CHANGE AND CRISIS: SHIFTING DYNAMICS IN DIGITAL LEARNING

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Abstract

The novel coronavirus that began to affect global health at the end of 2019 quickly became the COVID-19 pandemic in March of 2020, challenging almost every aspect of normal human life. One of the most affected institutions, higher education, needed to quickly respond to facilitating instruction while ensuring that instructors and learners (as well as all other support personnel) did not come into contact with one another. This movement from face-to-face classroom instruction to digital and virtual platforms occurred while the severity of the consequences of the pandemic slowly evolved and required a new model for most universities and colleges--complete digital learning for all students. Instructional continuity, the promise that instruction occurs regardless of the local conditions of any institution, was not conceived by most institutions of higher learning leading up to COVID-19, outside of temporary closures due to weather-related disruptions (even in those instances where more catastrophic conditions might have been imagined). Initially designed to prepare instructors and students for potential micro interruptions of normal coursework, instructional continuity plans moved to one of emergency response and required quick reactions to the rapidly changing environment at the beginning of the COVID-19 pandemic. A protracted experience of digital instruction with an unprecedented, unknown timeline (as became the situation in Spring and Summer of 2020) not only changed the landscape of education for the 2020 academic year but more so changed assumptions about the role of digital learning in the life of institutions of higher education.

We describe four phases of evolution that span the lifecycle of the 2019-2020 academic year: Instructional Continuity Planning, Emergency Response, Shifting Reality to New Norms, and the Post-Episodic period of Reflection and Realignment. In these phases of the COVID-19 effects on digital learning, we propose the assumptions, organizational dynamics, and individual perceptions about identity and responsive character changed for most engaged in teaching and learning while circumstances also continued to change and evolve during this crisis. The focus of our inquiry is on those who are responsible for the delivery of instruction (instructors, technicians, designers, and administrators): their core identity underwent a metamorphosis as they moved through the different phases of the 2019-2020 academic year lifecycle. The dependent factor in our analysis is time and the shifting realities that caused changes in organizational, team, and individual self-awareness. In this approach, time affects all instructional stakeholders as it redefined the notions of adaptability, resilience, creativity, and confluence in the delivery of continuous instruction. In this paper, we use one institution as a case study of how its assumptions about digital learning evolved amidst COVID-19. We specifically focus on the intervening variables of adaptability, resiliency, creativity, and confluence to describe how shifts in outlook translate into changes in the role of individuals, their relationships, their changing resilient state, and the confluences that change and occur as stakeholders cope with the varying responses to how digital learning reshapes institutions of higher learning.

Keywords: COVID-19, digital learning, emergency response, Instructional Continuity.

1 INTRODUCTION

Most institutions of higher education in the United States, no matter their locale, are ready to provide instruction in light of life's natural and social disturbances. These disturbances usually affect instructional continuity related to weather, natural disaster outbreaks, or even labor disputes. Institutions that lie in the sub-tropical and northern-tier climates of the US are constantly concerned about weather related disturbances that can require alterations to normal education schedules for primary, secondary, and higher education institutions. Given these concerns, most educational institutions in the United States, however, were not prepared for the duration and magnitude of interruption that the COVID-19 crisis would provide them. As of early April 2020, it had been reported that most all of the developed economies and many of the developing economies of the world were faced with the challenge of shifting to digital learning in light of partial or full closures of their universities [1].

