What is the Future of Online Education?

The Perceptions of Instructors with Over a Decade of Online Teaching Experience

Rebecca Arlene Thomas, Ph.D. and Mary Ellen Dello Stritto, Ph.D.

Ecampus Research Unit, Oregon State University

Correspondence concerning this article should be addressed to Mary Ellen Dello Stritto,

Ecampus Research Unit, Oregon State University, 4943 The Valley Library, Corvallis, OR

97331, United States. Email: maryellen.dellostritto@oregonstate.edu

Abstract

Although online learning has continued to grow, limited research has investigated the

perceptions of experienced online teaching faculty. The purpose of this study was to

investigate how 33 faculty with 10 years or more of experience teaching online perceived the

future of higher education online. Qualitative interviews were analyzed in comparison to the

future trends identified in the 2015-2019 Horizon Reports. Results indicate that the future of

online learning should be considered an integral part of higher education, as the future points

to education delivered in multiple modalities. Instructors were optimistic that the growth of

educational modalities could lead to greater access and accessibility for students, and

discussed the role of "brick and mortar" institutions, as well as technology development.

Instructors hoped that face-to-face campus programs would remain, but that online and

remote communities could serve students who find online education a better fit for their lives.

Instructors highlighted the diversity of online students, as well as the diversity of types of

degree, credential, and certificate programs. Taken together, these finding suggest that

professional development efforts should prepare faculty to teach using multiple modalities,

and to serve students from diverse backgrounds with diverse goals.

What is the Future of Online Education?

The Perceptions of Instructors with Over a Decade of Online Teaching Experience

For years, online course offerings have expanded across college campuses (Seaman, et al., 2018), and during the COVID-19 pandemic, higher education institutions with more robust online programs were more likely to thrive (Hill, 2021). Other institutions, however, may have been underprepared to make the shift to online and remote course instruction. As recently as 5-years-ago, a survey of chief academic officers conducted by Babson Survey Research Group and Quahog Research Group, LLC (Allen et al., 2016) indicated that faculty members were skeptical about the efficacy of online teaching and learning, particularly those who had never taught online. In addition, prior to the pandemic, online teaching remained a novel experience for many instructors across the United States. In a more recent Gallop® and *Inside Higher Ed* poll (Jaschik & Lederman, 2019), 54% of surveyed faculty members had never taught an online course prior to the pandemic. In the same poll (Jaschik & Lederman, 2019), over 50% of faculty members with online teaching experience indicated a reliance on advice from colleagues for support with online teaching, whose experiences may also have been more limited.

As online teaching and learning continues to grow, it is important to learn from professionals with years of experience in the field of online higher education. These instructors have made the transition to online teaching and have adapted their pedagogy over time. They have learned new technologies and overcome barriers to reaching students, adjusting their teaching practices to accommodate the changing needs of students and creating effective learning communities. Therefore, this qualitative study investigated perspectives from educators with over 10 years of online teaching experience. The paper focuses on online

instructors' perceptions of the future of online education because these perspectives may have implications for professional development as more faculty transition into online teaching.

Trends in Higher Education Online

Recent publications indicate that COVID-19 has transformed higher education in several ways (Pelletier et al., 2021), with increased attention to online and remote education. However, the field of higher education has anticipated trends in online education long before COVID-19. For example, the EDUCAUSE Horizon Reports® has published emerging and future trends in higher education for over 15 years (Adams Becker et al., 2017; Adams Becker et al., 2018; Alexander et al., 2019; Johnson et al., 2015; Johnson et al., 2016). These trends were identified each year by a diverse group of experts in the field of online higher education and have been used by college and university personnel to make decisions about how they could fulfill their missions (Alexander et al., 2019; see Table 1 in the Appendix for the trends identified by the 2015-2019 Horizon Reports®). Overall trends anticipated increased options for educational attainment (e.g. increased degree and certification options), increased options for educational modality, and increased use of educational technology to drive learning that is focused on specific student needs.

The Horizon Reports®, as well as other educational technology reports in higher education (e.g., the Digital Learning Innovation Trends® report by Every Learner Everywhere and Online Learning Consortium) have been widely read and respected by professionals in the online learning field in particular, as most of the trends identified have applied to multiple educational modalities (i.e. online and face-to-face). However, the trends identified in these reports are now more broadly relevant, as recent sources suggest that some faculty are more

optimistic about online education since the onset of pandemic (Cengage, 2021), and that the

pandemic might lead to faster changes in higher education (Cutri & Mena, 2020).

Nevertheless, others have suggested that some faculty may resist increases in online

education, or other remote modalities in the post-pandemic future (Kroger, 2020).

Considering that in the past, many faculty have perceived online education to be inferior to

face-to-face learning (Allen et al., 2016), it is important to understand faculty perceptions of

online teaching and learning.

Faculty Perceptions of Online Education

While the field of higher education as a whole has been forecasting trends relevant to

online teaching and learning, limited research has investigated faculty perceptions of the

future of online higher education. To date, most research related to online teaching has

focused on students' experiences, educational technology, and online learning communities

(Naylor & Nyanjom, 2020). Studying faculty perceptions is important because faculty play a

critical role in student success efforts and are often left to choose which professional

development opportunities they pursue (Bohan & Perrotta, 2020; Marasi et al., 2020). If

institutions want to improve their online courses and programs, they need faculty support and

buy-in in order to achieve their goals (Hafsa, 2019). Therefore, research that aims to better

understand how to support faculty has the potential to increase positive outcomes, including

educational quality and student and faculty satisfaction.

