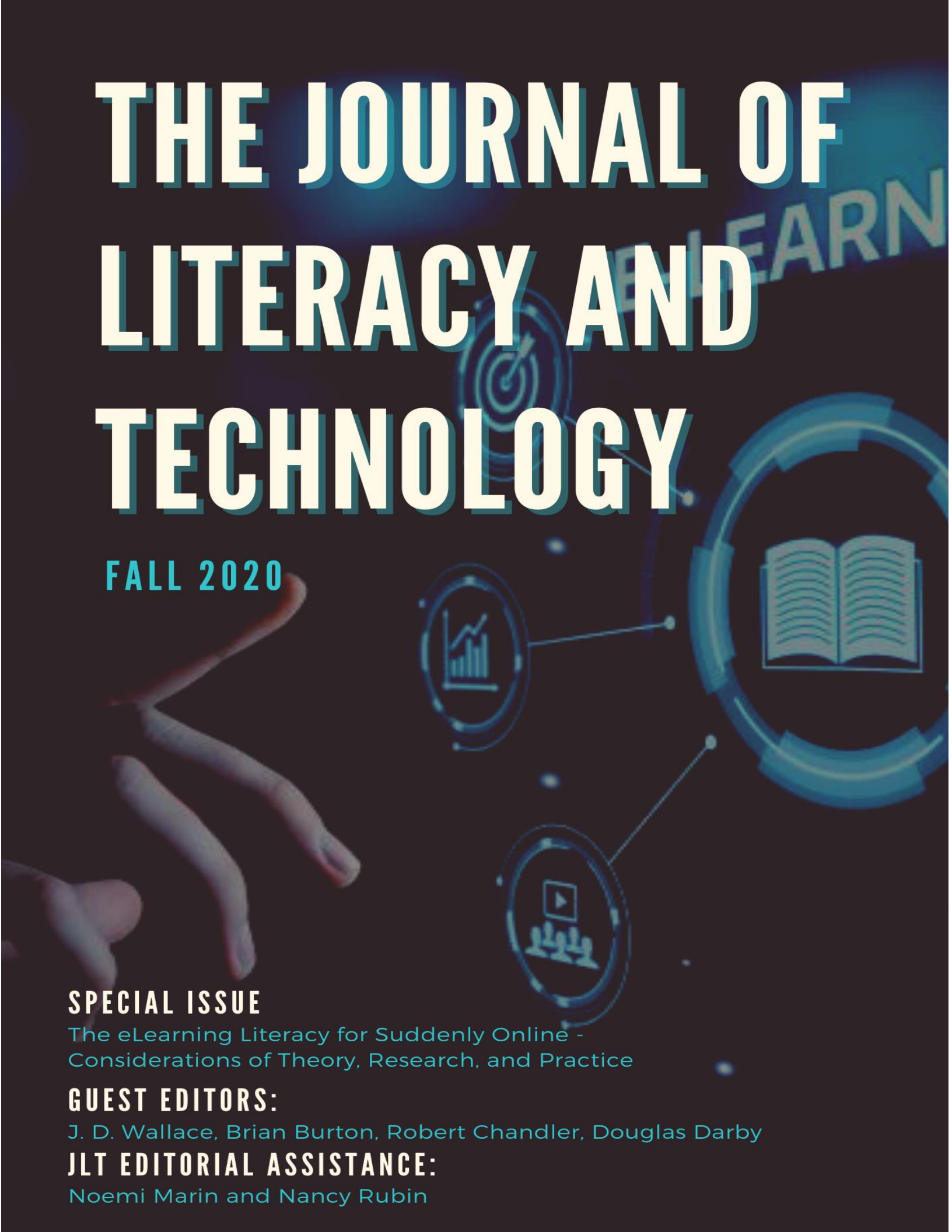
THE JOURNAL OF LITERACY AND TECHNOLOGY



FALL 2020

SPECIAL ISSUE

The eLearning Literacy for Suddenly Online - Considerations of Theory, Research, and Practice

GUEST EDITORS:

J. D. Wallace, Brian Burton, Robert Chandler, Douglas Darby

JLT EDITORIAL ASSISTANCE:

Noemi Marin and Nancy Rubin

Fall 2020 ISSN: 1535-0975

Volume 21(2), Special Edition, 2020
ISSN: 1535-0975

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Table of Contents

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Special Acknowledgements

In such an unparalleled time in education as what has been witnessed during the COVID-19 pandemic, the need for understanding and new knowledge into this suddenly online paradigm has been met in this timely special issue of the Journal of Literacy and Technology. It has been an honor and privilege to be a part of this project. This experience has been inspiring on so many levels and is the product of a shared vision. While the publication of this issue represents the completion of a step, it is but the first in the journey to realizing a dramatic new context and evolutionary change in the role and function of online learning in the 21st century.

The strength of a journal lies in the collective quality of all involved in the process of bringing the publication to fruition. Each participant was essential to the final success, including our research assistants, Jael Morel-Becerra and Camila Rodrigues-Velasquez, who tireless helped at every turn. Key to achieving the targeted outcomes of this guest issue was the effective and diligent execution of the peer-review process. The reviewers willingly contributed their valuable time for this worthwhile activity without expectation of recognition. These individuals, selected based on their expertise and distinct insights, provided the basis of excellence in each of the reviews presented to the editors. We are truly thankful for the hard work and professionalism demonstrated by each reviewer and the quality of the journal outcomes stands as a testimony to their efforts. Therefore, we would like to express our personal gratitude to the following reviewers who have reviewed manuscripts in the midst of these tumultuous time.

Dr. Cathy Box
Dr. Ashley Cherry
Dr. Paul Darby
Dr. Kregg Fehr
Dr. Brian Fisher
Dr. Brandon Fredenburg
Dr. Caren Fullerton
Dr. Gregg Greer
Dr. Van Howell
Dr. John Hubbard
Dr. Karen Lackey
Dr. Kenneth Pybus
Dr. Lamar Reinsch
Dr. Laci Richardson
Dr. Richard Stevens
Dr. Gary Tucker
Dr. Jessyca Wagner
Dr. Peter Williams

In particular, we want to express an extra measure of appreciation to Drs. Jodi Mata and Billie McConnell, for taking on additional reviews to ensure all manuscripts were addressed. Thank you for going above and beyond.

Finally, we owe a profound debt of gratitude to Drs. Noemi Marin and Nancy Rubin.

