



University Teachers' Perceptions of Their Work and the Qualities of Excellent Teachers in the Context of Emergency Remote Learning

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Accepted: 22 August 2022
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Abstract

The massive adoption of online learning during the COVID-19 pandemic brought an opportunity to investigate teachers' conceptions of excellent teaching in the context of emergency remote education. From June to August 2020, we conducted a cross-sectional study using an online questionnaire to (1) analyze teachers' perceptions of the quality of their teaching in the context of the COVID-19 pandemic, (2) identify teachers' perceptions of the qualities of excellent online teachers, and (3) examine differences based on gender, age, previous online learning training, and work experiences. The sample consisted of 341 university teachers who worked in private and public institutions in Ecuador. Results indicate that most participants perceived online teaching was easy for them, as well as personally satisfying. However, less than half of the participants felt that the quality of their teaching and their relationships with their students had improved since the adoption of online learning. Regarding the qualities of excellent online teachers, participants indicated that being respectful, enthusiastic about their teaching and their topics, striving to become a better teacher, being humble, and being knowledgeable about their subject matter were the top five qualities excellent online teachers should have. Comparison analysis indicated gender differences in some of the items. Women tended to feel more strongly that their relationship with their students had improved since online teaching was adopted; also, they gave higher scores to qualities such as being humble, establishing rapport, being sensitive and persistent, and being understanding compared to men. There were not differences based on age. Regarding online teaching training and work experiences, we found statistical differences in the perceptions on the quality of their teaching and some of the traits of excellent online educators. We found that participants with previous training and work experiences rated more strongly qualities such as being an effective communicator, being prepared and technologically competent. We discuss the implications of these findings considering the challenges that online learning imposes on educators in many parts of the world.

Keywords Emergency remote teaching · Excellent online teaching · Excellent teaching · Online teacher qualities · Teacher Behavior Checklist

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Introduction

Teaching is a professional labor highly dependent on structural influences such as globalization, capitalism, social migration, and technological development (de Courcy, 2015). Teachers in the twenty-first century are expected to be innovative, produce high-quality research, obtain funding, and demonstrate satisfactory learning results with students from diverse backgrounds by adopting methodologies that complement and exploit the benefits of new technologies (de Courcy, 2015; Zhu et al., 2013). Since the beginning of the 1990s, with the invention of the World Wide Web, the field of education has witnessed a progressive and steady process of digital transformation and creation of new and better types of online learning (García Arango et al., 2019; Harasim, 2000).

Online learning is a type of education that uses the internet and other technological tools to assist and enhance teaching and learning (Dhawan, 2020; Singh & Thurman, 2019). This modality of education has several advantages compared to traditional, face-to-face education, such as increased flexibility and independency of the physical spaces where students can learn (Singh & Thurman, 2019). Also, online learning enables instructors to develop synchronous and asynchronous teaching activities to promote interactivity in fully online environments (Singh & Thurman, 2019). To be effective, online courses must be carefully planned and designed by using contemporary theories, research evidence, and technological tools to help teachers make informed decisions about the materials, contents, and types of interactions they want to promote (Adedoyin & Soykan, 2020). To create successful online courses, teachers must spend significant amounts of time deciding on how to create learning experiences that allow their students achieve their objectives (Adedoyin & Soykan, 2020).

The advent of the COVID-19 pandemic in 2020 obliged most institutions in the world to extensively adopt online education as thousands of schools and universities closed to comply with the social distancing and lockdown policies to prevent the spread of the virus (Pandit & Agrawal, 2021; Paudel, 2020). For many of the actors involved, including teachers and students, the abrupt adoption of online learning was undesirable, and many found this shift extremely challenging for their mental and physical health (Hidalgo-Andrade et al., 2021; Navarro-Espinosa et al., 2021), especially for those living in countries with social and structural conditions that impose difficulties in access to stable and affordable Internet and energy services (Pandit & Agrawal, 2021). Furthermore, the experience of psychological and physical trauma due to COVID-19 and the lack of resources to face the emergency may have had an impact on teachers' ability to support their students in a timely and effective manner (Trust & Whalen, 2020).

For most teachers, the adoption of online education caught them by surprise, not giving them enough time to learn about the new teaching environments they were going to use; translate their class methodologies to unfamiliar education scenarios; and prepare themselves to create classroom environments that would favor their students' learning processes. In this new situation, many seasoned teachers found themselves as beginners once again, creating in many of them resistance and frustration

(Pandit & Agrawal, 2021). This is the reason why authors such as Hodges et al. (2020) have suggested the term *emergency remote teaching* (ERT) to best refer to the learning circumstances created by the pandemic. According to these authors, ERT involves the use of fully remote solutions to temporarily satisfy students' learning needs in times of a crisis where an immediate response was needed. Due to its accelerated adoption, ERT cannot be compared to other online learning modalities as it is not as planned, and rigorously developed.

The novelty of ERT in the middle of an international health crisis certainly raises questions on its quality and its potential short- and long-term effects in students' cognitive, social, and emotional development, as well as teachers' professional practice. In this context of emergency, teachers may have not been able to reflect on their roles and the best ways to approach their new working conditions. Examining their ideas about these issues may help to create a more thoughtful professional practice, identify ways to improve the quality of their teaching and their practices, as well as identify the series of individual, social, and structural conditions that enable them to do so. Considering the continued threats imposed by new strains of the COVID-19 virus, and the potential need of maintaining online learning after the pandemic has been controlled, we believe it is useful to conduct research about how educators perceive their roles in this modality of education.