Of the research on faculty perceptions and experiences, most of the existing research

has focused on the transition from face-to-face to online teaching, or on early experiences of

online teaching (Hafsa, 2019; Mansbach & Austin, 2018; Saunders et al., 2020). While this

could be because online education is relatively new at many institutions, it could also be

because more research has focused on graduate education and early career faculty members

compared to mid-career faculty members (Baker & Manning, 2020). It is important to study

the perspectives of faculty members with more experience (mid-career and later), because

mid-career faculty are the largest group of faculty and are the most likely to hold leadership

positions (Baker & Manning, 2020). It is also important to study faculty at all stages of their

careers, as results can shed light on growth trajectories, and on what faculty need at different

stages of their professional development. Therefore, the current study focuses exclusively on

faculty with 10 years or more experience teaching online.

Faculty Perceptions of the Future of Online Education

While limited, some research has investigated how higher education faculty perceive

the future of online education (e.g. Naylor & Nyanjom, 2020; Shearer et al., 2020), and more

specifically, how faculty feel about the future of online teaching and learning. For example,

Naylor and Nyanjom (2020) interviewed 20 online educators with 3 - 21 years of online

teaching experience, and studied participants' emotional responses to teaching online

(positive or negative emotions), as well as their perceived institutional support (higher or

lower perceived support). The educators with positive emotions about online teaching

combined with high perceived institutional support were labeled as "futuristic" by the authors,

and these instructors reported higher self-efficacy, enthusiasm, and motivation about teaching

online. Shearer et al. (2020) also investigated an "ideal" future for online education, with a

focus on the thoughts and feelings of students and faculty with online education experience.

Shearer et al. (2020) recruited 11 tenure track faculty from an institution with strong online

programs. Faculty participants were asked to bring two images that represented their emotions regarding an ideal future of online education to focus groups. The researchers analyzed participants' behavior in the focus groups (observational data), as well as transcriptions of the focus groups. Findings suggest that the faculty thought that an "eclectic" pedagogical approach should be used for online education in the future, which included but was not limited to personalization of content, transformative learning experiences, and collaborative learning. These themes overlapped with themes identified by the 2015-2019 Horizon Reports® (see Table 1 in the Appendix), suggesting that the faculty in this study might have received professional development related to online pedagogy. These studies suggest that an ideal future for faculty includes positive emotions about online education combined with institutional support that provides pedagogical training.

The Current Study

While previous studies recruited some faculty that were mid-career or later (Naylor & Nyanjom, 2020; Shearer et al., 2020), perceptions of the future of higher education online with *seasoned* online instructors remains limited. In particular, experienced online instructors can offer a unique perspective on the development of online education because they have been teaching online long enough to have experienced changes in technology, pedagogy, and attitudes toward online teaching. Therefore, the current study fills a gap in the extant literature by: a) focusing specifically on the experiences of faculty who are mid-career or later; b) focusing on the perceptions of faculty who have also taught online for at least 10 years or more; and c) focusing on faculty's perspectives of the *future* of online teaching and learning.

The faculty in this study were employed by a public 4-year institution in the United States with high quality online asynchronous programs. Faculty were asked, "What do you think is the future of online learning?" at the end of a series of three interviews. Responses were analyzed through two qualitative methods and implications for future faculty development were considered. It is important to note that these data were collected prior to the COVID-19 pandemic, and that the participants may have different predictions for the future if the data were collected today. However, since the participants had been teaching online for 10 years or more at the time they were interviewed, they had been teaching long enough to identify important trends.

Method

This study was part of a larger qualitative project that examined experiences and motivations of 33 instructors who reported teaching online in higher education for at least 10 years. The current study investigated responses to the question, "What do you think is the future of online learning?"

Participants and Measures

Participants were recruited at a large public university in the United States. Following Institutional Review Board (IRB) approval, a list of instructors who had taught online and were employed for 10 years or more was used for recruitment. Prospective participants were recruited via an anonymous Qualtrics XM Software pre-survey that took 5-10 minutes to complete (Qualtrics XM, Provo, UT). The survey measured demographic information, their teaching experience (e.g., online and in other modalities), and their interest in participating in three qualitative interviews with a member of the research team. If pre-survey respondents (*N*

= 39) indicated their interest in participating in the qualitative interviews, they were provided

a separate link to schedule interviews (see Procedure below). Of those surveyed, 33 (85% of

pre-survey respondents; 59% female and 41% male) chose to participate in the interviews.

Forty-five percent of participants were 55 – 64-years-old and 18% of participants were 35 –

44-years-old. The majority (85%) reported doctoral level degrees as the highest level of

education, and 67% were employed full time. Nine (23%) were in tenure track positions, and

12 (32%) had achieved tenure at their current institution(s). The average number of years they

had taught online at their current institution was 14 years (*SD* = 4.6 years; Range 10 - 31

years). Participants were from a range of disciplines (e.g., Chemistry, Computer Science,

Education, Food Science and Home Economics, Fisheries and Wildlife, Philosophy, Public

Health and Sociology), and therefore taught diverse content online. Most participants had

experience teaching in multiple modalities (see Table 2 for the number of courses participants

had taught in the year prior to the interview in an asynchronous online format, as well as in

face-to-face and blended courses). While all of the participants had over 10 years of online

teaching experience, they varied in their experience in online course design.

Table 2

Average number of courses taught in the past academic year by modality

Type	Mean	SD	Count	Minimum	Maximum
Online	4.64	4.5	36	0	19
Hybrid/blended	1.23	1.6	22	0	5
Face-to-face	3.14	3.8	28	0	15

Procedure

Prospective participants were sent up to three recruitment emails that described the

general purposes of the study and contained a link to the Qualtrics pre-survey. Instructors who

chose to participate in the pre-survey were provided a link to the survey from the recruitment email. The end of the pre-survey redirected participants to an online scheduling tool, Acuity Scheduling (2006), which allowed participants to sign up for the three interviews with a member of the study team.

