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Pivoting to Deeper Experiences in Higher Education Classrooms

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Chapter: Pivoting to Deeper Experiences in Education**Authors: Eadens, D.M. & Eadens, D.W.**

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Introduction

In higher education, pivoting quickly to a fully virtual experience online in the midst of a global pandemic is an adventure. There are marked differences between the online experience for a student who was already in a web-delivered course versus one that started face-to-face and quickly pivoted to an online setting. Some assignments, lessons, and courses are easily delivered in alternate formats while other learning opportunities are much more difficult to transition for online delivery. For example, assignments that involve internships or in-person experiences had to shift dramatically, be delayed, or cancelled. Beyond the experiences within the higher education classroom, effects of the pandemic may have pivoted our family lives at home as well. Many children were suddenly home doing school from home, some with immense amounts of self-motivation and others needing extensive amounts of help and assistance from their parents who are also trying to take courses or work from home themselves. One of the authors of this chapter had many students in the hospitality industry in Central Florida who were suddenly laid off as a result of the pandemic and were shifting focus of trying to make ends meet or avoid homelessness. Relational humanity and flexibility from faculty is essential in a pandemic for the students struggling with so much in their lives to be able to continue in their courses and higher education experiences.

Faculty Experiences in Higher Education

Faculty experiences within the COVID-19 pandemic varied dramatically due to a multiplicity of factors. In the Spring semester, many face-to-face faculty members found themselves quickly shifting to online instruction after Spring break while others pivoted their already online classes to better meet the needs of the students enrolled as they faced new challenges due to the rapidly shifting situation. Hodges, Moore, Lockee, Trust, and Bond (2020) make the point that Emergency Remote Teaching is a very different experience for faculty and students than carefully designed online instruction and suggests that faculty take more control of course design and implementation. Hughes, Henry, and Kushnick (2020) similarly concluded that while shifting, faculty who transitioned into an online environment for the first time for their classes focused on adapting existing coursework to the virtual environment. It is likely this preference occurred frequently, rather than creating “an optimal online course built on well-planned and well-placed assignments and assessments” while faculty who had prior training and experience in online remote modalities had a smoother transition to fully remote teaching (p. 2). These authors suggested using *backward design* as an educational process and focusing on the end desired results in mind for teaching pragmatically. Roache, Rowe-Holder, and Muschette (2020) noted how, in higher education, one huge advantage of the pandemic crisis has been that it has quickly fostered the development of online learning in all fields of study.

Another area of concern is whether students with disabilities or other learning needs were still getting their needs met in the ERT format. Gleason et. al. (2020) studied the topic, concluding, “Long-experienced access barriers to online education were exacerbated by the abrupt transition of in-person to remote instruction.” Well-designed online instruction should utilize elements of Universal Design for Learning where students have access to materials through multiple means of engagement, representation, and action and expression. Far too often,

higher education instructors quickly shifting to online instruction were being incredibly adaptive in getting the lecture that was to be delivered face-to-face up online quickly but often left without the time to ensure that it was accessible for all students or that it used best practices in delivering instruction in a universally designed way.

Gacs, Goertler, and Spasova (2020) offered interesting insights on what one needs to do when quickly moving instructions to online mode as happened in Spring 2019 for faculty across the world. Their suggestions (p. 383) included: assessing the syllabus to identify the course components and assignments that simply cannot be experienced and/or delivered remotely, conducting a needs analysis “to understand instructors' and students' needs in terms of technology, workload, access, accessibility, equity, and inclusion”, and developing a plan for “effective and efficient communication, connection and engagement, teacher presence, and a compassionate learning environment”. In such a quick pivot, some faculty may feel they may need to make compromises in “test security, assessment, copyright, accessibility, and technology use” though “lowering standards in these key areas may pose liabilities and certainly creates inequities” (p. 383). As is the case in most institutes of higher learning, while face-to-face and online courses are distinct, the authors “advocate for jointly planned curriculum, which acknowledges the different formats yet aims for the same curricular goals using similar techniques and mostly the same materials” (p. 389).

At the University of Central Florida, a founding faculty member in the UCF College of Medicine Analia Castiglioni navigated a quick transition to an online experiential clinical skills instruction for her medical students that allowed for synchronous interactions of students and simulated patients, along with small-group activities and clinical assessments. Her students are now uniquely qualified and prepared to successfully engage in telemedicine (Hurtado, 2020).

Recognizing skills that may be useful in a post-CV (post-COVID-19) world is an important element of learning and growing higher education from these transformative experiences.