The challenges to providing ongoing education and responding to the COVID-19 pandemic are numerous. Most greatly felt by educators in the institutions of higher education have been those associated with the rapid transition to digital learning and the skill requirements necessary to navigate learning management systems (LMS) and other tools imbedded within these platforms. As one veteran online teacher and education scholar has termed it, "What is happening today can best be described not as online education but as *emergency remote teaching and learning* (ERTL) — or, as some have called it, pandemic pedagogy" [2]. This response to COVID-19 required thousands of university professors to quickly reinvent and rethink their instruction in the context of a virtual world where they and their students were 'possibly' digital tourists with no comprehensive guide to this new learning landscape. For instructors, this phase of the Spring 2020 response was thwarted with a list of functional tasks ranging from investigating institutional supports and technological resources, familiarizing oneself with LMS and other telecommunication tools and navigating one's own questions such as *what LMS does my institution use?, Can I use another?, Where do I get help?, Can't I just record my lectures?, What do I need to know about design?* to name a few [3]. For instructional career professionals supporting these faculty instructors, responses to these questions were swiftly pressured by the rapidly evolving situation. The disruption period occurred during a time frame of about 2-3 weeks as universities found themselves scrambling to create policies that would state when and how long digital learning would be the normative model during Spring 2020. With many US institutions having adopted or in the process of developing instructional continuity frameworks to maintain learning during weather events, one could surmise that these plans would have provided the preparatory training for instructors, closure policies, recommendations for planning that pre-empted closure, and web solutions and guidance that instructors would need so as not to not be caught off guard in the event of an emergency. This approach to academic continuity requires pre-planning that readies instructors for an approaching crisis, empowers them to seek out skills-development opportunities that would be useful during a crisis, and utilizes post-crisis reflection to engage in ongoing quality improvements. While reasonably understood as a model to ensure that organizations learn how to respond to a crisis and learn from their own behaviors upon reflection, most crisis planning for such 'rainy days' often falls short and is left to the hours before a crisis event [4].

1.2 Case. In the winter of 2019, a private research university in the mid-Atlantic region was deeply affected by weather-related circumstances as the launch of the Spring 2019 semester saw a series of snowfall events, each occurring on consecutive Monday's of the first third of the semester. The first day of classes, the Martin Luther King, Jr. federal holiday, and another two minor snow events culminated in a pattern of cancelled classes all falling on the same day of the week in consecutive weeks. In addition to the stress these cancellations put onto instructor's teaching plans, students voiced complaints about losing valuable class time and noted the financial inequalities associated with cancelling class hours at the critical beginning of the semester and prior to the drop/add period. Concerned about its standing amidst other universities that had more robust policies in place and in its response to student dissatisfaction, the university embarked on a 10-month *Instructional Continuity Planning* phase meant to ensure that policies would be supplied to account for winter weather disturbances and so that micro-closures would not fully halt instruction the following winter. As a university of about 12,000 undergraduates and 15,000 graduates, snow days at the end of the semester were usually adequate concessions to lost classroom hours. However, with growing concerns about weather related changes amidst fears of climate change, instructional continuity plans that would augment or replace the snow day replacement method drove the planning for instructional continuity measures that would include digital and online learning platforms for all instruction. Major concerns became part of the planning process which emphasized that continuity planning was for weather-related events only, and in no way should disconnect the university's physical residency identity from offered instruction. In an attempt to ensure a modicum of equity university-wide, the central teaching and learning unit devised a plan that

would ensure that both long-term planning, which would include strategic pre-instruction decision making and training about contingencies, and just-in-time alterations to instruction were easily available to the 2500+ instructors spanning the 10 schools of the university. Video tutorials, face-to-face workshops, written guides, and enhanced LMS training were delivered in the Fall of 2019 in preparation for the cold weather season which occasionally resulted in city-wide interruptions to transportation, primary and secondary school closures, day care cancelations, and increased work-at-home scenarios. Though initially causing certain discomfort for most faculty unfamiliar with digital instruction, the response was uneventful as teachers learned that one- or two-day interruptions (as long as end of semester snow days were still a viable option) could be easily managed with only the slightest technology-mediated interventions. In fact, the move was interpreted as a minor inconvenience due to the lack of mandatory compliance from senior leadership, that could result in any number of quick alterations needing little to no change in actual pedagogical approaches.

The Spring 2020 semester began with no major weather events to affect instruction (none in fact), though movement had been made in the previous semester to prepare instructors leading up the first day of class in mid-January. Students were alerted that in the case of weather-related closure, some form of instruction would still occur. Decisions about how individual classes would be handled was left to individual instructors now armed with a series of possible scenarios to ensure continuity. Students were informed not to expect that a University closure necessarily meant no classes. Instructors would drive the communication plan and central university resources like tutoring, writing assistance and libraries would remain under restricted but consistent service hours helping regardless of interruptions. In February 2020, the national and global health implications of what the COVID-19 crisis would become and its potential effect on US society began to become clearer. Health professionals and federal agencies began to circulate scenarios that pointed to requiring an *emergency response* that would not only tax the health system but would also have a major impact on most all social activities in the US and globally. As an academic, medical university, expert insight was in abundance. Thus, Indications seemed to suggest that an immediate response would forgo screening and testing for COVID-19 and advance to the more drastic social distancing and quarantining measures that most of the globe participated in. These measures were mandated from mid-March through the end of April of 2020.