Two members of the research team completed all participant interviews. With a couple of exceptions, participants completed all three of their interviews with the same research team member in order to build rapport and to encourage consistency. All interviews were conducted using Zoom, an online video conferencing software in the Fall and Winter of the 2018 - 2019 academic year. Each of the interviews were structured, with 15 questions in Interview 1, 16 questions in Interview 2, and 13 questions in Interview 3. Once interviews were complete, audio files were used to transcribe the interviews in preparation for data analysis. Participants received $300 gift cards for their participation in the interviews.

Qualitative Coding and Data Analysis

Responses to the question, "What do you think is the future of online learning?" were analyzed *sequentially* using two different methodologies (Saldaña, 2016; p. 73), both of which are described in what follows.

Round 1 Coding

The first round of coding examined major themes in participants' responses utilizing a combination of "in vivo coding" (Saldaña, 2016; p. 105), "holistic coding" (Saldaña, 2016; p. 166) and "concept coding" (Saldaña, 2016; p. 119). These methodologies were selected because in vivo coding identifies themes using participants' language (e.g. "brick and mortar" institutions), while both holistic coding and concept coding interprets data by reading larger

passages, as opposed to line by line. In combination, these approaches gauge meanings and

the "bigger picture" behind participant responses.

The lead researcher completed the first round of coding and developed a codebook that

provided a code name, description, and inclusion/exclusion criteria (see Table 3). Another

research team member then double coded the data using the codebook. Disagreements and

discrepancies were resolved by discussion until the researchers reached consensus.

Round 2 Coding

The second round of coding utilized "provisional coding" (Saldaña, 2016; p. 168), investigating

the extent to which participants' responses aligned with the future themes identified in the

Horizon Reports. Five years of *Horizon Reports* (2015, 2016, 2017, 2018 and 2019) were used

to generate "Key Trends" for "Accelerating Technology Adoption in Higher Education"

Table 3

Codebook: Round 1 Coding Themes

Code	Description	Inclusion/Exclusion Criteria
Online and blended learning will continue to grow	Participant describes how online and/or blended learning will become more common or widespread	Includes higher education & K12; Includes online and blended learning; Excludes MOOCs
Online learning will increase in access and accessibility	Participant describes how online learning will increase access to education	Includes online and blended learning
Will online learning replace brick and mortar institutions?	Participant discusses the possibility of online learning replacing face-to-face learning	Includes higher education; includes reasons why online learning will or won't replace face-to-face learning
Technology development will increase	Participant describes how technology development will effect online learning and vice versa	Includes online and blended learning

provided in each year of the Horizon Report up to 2019 (Alexander et al., 2019; p. 6). All of the

"Key Trends" identified in the Horizon Reports for the 5 years studied (2015 - 2019) were

included as codes in this round of the analysis. The lead researcher used the descriptions

provided in the Horizon Reports to generate a codebook for each of these "Key Trends" that

provided a code name, description, inclusion/exclusion criteria, and an example passage for

each code (see Table 1 in the Appendix).

After one researcher coded the instructor responses using the *Horizon Report*

codebook, the other researcher double coded the data. Disagreements were again resolved by

discussion until both researchers reached a consensus. Additionally, the two researchers

discussed any overlaps between the Round 1 and Round 2 coding, and discussed which themes

would be important to include in this report. Themes from both rounds of coding are included

in Table 1 in the Appendix and Table 3.

Results and Discussion

The following is a summary of long-term instructors' responses to the question, "What do you

think is the future of online learning?" The "Round 1: Coding Themes" are presented as four

major sections (see Table 4), with the "Round 2: Horizon Report Themes" woven within the

four sections of the Round 1 themes. Of the 11 trends discussed in the five years of the

Horizon Reports, five of those trends were found frequently in instructors' responses (i.e. by

six or more instructors). Those five trends are described in detail below. Quotation marks are

used to indicate both code names (e.g. "increased access and accessibility") and the language

that the participants used in the interviews (e.g. "global demands"). The descriptions of the

results are further combined with discussions of the implications for faculty development, as

institutions prepare faculty to teach a diverse population of students in multiple modalities.

Table 4

Instances of Coding Themes: Instructor and Overall

	Number of Instructors	Number of Instances
Round 1 Coding Themes		
Online learning will continue to grow	22 (66.7%)	27
Online learning will increase access and accessibility	18 (54.5%)	23
Will online learning replace brick and mortar institutions?	13 (39.4%)	25
Technology development will increase	13 (39.4%)	14
Round 2 Horizon Report Themes		
Modularized and Disaggregated Degrees*	9 (27.3%)	12
Redesigning Learning Spaces*	9 (27.3%)	11
Blended Learning Designs*	7 (21.2%)	8
Rethinking How Institutions Work*	7 (21.2%)	8
Collaborative Learning*	6 (18.2%)	6
Advancing Cultures of Innovation	4 (12.1%)	4
Deeper Learning Approaches	3 (9.1%)	4
Rise of New Forms of Interdisciplinary Studies	3 (9.1%)	3
Proliferation of Open Educational Resources	2 (6.1%)	2
Growing Focus on Measuring Learning	2 (6.1%)	2
Cross-Institution & Cross-Sector Collaboration	2 (6.1%)	2

Note. "Number of Instructors" indicates the number of instructors (of 33 participants) who included the theme in their response. "Number of Instances" indicates the total number of times the theme was coded across all responses.
*Only these more frequently reported themes are discussed in the Results section of the paper.