Gillis and Krull (2020) surveyed student perceptions regarding the transition to online learning in college courses. They noted barriers to this modality, including: digital divide/unequal access to technology; inability to use resources on-campus; slower internet at homes due to everyone in the household working from home (including faculty); stress and anxiety due to safety, health, and financial concerns. The authors note, “Access to computer and Internet technology has always been stratified, with racial and ethnic minorities, people from lower socioeconomic backgrounds, and people in rural areas being less likely to have a computer and to connect to the Internet” (p. 4). The results of the surveys from students revealed that the effectiveness of teaching techniques used by faculty varies. Some students rated assignment forum posts as “just an assignment we completed rather than small group discussions to actually talk and connect” (p. 9). When they participated in Zoom discussions, the majority of participants surveyed found it effective when the teacher structured the live Zoom discussions similarly to the face-to-face classes, including the opportunity to alternate between small groups via breakout rooms and full class discussions in the larger Zoom room. Additionally, students appreciated having Zoom discussions occasionally, to allow “students to benefit from the technique without being overly burdened by it” (p. 10). Also, while forums, individual worksheets, and VoiceThread techniques were rated as very accessible, they were not rated as very enjoyable, thus revealing a tradeoff between synchronous interaction, enjoyment, and accessibility. A point made by the authors as noted in their research, “How a technique is implemented can impact its accessibility” aligns well with the best practices in online teaching where the methods used are not as important as *how* they are utilized (p. 10). Beyond

implementing elements of effective online instruction, it is imperative that faculty do not lose their humanity in working with students. Gillus and Krull noted themselves “Most students felt their academic success was inhibited by feeling unmotivated, distracted, and/or anxious due to COVID-19” (p. 11) and the authors of this chapter echo the same sentiment about their students over the same time period.

In Smoyer, O’Brien, and Rodriguez-Keyes (2020), the authors surveyed undergraduate social work students about their experience with remote learning during COVID-19, noting “Over half of the respondents [total responses $n=122$] described in-person learning as their preferred format” (p. 652). Students who preferred online learning expressed interest in technology and ability to complete coursework at their own pace, thus, more efficiently. Challenges experienced by students include: lack of human interaction, perceived inability to ask professors questions, lack of hands-on activities, distancing from engaging in individual and group dialogue (desire for which brought students to the profession in first place), especially in classes where instructors didn’t offer synchronous discussions and substituted class time with written work. Most students reported being able to learn online and efficiently complete class requirements. However, “Dissatisfaction surfaced when students moved beyond assignments to focus on social interactions, that is, their ability to develop relationships with their classroom community and be known by instructors and peers” (p. 653). Smoyer et al. suggest utilizing synchronous meeting tools like Zoom or WebEx, platforms for video that allow asynchronous instruction like FlipGrid or VoiceThread), flexible faculty office hours, blogs or discussion boards that allow students ask questions of each other and clear communication guidelines.

Paulsen and McCormick (2020) compared online learners (OLs) and face-to-face learners, finding that collaborative learning experiences were substantially lower for OLs. In

their research, they also noted a concerning difference in quality of instruction and student-faculty interaction where the face-to-face learners experienced higher quality in both realms. The authors suggest, “as online learning continues to expand, it will be important to implement approaches that promote opportunities for students to have meaningful interactions with peers and afford richer opportunities for collaborative learning” (p. 27). Meaningful interactions with instructors need to be purposefully facilitated within the online mode as they found that “the examples revealed a heavy reliance on discussion boards as the mechanism for interaction, despite longstanding calls to move from “discussion” to “discourse” to facilitate student learning” (p. 27). Barriers noted by Paulsen and McCormick that may impact these results include differences in learner characteristics including age, enrollment status, residence, major, and work or dependent responsibilities.

Neuwirth, Jović, and Mukherji (2020) point out that while faculty at most campuses were provided some training on teaching in virtual classroom, the same cannot be said about the students, who faced equal, if not more, challenges with a quick shift to this modality. Student training would have been valuable as the authors note, “Strategies to train students in proper etiquette and professional behaviours, while in the online virtual classroom, are skills that will be both valuable and transferable in future employment settings” (p. 4). Faculty note that during initial virtual classroom sessions, “the students often seemed as if they were mentally elsewhere; they were not as engaged, as compared to traditional face-to-face classes; they were not asking questions and did not respond to direct questioning about issues or needs with faculty as would have been past practice” (pp. 6-7). Many of the faculty reported a concerning lack of virtual attendance and issues of engagement. Some obstacles students face include: lack of a private and/or quiet area, lack of finding someone to watch their child or a parent from whom they are

caring, privacy issues concerning turning on the video camera (not wanting others to see their living environment). Far too often, Neuwirth, Jović, and Mukherji note that “students do not realise that their decision to not join in on the distance learning lectures through their computer camera directly impacts their psychological engagement in the virtual classroom, and this lack of engagement reduces their interactive learning” (p. 8). Suggestions for online etiquette to teach students include: verbally/visually confirming students’ presence, frequently asking students to raise their hands or participate, utilizing polling and discussion boards or interactive forums, and breakout groups or rooms. A notable outcome noted by the authors is that teaching during a pandemic can be beneficial for building resilience.

Barriers to distance learning during the COVID-19 pandemic are not limited to the United States. The International Association of Universities surveyed institutions all over the world, getting 424 respondents from 109 countries or regions. Researchers note that Africa and Europe are overrepresented in the survey while America, and Asia and the Pacific are underrepresented. Survey results showed that nearly all Higher Education Institutions (HEIs) noted an impact from COVID-19 on teaching and learning. Two-thirds of respondents noted that classroom teaching was replaced by distance learning in some form. Major challenges noted by respondents included “access to technical infrastructure, competences and pedagogies for distance learning and the requirements of specific fields of study” (Marinoni, Van’t Land, & Jensen, p. 11) The impact on international students was also felt all over the world, with 89% of HEIs noting a negative impact on figures regarding international student mobility.