Without their vision and recognition of the critical need to address the sudden shift to online learning, this edition would not have been given the opportunity to be realized. Because of their trust, we have been able to capture key data that will serve to foster understanding in the times to come.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Providing Foundations for an Educational Revolution: Moving Towards an Integrated Perspective

J.D. Wallace, Ph.D.
Abilene Christian University

Brian G. Burton, Ed.D.
Abilene Christian University

Robert C. Chandler, Ph.D.
Lipscomb University

Douglas G. Darby, Ph.D.
Lubbock Christian University

Keywords: COVID-19, Scholarly Communication, Suddenly Online, Rapid Response Scholarship, First Findings

Abstract

The pandemic of Spring 2020 necessitated a rapid switch in teaching methods around the world. Most significantly was the revolutionary transition from face to face instruction to remote, distance, or virtual teaching/learning and the resultant online "new normal" that continues to ripple across the academy and society at large. This new reality has necessitated a paradigmatic shift in how scholars, teachers and administrators understand, create, employ, and assess teaching/learning. It has likewise resulted in a shift in how students, parents, families, and employers understand, value, desire, and prefer educational formats and settings. The authors point to the importance of considering aspects of theory, research, and best practices related to this transition.

The article surveys resulting first response scholarship and forecast types of questions that loom large regarding the practice of online teaching in the new economic, academic, social framework.

Fall 2020 ISSN: 1535-0975

Two thousand and twenty has been an unparalleled time in education as to what has been witnessed during the COVID-19 pandemic. Initial forays into understanding and new knowledge about a suddenly online paradigm are presented in this timely special issue of the Journal of Literacy and Technology (JLT). These changes usually occur in slow-moving cascades and diffusion of ideas. However, COVID-19 induced a sweeping transformation in education practices and was a catalyst for a cataclysmic shift in educational paradigms. Specifically, the pandemic necessitated a rapid switch in teaching modalities most significantly the transition from face to face instruction to remote, distance, or virtual teaching/learning. Describing this hurried transition as **s**uddenly online, rapidly remote, mobile learning and other such monikers are appropriate descriptive catchphrases signifying the revolutionary varied and changing educational landscape.

The scholarship in the special issue of The Journal of Literacy and Technology offers considerations of theory, research, and practices related to the transition. These scholars offer their insights with a sense of immediacy. The pandemic and the first semester disruptions were still occurring during creation of the observations regarding the adjustments in teaching and learning. Their description attempts to capture a relatively unseen and unexperienced context given the scale of participants and their level participation. As such, scholarship addressing concerns eLearning paradigm's reconfiguration into academic and professional terrains is in desperate need of wide distribution, substantial reconsideration, and meaningful application. Most superlatives prove insufficient to connote the need for a reexamination of eLearning literacy and indeed education and learning at every level. What follows is a cursory description of entropic constraints impacting burgeoning scholarly first efforts, rapid response processes used to counteract those constraints, and a description of first forays into Pandemic associated scholarship.

No Educational Modality is Immune

Some online institutions may consider themselves unscathed and feel less of a need to retool in the face of the virus. Such complacent assumptions may merely obfuscate vision to see the changed realties require reconsideration of many aspects and warrant adjustments. It would seem reasonable to presume that such a cataclysmic shift in both manifest and latent structures cannot help but create needs and opportunities for structural changes and adaptation to teaching, in all modalities including those that were by original intent and design entirely online. Many of these substantive and process changes may currently be unnoticed or unexamined but inexorably will exert themselves as issues to be faced by students, teachers, administrators, or other constituents in the education systems. Indeed, until they have sufficiently become symptomatic and reveal their ultimate disruption, all of us are facing unknown factors even those of us taking comfort in familiar routinized online territories. This transformative era challenges us to reexamine how traditional and newly found exogenous variables impact old and newly established educations' long-term trajectory. It is important to rethink and reconsider all aspects of our theory, methods and practices from various perspectives and using a wide range of metrics. Provided are two brief examples applied to online modalities.

Fall 2020 ISSN: 1535-0975

Students

For the students that are familiar with the online learning environment, one might expect there to be little difference. Nevertheless, with more diverse stakeholders, change of pace and experience, social and family adjustments and altered comradery of other online students and many other aspects have changed. How has those changes enhanced or diminished these students' learning experiences' or impact, credibility, and continuance outcomes? Further, some students coming to higher-ed have normed on "less than ideal" behaviors, styles, and practices for online education. How is that going to interact with the other altered factors and impact online learning enactment or delivery?

For many online courses, the quality of the educational content quality is contingent on the students' level of engagement and sophistication or maturity of their skills and abilities in terms of creating conducive participation. The ripples of these altered contexts will stretch out in many different directions. Since many online academic programs use their sequence position as first or gateway experience for a critical mass of their constituency. Thus, they may thereby set expectations, norms, and habits of the students for subsequent teaching/learning. However, such pathways need to be reconsidered and screening efforts offered seeking warning signs of a forthcoming norm or habit contamination of process, given the number of previously normed students, in the changed multiple variables landscape.

Teachers

The number of teachers that now have online teaching experience has also expanded exponentially. Pre-COVID-19 teachers that were engaged in online instruction were presumably trained, nurtured, and supported in best practices for this teaching medium. However, the events of Spring 2020 necessitated a rapid transition for most teachers who were then teaching face to face to quickly adapt to teaching otherwise. With little time for nurturing, modeling, or hastily arranged training these teachers had to *'build the airplane while they were flying it.'* This new cadre of online teachers did not have the luxury of time for support and contemplation. Beyond the teachers themselves, the institutional support and training resources were also over-extended beyond all planned capacity expectations.

Almost all institutions now have an online teaching expectation supported by support structures which are strained these contingency changes in expectations (or unattended sometimes to the point of nonexistence). Even where such support is in place and with adequate resources, there is a risk of failing to recognize that the new online realities are different for both teachers and students and erroneously misstep by confusing no longer appropriate past practices with best practices.

Unfortunately, the new cadre of educators now with some emergency online teaching experience, may also be subject to retrospective sense-making bias. They only know what they have learned, some teachers may not have learned what others have learned. More ominously they don't know what they don't know. Put another way, teachers overwhelmed by class development chores, with limited or little support, and with hurried or perhaps marginal training may defer to the stopgap measures that they used for suddenly online courses by default and assume that it is adequate for competent instruction. Since they, nor their students,

Fall 2020 ISSN: 1535-0975

have a comparative experience, and without available scholarship such as included in this special issue, this tendency could perpetuate a number of malpractices that give the illusion of adequacy while actually diminishing the quality of educational outcomes. On the flip side, since the sheer number of teachers engaged in the online environment has expanded beyond what anyone could have imagined just a few months ago, there may be a variety of new or unexamined best practices that never emerged under previous online research and pedagogy. This also points to the relevance and importance of first findings and subsequent post-pandemic scholarship investigating these practices.