Online and Blended Learning Will Continue to Grow

The majority of instructors (22 out of the 33 participants; 66.7%) suggested that they

expect online learning in higher education to become more prevalent in the future.

Participants expected online learning to grow for a variety of reasons, many of which

overlapped with themes such as "increased access and accessibility," and "modularized and

disaggregated degrees." Several instructors also suggested that online learning will grow due

to expectations of continual education from employers, or "global demands" as the "world

progresses so quickly." In particular, participants suggested that online learning will be

commonly used by adult learners who want or need to earn degrees or credentials while they

maintain other life responsibilities.

Horizon Report Theme: Blended Learning Designs

Although the instructors were asked about the future of "online learning," a few

instructors (21.2%, n = 7) also discussed hybrid or blended learning in their responses.

Blended Learning Designs was included as a "Key Theme" in four of the five issues of the

Horizon Report (2015 - 2019), which describes the growth combining face-to-face instruction

with online instruction, as well as integrating technology into face-to-face courses. Most of

these instructors predicted that elements of online education will be used more frequently in

what have traditionally been face-to-face classes. For example, one instructor said, "you get

the best of both of those [online and face-to-face] environments." Some instructors described

blended learning designs as foundations for an "ideal course;" for example, one participant

said,

> "I like to fantasize about what I would do with a face-to-face class, and I think for me, a
>
> hybrid class would be just optimal. Get together once a week… flexible. Once a week,
>
> make maximal use of the students physically being in a space, and the rest of the time
>
> they're working individually."

Overall, instructors' responses related to growth align with data suggesting that higher

education is progressively offering more educational modality options (Fong & Cook, 2020),

and that a variety of online components can be added to courses in order to increase quality.

For example, both synchronous and asynchronous online components can be added to face-to-face as well as blended courses. This suggests that training for instructors should prepare them to teach using multiple modalities, and should focus heavily on pedagogical training, as good pedagogy can be applied across modalities. For example, active learning strategies such as think-pair-share ask students to comprehend the information presented in a course well enough to discuss and share with other students (Riggs & Linder, 2016). As online and blended learning become more common, it is important for instructor resources, such as those provided by Centers for Teaching and Learning (CTL), to work on providing pedagogical training that can be applied across modalities. Institutions can also work to increase the number of faculty who can teach using multiple modalities (both new faculty as well as continuing), and provide funding, resources, and other support systems for faculty to do so. Continually improving the options for instructor trainings are especially important considering that the "futuristic" instructors in Naylor and Nyanjom's (2020) study perceived support from their institutions regarding online teaching and learning.

Online Learning Will Increase Access and Accessibility

Eighteen instructors (54.5%) predicted that online learning will increase access to education, with most of the comments focusing on access to higher education specifically. Within this theme, instructors discussed accessibility through location flexibility (i.e. online courses can be taken from anywhere), time flexibility (online courses can be accessed during times students are available), and financial access.

Location Flexibility Will Increase Access

Several instructors emphasized the "global" nature of online learning, implying that individuals can access online courses from various areas of the world. This can make courses formerly not accessible in certain areas accessible, which can broaden students' options for educational quality, as well as educational content (i.e. if an area of study isn't offered locally, students can take online courses). For example, one participant said, "So for international students who would like to access… the U.S. university system, this online kind of experience, I think, would be really helpful."

Within this code, there was some overlap with the theme, "technology development will increase", as some instructors implied that future technology will continue to make it easier for students to access online course content from different areas of the world. For example, another participant said,

> "There's going to come some point at which we have machine translation that's able to actually let us communicate with people in other languages. That's going to change our world radically… a truly global environment where we're not partitioned from one another."

This implies that as online courses become more available globally, technology development will aid in the process to make courses accessible to a higher number of people. Other instructors suggested that students "in rural areas versus the urban areas where they can easily make it to college physically" can benefit from the "global" nature of online learning.

This theme suggests that increased opportunities for online learning have the potential to increase educational access for certain students. This is particularly timely and relevant, as

the COVID-19 pandemic shifted higher education's focus to remote and online teaching. It is important for online courses to be designed in a way that allows these diverse students to learn effectively; for example, through use of Universal Design for Learning (UDL) principles (Rose, 2000). Pedagogical support professionals such as Instructional Designers are ideal for contributing in these efforts, as instructors need support and development in order to do their best teaching. Institutions with limited resources might consider ways that they can prioritize faculty support, particularly in areas related to UDL; for example, graduate students (possibly those in the social sciences (Dello Stritto & Thomas, 2021)) may benefit from assistantships focused on teaching and learning focused efforts.

Time Flexibility Will Increase Access

Instructors also highlighted the "flexibility" and "convenience" of online courses, and suggested that this feature of online learning can be beneficial for a wide variety of students, providing "options for students whether they're on campus or not." For example, one participant said that online learning can "divide up education and make it available for people… squeeze it into some of the margins of their lives." Additional instructors highlighted different student groups who may be unable to make the time and/or financial commitment for full-time college coursework on campus, such as single parents and older students who are employed full time. This result suggests that new online instructors should be trained in areas related to working with busy students; for example, instructors should provide advance notice to students, as they juggle multiple responsibilities (Ko & Rossen, 2017). Instructors can also work with students graciously (e.g. providing multiple tries on exams, offering deadline forgiveness), as online students may perform more optimally under less rigid expectations. In

general, it is important for online instructors to be aware of the struggles of online students, as online students may differ demographically from traditional in-person students.