For institutions of higher learning, a conservative response was taken when proposing a decisive yet agile strategy to possible closures. Many US universities were experiencing spring semester breaks which took many students away from the city campus to leisure travel or to visit their homes. This period was the time when most universities quickly made decisive decisions about moving to a 2-week closure period as a means to ensure that distancing during the COVID-19 incubation period could subside. Thus, this period would allow for a return to normalcy after a short hiatus. Students were discouraged from returning to campus and were instructed that digital learning would replace their regularly scheduled face-to-face instruction for a short period of time. Almost immediately, instructional designers, technologists, and trainers focused their efforts to ensure that the main two-fold mission of the university, teaching and research, would survive this unprecedented move to exclusively digital/distance instruction. The organizational shift to this mandatory platform occurred over the course of only a couple of weeks, and for the first time, large groups of professors were subject to learning new online teaching strategies that would allow them to continue instruction for the equivalent of a half month. Career instructional professionals became lifelines to instructors as they shared knowledge and tips, amplified on-site training, and conducted town halls about digital learning techniques, short of attempting to re-design over 3000 courses before the period of instruction through telework. While several techniques were shared and reinforced, it was hard to know which techniques instructors would ultimately adopt. In many cases, the thought of managing the technological ‘switchboard’ that would drive digital instruction was daunting, but many had experience with teleconferencing as part of their professional lives. These techniques were chosen over other techniques more specifically designed for learning and interfacing with an LMS grounded in online learning pedagogies. Much of the decision making was dependent on the short time period instructors and administrators imagined such instruction would have to be sustained.

The period which followed in late-March and April 2020 proved to test both assumptions of institutional continuity and the short-term emergency response and gave way to the challenge of prolonged semester-long digital instruction. This period became the beginning of what would be a new era of *shifting reality to new norms.* The two-week hiatus from face-to-face instruction quickly became a resolution to suspend face-to-face instruction (and physical campus occupation) until the end of the Summer 2020 semester. What was initially a strategy to ensure continuity and functionality amidst interruptions had now become a new model requiring large scale sustainability, quality control, and access to online specific pedagogies, so that digital instruction could be seen as ‘another form of

instruction' rather than 'an alternative to instruction'. By this time, the intended 10-month preparation plan proved to be a 20+ month span of time inclusive of planning for the remainder of 2020 and beyond as the long-term impact of the COVID-19 pandemic continued to develop. This phase of the COVID-19 challenge required a return to much of the preliminary continuity and emergency response work that was done with new assumptions in mind so that the retooling of the role of academic support professionals and instructors could move from merely focusing on functionality within LMS; testing and communicating technologies; marginal impact, university-wide, through course design focused on a few strategic courses; and virtual classroom management to the more important assessment and implementation phase that would include ongoing quality control of online instruction; the utilization of online-specific pedagogies; and establishing techniques that would ensure that online teaching was more than simply telecommunications. This rebooting resulted in a return to a reassessment of skills development by developers and designers as they prepared instructors for the long haul ahead. For the average instructor grappling with the new environment of online learning, this period tested one's ability to sustain previously sought solutions, for the long-term engagement of students and their satisfaction with their instruction became part of the equation in a much more dominating way than assumed previously. The dominating factors of student engagement and satisfaction affected the stability of university admissions and its residency identity along with the strategic deployment of faculty and how online learning was valued in the grand scheme of higher education. While digital learning was thought to be a temporary response to a time-specific challenge it was not the central tenet for instructional delivery for a protracted period of time. Now that COVID-19 had proven to require serious attention over a much longer time period, most likely affecting educational settings well into 2021 (and probably beyond), the question for this university and others became how, upon reflection, might the pandemic and the impact it has had on instructors and educational supporters change our perceptions of instruction enough to be considered a paradigm shift in our understanding of roles, professional development, ongoing training, and how we think about online instruction in the future?