In the Arab world, specifically in the regions of Algeria, Egypt, Palestine, and Iraq, Lassoued, Alhendawi, and Bashitialshaaer (2020) surveyed 400 professors and students regarding obstacles to successful distance learning. Results included: the lack of capability to

communicate remotely was seen as an obstacle by 56.3% of participants (students and professors combined), weak internet – 59%, understanding of some subjects in the absence of classroom interaction – 58.8%, weak motivation of students for distance learning – 44.3%, lack of willingness to implement the distance learning system – 43.5%, lack of training in the use of technology – 32.3%. Interestingly, “About 20% of the professors stated that they were not convinced of the feasibility of distance learning compared to 13% of the students who reported the same answer” (p. 10).

One author of this chapter teaches a class that requires a significant service-learning component for the final project whereby students must serve as a volunteer with an organization that aligns to social causes about which they are passionate. Plans students made to volunteer with a nursing home or at a homeless shelter were quickly canceled in March 2020 and students had to quickly scramble to find another way to complete the volunteer hours, and as a result, many students dug deeply to find ways to serve those closest to them, completing grocery shopping for compromised neighbors or reaching out to video chat with those in nursing homes to bring them comfort as they became isolated from the outside world. The projects from Spring 2020 and the subsequent semesters have been closer to the social cause about which the student is passionate and, for one student, even led to an internship with the Smithsonian in the following semester. One student, returning to university after some time away raising children, re-enrolled simply to finish her degree. The need to find a creative service-learning project accessible to her during a pandemic led her to a newfound passion in tortoise identification and relocation, one in which she decided to involve her own children and logging ten times the number of required hours for the project. Since completing that project in the summer semester, she has expanded it and now has involved others in her expanding bubble into wildlife identification and for the Fall

2020 semester decided to conduct a research project on the power of citizen science, with a focus on developing educational programming on the topic for children. As a result of a different situation due to the pandemic, her university service-learning project has extended to her own family and beyond into what is hopefully a lifelong passion project.

The same author also teaches a research capstone course with a final research project. During the course of the semester, students must meet with the faculty member to check-in on their project, ensure productivity, get questions answered, etc. As these meetings shifted to phone or zoom only in March, the faculty member made it a point to ask each student, “As a human being in the middle of a pandemic, I just want to see how you are doing. How are things in your world?” A little bit of humanity goes a long way. Students talked about their experiences with furloughs, sickness, COVID, family stressors, and so much more. So many thanked the author for asking and for caring about their humanity. Students that were beginning to disengage from coursework and starting to fall behind renewed their efforts in the course and began to work hard on getting themselves back on track. The faculty-student relationship, particularly in the midst of a global pandemic, must first start with a focus on shared humanity, to help students successfully navigate learning outcomes. Relational humanity is an integral part of showing our students they matter as humans and deepening our relationship with them is a humanitarian act.

Roache, Rowe-Holder, and Muschette (2020) discuss the integral role of leadership during large-scale shifts to remote learning. To facilitate teaching online, faculty must take on cognitive, affective, and managerial leadership roles: “the cognitive role connects the learners’ mental processes of learning, information storage, and thinking. The affective role influences the relationships among the students, faculty, and the classroom environment. The managerial role guides the faculty with strategies [on] how to manage the class and course” (p. 106). In all levels

of education, it is essential that skilled leadership value and create a foundation of strong relationships with all stakeholders in the process. Skilled leadership must be in place to manage and navigate a dramatic transition to remote learning.

The Pandemic & Education from Kindergarten through Colleges of Education

Teacher Education

Like many other programs in higher education, teacher education had to uniquely pivot due to the quick change to fully online delivery during the nationwide pandemic responses. Ferdig, Baumgartner, Hartshorne, Kaplan-Rakowski, and Mouza (2020) discussed the unique ways that several programs in teacher education addressed this pivot, from portfolios in place of practicum experiences to joining their mentor teachers teaching online.

One such example of this unique pivot can be visualized within a single case study of one California university transitioning to remote learning within its Department of Learning and Teaching, according to Quezada, Talbot, and Quezada-Parker (2020). This was an *Instructional Plan of Action* that essentially rapidly transitioned teacher education courses. The Instructional Technology Center and the Learning Design Centers were charged with developing professional development to support full-time and adjunct faculty to transition its courses. Areas of the transitioning included workshops on the use of personal Zoom accounts, engaging students online, PowerPoints, sharing videos, polling in Zoom, and more. Adjunct faculty were placed into teams led by a full-time faculty member to allow for consistency and alignment of assignments. All communications went through the department chair, who led the transition. However, a major concern was expressed about “having three hours of synchronous online teaching as too long, as teacher candidates experienced Zoom fatigue” (pp. 7-8). Clinical