Previous research has identified that the acquisition of excellent teaching qualities and practices is the basis for enhancing student learning, achieving school effectiveness, improving teacher evaluation, and refining teacher education programs (Chen et al., 2012; Tavakoli & Baniasad-Azad, 2017). A way to promote effective teaching is understanding the conceptions teachers have on what being an excellent teacher means (Keeley et al., 2016). Previous authors have noted that identifying teachers' ideas regarding excellent teaching allows researchers and institutions to reflect on ways for teachers to master those ideal conceptions and provide them with tools and resources to guide their practice (Chen et al., 2012). To the best of our knowledge, studies on this matter have focused on traditional, in-person, teaching and have found consistent views regarding the qualities of excellent teachers across students, faculty members, administrators, among others (Buskist & Keeley, 2018). Research in this regard has identified that an excellent teacher is usually someone who knows their subject and has enough pedagogical tools to transfer that knowledge to their students in the middle of a supportive climate that produces meaningful, significant, transferable, and enjoyable student learning experiences (Dunn et al., 2014).

Methodologically, studies have used different strategies to assess the qualities that excellent teachers possess. Studies have employed diverse methodologies such as the analysis of award-winning teacher essays, faculty surveys, classroom observations, and in-depth interviews to identify the qualities and competencies of excellent teachers (Bledsoe et al., 2021; Gurung et al., 2018). Another method of evaluating excellent teaching is the *Teacher Behavior Checklist* (TBC), a 28-item Likert instrument designed to identify the qualities of outstanding teachers (Keeley et al., 2006). Thus far, the TBC has been used in international research across countries such as the USA, China, Japan, Estonia, and Saudi Arabia, both with samples of teachers and students (Buskist & Keeley, 2018). In Latin America, it has been used in studies conducted in Colombia (Ripoll-Núñez et al., 2018; Ruiz Ruiz & Donado Tolosa,

2017), Brazil (Henklain et al., 2018), and more recently, Ecuador (Hermosa-Bosano & Keeley, 2021). Using an online-recruited sample of 183 teachers and 470 students from a private university in Quito, Hermosa-Bosano and Keeley (2021) found that teachers and students held similar conceptions of the qualities of excellent teachers. Participants indicated that an excellent teacher is respectful, confident, and enthusiastic about their teaching and their topics, and is an effective communicator. Also, the authors found that being knowledgeable, presenting current information, and striving to be a better teacher were also rated in the top ten qualities. These results were like those reported by Ripoll-Núñez et al. (2018) and Henklain et al. (2018) in Colombia and Brazil, thus indicating potential similarities across countries in the Latin American Region.

The unprecedented nature of the COVID-19 pandemic has left researchers with several questions regarding the meanings of what excellent teaching might mean in the context of ERT. With this idea in mind, we conducted a study to analyze teachers' perceptions of the quality of their teaching in the context of the COVID-19 pandemic, and teachers' perceptions of the qualities of excellent online teachers. Due to the exploratory nature of this study, we present descriptive information on these variables and analyze potential differences based on teachers' gender, age, previous work experiences with online teaching, and prior training with this type of education. We did not have a priori expectations of our potential findings regarding gender and age. On the contrary, we did assume that people with previous online teaching work experiences and training would perceive their teaching in a more favorable manner.

Methods

Design and Participants

This study followed a cross-sectional design by using an online survey distributed between June and August 2020 during the COVID-19 pandemic. To take part in the study, participants had to be at least 18 years of age and be working primarily as teachers in academic institutions in Ecuador from any education level (e.g., preschool, K-12, college). Participants could work in either public or private institutions. Participants who did not meet these criteria were not allowed to continue responding to the survey.

To recruit the sample, we used snowball sampling procedures. Each author sent the link of the survey to their personal and professional contacts, university mailing lists and university social network pages (e.g., Facebook, Twitter). We also asked colleagues and students to help distribute the survey link. We gathered an initial non-probabilistic, self-selected sample of 387 participants which included preschool (4.1%), K-12 (6.7%), and university teachers (88.3%). Due to the unbalanced sample, we decided to conduct statistical analyses using only the sample of university teachers. The final sample included in the analyses consisted of 341 university teachers.

Instruments

The scales composing this instrument were administered in Spanish using *Microsoft Forms*.

The following sections were taken into consideration for this article:

Sociodemographic Questionnaire

We used multiple-choice questions to collect data on gender (male, female, other), age, and country of residence (Ecuador, other). We also asked participants if they were working as teachers at the time of the study, if they dealt with other managerial/administrative responsibilities, their field of knowledge/expertise, the education level in which they primarily taught, the number of years dedicated to teaching, and their highest attained educational level. We also gathered information on whether participants had received training before the COVID-19 pandemic on online teaching methods, if they had taught online courses prior to the pandemic, and the amount of time teaching online. Also, participants were asked to identify whether they had children or people 65 or older under their care.

Educators' Perceptions of Their Teaching

We created 7 items to evaluate how teachers felt regarding their teaching amid the conditions imposed by the COVID-19 pandemic. Items included the following: "Teaching online classes is easy for me," "Teaching online classes is satisfying for me," "I find online teaching better than on-campus, in-person, teaching," "I feel that the quality of my teaching has improved since online teaching was adopted," "I feel my relationships with my students have improved since online teaching was adopted," "I feel I have learned new pedagogical strategies since online teaching was adopted," and "I feel my performance has improved since online teaching was adopted." The items used a 5-point Likert-scale format with response options that ranged from 1 = totally disagree to 5 = totally agree.