Financial Accessibility in Online Education

While some instructors suggested that online learning can also increase financial access to education, others suggested that despite the potential for accessibility in online learning, financial access may still be a barrier. For example, one participant said,

> "I see online teaching as the antidote to urban and rural inequities… an antidote to age-ism… an antidote to gender… Single moms can now go to school and experience their social mobility… But there are some inequities. There is still an issue of financial access, but before [online learning] the financial burdens would be higher."

Financial accessibility is an issue for higher education in general, as running quality online programs require resources. Most instructors lack the ability to change the cost of the courses that they teach. However, it is useful for instructors to consider their students' financial situations. For example, online instructors can prioritize providing open educational resources, and can ask their students what kinds of technology (e.g. student devices such as laptops) they have access to (Dello Stritto & Linder, 2018). This awareness can help instructors work with students who may struggle academically due to financial reasons.

Horizon Report Theme: Modularized and Disaggregated Degrees

Modularized and Disaggregated Degrees was a "Key Theme" in the 2019 issue of the Horizon Report. Considering that many of these instructors were interviewed during that same year (2019), it may not be surprising that this was one of the most commonly discussed Horizon Report theme (27.3%, n=9). This trend describes the growth of online learning

outside of formal education or degree programs, and includes alternative training and credentials offered in online formats, such as massive open online courses (MOOCs), badges, and microcredentials. This theme relates to another theme, "online learning will increase access and accessibility," as these modularized and disaggregated degree programs offered online can allow adult learners to receive the education they need to progress in their careers without needing to spend more time and/or resources enrolling in longer degree programs.

MOOCs in particular were mentioned by many of these instructors as an accessible means to education outside of traditional degree programs. For example, one participant said, "I think there's a big push for MOOCs...I appreciate it because...I'm a sociology person. I appreciate free, level the playing field. Give people an opportunity." These instructors mentioned that MOOCs had recently grown in popularity and expected similar open educational resources to grow in popularity in the future.

Another core component of this theme centered on "lifelong learning." Instructors predicted that more adults would use online education to access specific content needed in order to progress, and that less "linear" options for higher education would become more common culturally. For example:

> "I think you should be able to do it whenever you want from wherever you want, trying to continue your life and do these education hacks. You're just grabbing some education and you need that to do this next task and it's.. not linear... also more affordable that way where people are making the money and doing it as they go."

It is important for online educators be made aware of the different kinds of courses (e.g. MOOCs compared to asynchronous online courses) and certification programs that could be

offered to students. As online education and higher education continue to evolve, instructors will need systems for determining students' levels of expertise, as well as goals and objectives for taking the course, at the beginning of each term or semester. Since instructors could theoretically be teaching students enrolled in a variety of types of degree programs, technology could be a less labor intensive way to help instructors track student goals and progress.

Horizon Report Theme: Collaborative Learning

Eighteen percent of instructors (n = 6) also discussed "Collaborative Learning," which was included as a "Key Theme" in the 2017 Horizon Report and was also a key theme voiced by the instructors in Shearer et al.'s (2020) study. This theme describes increased amount of student-to-student collaboration and group collaboration in higher education. While some of the instructors simply described the importance of collaboration without specifically applying it to online education, others discussed how technologies can facilitate online collaborative efforts (e.g. Zoom), and some emphasized cross-cultural collaboration in the online classroom. For example, one participant said, that with online learning, "you can learn from other people all over the world," suggesting that diverse online courses that encourage collaboration may provide rich experiences for future online learners.

This suggests that while diversity training is a growing trend in higher education (Mercer-Mapstone & Bovill, 2020), diversity training may be especially important for online educators. Instructors should be encouraged to embrace diversity in their classrooms, and to show that they celebrate diversity through their language and teaching facilitation. For example, instructors should consider how the layout of their online course welcomes students

from diverse backgrounds. Images used in online courses, as well as language, should communicate to students that diverse perspectives are welcome and encouraged. Instructors should be trained to thank students for sharing their diverse views and perspectives, as this positive feedback can encourage future sharing and growth for all students. Additionally, instructors need support in how to respond to ideas shared in the classroom that threaten opportunities for students to share diverse experiences (Kafka, 2021), as it is the instructor's job to manage online discussions in the classroom. Future work should consider how instructors can advocate for diversity in the online environment.

Will Online Learning Replace Brick and Mortar Institutions? Rethinking How Institutions Work

Eleven instructors (33.3%) discussed the possibility that online learning may grow so much that it could eventually become the primary modality used in higher education, replacing face-to-face learning. One participant said, "…it almost seems like someday we're not going to have our regular institutions…looking at the trends in online course enrollment compared to traditional classroom." Other instructors suggested that face-to-face learning may not be needed in the future. For example, one instructor said, "If you have a virtual reality, you're able to immerse yourself with your classmates in a virtual classroom… I can see not the need for a brick and mortar a university."

However, more (13 instructors total; 39.4%) instructors suggested that they didn't think face-to-face learning should be eliminated in the future, due to the "college experience," "culture," and "climate" offered at brick-and-mortar institutions. One participant said, "I think it [taking only online courses] loses the intellectual growth that comes along with being in

university setting, or a college setting. There's a lot more to it than just learning facts and figures. It's about maturing and interacting and living within a community of scholars." Along these lines, some instructors stated that they thought online education could be a good fit for older students, or non-degree seeking students, but that fully online education would be "a horrible option for 18- and 19-year-olds and 20-year-olds." Overall, most instructors hoped that online education could provide more options for students, but did not want online education to replace brick-and-mortar institutions.