Quality of Education Has Taken a Temporary Hit

The "elephant in the room," is the concern that sacrifices in educational quality have been made to ensure educational continuance and continuity of institutions. There is a widely held perception that education was conducted in a "less than ideal" manner and under impoverished circumstances for many students especially during the spring and summer of 2020. Dissatisfaction with remote instruction, connectivity barriers, inadequate instructional materials or resources diminished educational experience as campuses and classrooms were closed while students and faculty moved into a virtual connection. While trying to be objective, recognizing both things within and beyond control, and also acknowledging the herculean efforts of teachers, students, and families, there is some evidence to suggest that thus far in the suddenly online context that the net result was "less than" compared with the former face to face education experience. Furthermore, there is also evidence to suggest that the aggregate perception of quality of online supported education itself has been somewhat diminished if for no other key reasons than the sheer level of less experienced practitioners and consumers responsible for the lion's share of its implementation. This awkward attribution is not advantageous to the reputation or psyche of teachers, students, or educational institutions which is presumably a motive for avoiding the topic. However, the topic is an important one and a thorough investigation and consideration of the findings of that effort is certainly warranted and beneficial to future practices.

Will the differential between face to face and online learning be a net plus or minus in outcomes for both academic programs and student learning? In the end, such questions portend to be the source of stating the ultimate impact of reconfigured variables and experiences as the "new normal" of online teaching and learning plays out. It will take complex discussions between a variety of different kinds of practitioners and scholars. They will also have to do the humbling work of sifting through previously held pre-pandemic educational assumptions and old paradigm best practices pros and cons to determine their new paradigm relevance. These discussions will ultimately view first findings from suddenly online experiences as harbingers revealing and integrating: things to come; new ideas; previously unacknowledged influences; and resilient principles that will have re-earned their place in post-pandemic education.

Suddenly Online and Emerging Research

The seismic shift of education assumptions, methods, and practices will need to rely on the best information to be offered. Thousands of manuscripts are presumably in the pipeline of virtual

Fall 2020 ISSN: 1535-0975

conferences waiting on reflections thereby earned, to further them on to traditional scholarly journals. Their presence may be relatively absent until traditional academic outlets can respond. Until then, what will fill the gap may be relegated to personal experience, speculation, and online punditry, perhaps tied to pre-pandemic pedagogical principles. Emerging research investigating the paradigmatic differences regarding the complexities experienced by online classes for traditional students and their facilitators will have to bear witness to what has changed, what needs to be changed, what should be kept, and what is no longer relevant. In the short term, rapid response journal issues, preprints, and educational conferences will have to fill the research, theory, and best practices vacuum created by the COVID-19 Pandemic of 2020. Indeed, early findings, emerging models, applied theories, and reports of Pandemic experiences, by definition will be more authentic in their perception of new realities. They precede the inevitable tectonic influence pressures of consensus tendencies and confirmatory biases of an academic community in constant evolutionary flux. This process is expected, as the pre-pandemic education paradigm crumbles in the face of the shift in which we find ourselves. Half a century ago, Kuhn (1970) provided a prescient insight in this regard.

> "So long as the tools a paradigm supplies continue to prove capable of solving the problems it defines, science moves fastest and penetrates most deeply through confident employment of those tools. The reason is clear. As in manufacture so in science—retooling is an extravagance to be reserved for the occasion that demands it. The significance of crises is the indication they provide that an occasion for retooling has arrived (p. 76).

The worldwide suddenly online education experience has fundamentally changed the teaching and learning playing field and by extension the rules of the game. It would be foolish to think that the utility of all previous pedagogical principles and practices have remained static. It is time to find new footing in a reality where online experience is the norm, virtual presence is familiar, and face to face educational institutions no longer have the luxury of minimizing online options. Scholars, practitioners, and indeed all educational stakeholders, are tasked with being courageous enough to recognize and reconsider our assumptions in this changed world. Chaos and crisis necessitate motivations to engage in such an endeavor and thus clear the way for new insights.

Scholarship Integrity, Fidelity, and Lethargy

Many important questions are being asked about the success and the impact of this revolutionary moment in teaching and learning. It is often a challenge to cultivate knowledge and disseminate it in a timely manner during a period of needed immediacy. Rapid response research is not a new idea, but it is rare because of its challenges in creating and sharing content. However, the benefits of fast-tracking time-sensitive ideas warrant efforts. Rapid response research scholarship, such as the articles within this special issue of the Journal of Literacy and Technology, has an essential role in promptly informing and influencing practices. For now, innovators and early adopters of reconceptualized models of learning will be the risk-takers and beneficiaries of their adoption (Rogers, 2003). Certainly, it is appropriate for

Fall 2020 ISSN: 1535-0975

eLearning issues to be at the vanguard of rethinking how high-value scholarship is created. Long term, this may become the mainstay of the future scholarship. In the short term, it will be primarily used by those who can shift mental models and sacrifice a degree of prestige afforded by traditional journal outlets. The risk is not without some return as early findings may be seminal works in the making and subsequently more widely distributed.

Evolving scholarship is essential in providing even-handed takeaways that often minimizes agendas, improves future efforts, and frames both in what we know and how we think about it. With the advent of new technologies, data collection, and communication distributions systems, scholarship dispersal can embrace new dynamics. Some previous practices contributed to slow-paced review and publication cycles that diminished scholarship with urgent or time-sensitive aspects. Aside from the closer to real-time availability of such knowledge, there are longer-term benefits. Retooling scholarly publication models may also serve the academic community in a predictable increase of diverse and accessible valued thought. Overly encumbered, and less necessary, production bottlenecks of the past harm the essential value of scholarly communication that is increasingly challenged by a number of other influential sources and techniques (Whitworth, & Friedman, 2008).

To be sure, some dynamics are non-negotiable such as theoretical and methodological rigor, peer-review, and ethical integrity. Pragmatic realities can give rise to demands circumventing one or more of these critical elements in the hopes of accessing quality content without the lengthy production overhead (Sherbino, Arora, Van Melle, Rogers, & Holmboe, 2015). Fortunately, a synergistic middle ground may be conceivable using mainstay criteria of plausible, feasible, and practical (Smith, 2013). Accelerated rapid response journals with peer-reviewed first findings for eLearning or other subject areas may be able to supplant some more encumbered outlets while maintaining the critical elements necessary for scholarly research.

eLearning as a Particular Case

eLearning is a particular case where the findings of rapid response journals are appropriate. There is a worldwide constituency that needs scholarship for the "suddenly online." This constituency would include scholars, instructors, students, instructional designers, tool venders, institutional programs, and their affiliated leadership. Probably the most pressing benefit, which cuts across all stakeholders, is the legitimacy of the information. What has flooded the information space is a vast number of voices trying to fill the immediate and future need against a backdrop of eLearning scholarship that may or may not be applicable. Unvetted content is put on par with more seasoned findings with untested generalizability in rapidly online environments such as blogs, web pages, webinars, and the like. eLearning scholarship, instruction, theory, and decisions will be implemented but only with available content. Given the suddenly online nature of current eLearning participants necessitated by the 2020 Pandemic, many previous findings may be contextually inappropriate, inaccessible, or essential depending on the implementation. Rapid response journal findings, especially in suddenly online environments, provide authenticity of context while preserving a legitimate review process that maintains the integrity of the information produced. So, it

is both appropriate and beneficial for the Journal of Literacy and Technology to provide a special edition tackling what appears to have many of the hallmarks of a wicked problem (Rittel & Webber, 1973).