Teacher Behavior Checklist

The TBC is a 28-item instrument developed by Buskist et al. (2002) and adapted to a questionnaire format by Keeley et al. (2006). For this study, we used the Spanish version translated by Ripoll-Núñez et al. (2018) who used a back-and-forth translation process guided by the original authors of the scale. The original TBC has a 5-point Likert structure to identify how often a person thinks an excellent teacher shows or should show a specific characteristic. The original instruction in the TBC starts with the following statement: "An excellent teacher..." and then asks participants to rate each quality. In this study, we changed the instructions to "An EXCELLENT online/virtual teacher..." (upper-case letters included) based on the objectives of this research. The answer options included 1 = always shows this characteristic,

2=almost always shows this characteristic, 3=sometimes shows this characteristic, 4=rarely shows this characteristic, 5=never shows this characteristic.

The TBC can be divided into two subscales: (1) the caring and supportive subscale (13 items), and the (2) professional competency and communication skills subscale (11 items) (Kirby et al., 2018). The scores for these subscales were obtained by averaging the items belonging to each dimension. Regarding the psychometric properties of the TBC, previous studies show that the questionnaire has high levels of internal consistency (Kirby et al., 2018). In a previous study in Ecuador, the TBC has shown excellent properties in samples from teachers ($\alpha=0.89$) and students ($\alpha=0.95$) (Hermosa-Bosano & Keeley, 2021). In this study, Cronbach alpha of the total TBC was excellent ($\alpha=0.93$).

Procedures

At the beginning of the survey, participants had to give their consent prior to completing the questionnaire. Informed consent included a description of the study objectives, conditions of participation, benefits, and potential risks as well as contact information. After consenting, participants answered the demographic questionnaire first, followed by each of the scales of interest. On average, people spent between 15 and 20 min to complete the survey. The procedures for this study were reviewed and approved by the Ethics Committee of Universidad de Las Américas (Ecuador). Permissions were given to the third author of this article (Ref: 2020–0611).

Analyses

We conducted descriptive analyses for each variable (i.e., educators' perceptions of the quality of their teaching, and educator's perceptions of the qualities of excellent online teachers). We also conducted independent sample *t*-tests and ANOVAs using the following as comparison factors: gender (two levels: men vs. women), age (three levels: 35 years old or less, 36 to 55 years old, older than 56 years old), pre-pandemic online teaching experience (two levels: yes, no), and pre-pandemic online teaching training (two levels: yes, no). In the case of the TBC, we reverse-coded the items so that higher scores indicated the most relevant qualities of excellent online teachers; we then obtained the mean scores of each item, and then, we rank-ordered them from lowest to highest. Every time the average score of two or more items matched, the intermediate value was given to them; thus, two or more items may occupy the same place within the listing. In addition, we compared teachers' scores on the TBC subscales (i.e., professional competency and communicative skills subscale vs. caring and supportive subscale) and performed independent sample *t*-tests and ANOVAs using the previously mentioned variables. All the analyses were conducted using SPSS version 25 (IBM Corp. Inc., 2017). Statistical differences were set up at $p < 0.05$.

Results

Participants' Characteristics

The sample for this study included data from 341 participants (53.7% women [$n=183$], 45.7% men [$n=156$], 0.6% did not respond this question [$n=2$]). Participants' age ranged between 26 and 70 years, with an average age of 43.66 ($SD=9.88$). All participants were working as teachers at the time of the study (100.0%); 29.9% ($n=102$) of participants reported having managerial/administrative responsibilities aside from their teaching duties. Most participants were teaching undergraduate level courses at the time of the study (82.7%, $n=282$) and 17.3% ($n=59$) were teaching postgraduate courses. In terms of the time that participants had been working as teachers 40.8% ($n=139$) reported working between 4 and 10 years, 38.1% ($n=130$) reported working for more than 11 years, 17.3% ($n=59$) between 1 and 3 years, and 3.8% ($n=13$) less than a year. Most participants had attained either a master's (68.6%, $n=234$) or a doctoral degree (19.9%, $n=68$). Participants mainly taught courses in health sciences (24.3%, $n=83$), arts and humanities (15.8%, $n=54$), science (13.2%, $n=45$), social sciences (13.2%, $n=45$), and education (12.6%, $n=43$).

In terms of previous online learning experiences, most of participants reported having had courses about online teaching (65.7%, $n=224$) and half of the sample had taught online classes (54.3%, $n=185$). Among those who had taught online classes, most participants reported having had less than 1 year of experience teaching in online modalities (35.8%, $n=122$). Almost three quarters of the sample reported having received online courses or training in online teaching methods because of the COVID-19 pandemic (78.6%, $n=268$).

Educators' Perceptions of Their Teaching

Most participants agreed with the statement that teaching online classes was easy for them (71.3%, $n=243$), and that it was personally satisfying (67.7%; $n=231$). However, only 30.2% ($n=103$) agreed with the statement regarding online teaching better than on-campus, in person, teaching. Less than half (40.2%, $n=137$) felt that their quality of teaching had improved since the adoption of online teaching, and roughly 18.8% ($n=64$) felt their relationships with their students had improved since online teaching was adopted. Most participants also agreed with the statement "I feel I have learned new pedagogical strategies since online teaching was adopted" (82.4%, $n=281$). Approximately half of the sample (46.6%, $n=159$) agreed with the statement that their performance had improved since online teaching was adopted.

Independent sample t-tests using gender as the comparison variable indicated only one significant difference in the average scores of the statements. As seen in Table 1, we found that women presented higher scores in the statement about the quality of the relationships with their students since online teaching was adopted.