experiences were replaced with digital portfolios which included learning artifacts. Some faculty simulated lesson planning and delivery since K-12 (Kindergarten-Grade 12) schools were closed immediately due to the fear of pandemic spread. To support social-emotional engagement in courses, faculty devoted additional Zoom meetings as well as extra time before and after the regularly scheduled class sessions. The transition to remote learning was seamless, despite the fact that none of the faculty of the College of Education Department of Learning and Teaching had ever taught online. Essentially, this was a success story. Quezada, Talbot, and Quezada-Parker (2020) felt that the faculty worked collaboratively on how to configure the courses and held that “important strategies to consider include the integration of short lectures, video clips, small group instructions, speakers, and webinars” (p. 10).

While not all transitions were such a clear success, it has initiated a deeper dive into the literature of what makes online learning effective in teacher education. In fact, Carrillo and Flores (2020) analyzed online teaching and learning practices in teacher education and uncovered the importance of social, cognitive, and teaching presence. They found that “the interactions among peers and educators were key to promote collaboration and relationships but not enough to ensure the establishment of a social presence” (p. 6). Among many, the highlighted strategies included collaboration in small groups to develop trust, regular discussions to drive constructive environments, and even authentic activities for participation and commitment. Some of the online resources were fruitful. Carrillo and Flores (2020) discovered that “blogs promote discussions and facilitate reflective practice, videos help develop practical knowledge about the profession and connect educational theory with practice, online forums enable the sharing of narratives that enhance the skill of noticing, [and] breakout or chat rooms foster belongingness and high levels of support and cooperation among group members” (p. 13).

Rapid changes to a fully online environment have revealed real differences in access to and use of the online environment. The authors said, for example, that the current pandemic brought to the surface differences in “digital literacy” and “digital inequality” and “limited access to technology and internet was a reality and continues to be a reality that the recent lockdowns and adoption of remote learning have exacerbated” (p. 13).

In addition to using literature as background, Hadar, Ergas, Alpert, and Ariav (2020) used the application of *grounded theory* to analyze questionnaires and interviews with student teachers and teacher educators. They used Volatile, Uncertain, Complex, Ambiguous (VUCA) as a lens to examine the issue. VUCA is a world in which students need to be prepared today. The COVID-19 outbreak violently changed the academic stability guiding learning and teaching. This sort of volatility causes students to have feelings of “fear, stress, anxiety and a sense of lacking control” (p. 6). In addition to the volatility, uncertainty had its adverse effects on the well-being and functioning of students. Students have to cope with a multitude of complex challenges, including “background challenges they were handling beyond learning” (p. 7). Academic abilities are likewise affected by vagueness and lack of clarity as for what students were supposed to do. Hadar, Ergas, Alpert, and Ariav (2020) discovered that teacher educators “described the shift in their curricular-focus from a subject-matter orientation to one that concerns students’ well being through focusing on social emotional aspects, modelling and reducing workload... Relationship-building between TEs [teacher educators] and students became far more prominent than during conventional times” (p. 9). We see this playing out today in schools and institutions of higher learning across the globe. The authors concluded with writing about the need for “the prioritisation of social-emotional competencies in the teacher education curriculum” (p. 10).

Examining the literature and using grounded theory approaches are both important, and empirical findings from studies are as well. Cutri, Mena, and Whiting (2020) conducted a mixed-method study attempting to measure teacher educators' readiness to teach online and what it means to be ready to teach online during a crisis. Their sample was thirty university professors in the western region of the U.S. The researchers used the Faculty Readiness for Online Crisis Teaching (FROCT) as their measure. The tool is reliable and obtained an internal consistency α score of .71. Most notably, out of four dimensions of the scale, within the dimension of *Comfort with Risk*, expert teacher educators who had previous experience with online teaching scored significantly lower than the intermediate or beginners ($x = 3.4$ vs. $x = 4.3$ and $x = 3.9$). On the qualitative side, the construct *Trying New Things*, revealed participants' "willingness to revise their teaching to adapt to an online or blended format and even hope that they could do a good job" (p. 8). Interestingly, they found that learning to teach online made some professors feel more *vulnerable* than normal. The construct *Tempting to Revert*, indicated that some educators may assign more work to students in the online environment to make up for the time they do not meet in class. Cutri, Mena, and Whiting (2020) findings intimated "that they were tempted to revert back to some predominately teacher-centered pedagogy highlights the strain that transitioning to online teaching in a crisis situation can put on teacher educators' teaching philosophies and practices" (p. 11).