While attending a brick-and-mortar institution may provide valuable opportunities for many students, it is important to consider ways that instructors, and institutions as a whole, can foster community for online students. Frameworks such as the Community of Inquiry (CoI) (Garrison, et al., 1999) can help instructors create a community of practice in the classroom. While the instructors in this study thought that face-to-face environments were ideal for this kind of community, future conversation about cultivating a broader community for online students can be further explored. Lessons learned from the COVID-19 pandemic, such as learning how to include students in campus clubs, could inform future efforts to include online students in campus culture. Considering that online students represent diverse identities, including online students in campus communities can contribute to these environments in a valuable way.

Horizon Report Theme: Rethinking How Institutions Work

Twenty-one percent (n = 7) of instructors also discussed "Rethinking How Institutions Work," which was included as a "Key Theme" in three of the five issues of the Horizon Report (2015 - 2019). This theme describes the growth of institutions and new ways these

institutions could fulfill their mission. In general, instructors discussed where online learning

fits (or could fit) in the context of institutions, and how online learning, in addition to other

forms of learning, can provide students more options to succeed. For example, one participant

said:

> "The question will be, how do we grow [online] classes in a way that maximizes… the
>
> effectiveness for both? Because I can see utility in having hybrid courses. I can see the
>
> utility in having solely [online] courses. I can also see the utility of just having on-
>
> campus classes. And I can see how those could integrate over time to more effectively
>
> support the mission of the university and to help students get their career goals and
>
> opportunities."

Other instructors provided examples of how online learning facilitates the "rethinking"

process. One participant discussed how online learning can affect college coursework offered

for high school students, and another discussed how graduate students' experiences teaching

online have impacted hiring practices for faculty in their department. Overall, instructors

suggested that online learning can be a critical component of the "rethinking" process

institutions are expected to do as they aim to meet future learners' needs.

While the long-term instructors in this study discussed the possibility of online

education replacing the brick-and-mortar intuitions, it is important to change this perspective

moving forward. Rather than asking if online education is going to replace "traditional"

education, institutions need to think through how different modalities can meet student

needs. Institutions can also communicate with students about the tradeoffs associated with

different educational modalities, so that students can choose courses that are the best fit for their lives.

Technology Development Will Increase

Many of the instructors in the sample (39.4%, n = 13) also discussed the relationship between future online education and technology development. Some mentioned that technology development in the past has already "made it easier to teach online," and cited technologies such as Zoom that ease communication in online environments. These instructors predicted that technology development will continue to impact online teaching and learning. For example, one participant said, "… technology is going to improve and there are tools that I can't even imagine, which would increase students' success online." Some specific technologies that these instructors cited as potentially impacting online learning in the future included virtual reality, increased capabilities of cell phones, and online systems that can better adapt to individual learners' needs.

Most of the instructors who were optimistic about technology development cited technologies that could improve online teaching and communication; however, some instructors were pessimistic about technology replacing other lifestyle elements, such as face-to-face communication.

Horizon Report Theme: Redesigning Learning Spaces

Redesigning Learning Spaces was included as a "Key Theme" in all five issues of the Horizon Report (2015 - 2019) and was also one of the most commonly discussed by the long-term instructors (27.3%, n = 9). This trend describes the growth of designing learning spaces that facilitate active learning and collaboration. While the Horizon Report has mostly

described the theme in the context of face-to-face courses, the 2019 Horizon Report stated

that the theme can be applied to virtual environments as well. For example, some instructors

mentioned virtual reality (VR) and other technologies that may change online learning spaces

in the future. One participant said, "I think there are going to be more ways in which the

online experience will be using…virtual reality so that people might even feel like they're in the

same space at some point in time…It could go lots of different directions." These instructors

predicted that virtual learning spaces will become more "dynamic" and "multidimensional" in

the future as new technology develops.

 Additionally, some instructors mentioned the online platforms themselves, and

suggested that they could be designed in a way to more specifically meet learner needs. For

example:

> "I think that our online systems are going to become better at adapting to…individuals
>
> and how it is that they go about learning. Not learning styles, I'm talking about what
>
> they pursue and how they put the information together and what they do with it. I
>
> believe that we're going to get better at creating individualized education."

Essentially, instructors predicted that technology development could enhance online learning

spaces in the future, through tools that facilitate communication and collaboration, as well as

tools that adapt to learners' individual behaviors. This theme mirrors Shearer et al. (2020)

findings, in which instructors suggested an ideal future would include an eclectic pedagogical

approach that would include personalized and adaptive learning. Thus, trainings for faculty

should include pedagogical training paired with technology training, as it may be difficult for

faculty to keep up with new technologies. Institutions can vet and recommend certain

technologies for instructor use. This may help mitigate the challenges of preparing faculty to learn and adopt new technologies in their courses.

Study Limitations

While this study sheds light on long-term faculty's perceptions of the future of online education, it is important to note that many perspectives were not included in the current study. Future work should consider perspectives from faculty with diverse experiences and from diverse institution types. Additional work can consider how the COVID-19 pandemic may have shaped faculty perceptions, as the data were collected prior to COVID-19.

Conclusion

This study provides a unique perspective on what a group of long-term online instructors foresee in the future of online education. Overall, instructors' ideas of the future aligned with some themes in the broader field of higher education, such as diversity, opportunity, and access. Instructors acknowledged that online learning will continue to grow and they promoted online learning as a way to increase access and accessibility. They further encouraged institutions in higher education to continually rethink and re-envision technology and online pedagogy.