Table 1 Educators' perceptions of the quality of their teaching during the COVID-19 pandemic based on gender and age

	Gender		Age				<i>F</i>	<i>p</i>		
	Men		35 or less		36 to 55 years old				56 years old or older	
	<i>M (SD)</i>	<i>M (SD)</i>	<i>t</i>	<i>p</i>	<i>M (SD)</i>	<i>M (SD)</i>			<i>M (SD)</i>	<i>M (SD)</i>
Teaching online classes is easy for me	3.94 (1.16)	3.87 (1.26)	0.554	0.290	3.93 (1.18)	3.90 (1.23)	3.92 (1.25)	0.021	0.979	
Teaching online classes is satisfying for me	3.79 (1.15)	3.75 (1.21)	0.317	0.376	3.65 (1.20)	3.76 (1.19)	4.00 (1.06)	1.335	0.264	
I find online teaching better than on-campus, in-person, or in-person teaching	2.73 (1.33)	2.95 (1.30)	-1.498	0.068	2.68 (1.27)	2.89 (1.34)	2.86 (1.31)	0.691	0.502	
I feel that the quality of my teaching has improved since online teaching was adopted	3.15 (1.25)	3.27 (1.14)	-0.969	0.167	3.19 (1.21)	3.24 (1.20)	3.16 (1.14)	0.129	0.879	
I feel my relationships with my students have improved since online teaching was adopted	2.38 (1.04)	2.69 (1.29)	-2.455	0.007*	2.49 (1.20)	2.61 (1.23)	2.37 (0.96)	0.907	0.405	
I feel I have learned new pedagogical strategies since online teaching was adopted	4.10 (1.08)	4.20 (1.07)	-0.906	0.183	4.25 (1.00)	4.14 (1.07)	4.08 (1.20)	0.440	0.645	
I feel my performance has improved since online teaching was adopted	3.38 (1.11)	3.55 (1.10)	-1.400	0.081	3.63 (1.04)	3.45 (1.10)	3.30 (1.19)	1.386	0.252	

* $p < .05$

The one-way ANOVA using age group as comparison variable did not yield significant results.

We also found differences in the perception scores based on whether participants had previous work experiences and whether they had received previous training in online teaching compared to those without such experiences or training (see Table 2). Participants with previous work experience and previous training in online teaching reported higher agreement scores in the statements about online teaching being easy, satisfying, and better than in-person, on campus, teaching. They also presented higher scores in the statements about the quality of their teaching improving during the pandemic, the quality of their relationships with their students, and their overall performance. Participants with previous online teaching work experiences and training also reported higher scores in the statements about learning new pedagogical strategies since the adoption of online teaching.

Qualities of Excellent Online Teachers

The top 5 characteristics rated by teachers as the most important qualities of online teachers were being respectful ($M=4.95$, $SD=0.312$), enthusiastic about their teaching and their topics ($M=4.85$, $SD=0.391$), striving to become a better teacher ($M=4.84$, $SD=0.454$), being humble ($M=4.83$, $SD=0.399$), and being knowledgeable in their subject matter ($M=4.82$, $SD=0.418$). The least endorsed qualities were being creative/interesting ($M=4.62$, $SD=0.589$), promoting class discussion ($M=4.62$, $SD=0.665$), being understanding ($M=4.60$, $SD=0.655$), being flexible and open minded ($M=4.57$, $SD=0.659$), and showing a happy/positive/humorous attitude ($M=4.49$, $SD=0.722$). Table 3 presents the complete list of the TBC items, their average scores, and the ranking given by the participants.

Regarding the two subscales of the TBC, we found differences in the caring and supportive dimension based on gender, $t(337)=2.038$, $p=0.021$. Women indicated higher endorsement of the items from this dimension compared to men. When analyzing each item of this subscale, we identified significant differences in the items referring to being humble, establishing rapport, being understanding, and being sensitive and persistent; women showed higher endorsement to all those items than men. There were no differences in the professional competency subscale based on gender, $t(337)=0.526$, $p=0.300$; only the item referring to being approachable/personable showed a statistical difference, with women presenting higher scores than men. Regarding age group, we did not find statistical differences neither for the caring and supportive dimension, $F(2, 338)=1.187$, $p=0.306$, nor the professional competency dimension, $F(2, 338)=0.828$, $p=0.438$ (see details in Table 4).

We found differences in the professional competency subscale based on whether participants had received previous online teaching training, $t(339)=-2.972$, $p=0.002$. Participants who had received these types of training had higher scores in the professional competency dimension of the TBC compared to those who did not. The same results were observed when comparing the subscale scores based on whether participants had previous work experiences in online teaching, $t(339)=-1.912$, $p=0.028$. Also, we observed differences in

Table 2 Educators' perceptions of the quality of their teaching during the COVID-19 pandemic based on previous online learning training and work experience

	Previous online learning training				Previous online learning work experience			
	Yes		No		Yes		No	
	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>	
Teaching online classes is easy for me	4.06 (1.22)	3.62 (1.16)	3.271	0.001*	4.10 (1.16)	3.69 (1.24)	3.155	0.001*
Teaching online classes is satisfying for me	3.94 (1.13)	3.46 (1.21)	3.605	0.000*	3.88 (1.20)	3.65 (1.15)	1.831	0.034*
I find online teaching better than on-campus, in-person, teaching	3.07 (1.25)	2.40 (1.33)	4.589	0.000*	3.01 (1.33)	2.64 (1.28)	2.606	0.005*
I feel that the quality of my teaching has improved since online teaching was adopted	3.39 (1.17)	2.89 (1.17)	3.789	0.000*	3.39 (1.17)	3.01 (1.18)	2.989	0.002*
I feel my relationships with my students have improved since online teaching was adopted	2.69 (1.21)	2.26 (1.10)	3.191	0.001*	2.68 (1.21)	2.38 (1.14)	2.309	0.011*
I feel I have learned new pedagogical strategies since online teaching was adopted	4.27 (1.05)	3.93 (1.08)	2.779	0.003*	4.25 (1.04)	4.03 (1.10)	1.914	0.028*
I feel my performance has improved since online teaching was adopted	3.55 (1.12)	3.30 (1.05)	2.033	0.021*	3.59 (1.12)	3.32 (1.07)	2.256	0.012*