Within this rapid response volume, academia's educational initial scholarship can be found. Gigliotti (2020) communicates a timeline that illustrates both the speed and inescapable nature at which the Pandemic overtook all parts of society and fundamentally changed the education system as we knew it. Rapid proliferation is mapped from January 30th where the World Health Organization (WHO) declared an "emergency of international concern," followed by the declaration of a Pandemic by March 11th, through August of 2020, where there were 21 million confirmed cases worldwide (with some estimates having possibly ten times that number). That number has increased by more than 33% at the time of this publication, and it is continuing to climb (Johns Hopkins September 20th, 2020). During this time, there has been any number of fixes, workshops, webinars, reconfigurations, or implementations that have been characterized as successes in online or eLearning situations. These outlets responded to the most extreme circumstances with continuity as their primary definition of success. One would find it challenging to quibble with that characterization, but often these declarations have no indicators or benchmarks from the broader academic community. While JLT is at the vanguard of first findings, it is fully expected that, in the future, their substance will be validated, mature, or shift to accommodate discoveries. However, the need is compelling, and the time is urgent. There is no substitute for first findings generated in authentic environments to help contextualize experiences and responses. Petroski and Rogers (2020) describe the need for guides or wayfinders when students are in an unfamiliar landscape concerning Pandemic related suddenly online experiences. This need is no less true for educators, scholars, administrators, and consultants as we necessarily navigate new and often trying pedagogical experiences.

The Search for Wayfinders

On April 29th, 2020 a proposal for a COVID-19 rapid response journal special issue was initially considered by the editorial staff of the Journal of Literacy and Technology (JLT). The "suddenly online" moniker was pervasive in the education community without a single scholarly article to its credit. The idea was to identify and claim the conceptual ground of the historic modality shift in education during spring 2020. This special edition was tasked to curate eLearning literacy research, theory, and practices as it was being recast in the immediate proximity of the COVID -19 Pandemic. One of the advantages of established online journals such as JLT is their ability to nimbly capture immediately useable: theoretical insights, research observations, and best practices. These can be evaluated against short-term needs and long-term scholarship. For these reasons, a timely special edition of JLT was proposed to contextualize eLearning literacy against the backdrop of authentic, at the moment research, observations, and recommendations.

Five phases of Rapid Response Scholarship Dissemination

While scholarship dissemination may seem like familiar ground for a journal, the rapid response nature accelerated much of the process. To accomplish this response, protocols were established with cascading

Fall 2020 ISSN: 1535-0975

phases, not unlike those used in many of the suddenly online courses themselves. The first phase was communicating a general framework to stakeholders to explain how new protocols would not sacrifice objectives or standards established in previous offerings. The second phase solicited immediate draft proposals/work for subsequent and more substantial work. This phase established connection, buy-in, fit, and capabilities connected to the motivation and ability of the submitters. Phase three provided feedback, directions, and instructions for mandatory, subsequently more consequential contributions. Phase four collected, evaluated, and returned manuscripts with formative evaluations accompanied by suggestions for modifications or redirection concerning projects. Phase five provided summative evaluations contributing to a final assessment and where applications could be made. Typical flexibilities narrowed as the process moved forward, making it necessary to redirect, to other venues, less developed scholarship that needed more time that simply was not available. These protocols allowed the process to move forward while not preventing promising scholarship from contributing because of the arduous and demanding circumstances.

Specifically, phase 1 solicited abstract proposals by the end of May of 2020 with a five-month turn-around to publication communicated. Abstract submissions were accepted, with the authors agreeing to produce a finished manuscript by the end of June. The culmination of Phase 2 occurred at the end of May with a recommendation for continuance/non-continuance or offer of another venue based on previously established criteria. During July, Phase 3 engaged over twenty reviewers to evaluate and pinpoint reasonable areas for improvements for submissions that had potential. Changes were to be made by the end of August for the review. Phase 5 had final manuscripts reviewed in early September for comparison with emerging journal cohort, salience to theory, practices, and redundancy with other submissions. All the submissions that made it to this phase had value. Because of this, those that could not be included were encouraged to pursue their work and submit to the Journal of Literacy of Technology's regular volume or elsewhere for additional consideration. Some allowances are certainly made for first findings considering the nature of the problem, context, and resources they engage. These allowances are more than compensated for in the balance. The resulting journal provides a rare group of research projects created for and during the most explosive parts of the Pandemic in early 2020.

While articles are targeted at the suddenly online environment, they bring heretofore unexplored dynamics that have been inherent in all online educational contexts but have been underrepresented in the research. Taken as a collection, some understandably common factors appear worth mentioning. First, continuity and completion have again emerged as indicators of success. At this point, the survival of the first (and possibly/hopefully only) worldwide suddenly online shift in education is not to be undersold. It can and should be considered a success story by anyone who was engaged. That success should not only be extended to the purveyors but also the consumers. Hopefully, the patience, hard work, sometimes uncharacteristic encouragement that many students contributed will be catalogued as to their unique and contributory value. As it is, most of the

Fall 2020 ISSN: 1535-0975

findings we present, rarely gauge success on indicators with footing outside of the phenomena. Instead, they have a strong affiliation with the activities, confirmatory biases of the observers, or experiences at hand.

Second, the resilience of pre-pandemic practices remained largely untested. it makes sense that some systems are more resilient than others. That resilience is rarely measured in online environments ostensibly because they rarely see themselves in crisis mode. This condition begs the question of even self-described superior online curriculum, how resilient are they when unanticipatedly stressed? The Pandemic clearly illustrated widespread instances of underprepared faculty, unmotivated students, technological deficiencies, economic inequities, and strained morale.

Third, variables such as student engagement, faculty, and class type were typically based on normative expectations and experiences of both faculty and students. Rarely are optimum levels of engagement discovered or pursued. Other novel instructional techniques, such as those suggested by the flipped classroom literature, indicate these may have varying degrees of untested moderating effects. (Strelan, Osborn, & Palmer, 2020; Tan, Yue, & Fu, 2017)

This is important as variables such as engagement suggest a Goldilocks conundrum where too high of an engagement expectation cannot be maintained or achieved. Too low of an engagement expectation breeds boredom, incessant procrastination, and even higher levels of disengagement. Both the suddenly online and online environments would benefit from finding an optimal engagement criterion. However, that would necessitate the free exploration of high and low engagement failures. Past online research rarely focuses on classroom failures. Perhaps the suddenly online phenomena will provide appropriately received opportunity. While faculty and students experience non-optimum situations on a routine basis, their lack of proliferation in research seems abnormally rare. Not all the ways indicated in first findings will be productive, predominate, or even possible paths for future education stakeholders. However, it is that recognition and realization, provided by some of the wayfinding scholars themselves, that will help others to empirically choose more judiciously.