1.3 Change Readiness in Crisis. This is only one case of a university's response to ensuring instructional continuity, its emergency response, and ultimate long-term engagement with digital learning is reaction to episodic change brought on by the consequences of the COVID-19 pandemic. It is representative of what universities globally are grappling with in this new COVID-19 environment, moving through the phases of responses required by individuals (instructional personnel) and the university organizations to focus on the value of digital learning and their ability to successfully meet changing criteria that leads to quality digital instruction. Change management experts argue the importance of change readiness for successful change implementation [5-8]. And in light of the changes to instructional styles required for a shift to digital learning techniques, abilities of instructors are highly dependent on their readiness. Rafferty et al. (2013) propose that change readiness in groups emerges "from the cognitions and affects of individuals that become shared because of social interaction processes'' (p. 116). When individuals form strategic groups and plan for episodic change, commitment to change is influenced by the degree of shared values regarding the need for change [8]. In other words, the degree in which a group (instructors) is capable of responding to an episodic change (moving to digital learning) is directly related to one's ability to reconcile their own values (feelings about digital learning) with the values of the group (a university's response to COVID-19, for instance) and apply that to a successful response to the change agent (a digital instructional plan). To this end, consider the delta between the value of digital learning amidst the COVID-19 crisis response for an individual as well as for the university organization in light of present and evolving circumstances. Readiness for change is both a cognitive and emotional construct related to commitment to change and belief in the collective ability to execute change [8] that influences the ability of organizations to successfully implement change. So, in turn, the success of meeting the demands of change (skilling one's self with the needed techniques) is relative to their shared belief about how well they can meet the demands of a given change (their own abilities). It is notable that while discomfort and trepidation was rampant when the move to digital learning became inevitable, a greater sense of ability became shared throughout the organization once it was shown that most instructors could move to make that change. Shared culture is a factor in group identity that dictates a team's willingness to pursue change, [9] and a large part of responding to a crisis like COVID-19 is dependent on the cultural values that dictate the role of digital learning in the life of the university. Variations across groups with regard to change (a lack of shared values around the role of digital learning), which was recognized in the planning stages of instructional continuity, indicated lower individual readiness for such a shift. Strong collective change valence, one that possibly emerged after initial transitions to digital learning occurred, benefits change implementation as it suggests greater readiness and ability of the group to envision change [8]. This comes from stronger shared values across an organization that values digital learning as equal to other forms of instructional delivery or as a long-term option for instruction as the university looks to the future. Thus, identifying to

what degree a group is ready for change (and isolating what interactive group mechanisms have the greatest potential to endure change) will result in more successful strategic planning and functional change management [10].

1.4 Adaptability. With crisis comes the need for adaptability. Defined as an individual's ability to "constructively regulate psycho-behavioral functions in response to new, changing, and/or uncertain circumstances, conditions and situations" [11], adaptability occurs when individuals "cannot disengage and must adapt to meet the demands of the task" [12]. The response to change evident in the shift to digital learning is an example of how an individual must adapt to meet organizational requirements. Examining the holistic dimensionality of adaptability, Pulakos and colleagues (2000) introduced an eight-dimension taxonomy of adaptive job performance [13]. Such dimensions included: handling emergencies; handling work stress; solving problems creatively; dealing with uncertain situations; learning new tasks; demonstrating interpersonal adaptability; demonstrating cultural adaptability; and demonstrating physically oriented adaptability. Results of this study have provided a basis for a plethora of future research. Charbonnier-Vorin and Roussel (2012) used Pulakos' study as a baseline, establishing their own factors of adaptability: creativity in solving problems; reacting in the face of emergencies or unexpected situations; demonstrating personal adaptability; training and learning; and managing stress [14]. Collie and Martin (2015) sought to understand teacher adaptability by examining the correlation between adaptability and perception of a work climate [12]. Surveying 115 high school mathematics educators, researchers found when teachers felt that their autonomy was supported by principals, they had higher adaptability to situations. Furthermore, Collie and Martin found that higher adaptability led to higher levels of well-being and greater organizational commitment. An examination into organizational career development and predictors of adaptive job performance by Griffin and Hesketh (2003) did not find autonomy specifically noted in their results; however, it was reported that, "employees who rated their work environment as complex and who had higher levels of support from management were rated by their supervisors as better performers of adaptive behaviour" [15].