* $p < .05$

Table 3 TBC scores on the qualities of excellent online teachers

Item number	Item	Rank	X	SD
24	Respectful	1	4.95	.312
8	Enthusiastic about teaching and about topic	2	4.85	.391
26	Strives to be a better teacher	3	4.84	.454
13	Humble	4	4.83	.399
14	Knowledgeable about subject matter	5	4.82	.418
19	Promotes critical thinking/intellectually stimulating	6	4.80	.422
6	Effective communicator	7	4.79	.454
11	Good listener	8	4.75	.562
17	Professional	9.5	4.74	.639
16	Presents current information	9.5	4.74	.522
23	Realistic expectations of students/fair testing and grading	9.5	4.74	.540
2	Approachable/personable	9.5	4.74	.525
15	Prepared	9.5	4.74	.526
25	Sensitive and persistent	9.5	4.74	.532
21	Punctuality/manages class time	15.5	4.72	.544
4	Confident	15.5	4.72	.540
22	Rapport	17.5	4.70	.551
20	Provides constructive feedback	17.5	4.70	.573
9	Establishes daily and academic term goals	19	4.68	.620
27	Technologically competent	20.5	4.67	.591
7	Encourages and cares for students	20.5	4.67	.529
1	Accessible	22.5	4.66	.605
3	Authoritative	22.5	4.66	.576
5	Creative and interesting	24.5	4.62	.589
18	Promotes class discussion	24.5	4.62	.665
28	Understanding	26	4.60	.655
10	Flexible/open-minded	27	4.57	.659
12	Happy/positive attitude/humorous	28	4.49	.722

Items were reverse-coded so that higher scores indicated the most relevant characteristics. Afterwards, mean scores of each item were obtained and were rank ordered from the lowest to highest. Every time the average score of two or more items matched, the intermediate value was given to them; thus, two or more items may occupy the same place within the listing

the scores of the caring and supportive dimension of the TBC based on participants' previous online work experience, $t(339) = -1.723$, $p = 0.043$. Participants with previous online work experience reported higher scores in the caring and supportive dimension of the TBC compared to those without such experience. Scores and statistics are shown in Table 5.

Table 4 TBC scores based on gender and age

Subscales and items	Gender		Age					
	Men	Women		35 or less	36 to 55 years old	56 years old or older		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
<i>Caring and supportive</i>	4.68 (0.36)	4.75 (0.29)	2.038	4.73 (0.33)	4.7 (0.33)	4.77 (0.27)	1.187	0.306
1 Accessible	4.61 (0.67)	4.7 (0.55)	1.371	4.72 (0.51)	4.63 (0.65)	4.71 (0.54)	0.823	0.440
7 Encourages and cares for students	4.65 (0.54)	4.69 (0.52)	0.711	4.74 (0.44)	4.63 (0.56)	4.76 (0.47)	2.062	0.129
8 Enthusiastic about teaching and about topic	4.86 (0.38)	4.85 (0.38)	-0.289	4.83 (0.44)	4.85 (0.37)	4.86 (0.4)	0.086	0.917
10 Flexible/open-minded	4.54 (0.67)	4.58 (0.66)	0.553	4.56 (0.6)	4.52 (0.71)	4.76 (0.47)	2.821	0.061
13 Humble	4.78 (0.45)	4.87 (0.35)	2.278	4.83 (0.38)	4.84 (0.39)	4.78 (0.46)	0.397	0.673
18 Promotes class discussion	4.62 (0.64)	4.62 (0.69)	0.104	4.6 (0.66)	4.61 (0.69)	4.69 (0.55)	0.300	0.741
19 Promotes critical thinking/intellectually stimulating	4.79 (0.44)	4.8 (0.41)	0.182	4.79 (0.41)	4.81 (0.43)	4.78 (0.42)	0.082	0.922
20 Provides constructive feedback	4.65 (0.65)	4.74 (0.5)	1.534	4.69 (0.6)	4.7 (0.56)	4.73 (0.6)	0.056	0.946
22 Rapport	4.63 (0.62)	4.78 (0.46)	2.511	4.68 (0.55)	4.71 (0.55)	4.71 (0.54)	0.083	0.921
23 Realistic expectations of students/fair testing and grading	4.7 (0.62)	4.78 (0.47)	1.310	4.74 (0.56)	4.72 (0.57)	4.82 (0.39)	0.694	0.500
25 Sensitive and persistent	4.67 (0.58)	4.79 (0.48)	1.967	4.78 (0.56)	4.71 (0.53)	4.8 (0.49)	0.974	0.379
26 Strives to be a better teacher	4.81 (0.53)	4.86 (0.37)	1.123	4.85 (0.43)	4.82 (0.49)	4.9 (0.3)	0.670	0.512
28 Understanding	4.51 (0.76)	4.67 (0.55)	2.242	4.68 (0.5)	4.54 (0.69)	4.75 (0.66)	2.700	0.069
<i>Professional competency and communication skills</i>	4.72 (0.34)	4.74 (0.3)	0.526	4.73 (0.32)	4.72 (0.32)	4.78 (0.32)	0.828	0.438
2 Approachable/personable	4.65 (0.61)	4.81 (0.43)	2.94	4.78 (0.48)	4.71 (0.55)	4.80 (0.45)	0.895	0.410
3 Authoritative	4.69 (0.57)	4.62 (0.58)	-1.103	4.58 (0.60)	4.67 (0.59)	4.73 (0.49)	0.971	0.380
4 Confident	4.76 (0.47)	4.68 (0.59)	-1.246	4.69 (0.52)	4.71 (0.51)	4.78 (0.67)	0.471	0.625
6 Effective communicator	4.81 (0.44)	4.78 (0.47)	-0.639	4.75 (0.50)	4.78 (0.46)	4.88 (0.33)	1.349	0.261
11 Good listener	4.74 (0.56)	4.77 (0.57)	0.453	4.79 (0.47)	4.72 (0.60)	4.86 (0.49)	1.633	0.197
12 Happy/positive attitude/humorous	4.47 (0.67)	4.49 (0.77)	0.221	4.53 (0.71)	4.47 (0.73)	4.51 (0.70)	0.216	0.806