Even smaller-scaled studies about rapid changing to online learning is important right now to more fully grasp and reflect on what is occurring and so efforts can be made to adjust appropriately. Ellis, Steadman, and Mao's (2020) recently wrote *Come to a screeching halt': Can change in teacher education during the COVID-19 pandemic be seen as innovation?* They wrote about a small-scaled study that was based on phone interviews with university initial

teacher education faculty from around the globe. When adjusting to lockdowns, some of the interviewees recalled “feeling pressure in relation to their country’s usual regulatory and accreditation requirements” (p. 7), yet still, “other leaders recalled both their universities and government agencies taking three to four weeks to make decisions and provide ‘essential’ guidance” (p. 7) while time was of the essence. The researchers revealed the fragile state and unsustainability of the current system of the initial teacher training. Ellis, Steadman, and Mao (2020) reported that the new ideas and changes that took place can be “classed as potentially sustainable innovations in pedagogy” (p. 11). Noting that, “They were innovations because they added value to previous historical practices rather than just offering an emergency ‘sticking plaster’ to a sudden ‘hole’” (p. 11). Not only did the amount of the online teaching increased, but also the quality of teaching. Some of the interviewees were partnering with already established online learning projects for children in order to place their student teachers. Additionally, there were innovations in organizational collaboration within and between universities and partnering schools such as video conferencing between student teachers and school teachers. It is refreshing to know that there is good in the many and varied innovations occurring around the world due to rapid changes to online learning. More researchers should continue to study this phenomenon in a variety of settings with a plethora of varying methods.

Aside from teacher education, educational leadership professors are having to deal with creatively enabling administrative interns to complete their traditionally face to face internships, remotely, while maintaining the standards required by certification for in-person documented hours of internship experiences. Today, many educational leadership professors are contemplating new *best practice* strategies to train their administrator candidates to deal with a host of unique challenges in elementary and secondary schools as well as district offices and

within departments of education. Distinctive K-12 school related issues widely vary and need immediate attention to deal appropriately with the rapid shifts due to the pandemic.

Pre-Kindergarten through 12th Grade (PK-12)

There are innumerable other important lessons that impact PK-12 specifically, due to suddenly transitioning to online learning during the current COVID-19 pandemic. Strauss (2020) decried “the Covid-19 pandemic will take existing academic achievement differences between middle-class and low-income students and explode them” (paragraph 1). This should become a top high priority for school administrator candidates. We need to study the influence of many areas that are directly and indirectly affected by emergency changes in teaching and learning processes.

For example, most school systems may not have been designed for long-term school closures or long-term online or hybrid classes. Faculty may not have been properly trained or comfortable with the unforeseen and immediate shift to an online environment and working from home with possibly simultaneously caring for very children without daycare. Evidence (Strauss, 2020) has shown repeatedly that return on investment (ROI) for providing 3 and 4-year-olds *quality* early-childhood education; “if a research consensus exists on anything in education, it is that the socioeconomic gap in cognitive performance is well-established by age 3” (paragraph, 20). Additionally,

children living in low-income, disinvested, overcrowded, or less-safe neighborhoods are more likely to experience toxic stress from exposure to violence, homelessness, and economic insecurity that interfere with emotional health and learning, as well as leading to behavior challenges that affect the classroom environment for others. (paragraph 15)

Recently, Darling-Hammond and Hyler (2020) wrote on what policymakers and educators can do to support educators in this time of need. “By the summer of 2020, one out of five U.S. teachers reported they are unlikely to return if schools open physically in the near term” (p. 2). The need is expressed for updated standards and updated learning opportunities. This is in plain sight as “surveys result from the 2018 TALIS study, representing 260,000 teachers across 48 countries, showed that the use of instructional computer technology (ICT) was part of the initial preparation of just under 60% of teachers – ranging from more than 80% in Vietnam, Singapore, and the United Arab Emirates to less than 40% in Sweden and Spain” (p. 3).

Examples of capitalizing on the opportunities provided by distance learning include live-streaming and video recording of lessons by expert teachers, utilizing alumni networks to “capitalize on the deep knowledge veteran teachers and leaders have had to utilize to meet the demands of the current context” (Darling-Hammond & Hyler, 2020, p. 4). More time needs to be spent on collaboration and planning. In fact, “U.S. middle school teachers teach more students on average and are responsible for student instruction about 8 hours more per week (40% more on average) than their peers internationally – ranking first in the world for instructional hours and near the bottom of all countries for planning and collaboration” (p. 6).

Digital native faculty might adopt remote teaching and software systems more quickly than older generations. There is now and will be a lasting impact on faculty, staff, administration, students, and parents. Many students that do not have the technological savvy with software, possess outdated hardware, and have slow or no internet access could likely suffer the most. Some schools may not be equipped to distribute laptops or iPads to every student in the school. This digital divide will undoubtedly further exacerbate the academic achievement gaps between subgroups or marginalized students. Minority, students with special needs, and lower SES could

be negatively impacted disproportionately from this enormous interruption in schooling. Will there be any state, district, or school policies that will assist? Who will help those that have the largest needs? Who is advocating for children in abusive or neglectful situations? Poor families are greatly affected by pandemics. “many parents with less education have jobs that even during the coronavirus crisis cannot be performed at home — supermarket clerks, warehouse workers, delivery truck drivers (Strauss, 2020, Para 8). And according to Pirtle (2020),