1.5 Creativity. Prompt changes to institutional continuity requires creativity. Regarded as a process and/or final product, creativity is "thought of as the production of useful solutions to problems, or novel and effective ideas" [16]. This concept of creativity becomes more important in crisis management, as "tried and trusted methods fall short when a crisis hits" [17]. It is important to approach problems with an innovative and creative outlook. Pearson and Sommer (2011) developed a multi-phased scenario to simulate crisis management among 37 experienced teams enrolled in MBA programs [17]. Through this exercise, the researchers found that creativity can be infused into organizational teams through: starting with oblique perspectives and discussing them thoroughly; staying open to diverse sources and exotic challenges; becoming familiar with potential causes and solutions; refraining from getting too comfortable with success; and getting comfortable with broad collaboration. When examining the impact of role stress on frontline service worker's creativity, Coelho, Augusto, and Lages (2011) found that role ambiguity negatively affected creativity, as frontline workers did not have clear duties and goals communicated to them [18]. Conversely, role conflict increased creativity through intrinsic motivation, as frontline workers relied on more creative responses to incompatible demands from partners, supervisors, customers, and peers. Therefore, it is important that, in times of crisis, leadership clearly communicates with all stakeholders to reduce ambiguity of individual duties and organizational goals.

1.6 Resilience. Through it all, resiliency remains. Shifting perspectives throughout history have contributed to the evolving definition of organizational resilience; however, most recent research defines it as "an organization's ability to anticipate potential threats, to cope effectively with adverse events, and to adapt to changing conditions" [19]. Conceptually, resilient organizations will continue to perform in times of stress, and bounce back quickly when faced with pressures and uncertainties [20]. One way to do this is to take a proactive approach by "structuring the organization around the anticipation of the need for resilience" [21]. Such development of resilience involves the implementation of three key strategies. A risk-focused strategy relies on preventing stress and avoiding circumstances in which the outcome of a situation may cause adverse events [21]. The key to the risk-focused strategy is ensuring that the relationship between the organization, leadership, and individual employees is strong. Providing instructional continuity plans, technological workshops, and pedagogical support (among other things) from the start allows instructors to better prepare for any disruptions to class schedules that may force them to move to a different platform. An asset-focused strategy seeks to enhance organizational resources by providing for employees in case of unavoidable crisis [21].

1.7 Confluence. The confluence of adaptability, creativity, and resiliency allows for organizations to become stronger and better prepared for future crises. Effective leadership can develop organizational resilience through three key crisis management techniques: anticipation, coping, and adaptation.

Anticipation, or the “ability to detect critical developments within the firm or in its environment and to adapt proactively” [19] does not mean the total prevention of every crisis, but rather, the immediacy in which leadership tends to issues through the observation of developments and the identification of critical and potential threats. Coping, or the “effective handling of unexpected events so as to resist destruction” [19] is often examined as the ability to accept a problem as it is, and the ability to effectively implement solutions. It is important that, in times of crisis, organizations examine the issue from multiple perspectives to gain as much knowledge as possible, ensuring they are able to proceed as quickly as possible with developing and implementing solutions. Finally, adaptation, or “adjustments following crises and is directed toward organizational advancement” [19] relies heavily on reflection and organizational change. Flexibility and adaptation allows organizations the opportunity to ask questions, seek feedback, experiment, analyze results, and discuss both errors and unexpected outcomes [22]. Ultimately, the use of crisis management techniques will result in the development of new norms and practices, thus preparing more adaptable, creative, and resilient organizations. Such is seen in the case of instructional continuity within institutions of higher learning. The initial 10-month preparation plan gave way to multiple semesters of online learning in crisis. Adjustments were made with each wave of information; reassessments of skills were developed and used to shape instructional support. Key stakeholders remained flexible, altering their workload to support the increasing pedagogical demands of moving face-to-face lessons to digital platforms.