Table 4 (continued)
Subscales and items

	Gender			Age					<i>F</i>	<i>p</i>
	Men		Women	35 or less		36 to 55 years old		56 years old or older		
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>			
14	4.83 (0.41)	4.81 (0.43)	-0.418	0.338	4.82 (0.42)	4.83 (0.39)	4.82 (0.52)	0.006	0.994	
15	4.69 (0.60)	4.77 (0.46)	1.361	0.087	4.68 (0.55)	4.72 (0.55)	4.86 (0.35)	1.937	0.146	
21	4.69 (0.61)	4.75 (0.48)	1.057	0.146	4.74 (0.53)	4.70 (0.57)	4.78 (0.46)	0.507	0.603	
24	4.94 (0.28)	4.95 (0.34)	0.249	0.402	4.94 (0.29)	4.95 (0.23)	4.92 (0.56)	0.228	0.796	
27	4.65 (0.64)	4.69 (0.55)	0.537	0.296	4.72 (0.59)	4.66 (0.60)	4.67 (0.55)	0.298	0.742	

Table 5 TBC scores based on previous online learning training and work experience

Subscales and items	Previous online learning training				Previous online learning work experience			
	Yes		No		Yes		No	
	<i>M (SD)</i>	<i>t</i>	<i>M (SD)</i>	<i>p</i>	<i>M (SD)</i>	<i>t</i>	<i>M (SD)</i>	<i>p</i>
<i>Caring and supportive</i>								
1 Accessible	4.74 (0.28)	4.68 (0.38)	-1.464	0.072	4.74 (0.3)	4.68 (0.34)	-1.723	0.043*
7 Encourages and cares for students	4.68 (0.55)	4.62 (0.69)	-0.980	0.164	4.69 (0.56)	4.63 (0.66)	-0.886	0.188
8 Enthusiastic about teaching and about topic	4.69 (0.50)	4.63 (0.58)	-0.985	0.163	4.71 (0.53)	4.62 (0.53)	-1.598	0.055
10 Flexible/open-minded	4.84 (0.39)	4.86 (0.40)	0.245	0.403	4.87 (0.39)	4.83 (0.4)	-0.892	0.187
13 Humble	4.56 (0.67)	4.58 (0.63)	0.308	0.379	4.54 (0.72)	4.6 (0.59)	0.776	0.219
18 Promotes class discussion	4.85 (0.37)	4.8 (0.45)	-1.173	0.121	4.81 (0.43)	4.85 (0.36)	0.963	0.168
19 Promotes critical thinking/intellectually stimulating	4.7 (0.56)	4.48 (0.82)	-2.904	0.002*	4.69 (0.6)	4.54 (0.73)	-2.135	0.017
20 Provides constructive feedback	4.83 (0.38)	4.74 (0.49)	-1.810	0.036*	4.84 (0.38)	4.76 (0.46)	-1.782	0.038
22 Rapport	4.71 (0.54)	4.68 (0.63)	-0.598	0.275	4.78 (0.5)	4.6 (0.64)	-2.944	0.002*
23 Realistic expectations of students/fair testing and grading	4.72 (0.49)	4.67 (0.66)	-0.900	0.184	4.72 (0.53)	4.68 (0.58)	-0.749	0.227
25 Sensitive and persistent	4.77 (0.49)	4.69 (0.62)	-1.227	0.110	4.79 (0.48)	4.69 (0.6)	-1.764	0.039*
26 Strives to be a better teacher	4.71 (0.56)	4.79 (0.47)	1.262	0.104	4.76 (0.53)	4.71 (0.53)	-0.781	0.218
28 Understanding	4.89 (0.34)	4.74 (0.6)	-2.824	0.003*	4.87 (0.4)	4.8 (0.51)	-1.399	0.081
<i>Professional competency and communication skills</i>								
2 Approachable/personable	4.60 (0.66)	4.60 (0.64)	-0.059	0.477	4.61 (0.66)	4.6 (0.65)	-0.130	0.448
3 Authoritative	4.77 (0.27)	4.66 (0.39)	-2.972	0.002*	4.76 (0.31)	4.7 (0.33)	-1.912	0.028*
4 Confident	4.79 (0.45)	4.65 (0.63)	-2.287	0.011*	4.78 (0.47)	4.69 (0.59)	-1.511	0.066
6 Effective communicator	4.71 (0.54)	4.56 (0.63)	-2.161	0.016*	4.71 (0.56)	4.59 (0.59)	-1.985	0.024*
11 Good listener	4.77 (0.48)	4.62 (0.63)	-2.354	0.010*	4.76 (0.55)	4.67 (0.52)	-1.429	0.077
12 Happy/positive attitude/humorous	4.82 (0.44)	4.74 (0.48)	-1.671	0.048*	4.84 (0.41)	4.73 (0.5)	-2.291	0.011*
14 Knowledgeable about subject matter	4.75 (0.52)	4.75 (0.64)	-0.036	0.486	4.74 (0.58)	4.77 (0.54)	0.469	0.320
	4.47 (0.72)	4.51 (0.73)	0.480	0.316	4.5 (0.76)	4.47 (0.68)	-0.442	0.329
	4.86 (0.36)	4.76 (0.50)	-2.032	0.021*	4.82 (0.45)	4.83 (0.38)	0.116	0.454