Residents in deprived neighborhoods have less access to green spaces and healthy, affordable foods; thus, restricting healthy behaviors. Racial residential segregation means poor people of color are also forced to live near manufacturing and other harmful toxins and wastes. People restricted to these areas endure multiple exposures to harmful physical and social environments and increased stressful events, all of which demonstrate how multiple risk factors shape health, including COVID-19. (paragraph 8)

Dhawan (2020) examined online learning in the time of COVID-19 crisis and offers yet another analysis of e-learning modes and their benefits during natural disasters and pandemic when schools are locked down. Dhawan claimed “many students and teachers also face psychological problems during crisis—there is stress, fear, anxiety, depression, and insomnia that lead to a lack of focus and concentration” (p. 11). The author found

1. *strengths of e-learning* were: Time and location flexibility, catering to wide audience, and availability of courses and content, immediate feedback;
2. *weaknesses*: Technical difficulties, learner’s capability level, time management, distractions and frustrations, and lack of personal/physical attention;
3. *opportunities*: scope for innovation and digital development, flexible design, and innovative pedagogical approaches;

4. *challenges*: Unequal distribution of the information and communications technology infrastructure, digital literacy, digital divide, quality of education, and technology costs/obsolescence.

In fact, Dhawan (2020) said that “natural disasters can stimulate our motivation for the adoption of highly innovative communication technology and e-learning tools” (p. 18) and that the students who do not have access to all online technology “are less affluent and belong to less tech-savvy families with financial resources restrictions; therefore, they may lose out when classes occur online” (p. 17).

Students with special needs were impacted particularly hard during the pandemic as students, guardians, and teachers needed to quickly pivot to reach and engage students virtually. In Frank (2020), parent Sarah Dorman discusses her child A., who is kind, bright, friendly, and on the autism spectrum and mostly nonverbal, “He can’t just log in on his own and participate in class,” she said. “He requires more prompting and ... if it were up to him, he’d just go upstairs and read books. He doesn’t have any motivation to stay in class, so we need to be there physically to help him.” (Para. 9) As the Fall semester was starting virtually, she noted that it was becoming more difficult for A. to remain at the same level as his peers in his inclusive class setting due to delays in processing and limited vocabulary. She advocated to her local university and NAU is now implementing a program with a selected group of more experienced elementary/special education teacher candidates. Candidates are given appropriate personal protective equipment (PPE), paired up with another teacher candidate, and assigned to work with a student with a disability in their homes for practicum credit as the students with IEPs attend classes virtually. Frank quotes Dorman’s insightful wisdom, noting,

She said she hopes the program continues even after the COVID-19 era, adding that she believes “virtual learning is probably here to stay.” Dorman said she believes the program has the potential to make a large impact on special-needs education. “If it encourages students to work in respite or habilitation or some partnership where they can learn from parents and get that exposure, I think it would be really amazing for the future of education.” (Para. 19-21)

Conclusion

The bottom line is that the impacts of instantaneous changes that had to occur during the pandemic in administrator preparation needs to be anticipated, measured, and properly addressed to mitigate the myriad of potential negative effects in all levels of education. Professors in higher education and teachers in K-12 classrooms had to quickly pivot and many had to make fundamental shifts to the way they teach classes, but in doing so, had to re-examine the core content of their courses and the way that they delivered and assessed those outcomes. As documented in the studies herein, COVID-19 Pandemic has greatly impacted education in two ways.

The effects have negatively affected students. The rapid changes and sudden shifts in delivery of teaching and learning in all levels of education has exploded existing academic achievement differences between middle-class and low-income students (Strauss, 2020), deprived neighborhoods with less access to green spaces and healthy (Pirtle, 2020), further exacerbated the digital divide (Gillis & Krull, 2020), increased volatility and instability leading to fear and anxiety (Hadar, Ergas, Alpert, & Ariav, 2020), lack of technological savvy and outdated hardware and software coupled with slow or no internet access (Strauss, 2020), and worsened the academic achievement gaps between subgroups or marginalized (Darling-

Hammond & Hyler, 2020) students (especially minority, special needs, and lower SES students). These each have had disproportionate influence and are enormous interruptions in schooling. Additionally, this quick pivot which worked well in certain situations and not as well in others can offer lessons should there be a similar emergency in the future. Administrators and educators must critically and anthropologically examine the experience to better prepare for future uncertainties.

Opposingly, these same rapid changes and sudden shifts in delivery of teaching and learning in all levels of education due to the COVID-19 pandemic has and continues to bring propitious outcomes that continue to be enthusiastically embraced. Even skeptics appear optimistic when study after study indicate hopeful findings including digital portfolios, simulated lesson planning and delivery, supports and professional development courses for social-emotional engagement, seamless transitions to remote learning, and other success stories (Quezada, Talbot, & Quezada-Parker, 2020), willingness to revise and adapt teaching formats with hopes of doing well at it (Mena & Whiting, 2020), more relationship-building between now than before with students and teachers (Hadar, Ergas, Alpert, & Ariav, 2020), increases in amounts and quality of online teaching (Ellis, Steadman, & Mao, 2020), and the potential for this disasters to motive us to try new technological innovations and online tools for learning (Dhawan, 2020).