The findings from these long-term instructors provide a context by which we can consider the needs of all online instructors in the near future, irrespective of where they are in their careers. As more and more instructors transition into the online modality, it is important that we prepare them to be successful. Instructors need to be knowledgeable not only in their content area, but in pedagogy and in working with online students as well. Trainings for instructors in higher education should include pedagogy that can be applied across modalities,

technology skills to enhance the course and help individual students, and information about

how to work with diverse student groups around the globe.

References

Acuity Scheduling (2006). *Acuity Scheduling* [Computer software].

    https://acuityscheduling.com

Adams Becker, S., Brown, M., Dahlstrom, E., Davis, A., DePaul, K., Diaz, V., & Pomerantz, J.

    (2018). *NMC Horizon Report: 2018 Higher Education Edition*. EDUCAUSE.

    https://library.educause.edu/resources/2018/8/2018-nmc-horizon-report

Adams Becker, S., Cummins, M., Davis, A., Freeman, A., Hall Giesinger, C., &

    Ananthanarayanan, V. (2017). *NMC Horizon Report: 2017 Higher Education Edition*.

    The New Media Consortium. https://library.educause.edu/resources/2017/2/2017-

    horizon-report

Alexander, B., Ashford-Rowe, K., Barajas-Murphy, N., Dobbin, G., Knott, J., McCormack, M.,

    Pomerantz, J., Seilhamer, R., & Weber, N. (2019). *EDUCAUSE Horizon Report: 2019*

    Higher Education Edition. EDUCAUSE.

    https://library.educause.edu/resources/2019/4/2019-horizon-report

Allen, E.I., Seaman, J., Poulin, R. & Straut, T. (2016). *Online report card. Tracking*

    online education in the United States. Babson Survey Research Group and Quahog

    Research Group.

Baker, V. L., & Manning, C. E. (2020). A mid-career faculty agenda: A review of four

    decades of research and practice. *Higher Education: Handbook of Theory and Research*,

    36, 1-66.

Bohan, C. H. & Perrotta, K. A. (2020). A reflective study of online faculty teaching experiences

in higher education. *Educational Policy Studies Faculty Publications, 31*, 50-66.

https://scholarworks.gsu.edu/eps_facpub/31

Cengage (2021, March 24). Survey: About half of faculty are positive about online learning

today than pre-pandemic, and expect to keep new teaching techniques and digital

materials in place post-pandemic. [Press release].

https://corporate.cengage.com/news/press-releases/2021/survey-about-half-of-

faculty-are-more-positive-about-online-learning-today-than-pre-pandemic-and-expect-

to-keep-new-teaching-techniques-and-digital-materials-in-place-post-pandemic/

Cutri, R. M., & Mena, J. (2020). A critical reconceptualization of faculty readiness for online

teaching. *Distance Education, 41*(3), 361-380.

Dello Stritto, M. E., & Thomas, R. A. (2021, May 14). How social scientists can contribute to

online teaching and learning research, teaching, and mentorship. *WCET Frontiers.*

https://wcetfrontiers.org/2021/05/14/how-social-scientists-can-contribute-to-online-

teaching-and-learning-research-teaching-and-mentorship/

Dello Stritto, M. E. & Linder, K. E. (2018). *Student device preferences for online course access

and multimedia learning.* Oregon State University Ecampus Research

Unit. https://ecampus.oregonstate.edu/research/study/student-device-preferences/

Fong, J., & Cook, V. (2020, December 9). Learner demographics and perception of value

[Webinar]. UPCEA. https://upcea.edu/past-webinar-recordings/

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based

    environment: Computer conferencing in higher education. *The Internet and Higher*

    Education, 2(2-3), 87-105.

Hafsa, S. F. (2019). *Investigating teachers' identity development in a hybrid course to prepare*

    online teachers. [Doctoral dissertation, University of Rochester]. ProQuest.

    https://www.proquest.com/dissertations-theses/investigating-teachers-identity-

    development/docview/2229722308/se-2

Hill, P. (2021, July 28). The colleges that prospered during the pandemic. *The Chronicle of*

    Higher Education. https://www.chronicle.com/article/the-colleges-that-prospered-

    during-the-pandemic

Jaschik, S. & Lederman, D. (2019). *2019 survey of faculty attitudes on technology.* Inside Higher

    Ed & Gallup. https://www.insidehighered.com/booklet/2019-survey-faculty-attitudes-

    technology

Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Hall, C. (2016).

    NMC Horizon Report: 2016 Higher Education Edition. The New Media

    Consortium. https://library.educause.edu/resources/2016/2/2016-horizon-report

Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2015). *NMC Horizon Report:*

    2015 Higher Education Edition. The New Media Consortium.

    https://library.educause.edu/resources/2015/2/2015-horizon-report

Kafka, A. C. (2021, July 26). Could political rhetoric turn to campus violence? *The Chronicle of*

    Higher Education. https://www.chronicle.com/article/could-political-rhetoric-turn-to-

    campus-violence

Ko, S., & Rossen, S. (2017). *Teaching online: A practical guide*. Taylor & Francis.

Kroger, J. (2020, May 26). 10 predictions for higher education's future. *Inside Higher Ed*.

https://www.insidehighered.com/blogs/leadership-higher-education/10-predictions-

higher-education%E2%80%99s-future

Mansbach, J., & Austin, A. E. (2018). Nuanced perspectives about online teaching: Mid-career

and senior faculty voices reflecting on academic work in the digital age. *Innovative*

Higher Education, *43*(4), 257-272.

Marasi, S., Jones, B., & Parker, J. M. (2020). Faculty satisfaction with online teaching: A

comprehensive study with American faculty. *Studies in Higher Education*, 1-13.