Table 5 (continued)
Subscales and items

	Previous online learning training				Previous online learning work experience			
	Yes		No		Yes		No	
	<i>M (SD)</i>	<i>t</i>	<i>M (SD)</i>	<i>p</i>	<i>M (SD)</i>	<i>t</i>	<i>M (SD)</i>	<i>p</i>
15	4.80 (0.44)	4.61 (0.64)	-3.324	0.000*	4.79 (0.46)	4.67 (0.59)	-2.249	0.013*
21	4.78 (0.47)	4.62 (0.65)	-2.625	0.005*	4.74 (0.52)	4.71 (0.57)	-0.507	0.306
24	4.97 (0.20)	4.91 (0.45)	-1.770	0.039*	4.95 (0.37)	4.95 (0.22)	0.082	0.467
27	4.74 (0.48)	4.55 (0.75)	-2.909	0.002*	4.75 (0.47)	4.58 (0.7)	-2.637	0.004*

* $p < .05$

Discussion

This study analyzed teachers' perceptions of the quality of their teaching during the COVID-19 pandemic, as well as their conceptions regarding the characteristics of excellent online teachers. The arrival of the pandemic forced many educators to translate their activities to technology-mediated environments. This study adds to the literature by providing evidence on what teachers perceive excellent teaching to be in the context of an international health crisis that required the adoption of new teaching tools and resources. Gathering this information is useful since it allows researchers to make distinctions regarding what excellent teaching means in our present days, considering that ERT and online learning are set to become indispensable tools for many institutions to continue their activities even after the pandemic has been controlled and new strains of the COVID-19 virus continue to appear (García-Morales et al., 2021).

In general, results from our study indicate that our participants had diverse thoughts regarding online teaching. Most participants agreed with the statements that online teaching was easy and satisfying for them. However, only 30% agreed with the statement that online teaching was better than on-campus, in person, teaching. Less than half also felt that their quality of teaching had improved since the adoption of online teaching, and less than 20% felt their relationships with their students had improved since online teaching was adopted. These results indicate the existence of people that struggled with this modality of teaching whether in the pedagogical or the interpersonal dimensions of teaching.

These findings highlight the importance of providing continuous training for teachers in online teaching methods (Rienties et al., 2013) and, specially, in the creation of supportive classroom climates to promote better interpersonal relationships, despite the physical distance that online education entails. Comparison analyses indicated that prior online teaching training and work experiences made differences in teachers' perceptions on the quality of their teaching, possibly by giving them tools and resources to adapt to the new learning scenarios. These results are in line with previous findings such as those of Trust and Whalen (2020). In their study, participants who had used technologies in their classes reported an easier transition to ERT for themselves and their students. It is also possible that previous training and work experiences allow teachers to obtain better results with their students, thus making them feel competent and satisfied with their work. In that sense, the transition toward ERT may have been smoother for those teachers that were somewhat familiarized with online learning environments.

Our findings using the TBC also suggest that the most highly rated qualities in excellent online teachers included being respectful, enthusiastic about their teaching and their topics, striving to become a better teacher, being humble, and being knowledgeable about their subject matter. Other important qualities included promoting critical thinking, being an effective communicator, being a good listener, being approachable/personable, presenting current information, and presenting professionally.

These results share some similarities with previous studies conducted in Latin American countries before the COVID-19 pandemic (Henklain et al., 2018; Hermosa-Bosano & Keeley, 2021; Ripoll-Núñez et al., 2018). Even though being respectful is not in the top ten characteristics in the Brazilian sample (Henklain et al., 2018), consistent with previous studies from Ecuador (Hermosa-Bosano & Keeley, 2021) and Colombia (Ripoll-Núñez et al., 2018), being respectful is the top-rated characteristic of excellent teaching in our study. Other top five qualities in excellent teaching that emerged in our results were also partially aligned with the previous research. These shared characteristics were being enthusiastic (Ecuador and Brazil), being knowledgeable (Colombia and Brazil), humble (Ecuador), and striving to be a better teacher (Brazil).

It should be noted that, like in the Brazilian study (Henklain et al., 2018), our results in this study showed that striving to become a better teacher was in the top three while in Hermosa-Bosano and Keeley's (2021) study with pre-pandemic data, this characteristic was rated as the 10th most important quality, and in Ripoll Nuñez et al. (2018), in Colombia, it was placed in the 12th position. It is possible that participants from this study valued this quality as something that made a difference when teaching an online course in the context of post-pandemic ERT since it may translate into concrete actions to overcome the barriers of adapting quickly to it. For example, striving to become a better teacher could involve implementing new and innovative ways to deliver their content, creating activities using interactive online tools, and learning how to engage their students in other physical locations.

On the other hand, qualities such as being an effective communicator and being confident, which were part of the top five in Ecuador (Hermosa-Bosano & Keeley, 2021) and Colombia (Ripoll-Núñez et al., 2018), were ranked in 7th and 15th place in our results. Similarly, promoting critical thinking and being accessible, which were part of the top-rated qualities in the Brazilian sample (Henklain et al., 2018), were ranked in the 6th and 22nd place in our results. Future research should focus on understanding why some qualities emerged as part of the top characteristics, why some others did not, and what that means in the context of a classroom setting.