Within the world of education, many lessons have been learned about the need for deep relational connections with students, adaptability, and the need to ensure that online learning follows evidenced-based best practices for such delivery. Consideration must be given to the variation of access among students and recognition that education at all levels post-CV (post-COVID-19) must be adaptive to the changing needs of our communities. Content that one could

never imagine moving to an online delivery did, sometimes with higher levels of success than others. Surely, moving forward there will be room in our post-CV world to learn from these experiences and improve the learning experiences in our higher education classroom.

We argue that this fundamental and global forced pivot can yield fundamentally better experiences and learning for students in our courses and more creative delivery models for this learning if we grow and learn from the experiences post-CV. Faculty should continually be examining their courses and assignments to see how they can create a better student learning experience. Regardless of whether our world is facing a pandemic or not, educators should always pivot to instructional methods and experiences that yield better learning and that meets the needs of our unique students and their situations. Let us take the lessons we learned, grow as educators and administrators, and strive to purposefully design a better educational experience for each of our students, one classroom at a time.

References

- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*. Advance online publication. <https://doi.org/10.1080/02619768.2020.1821184>
- Cutri, R. M., Mena, J., & Whiting, E. F. (2020). Faculty readiness for online crisis teaching: Transitioning to online teaching during the COVID-19 pandemic. *European Journal of Teacher Education*. Advance online publication. <https://doi.org/10.1080/02619768.2020.1821184>

- Darling-Hammond, L., & Hyler, M. E. (2020). Preparing educators for the time of COVID... and beyond. *European Journal of Teacher Education*. Advance online publication. <https://doi.org/10.1080/02619768.2020.1821184>
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22. <https://doi.org/10.1177/0047239520934018>
- Ellis, V., Steadman, S., & Mao, Q. (2020). 'Come to a screeching halt': Can change in teacher education during the COVID-19 pandemic be seen as innovation? *European Journal of Teacher Education*. Advance online publication. <https://doi.org/10.1080/02619768.2020.1821184>
- Ferdig, R. E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (2020). Teaching, technology, and teacher education during the covid-19 pandemic: Stories from the field. *Waynesville, NC, USA: Association for the Advancement of Computing in Education (AACE)*.
- Frank, B.J. (24 Sept., 2020). Students with disabilities are struggling to learn online. These new programs aim to help. *Arizona Central*. <https://www.azcentral.com/story/news/local/arizona-education/2020/09/24/northern-arizona-university-department-economic-services-programs-help-students-disabilities/3497695001/>
- Gacs, A., Goertler, S., & Spasova, S. (2020). Planned online education versus crisis-prompted online language teaching: Lessons for the future. *Foreign Language Annals*, 53, 380-392.

- Gillis, A., & Krull, L. M. (2020). COVID-19 remote learning transition in spring 2020 class structures, student perceptions, and inequality in college courses. *Teaching Sociology*, 00(0), 1-17.
- Gleason, C., Valencia, S., Kirabo, L., Wu, J., Guo, A., Jeanne Carter, E., ... & Pavel, A. (2020, October). Disability and the COVID-19 Pandemic: Using Twitter to Understand Accessibility during Rapid Societal Transition. In *The 22nd International ACM SIGACCESS Conference on Computers and Accessibility* (pp. 1-14).
- Hadar, L. L., Ergas, O., Alpert, B., & Ariav, T. (2020). Rethinking teacher education in a VUCA world: student teachers' social-emotional competencies during the Covid-19 crisis. *European Journal of Teacher Education*. Advance online publication.
<https://doi.org/10.1080/02619768.2020.1821184>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). The difference between emergency remote teaching and online learning. *Educause Review*.
<https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- Hughes, M. C., Henry, B. W., & Kushnick, M. R. (2020). Teaching during the pandemic? An opportunity to enhance curriculum. *Pedagogy in Health Promotion*, 6(4), 235-238.
<https://doi.org/10.1177/2373379920950179>
- Hurtado, A. (2020, September 23). 3 Faculty Honored for Innovatively Engaging Students. *Colleges and Campus News*. <https://www.ucf.edu/news/3-faculty-honored-for-innovatively-engaging-students/>

- Lassoued, Z., Alhendawi, M., & Bashitialshaaer, R. (2020). An exploratory study of the obstacles for achieving quality in distance learning during the COVID-19 pandemic. *Education Sciences*, *10*(9), 1-13. <https://doi.org/10.3390/educsci10090232>
- Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of Covid-19 on higher education around the world. *IAU Global Survey Report*. https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf
- Neuwirth, L. S., Jović, S., & Mukherji, B. R. (2020). Reimagining higher education during and post-COVID-19: Challenges and opportunities. *Journal of Adult and Continuing Education*. Advance online publication. <https://doi.org/10.1177/1477971420947738>
- Paulsen, J., & McCormick, A. C. (2020). Reassessing disparities in online learner student engagement in higher education. *Educational Researcher*, *49*(1), 20-29.
- Pirtle, L. (2020). *Racial capitalism: A fundamental cause of novel coronavirus (COVID-19) pandemic inequities in the United States*. Health Education & Behavior. <https://doi.org/10.1177/1090198120922942>
- Quezada, R. L., Talbot, C., & Quezada-Parker, K. B. (2020). From bricks and mortar to remote teaching: A teacher education programme's response to COVID-19. *Journal of Education for Teaching*. Advance online publication. <https://doi.org/10.1080/02607476.2020.1801330>
- Roache, D., Rowe-Holder, D., & Muschette, R. (2020). Transitioning to online distance learning in the COVID-19 era: A call for skilled leadership in higher education institutions (HEIs). *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management)*, *48*(1), 103-110.