Authentic Suddenly Online Scholarship

What this journal provides in this regard are research findings through various lenses reflecting administrative, faculty, and student perspectives. These encompass a number of contexts including crisis management, faculty training, course delivery, and student experiences. A summary of the journal's offerings are loosely organized into reflective groups that are neither mutually exclusive nor exhaustive of their contents.

Organizational Perspectives

Gigliotti's (2020) "Sudden Shifts to Fully Online: Perceptions of Campus Preparedness and Implications for Leading Through Disruption" has qualitative data concerning thought leadership in the early weeks of the suddenly online shift. This article synthesizes major themes from 18 different universities through a constant comparative method establishing predominant themes and issues that comprised resonant thinking just after the Pandemic was declared. It also gives a glimpse into perceptions of leadership thinking and dialectic tensions or paradoxes

that made issues so difficult and stress-inducing.

Donelly, Miller, and Strawser (2020) present a crisis response view of a large university that had some degree of familiarity with natural disasters requiring changing syllabi and schedules on short notice. While this may make them less typical in foundational resilience, it served them well in providing a well-structured timeline that engages the suddenly online shift. Building on the work of Bruneau et al. (2003) performance measures were established at the technical, organizational, social, and economic levels. These used the 4 R resilience typology to set criteria for resourcefulness, redundancy, robustness, and rapidity. Directly applied to the organizational structure, 16 points are discussed in their ability to stem suddenly online stressors.

Teaching Strategies and Preparation

Petroski and Rogers (2020) benefited from an ongoing research program that juxtaposed traditional and gameful instructional approaches that not only exposed differences from the previous fall semester but also were able to capture how both fared going suddenly online. This study uses an interpretive microanalytic method to focus on students' identities. It details the precipitous increase in email communication as well as thematically categorizing them in terms of identity/emotion, task, administration, and content. Similarities and differences between gameful and traditional approaches are discussed with neither providing sufficient relief to the stresses of being suddenly online.

Leasure et al. (2020) provide exemplars of faculty and student preparatory courses before and during the Pandemic in an already-online program. These connect to several pedagogical principles, including engagement, meaning and purpose, mindset & learning skills, self-knowledge, reflection, social integration, and personal validation. Connections are made to other courses within the program. While an extensive examination is made in terms of the impact of the training, the report infers a sense of immunity from Pandemic impact factors to the point of having increased satisfaction and retention rates.

Student-Teacher Interaction

Turner, Wang, and Reinsch (2020) take a student-centered view of how the shift from formal to informal (previously presented as Goffman's front stage and back stage) environments were provoked by the shift to being suddenly online. Common collisions expose several interest issues to most online situations, including virtual windows, distractions, invisibility, technical issues, no transitions, informality, motivation, and varying degrees of social presence.

Mollenkopf and Gaskills (2020) mixed method study uses Ecological Systems Theory to suggest multiple suddenly online disruptions on life/environmental, instructional design, and instructor interaction factors. These are contextualized with several concerns that plagued students. Some of the positive learning takeaways are uncharacteristically qualified with the rare admission that "This is not necessarily a reflection that students actually learned more, but it may have been related to the combination of supports, flexibility, and a student reaction to simply wanting to "outwit the virus", which may not hold true under future semesters impacted by "COVID-fatigue." As such, it is not only appropriate but provides well thought out

Fall 2020 ISSN: 1535-0975

cautionary advice for any first findings research.

The special issue of The Journal of Literacy and Technology captures a "moment in time" snapshot of research that was conducted during the suddenly online phenomena precipitated by the 2019 novel corona virus. This rapid response can be considered a time-capsule of insights by scholars who are in the midst of experiencing what they are studying. But it will also serve as among the first of scholarly considerations that will make sense of the changes that have effected us all even as the context of this pandemic fades into history. To be sure, there is a great deal more research anticipated as scholars, and the world, continue to grapple with this unique situation. Such.will hopefully further explore and integrate issues such as socio-economic impacts, use of immersive environments, virtual presence, inequities, and others. The rapid response of scholars is a beneficial first step towards such further inquiries reconsidering theory, best practices as well as the paradigmatic shift that is now revolutionizing education.

References

Bruneau, M., Chang, S.E., Eguchi, R.T., Lee, G.C., O'Rourke, T.D., Reinhorn, A.M., Shinozuka, M., Tierney, K., Wallace, W.A. and Von Winterfeldt, D. (2003). A framework to quantitatively assess and enhance the seismic resilience of communities. *Earthquake Spectra*, *19*(4), pp.733-752.

Donnelly, J., Miller, A. N., & Strawser, M. G. (in press). Resilience in the face of crisis: Organizational response to developing faculty elearning literacy in a global pandemic. *Journal of Literacy and Technology, 21* (2).

Gigliotti, R. A. (in press). Sudden shifts to fully online: perceptions of campus preparedness and implications for leading through disruption. *Journal of Literacy and Technology, 21* (2).

Johns Hopkins (September 20th, 2020). COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://coronavirus.jhu.edu/map.html

Kuhn, T. S. (1970). *The structure of scientific revolutions, (*2nd *enl. ed*.). University of Chicago Press.

Leasure, D., Blaher, S., Davis, C., Ellsworth, E., Fortney, M., Hansen, M., Hogan, K.,

McNally, D., Mulherrin, B., and Willis, H. (in press). Not so suddenly online: preparing UMGC's students and faculty for online success. *Journal of Literacy and Technology, 21* (2).

Mollenkopf, D., & Gaskill, M. (in press). Technological transience in a time of unprecedented change: Student support strategies in college courses for those "suddenly online". *Journal of Literacy and Technology, 21* (2).

Petroski, D. J. & Rogers, D. (in press). An examination of student responses to a suddenly online learning environment: What we can learn from gameful instructional approaches. *Journal of Literacy and Technology, 21* (2).

Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences, 4*(2), 155-169.

Rogers, E. M. (2003). *Diffusion of innovations (5th ed)*, New York: Free Press

Sherbino, J., Arora, V. M., Van Melle, E., Rogers, R., Frank, J. R., & Holmboe, E. S. (2015). Criteria for social media-based scholarship in health professions education. *Postgraduate medical journal*, *91*(1080), 551-555.

Smith, M. F. (2013). *Evaluability assessment: A practical approach* (Vol. 26). Springer Science & Business Media.

Strelan, P., Osborn, A., & Palmer, E. (2020). The flipped classroom: A meta-analysis of effects on student performance across disciplines and education levels. *Educational Research Review*, 100314.

Tan, C., Yue, W. G., & Fu, Y. (2017). Effectiveness of flipped classrooms in nursing education: Systematic review and meta-analysis. *Chinese Nursing Research*, *4*(4), 192-200.

Turner, J. W., Wang, F., & Reinsch, N. L., Jr. (in press). How to be socially present when the class becomes "suddenly distant". *Journal of Literacy and Technology, 21* (2).

