of my students do not have a quiet space to study," while another teacher (U2) described his own challenges: "I had to make an impromptu classroom with whatever I had."

Concerning parental engagement, teachers working in urban areas (U2, U3, U4, U5, U6) agreed that parent involvement was more difficult during online work, but using WhatsApp allowed them to be closer to the students' families: "Parents are a text away from us (U4)." In some cases, they noticed families' support through the students' work. A teacher (U1) explained that the pandemic brought a positive revalorization of everyone's roles in the learning processes. She

said, "The family helps the child, the learner helps the teacher, and teachers help their colleagues (U1)." Teachers in rural areas are often closer to the students' family, either because the smaller number of students allows for it or teachers teach them for many years. Teachers in urban areas may have used this as an opportunity to improve their contact with students' families.

Discussion

The pandemic did not allow sufficient time for teachers, families, and students to be fully prepared for online instruction in Ecuador or Uruguay. Recurrent themes identified in the data analysis demonstrated instructional adaptations addressing deficiencies in the context of Uruguay and Ecuador educational systems (Kaden, 2020), yet the teachers were unsure about the quality of learning and their ability to instruct online. Insufficiency in school support and new emotional demands on teachers became evident. The participants expressed that the time needed to develop materials and limited curricular guidance given to them from both countries' educational systems made complying with emergency mandates difficult.

In Ecuador, teachers felt that the same amount of time available for face-to-face learning was needed in e-learning. They did not know how to situate their students to learn through a computer. Perhaps due to the teachers' limited preparation to teach online, they were unaware that online teaching, and especially technology-driven teacher-directed learning, can accomplish same instructional goals within shorter periods of time. Thus, demands to teach online were perceived as greater, jeopardizing the quality of the instruction (Hodges et al., 2020). Some teachers addressed resources for students who lacked Internet connectivity by printing and delivering materials to schools that parents would pick up each week. In rural areas schools had more issues with adequate Internet connectivity compared to students in urban areas. Lastly, the teachers struggled with communication with school administrators and families. The teachers did not feel supported when faced with educational objectives, assessments, and materials due to a lack of clarity in the guidelines provided by the educational authorities. They voiced that more effort was needed by all participants to master ways to teach and learn online.

Uruguayan educators appear to have a higher level of knowledge and understanding of online teaching and learning when the pandemic hit; however, they faced similar challenges related to connectivity issues, insufficient support from the administration for technology use and for online curriculum delivery, and feeling dissatisfied with teacher-student interactions did not lead to relationships at the same level as those established in face-to-face learning. Ecuador and Uruguay teachers needed emotional support for the extra effort they were putting forth and the insecurities they experienced in their work during COVID-19. All teachers indicated that little emphasis on articulation of the curriculum across their nations at the national level. Even though the revalorization of the profession has been acknowledged by both countries (Failache et al., 2020; Ministerio de Educación, 2017), results indicate that teachers need more support.

Implications

This study points to the need to prepare teachers and students across all educational systems of the world to use technology as part of their instruction proactively rather than reactively in an emergency situation such as COVID-19. Unless educational systems provide educators,

regardless of geographical coordinates, PD focused on current technologies, sustainability of online learning will not be completely feasible (Tomczyk et al., 2017). Educators should continue to examine lessons learned during the pandemic to improve the profession and identify supports for teachers and students to meet educational requirements in today's changing world. As suggested by Mezirow (1997), self-reflection on the lessons learned can help teachers, students, and schools improve instructional delivery as well as be prepared for future technology innovations and periods of crisis.

Conclusion

Data suggest that during the world-wide COVID-19 pandemic, teachers were committed to their students' academic success. Teachers and students demonstrated the adaptability to forge ahead teaching and learning during emergency circumstances. Aligned with Mezirow's (1997) transformative learning, the sudden transition to online instruction highlighted the teachers' ability to reflect on their practices and their efforts to transform instruction to meet their students' academic, affective, and technological needs. Teachers' curiosity and use of technologies may serve as an example of how they engaged in self-reflection, challenging their own views and experiences to teach online despite the lack of school leadership and guidance at a national level.

Notwithstanding their greater experience with technology, Uruguayan teachers' comments evidenced two key facts that make sense in both societies and possibly across the world. First, online learning requires a higher level of emotional involvement from all participants, and second, it is possible for all students to reach high levels of academic achievement regardless of the medium used to deliver instruction. Teachers need support to be able to develop the ability to adapt pedagogical methods for the learning situation (Hodges et al., 2020). Uruguayan and Ecuadorian teachers shared that the move to online during COVID-19 was emotionally draining for them and their students. The teachers felt they were not giving their students the inter-personal support they were accustomed to receiving.

Because learners' achievement aligns to their maturity level and their life's circumstances, there appears to be a need for teachers to develop new pedagogies that allow them to feel safe passing the learning baton to their students. Even in Uruguay, where teachers noted positive components of online learning, the participants wanted to engage in further exploration of what else they might add to their teaching tool kit. If this type of teacher inquiry continues, it will likely result in higher levels of metacognitive awareness for students when engaged in autonomous learning. In terms of the future, nations must support educators and all community members to use current technologies as they fight for equity in schooling, regardless of limitations or abundance in economic resources.

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Table 1: Participants' characteristics

Country	Teacher Code	School Type	School Location	Range of students in the classroom	Gender	Education Level	Teaching experience	Teaching Level
Ecuador	E1	Private	Urban	35-45	Female	Master's	23	HS
Ecuador	E2	Private	Urban	25-30	Female	Master's	19	MS
Ecuador	E3	Private	Urban	20-25	Male	Bachelor's	15	MS
Ecuador	E4	Public	Urban	35-45	Male	Master's	20	MS
Ecuador	E5	Public	Urban	35-45	Female	Master's	21	HS
Ecuador	E6	Public	Urban	35-45	Female	Bachelor's	20	MS
Uruguay	U1	Public	Rural	15-20	Female	Bachelor's	14	MS, HS
Uruguay	U2	Public	Urban	35-40	Male	Bachelor's	19	MS
Uruguay	U3	Public	Urban	25-30	Female	Bachelor's	17	HS
Uruguay	U4	Public	Urban	30-35	Female	Bachelor's	5	PS
Uruguay	U5	Public	Urban	25-30	Female	Bachelor's	12	MS, HS
Uruguay	U6	Public	Urban	30-35	Female	Master's	10	MS

Note: High School (HS), Middle School (MS), Primary School (PS)