Further analyses using the TBC indicated gender differences in the mean scores of the items belonging to the caring and supportive dimension from the TBC; we did not find such differences in the professional competency subscale. According to Keeley et al. (2006), this dimension includes items such as providing constructive feedback, being sensitive and persistent, being flexible and open-minded, being understanding, being encouraging, and caring for students, being accessible, among others. From those items, women gave higher scores to being humble, establishing rapport, being understanding, and being sensitive and persistent. We believe these differences might suggest gender norm ideas which indicate that women should act as supportive figures toward others, including their students. In the context of ERT due to the COVID-19 pandemic, this may be of importance considering the high number of stressors that impacted students' lives during this period (i.e., trauma due to the loss of loved ones, the experience of the disease) (Azmat & Ahmad, 2022). Thus, it is possible that for some women the conceptions of excellent online teachers include aspects of the supportive role that teachers may play for their students. Future studies should further explore these differences using qualitative methods to determine whether there are differences in the series

of ideas men and women have regarding excellent online teachers, and their roles in their student's life in the context of a health emergency such as the pandemic.

In addition, we found that teachers who had received online teaching training and who had had previous work experience in online learning settings indicated higher endorsement of the professional competency dimension of the TBC. This shows that strategies used for face-to-face learning were not always practicable for online learning and specific training is necessary (Pokhrel & Chhetri, 2021; Yeigh & Lynch, 2020). It is possible that learning about the technical aspects on how to effectively deliver an online class (e.g., setting up the environment for online teaching, establishing the rules of engagement, creating a sense of community through collaborative activities, having a constant visual presence) may have an impact in the way that they view excellent teaching (Dwivedi et al., 2020). Furthermore, it is likely that the characteristics of teachers' trainings focus more on the technical aspects of teaching, rather than the interpersonal climate that teachers must create to potentialize their students' learning. Based on these findings, we believe future studies could analyze the nature of educators' training programs and workshops to determine whether their focus is on the technical, rather than the interpersonal, aspects of teaching.

Limitations

We believe there are some limitations that need to be acknowledged. First, the cross-sectional design, the size of our sample, as well as the recruitments methods used in this study, limit our capacities to generalize our results. Many authors have warned about the significant increase of online survey studies that rose with the COVID-19 pandemic and their implications for research in terms of generalizability and the existence of many forms of selection bias, including self-selection bias, nonresponse bias and the reach of specific subgroups (De Man et al., 2021). Our study only includes participants from higher education setting. Future research should check if these results and conclusions about the qualities of excellent teaching apply to other education levels, such as primary and secondary, given the different working conditions and diverse challenges faced by teachers in those settings.

Another limitation has to do with the fact most of our teachers worked in private institutions. The reality of ERT in private settings may differ from those in public settings, especially in a country such as Ecuador. For many years, public institutions have been neglected by the state and the technological development in these institutions has been limited (Vincent Caicedo et al., 2021). Future studies should dedicate time to analyze the series of challenges that teachers in these institutions faced during the pandemic. Also, as Ripoll-Núñez et al., (2008) suggested, future studies should consider the interacting systems at the macro and micro levels, as well as a combination of quantitative and qualitative methodologies.

Implications and Future Studies

As we previously stated, teaching is a labor embedded within systems that are in constant change because of the influence of many structural factors. International

health, political, and economic crises such as the one experienced during the pandemic have taught us that ERT is a potential resource to continue providing education services to thousands of students. As such, we believe it is necessary that teachers continue to reflect on the ways they carry out their labor in today's digital environments. Further understanding the characteristics of excellent online teachers and the continued assessment of the quality of their own work could provide educators and researchers useful information to better create programs and initiatives to ensure the provision of teaching environments that help students attain their learning goals.

We believe our results provide a starting point to discussions about the qualities of teachers in the context of ERT in times of COVID-19. In our study, the top five qualities of excellent online teachers included being respectful, enthusiastic about their teaching and their topics, striving to become a better teacher, being humble, and being knowledgeable about their subject matter. Learning about these qualities may help teachers identify if their professional daily practice echoes those characteristics as well as the potential behaviors that could help them attain those ideals using the available technological devices and resources. The literature in this area could expand by dedicating more efforts to continue analyzing teachers' and students' perceptions on the qualities of excellent online teachers and analyze the existence of differences based on the type of online learning modality such as ERT, and blended and distance learning.

Results from our study also indicate that the perceptions of teachers become more favorable as they have access to institutional supports and formal training. The adoption of ERT in the context of the pandemic may have not allowed institutions to provide enough technological and pedagogical supports for teachers. However, identifying differences based on teachers' previous work experiences may offer support to the idea of providing teachers with continued training, assistance, and resources on ERT and online learning and teaching. Teachers in these types of training could benefit from using diverse technologies that expose them to first-hand experiences that inspire new and creative ways of instructing their students. Furthermore, we believe teachers should have opportunities to develop both technical and social competencies that help their students experience positive and encouraging learning environments. These opportunities should help teachers be better prepared to create courses in blended and online formats, as well as easily adapt to emergency situations such as the one experienced during the pandemic. Finally, it would be of great use that teachers participate and construct social and professional networks that increase their access to different experiences and resources (Alwafi, 2021). Increasing teachers' social capital may help inform and better their practice as well as provide them with spaces to share with others the challenges they experience in their daily practice and ideas to overcome them.

Certainly, the emergency settings created by the pandemic brought many different stressors and challenges that may have impacted teachers' capacities to support their students in such difficult times. However, the analysis and constant reflection of the ideal qualities of outstanding teachers and the conditions that help teachers get closer to those conceptions may be a way to better prepare future educators overcome the challenges ahead.

Author Contribution All the authors were responsible for the study conception, design, data collection, and analysis. The first draft of the manuscript was written by the first author. The second and third authors commented and wrote on the first draft. All the authors read and approved the final manuscript.

Data Availability Data is available upon request to the corresponding author.

Declarations

Consent to Participate Informed consent was obtained from all individual participants included in the study.

Conflict of Interest The authors declare no competing interests.

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