Mercer-Mapstone, L., & Bovill, C. (2020). Equity and diversity in institutional approaches to

student–staff partnership schemes in higher education. *Studies in Higher*

Education, *45*(12), 2541-2557.

Naylor, D., & Nyanjom, J. (2020). Educators' emotions involved in the transition to online

teaching in higher education. *Higher Education Research & Development*, 1-15.

Pelletier, K., Malcolm Brown, D., Brooks, C., McCormack, M., Reeves, J., Arbino, N., Bozkurt, A.,

Crawford, S., Czerniewicz, L., Gibson, R., Linder, K., Mason, J., & Mondelli, V. (2021).

EDUCAUSE Horizon Report, Teaching and Learning Edition. EDUCAUSE.

https://library.educause.edu/resources/2021/4/2021-educause-horizon-report-

teaching-and-learning-edition

Qualtrics XM. (2002). *Qualtrics XM* [Computer software]. https://qualtrics.com

Riggs, S. A., & Linder, K. E. (2016). *Actively engaging students in asynchronous online*

classes. (IDEA Paper# 64). IDEA Center, Inc.

Rose, D. (2000). Universal design for learning. *Journal of Special Education Technology, 15*(3), 45-49.

Saldaña, J. (2016). *The coding manual for qualitative researchers*. Sage.

Saunders, F. C., Brooks, J., & Dawson, M. (2020). Exploring staff attitudes to distance learning–what are the opportunities, challenges and impacts on engineering academics and instructional designers. *European Journal of Engineering Education, 45*(5), 675-690.

Seaman, J. E., Allen, I. E., & Seaman, J. (2018). *Grade increase: Tracking distance education in the United States.* Babson Survey Research Group.

Shearer, R. L., Aldemir, T., Hitchcock, J., Resig, J., Driver, J., & Kohler, M. (2020). What students want: A vision of a future online learning experience grounded in distance education theory. *American Journal of Distance Education, 34*(1), 36-52.

Zoom (2011). *Zoom* [Computer software]. https://zoom.us

Appendix

Table 1

Codebook: Horizon Report Themes

Code	Theme Years	Description	Inclusion Criteria	Example
Modularized and Disaggregated Degrees*	2019	Opportunities for learners to blend their formal education with modularized online coursework (e.g. "build your own degree")	Includes Information learning, MOOCs, microcredentials, badges, and lifelong learning	"I think it's exciting because…you're just grabbing some education and you need that to do this next task and it's…not linear."
Redesigning Learning Spaces*	2015-2019	Designing and evaluating physical and virtual spaces that facilitate active learning and collaboration	Includes redesigning physical virtual learning spaces	"I think that our online systems are going to…get better at creating individualized education."
Blended Learning Designs*	2015, 2016, 2017, 2019	The integration of technology applicable for achieving the learning outcomes of the course	Includes the combination of online and face-to-face instruction, and technology solutions for synchronous distance activities	"…there's going to be more hybridization. We're going to see more…tools, more…flexibility, more methods where students are learning using…online tools."
Rethinking How Institutions Work*	2015, 2016, 2019	Strategies to rethink how institutions fulfill missions, including student-centered learning	Includes collaborations with higher education institutions and industry	"I just…sense that there are…things that could happen in terms of how we do education…there's a lot of…new tools we never thought of."
Collaborative Learning*	2017	Students or educators working together in peer-to-peer or group activities, placing the learner at the center	Includes collaborative tools (e.g. cloud-based servers), and international collaborations	"Online learning opens up the world. Multiple academic units. And that's a value. What you can learn from other people all over the world."

Advancing Cultures of Innovation	2015-2019	Innovative solutions that provide students with experiences that better prepare them for the workforce	Includes "learning from failure," Venture labs and incubators, and business partnerships that encourage industry collaboration	"The future where online teaching is something you get…actively…involved, getting out in the world and talking to people and seeing things and it's more immersive…"
Deeper Learning Approaches	2016, 2017	Mastery of content that engages students in critical thinking, problem-solving, collaboration, and self-directed learning	Includes project-based learning, challenge-based learning, inquiry-based learning, and active learning	"…our students, our new generations are becoming more self-sufficient in their learning capabilities."
Rise of New Forms of Interdisciplinary Studies	2018	Rise of valuable alternatives to a traditional, singular degree path	Includes interdisciplinary experiences, nanodegrees, and alternative credentials (e.g. badges)	"…we're really talking about… different ways to divide up education and make it available for people…given that they can't just drop everything and go be residential for four years."
Proliferation of Open Educational Resources	2015, 2018	Producing high-quality teaching, learning, and research materials that are free for people everywhere to use and repurpose	Includes open resources for both students and instructors	"Open-sourcing stuff…really matters. We've just had a lot of people borrow our stuff or want to use our stuff or the ideas behind some of the stuff, and I don't think that would happen if it hadn't been online somewhere…"
Cross-Institution & Cross-Sector Collaboration	2015, 2018	Education institutions uniting toward common goals; Cross-sector collaborations involve higher education partnering with industry to solve problems and prepare students for the digitally focused workforce	Includes both collaborations across institutions (e.g., higher ed, K12) and with industry	"We are going to move a little more quickly…to sort of modular learning and the value of certificates and single courses in the workplace…"

| Growing Focus on Measuring Learning | 2015-2019 | Methods to assess, measure, and document learning, such as measuring learner readiness, learning progress, and other indicators of student success. | Includes instructor accountability, analytics that measure engagement (e.g. number of clicks on a page), and assessment (what students have learned); | "I want...accountability. I want it to mean something when a student has completed a class and got their grade for what they've earned. It's not just a commodity." |

Note. *Indicates the most frequently coded Horizon Report themes.