2 METHODOLOGY

This paper attempts to capture the evolving impact of the COVID-19 pandemic on the digital learning environment at a medium sized private research university in the mid-Atlantic region of the United States. The descriptive case study allows for a social constructivist worldview grounded in change theory and emergent dynamics that make up the digital learning experience of instructional professionals. Through a literature review grounded in change theory and highlighting the dynamics of adaptability, creativity, resilience and confluence, an analysis is conducted that considers these dynamics over four socially constructed phasic time frames of the COVID-19 evolution inclusive of the February 2019 to May 2020 (and beyond) timeframe to illustrate proposed changes in instructor dynamics.

3 RESULTS

When considered against the COVID-19 pandemic evolution timeframe, the four phases of instructional continuity planning, emergency response, shifting to new norms, and the post-episodic period of reflection and realignment, it is possible to map changes of key dynamics of instructors and instructional career professionals based on common definitions of adaptability, creativity, resilience, and a meta-description of the confluence of these dynamics as it pertains to actual instructional challenges. Table 1 describes these changing dynamics affecting individual readiness and adoption of digital learning amidst the COVID-19 pandemic.

Table 1. Change dynamics affecting individual readiness and adoption of digital learning

	PHASE 1: Instructional Continuity Planning	PHASE 2: Emergency Response	PHASE 3: Shifting Reality to New Norms	PHASE 4: Post-Episodic period of Reflection and Realignment
	February 2019-January 2020	February-March 2020	April 2020-May 2020	May 2020-*Beyond*
Adaptability: regulating psycho-behavioral functioning [11]	Adapting to organizational needs to avoid disruption of instruction. Adapting to the need for greater digitally fluency.	Response to a drastic change in delivery of instruction. Response amidst new telework environments. Adjusting instructional styles to	Shifting to existing and new digital learning norms. Learning how to interface and engage with others to understand best practices.	Reflecting on how social and physical distancing will continue to affect the shifting of norms of future instruction.

		meet new environment Applying functional skills to digital tools Framing learning in the context of crisis.	Negotiating how social and physical distancing will continue to affect the shifting of norms.	
Creativity: production of useful solutions to problems, or novel and effective ideas [16]	Organizing and creating policy based on a creative approach to dealing with weather-related interruptions to instruction.	Translating a narrow plan to address the new and more exotic threat of COVID-19 to avoid interruptions of instruction	Adapting to an emerging and complex set of realities that perpetuates an unpredictable and constantly changing learning environment Future successes may require greater creativity in sustaining digital instruction for the foreseeable future.	Continuing to be open to interpersonal and organizational input in developing new digital approaches. Greater collaborations across professional instructional roles.
Resilience: to cope effectively with adverse events, and to adapt to changing conditions [19]	Avoiding risk by designing instructional a continuity plan.	Assessing best use of resources to meet the rapidly increasing crisis that would lead to disruption. Multiplying assets to support the growing scale of the instructional interruption risk.	Reflecting on the range of success and failure in digital instruction. Measuring how resilient one needs to be to sustain digital learning. Future planning is directly related to individual abilities to sustain digital learning.	
Confluence of Dynamics	**Anticipation** Proactively planning for weather-related interruptions.	**Coping** Translating existing continuity plans to an immediate and completely new scenario. Reapplication of how instructional continuity needs to be understood in a large-scale crisis.		**Adaptation** Envisioning how continuity planning needs to be developed for the future inclusive of risks with a longer duration.