Fall 2020 ISSN: 1535-0975

Whitworth, B., & Friedman, R. (2008). The challenge of modern academic knowledge exchange. ACM SIGITE Newsletter, 5(2), 4-11

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Sudden Shifts to Fully Online: Perceptions of Campus Preparedness and Implications for Leading Through Disruption

Article Info

Ralph A. Gigliotti, Ph.D.
Rutgers University

Keywords: Communication theory, Leadership communication, Leadership development, Higher education, College/university

Abstract

The impact of the coronavirus pandemic on all sectors, including colleges and universities, has been extensive. The pivot to a suddenly online teaching and work environment raises important questions regarding student learning and development, curriculum design and delivery, virtual team engagement, and the very future of higher education, and as highlighted in this essay, the ways in which institutions adapted quickly to the circumstances of a global pandemic sheds important light on the dynamics of crisis leadership in higher education.

This essay examines varying perceptions of campus preparedness in response to this shift to a suddenly online environment based on an early survey that was distributed in March 2020. The exploratory findings from this project highlight relevant themes for the analysis and practice of leading others in a suddenly online context, including the deployment of careful and systematic emergency operations plans to prepare for such shifts, ongoing leadership communication, familiarity with and an investment in the infrastructure to support fully online work and learning modalities, and a people-centered response to the crisis. The essay concludes with research-informed recommendations as colleges and universities enter what will likely be an increasingly ambiguous and uncertain period ahead.

Fall 2020 ISSN: 1535-0975

The first reported case of COVID-19 in the United States was detected in Snohomish County, Washington, on January 19, 2020. In the weeks to follow, cases became more prevalent in other regions of the country, leading the World Health Organization to declare a Public Health Emergency of International Concern on January 30. By March 11, when the WHO characterized the outbreak as a pandemic, the number of COVID-19 cases outside of China increased 13-fold, and the number of affected countries tripled (World Health Organization, 2020). As of September 2020, there were more than 31 million confirmed cases of the virus, with over 20% of the cases (approaching 7 million) reported in the United States, and nearly 1 million deaths attributed to the virus worldwide (Johns Hopkins Coronavirus Resource Center, 2020).

The impact of the coronavirus pandemic on all sectors, including colleges and universities, has been extensive. In short order, college and university campuses announced the transition to virtual instruction, restrictions on employee and student international travel, and new policies for working from home. The unprecedented activities of recent months, coupled with the uncertainty surrounding the operations and academic calendar for the 2020–2021 academic year, are disorienting and unsettling for the higher education community. As reported in a recent survey of college leaders conducted by the Association of Public and Land-grant Universities (APLU) (2020), the leading challenges facing higher education have been further exacerbated as a result of the pandemic, including government funding, student mental health, diversity and inclusion, and affordability. Furthermore, as supported by a recent study by Aucejo, French, Araya, and Zafar (2020), the pandemic has had a disproportionate impact on low-income students, who are 55% more likely to have delayed graduation due to COVID-19 than their higher-income peers. The pandemic is apt to accelerate trends that were already underway, and one area that will probably be most impacted by the pandemic involves the further integration of technology into the design and delivery of course instruction and into the college and university workplace. As Marcus (2020) reports, “These trends may not transform higher education, but they are likely to accelerate the integration of technology into it” (para 7).

The pivot to a suddenly online environment—the focus of this special issue—is relevant for the many stakeholders who are engaged in the activities of higher education, with cascading effects on the work of nearly every college and university department. The accelerated migration to this fully online context raises important questions regarding student learning and development, curriculum design and delivery, virtual team engagement, and the very future of higher education, and as highlighted in this essay, the ways in which institutions adapted quickly to the circumstances of a global pandemic sheds important light on the dynamics of crisis leadership in higher education that may serve as a guide for the unpredictable yet almost certainly messy and tumultuous period ahead.

Fall 2020 ISSN: 1535-0975

The Network for Change and Continuous Innovation (NCCI)[1] brings together individuals and institutions with a shared interest in the areas of leadership, change management, organizational performance, and innovation in higher education. As Gigliotti and Scott (2019) wrote in an essay prior to the pandemic:

> Change and innovation remain as important today as they did 20 years ago when this unique higher education association was founded. NCCI helps leverage and scale change in higher education. Across institutions, states, and nations, the association provides an infrastructure to share experiences, explore best practices, and partner in developing new approaches. The scope and scale of changes that our members are making in their institutions now is exponentially larger than even a few years ago, as is the impact of those changes.

Crises provide unique opportunities for invention and reinvention in higher education (Gigliotti, 2016, 2019), and although the long-term impact of the COVID-19 pandemic is not entirely clear, the crisis of our time is a watershed moment for higher education and likely the source of significant change and transformation across each of our institutions.

A survey was conducted with NCCI members in the early days of the pandemic to explore the issues of institutional crisis preparedness, the desired competencies for crisis leaders in higher education, and the ways in which the association could best support member institutions amid this public health emergency. This essay examines the preliminary survey findings which address varying perceptions of campus preparedness in response to this shift to a suddenly online environment. The exploratory findings from this project highlight relevant themes for the analysis and practice of leading others in a suddenly online context, including the deployment of careful and systematic emergency operations plans to prepare for such shifts, ongoing leadership communication, familiarity with and an investment in the infrastructure to support fully online work and learning modalities, and a people-centered response to the crisis. The essay concludes with specific recommendations as colleges and universities enter what will likely be an increasingly ambiguous and uncertain period ahead.

Literature Review

Rapid Shifts to Online Learning and Work Environments.

The growth in distance education was underway prior to the pandemic. According to the National Center for Education Statistics (2020), in fall 2018, of the 19,645,918 total postsecondary student population, 6,932,074 students (approximately 35%) were enrolled in distance education courses at degree-granting postsecondary institutions, and 3,257,987 students (approximately 17%) were enrolled in exclusively distance education courses. One source of distance education includes online-degree programs, which are now widespread across the higher education ecosystem. As Kelderman (2020)

[1] NCCI is an association of nearly 100 member institutions ranging from smaller community colleges to large research universities for which I currently serve on the Board of Directors. For more information regarding NCCI, please visit https://www.ncci-cu.org/.

Fall 2020 ISSN: 1535-0975

notes, "Nationwide, enrollment in online-degree programs has ballooned since the Great Recession, increasing nearly 60 percent from 2012 to 2017 at public four-year colleges, and more than 66 percent at private nonprofit institutions." Certainly, the rapid shift to remote instruction in response to the COVID-19 pandemic raises interesting questions regarding the differences between carefully planned and coordinated approaches to distance education and online learning, and what many are labeling emergency remote teaching. Effective online learning results from careful instructional design and planning, using a systematic model for design and development (Branch & Dousay, 2015; Means, Bakia, & Murphy, 2014), and decisions regarding the design of online educational offerings must consider the following dimensions: modality, pacing, student-instructor ratio, pedagogy, instructor role online, student role online, online communication synchrony, role of online assessments, and source of feedback (Means et al., 2014). As Hodges, Moore, Lockee, Trust, and Bond (2020) indicate, "the distinction is important between the normal, everyday type of effective online instruction and that which we are doing in a hurry with bare minimum resources and scant time: emergency remote teaching."