Smoyer, A. B., O'Brien, K., & Rodriguez-Keyes, E. (2020). Lessons learned from COVID-19:

Being known in online social work classrooms. *International Social Work*, 63(5), 651-654. <https://doi.org/10.1177/0020872820940021>

Strauss, V. (2020). Why COVID-19 will “explode” existing academic achievement gap. *Washington Post*. April, 17.

<https://www.washingtonpost.com/education/2020/04/17/why-covid-19-will-explode-existing-academic-achievement-gaps/>

Key Terms & Definitions

- **Face-to-Face Instruction:** Academic instruction that takes place in a physical setting where teacher and student are present in a room and the teacher is providing or facilitating instruction.
- **Emergency Remote Teaching:** Sudden change in teaching mode to fully online either synchronous, asynchronous, or hybrid delivery of instruction.
- **Online Learning:** A teaching mode that does not include in-person sessions and may include synchronous, asynchronous, or hybrid delivery of instruction with some asynchronous and some synchronous online sessions.
- **Post-CV:** The time after the COVID-19 pandemic is no longer a global threat as the world adjusts to what the new normal will look like, which is likely to include much more online delivery of instruction and virtual work than in the pre-CV (pre-COVID-19) world.

- **Relational Humanity:** Purposeful deepening of relationships as humanitarian act by showing others that we care about their well-being and welfare as fellow human beings.

Additional Reading List

Books

- Boettcher, J. V., & Conrad, R. M. (2016). *The online teaching survival guide: Simple and practical pedagogical tips*. John Wiley & Sons.
- Lang, J. M., Darby, F. (2019). *Small Teaching Online: Applying Learning Science in Online Classes*. United States: Wiley.
- Meyer, A., Rose, D. H., & Gordon, D. T. (2014). *Universal design for learning: Theory and practice*. CAST Professional Publishing. E-book: <http://udltheorypractice.cast.org/login>
- Riggs, S. (2020). *Thrive Online: A New Approach to Building Expertise and Confidence as an Online Educator*. United States: Stylus Publishing.

Articles

- Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The Perceptions of Primary School Teachers of Online Learning during the COVID-19 Pandemic Period: A Case Study in Indonesia. *Journal of Ethnic and Cultural Studies*, 7(2), 90-109.
- Barton, D. C. (2020). Impacts of the COVID-19 pandemic on field instruction and remote teaching alternatives: Results from a survey of instructors. *Ecology and evolution*.
- Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, 15(1), i-vi.

- Christian, M., Purwanto, E., & Wibowo, S. (2020). Technostress creators on teaching performance of private universities in Jakarta during Covid-19 pandemic. *Technology Reports of Kansai University*, 62(6), 2799-2809.
- Cutri, R. M., Mena, J., & Whiting, E. F. (2020). Faculty readiness for online crisis teaching: transitioning to online teaching during the COVID-19 pandemic. *European Journal of Teacher Education*, 43(4), 523-541.
- Fox, M. F., Werth, A., Hoehn, J. R., & Lewandowski, H. J. (2020). Teaching labs during a pandemic: Lessons from Spring 2020 and an outlook for the future. *arXiv preprint arXiv:2007.01271*.
- Gautam, R., & Sharma, M. (2020). 2019-nCoV pandemic: A disruptive and stressful atmosphere for Indian academic fraternity. *Brain, Behavior, and Immunity*.
- Mahmood, S. (2020). Instructional Strategies for Online Teaching in COVID-19 Pandemic. *Human Behavior and Emerging Technologies*.
- Mohammed, A. O., Khidhir, B. A., Nazeer, A., & Vijayan, V. J. (2020). Emergency remote teaching during Coronavirus pandemic: the current trend and future directive at Middle East College Oman. *Innovative Infrastructure Solutions*, 5(3), 1-11.
- Orlov, G., McKee, D., Berry, J., Boyle, A., DiCiccio, T., Ransom, T., ... & Stoye, J. (2020). Learning During the COVID-19 Pandemic: It Is Not Who You Teach, but How You Teach. *NBER Working Paper*, (28022).
- Reimers, F., Schleicher, A., Saavedra, J., & Tuominen, S. (2020). Supporting the continuation of teaching and learning during the COVID-19 Pandemic. *Oecd*, 1(1), 1-38.

Torres, A., Domańska-Głonek, E., Dzikowski, W., Koruleczyk, J., & Torres, K. (2020).

Transition to on-line is possible: solution for simulation-based teaching during pandemic.

Medical education.