4 CONCLUSIONS

4.1 General awareness and the changing landscape. As seen in our case study, readiness for change in the form of continuity planning should have presumably better prepared the university for an episodic interruption to instruction like COVID-19. Yet, episodic changes ranged in magnitude from temporary closures to system alterations that have come from the COVID-19 pandemic's impact on learning. The pandemic required response to a rapidly changing environment as it unfolded unpredictably. Accepting a change model to instructional delivery was dependent on changes in attitude and the assumptions associated with instruction and how it would be managed amidst crisis. The movement from the continuity planning phase to the emergency response phase is a good example of this shift in the assumptions that went into the role of digital learning. Change readiness in this case is less dependent on pre-crisis readiness but is more dependent on other conceptualizations like the need for change and its messaging, envisioning incremental change as it occurs in stages, committing to change so as to sustain the organization, openness to change, and individual capacity for change. Change is therefore a multidimensional construct and not just a single response to an episodic event [7]. Weiner's (2009) presentation of change readiness as an organizational level construct composed of individual change

commitments and change efficacy argues that variation in the values of members of an organization regarding a planned change influences the degree of change commitment. It became clear that the tension between organizational decision making around the move to digital learning and the individual commitments to it evolved over a time continuum as instructors moved from scepticism of digital learning and its value as a short-term solution to a successful response to a crisis requiring a certain level of successful mastery. The movement in individual cognitive and affective shifts about digital learning informed its value over time. Shifting values (in this case, the values associated with digital learning) affects change commitments for the long term of a series of incremental changes as instructors evaluate the *new reality and new norms* associated with instruction, and assess the coming years as and the long-term effects of the COVID-19 pandemic through *reflective phase* that could lead to a realignment of values and assumptions about instruction *in toto*.

4.2 Adaptation in a changing learning environment. The constant influx of rapidly changing information during the COVID-19 pandemic requires organizations to be prepared for new methods of teaching, learning, and engagement during this time of instructional continuity. Face-to-face courses must still be taught; however, they are now conducted through a digital platform, as instructional continuity shifts from winter weather disturbances (January, 2020) to full pandemic response (late-March, April 2020). The three elements of adaptability-- cognitive, emotional, and dispositional flexibility-- require new strategies, frameworks, and temperaments for approaching change in crisis [23]. Adaptable organizations will not only identify changes as they occur but also interpret the impact change will have on individual stakeholders and develop strategies that get ahead of the problem [23]. Instructors and academic support staff face the challenges of technological and pedagogical issues many courses encounter when rapidly moving to an online platform. Reflection on the emergency response techniques and how those were translated into an emergency pedagogy need to be re-evaluated and realigned with the new norms that the pandemic has created.

4.3 Reimagining Creativity. Educational creativity is seen as a unique and effective, or valuable, outcome of change. Creativity in instruction should be flexible, imaginative, and encourage educators to experiment, fail, and persevere [24]. However, instructors must balance creative teaching strategies with academic rigor that meets the learning context, especially in digital settings. Live lectures need to become pre-recorded; Socratic seminars need to occur through discussion boards; quick check-ins and reviews become need to become polls and surveys. All of these techniques transform the digital framework from a mere passive experience to one that engages instructors and students and rely on the most innovative technological benefits of digital learning. There are numerous possibilities available through organizational LMS, which may overwhelm novice online educators who are expected to go fully online in a few short months. But instructional creativity does not have to happen alone, as expertise is no longer the sole factor in teaching. Individuals (singular or groups), domains (areas of specialized knowledge), and fields (dissemination to an audience) must work together [25]. This collective approach to instruction may seem foreign to some but input of scholar specialists, instructional personnel, technicians, and academic support teams is needed even more so the intersection of these crafts can be maximized in this new digital environment. “Each component is a necessary factor in creativity… but not sufficient in itself to produce impact or valuable novelty” [16]. In the case for instructional continuity, the roles of academic support professionals have shifted, demanding that teams work together to develop creative solutions to common issues that arise during this time of crisis. Such support moved from technological assistance that may be needed for a short period of online instruction to a more comprehensive approach to teaching and aiding online-specific pedagogies that will be used over the course of multiple semesters.