Despite the growth of distance education and partially and fully online degree programs prior to the pandemic, the percentage of faculty who had never taught online remained quite high. According to *Inside Higher Ed*'s 2019 Survey of Faculty Attitudes on Technology, conducted with Gallup, 46% of faculty taught an online course, an increase from 44% in 2018 and 30% in 2013. In his summary of the survey findings, Lederman (2019) noted the following:

> Lest anyone think that that trend means professors have fully embraced the value and benefits of online education, though, think again. While three-quarters of instructors who have taught online believe it made them better teachers in several key ways, professors remain deeply divided about whether online learning can produce student learning outcomes equivalent to face-to-face instruction.

As a result of the COVID-19 pandemic, nearly all faculty have now become increasingly more familiar with some degree of online or remote instruction. In a remarkably swift period, colleges and universities across the country cancelled face-to-face classes and mandated that faculty move their courses online to help prevent the spread of the virus. According to Hodges et al. (2020), "the primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis." In a survey of faculty conducted by the *Chronicle of Higher Education*, "about 60 percent of faculty members, and a similar share of academic administrators, said spring's courses were worse than face-to-face offerings" (Williams June, 2020). Thus, despite valiant efforts to ensure continuity of course instruction, the shift of planned in-person courses to suddenly online modalities was found to be disruptive, and the level of learning perhaps of lesser quality than what otherwise would have been possible through in-person instruction. Furthermore, as found in a survey conducted by Ithaca S&R of 15,000 students at 21 colleges and universities, respondents indicated a desire

for more communication about the changes being made in response to the pandemic and increased feelings of disconnection with other students and their instructors as a result of the shift to virtual instruction (Blankstein, Frederick, & Wolff-Eisenberg, 2020).

In addition to the dramatic shifts in the delivery of course content, the norms and expectations of the workplace were upended as a result of the pandemic. According to Bowen (2013), trends in information technology have contributed to significant changes in management and administrative processes, research and scholarship, teaching, and the overall work experience and office environment. Teleworking emerged in the 1970s, but as Markarian (2007) highlights (as cited in Waters, 2015), it quickly gained popularity in the 1980s in response to concerns regarding energy, transportation, and the environment. Prior to the pandemic, telecommuting was on the rise, with an increase of 159% in the number of people telecommuting in the United States between 2005 and 2017 (U.S. Bureau of Labor Statistics, 2020). Waters (2015) highlights the benefits of telecommuting, particularly in reducing some of the barriers for work in colleges and universities, but she also addresses many of the challenges that perhaps may have limited telecommuting arrangements in higher education and the myriad challenges such arrangements present for communication, management, and trust (Dalhstrom, 2013).

As noted by Guyot and Sawhill (2020), "the COVID-19 pandemic is, among other things, a massive experiment in telecommuting. Up to half of American workers are currently working from home, more than double the fraction who worked from home (at least occasionally) in 2017–18." As Reeves and Rothwell (2020) report, higher-income workers are much more likely to be working from home during the pandemic. The resistance to adopting flexible work arrangements prior to the pandemic, coupled with the realities of not being able to convert some roles and responsibilities among college and university personnel into a virtual delivery, were two of the many challenges facing leaders in responding to this necessary pivot for the college and university workplace.

Underpinnings of Leadership and Crisis Leadership.

The COVID-19 pandemic and the dramatic and sweeping impact on our personal and professional ways of being meet the criteria of what Weick (1993) refers to as a cosmology episode, which "occurs when people suddenly and deeply feel that the universe is no longer a rational, orderly system" (p. 633). As he goes on to suggest, "What makes such an episode so shattering is that both the sense of what is occurring and the means to rebuild that sense collapse together" (p. 633). Those engaged in leadership play an active role in helping others make sense of the conditions within their environments, and the role of sensemaking becomes especially prominent and heightened during times of crisis, change, and disruption (Bartunek, Rousseau, Rudolph, & DePalma, 2006; Gioia & Chittipeddi, 1991; Maitlis & Sonenshein, 2010; Stephens, et al., 2020; Weick, 1988, 1993, 1995). Leaders at all levels of higher education faced a number of challenges preceding the pandemic, particularly those dealing with access, affordability, student preparation and instruction, financial stability, public perceptions, campus safety, and diversity and inclusion, in addition to the sweeping array of operational demands required to run a highly complex and

decentralized organization with multiple missions and a wide array of stakeholders (Ruben, De Lisi, & Gigliotti, 2017). The pandemic added greater responsibility to the work of higher education leadership, and it remains at the top of mind as colleges and universities prepare for an academic year that is laden with uncertainty.

Leadership is viewed through a wide array of lenses, and it is broadly defined in the literature. Two prominent definitions that take a communication-centered orientation include Northouse's (2018) view of leadership as a "process whereby an individual influences a group of individuals to achieve a common goal" (p. 5) and Johnson and Hackman's (2018) definition of "human (symbolic) communication that modifies the attitudes and behaviors of others in order to meet shared group goals and needs" (p. 12). In exploring leadership through the prism of communication, it becomes important to consider not just the actions and behaviors of an individual with positional power, but rather the ways in which leadership, as a process, emerges through the interactions, interplay, and convergence of leader, followers, and context—what Kellerman (2016) characterizes as the leadership system. As recent communication scholarship highlights, followers play a highly significant and critical role in making leadership possible (Alvesson & Sveningsson, 2013a, 2013b; Fairhurst & Connaughton, 2014a, 2014b; Ruben & Gigliotti, 2016a, 2016b 2019). Thus, as we consider the shift to a suddenly online learning and work environment, the actions, competencies, and decisions of those in formal leadership roles is worthy of analysis, as will be highlighted and explained in the pages ahead, but so too must we consider the ways in which followers—including the many stakeholders involved in higher education institutions—co-construct the experiences of a suddenly online teaching and learning environment. Leadership can be found at all levels of an organization, and as both a formal and informal, planned and unplanned way of being (Gigliotti, Ruben, & Goldthwaite, 2017; Ruben & Gigliotti, 2016a, 2016b). Approaching leadership as a communicative process hones in on the ways in which "power and agency are widely dispersed (rather than concentrated in the hands of leaders) and are marshalled by both non-leaders and leaders to co-construct leadership and followership identities" (Tourish, 2014, p. 80). Thus, from a communication paradigm, we have come to recognize verbal and nonverbal messages delivered by leaders as one source of leadership communication, along with the many other strategies, structures, and processes that make social influence possible (Ruben & Gigliotti, 2019), and the training and development of leaders at all levels of higher education, particularly those efforts focused on crisis situations, must consider and privilege the criticality and complexity of communication (Gigliotti & Ruben, 2018; Wallace & Becker, 2018).