4.4 Resiliency in Times of Crisis. In their 2012 study, Mansfield and colleagues surveyed 259 educators to determine how graduating and early career teachers view teacher resilience [26]. They found that adaptability and flexibility were core themes, as were having high self-efficacy and remaining optimistic. Actions of teacher resilience included adjusting to new roles, accepting challenges as they come, and creating back-up plans. Institutions of higher learning have had to readily accept the challenges faced through this period of the COVID-19 pandemic. Initial planning prepared one university to support university-wide online learning for a short period during winter weather disturbances. At the start of the COVID-19 pandemic, university leadership and academic support staff refocused their efforts to prepare online instruction for a two-week period; by late-March and April 2020, efforts were once again shifted, as instructors prepared to bring the rest of the semester online. In times of uncertainty, allowing instructors and staff the option of bringing materials home, or providing office equipment (monitors, headsets, etc.) to individual homes where needed allows for thorough work to be done. Transversely, as instructors used to face-to-face instruction were called on to utilize their home resources to conduct more complex instructional activities, a new perception of the need for

standardization of equipment became not only important but vital to the survival of instructors and instructional professionals alike. A process-focused strategy relies on an employee's cognitive abilities, and "influence[s] the manner in which one interprets events and experiences" [21] in light of a rapidly changing environment. Increasing self-concept allows for higher work-related performances and more openness to development in uncertain times [27].

4.5 Confluence of factors for the future of digital learning. The COVID-19 pandemic has impacted the future of digital learning in two main areas: instruction and the role of instructors and academic support staff.

4.5.1 Nature of Instruction. The initial instructional continuity planning phase was created to prepare instructors and students for minimal disruption to learning during weather related circumstances. As the continuity plan grew exponentially during the start of the COVID-19 pandemic, instructional support focused on technology. The primary goal was to put enough content online to get classes through a brief interruption. With the notion that this period of digital instruction would be temporary (a two-week period to two months), instructors and academic support staff turned to LMS-specific troubleshooting. However, with the closure of the physical campus, and therefore a hiatus of face-to-face learning for the remaining Spring and Summer semesters, the instructional focus shifted from an emphasis on technology to a needed re-evaluation of pedagogy. Many instructors who had never taught online before were suddenly expected to put entire semesters into an LMS with the expectation that course quality would not suffer. This was not the case unilaterally as some courses did suffer due to a lack of skills and the self-conception of who instructors needed to become in this technologically driven environment. Instructors, outside of their comfort zone, had to rethink their entire course, as they would be teaching in a different format. Their mastery over content was only part of a new environment where a mastery over the digital space and decisions about how to use it became partnered.

4.5.2 Roles of instructors and academic support staff. Throughout the extended period of instructional continuity, the roles and identities of instructors and academic support staff shifted to adapt to a new normal. Face-to-face courses were expected to go fully online for summer semesters; similarly, fall semester courses would be either fully online or hybrid. Instructors worked with their deans and department chairs to plan for such transitions and relied on academic support staff to help troubleshoot technological and pedagogical issues. Academic support staff saw instructional continuity changing at a rapid pace and shifted their focus accordingly. Routine workshops and consultations became the norm, and staff from other areas of the university were cross-trained to aid with an influx of support calls. Instructional support staff across different areas worked together to create routine pedagogical support videos and training "boot camps" to aid in the development of online courses.

4.5.3 Recommendations. With a wave of new online instruction affecting most courses, institutions must reconsider their approach to online learning. First, considerations must be made when hiring, in that institutions should look to hire more digitally-literate instructors. As digital learning transforms to become a regular part of academic instruction, instructors that are comfortable with teaching and engaging online may be more adaptable, creative, and resilient in times of crisis. Second, faculty development will need to address ongoing digital-fluency as a measure of an instructor's resiliency to the evolving higher education landscape. Third, institutions should increase university-wide teaching and learning resources to prepare for, and aid with, disruptions to instruction due to crisis. With more support staff available to lead pedagogically-focused workshops, seminars, and consultations prior to emergencies, instructor and institution adaptability and resiliency during times of crisis would increase greatly. These new requirements are akin to those that emerged after many of the crises over the last century, and more recently 9/11 and the H1N1 crisis, that resulted in new national global readiness policies. Higher education may need to ensure that such readiness policies are part of the common knowledge and development of all of its instructors and staff moving forward.

ACKNOWLEDGEMENTS

We would like to acknowledge the editorial assistance provided by Ashley Blount, Administrative Associate, GW Libraries and Academic Innovation. Ms. Blount is a student in the Master of Arts in Organizational Leadership and Learning program at the George Washington University, Washington, DC.

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