One final stream of literature that is worth acknowledging prior to discussing some of the central research findings is the growing body of work in crisis leadership in higher education and what it might mean in navigating the realities of a suddenly online workplace and learning ecosystem. As Ulmer, Sellnow, and Seeger (2018) acknowledge, an organizational crisis is a specific, unexpected, and nonroutine event, or series of events, that create high levels of uncertainty and simultaneously present an organization with both opportunities for and threats to its high-priority goals (p. 7). The

Fall 2020 ISSN: 1535-0975

pandemic has revealed an abundance of threats and opportunities for higher education—exposing that which is broken and forging new opportunities for reinvention and renewal that may now be possible (Ruben, 2020). I have come to view crises as both externally imposed and socially constructed (Gigliotti, 2019, forthcoming), and the perception of crisis among followers, constituents, or stakeholders requires a leadership response that treats the issue or situation with importance. In considering the types of events or situations that might develop into crises of significance for colleges and universities, I offer the following definition:

> Crises are events or situations of significant magnitude that threaten reputations, impact the lives of those involved in the institution, disrupt the ways in which the organization functions, have a cascading influence on leadership responsibilities and obligations across units/divisions, and require an immediate response from leaders. (p. 61)

According to each of these dimensions, there is a widely shared view of the pandemic as an unsettling and paradigm-altering crisis of significant magnitude—one that alters our ways of being, connecting, working, and learning. As Yan (2020) writes, "The widely implemented social distancing measures to control the COVID-19 pandemic have generated one unprecedented shift. That is, various types of human social interactions (e.g., shopping, banking, learning, meeting, and entertaining) are shifted from dominantly offline to dominantly online" (p. 2). For leaders in higher education, the uniqueness of the moment, coupled with the overwhelming uncertainty regarding the virus and the wave(s) that might lie ahead, make the actions and decisions particularly complex. Consequently, this crisis calls for careful analysis of the actions and behaviors of leaders in supporting the shifts required.

Colleges and universities face especially unique challenges when dealing with crises, due in part to the presence of a decentralized organizational structure, reliance on committee-based decision-making, and tradition of shared governance that might lead to slower and more participatory methods of crisis response (Gigliotti, 2019). Crises require immediate attention (Laermer, 2003; Mitroff, 2004), a coordinated and centralized response (Barton, 2001; Coombs, 2018), and a dual focus on both the short-term and long-term implications of any decisions that might be made in response to the crisis (Gigliotti, 2019; Klann, 2003); yet there is a long-standing expectation of careful, deliberate, and democratic decision-making efforts in higher education that might restrict urgent responses, alignment with centralized policies and guidance, and short-term triage efforts. Colleges and universities are regularly criticized for being slow-moving operations, and agility may at times seem countercultural and perhaps even threatening to the core values of the academy (Utz, 2020). However, as detailed in earlier sections, colleges and universities engaged in colossal and commendable efforts to pivot quickly to fully online learning and work environments, and some institutions of higher education were among the first organizations of any kind to close physical operations and embrace social distancing in the early days of the pandemic in the United States (Baker, Hartocollis, & Weise, 2020). The exploratory findings from this study of college and university personnel provide a glimpse into perceptions of campus preparedness and desired leadership

competencies in navigating the dramatic disruptions posed by the pandemic, and as highlighted by the emergent themes detailed ahead, the shift to a suddenly online context requires a focus on the deployment of careful and systematic emergency operations plans to prepare for such shifts, ongoing leadership communication, familiarity with and an investment in the infrastructure to support fully online work and learning modalities, and a people-centered response to the crisis.

Methodology

Upon receiving IRB approval from Rutgers University, the survey was distributed on March 9, in the very early days of the pandemic in the United States, and it remained open for two weeks. Additional reminders were distributed via NCCI committee and communities of practice chairs. Eighty individuals accessed the survey, and nearly 30 respondents provided responses to the open-ended questions resulting in nearly 20 pages of qualitative data. The final data set comprised of respondents from at least 18 institutions, representing varying units across their respective institutions, including senior administration and staff roles in offices of the chancellor, academic affairs, administration and finance, organizational development and effectiveness, change management, information technology, human resources, and alumni and student relations. Using a constant comparative approach to data analysis (Lindlof & Taylor, 2017; Miles, Huberman, & Saldaña, 2019), the qualitative survey responses were coded based on dominant themes, and subsequent reviews of the data helped the researcher refine, condense, and modify the central themes highlighted in the sections that follow.

Findings

Crisis Preparation.

Respondents were asked to consider perceptions of institutional crisis preparedness at the outset of the coronavirus pandemic. Individuals noted the following areas where their campuses seemed best prepared. First, as several respondents noted, the existence of an emergency operations plan and the ability to quickly set the plan into action were important dimensions of crisis preparation in the early days of the pandemic. The existence and deployment of this plan, typically coordinated by a COVID-19 emergency response team, allowed institutions to respond swiftly to the crisis.

The demonstration of ongoing communication from senior leadership was also recognized as an area of strength by survey respondents. As one individual noted, “Communications have been ongoing and clear and concise with detailed instructions on impacts and what community members need to do.” And as highlighted by another respondent, “Leadership is keeping on top of changing recommendations daily and communicating.” Prompt, clear, and ongoing communication are markers of excellence as they relate to crisis communication, and many respondents seemed satisfied by their institution’s response in this area. Interestingly, for some, the realization of the severity of the crisis required a shift in communication and response, as detailed by the following comment: “Once they realized how serious it was they’ve caught up to reality and are

Fall 2020 ISSN: 1535-0975

now much better at communicating and providing helpful resources."

Germane to the scope of this essay and the focus of this special issue, the institution's history with technology, online learning, and remote work policies played a significant role in perceptions of crisis preparedness. The availability of technology and evidence of an agile response from the campus community to support rapid shifts to remote learning and virtual work arrangements were both highlighted as particular strengths. One individual complimented the institution's "access to many tools and experts to help transition courses and work to a virtual environment." As another respondent suggested, "Our Office of Digital Education has existed for 20 years and is able to be a critical resource to faculty as they transition to remote teaching and learning. Our remote technologies (VPN, Zoom, Teams) were well-utilized by staff prior to the crisis, which has been helpful." The history preceding the crisis matters, and prior adoption of systems, resources, and equipment to support a rapid shift of this kind played an important role in perceptions of crisis preparedness.

One final area of strength highlighted by survey respondents reflected a people-centered response to the crisis by members of the senior leadership team. The unprecedented nature of the pandemic and the widespread disruption it invoked within institutions of higher education contributed to an environment of high uncertainty and, for some, anxiety. As noted in one respondent's response, "While no one has experienced anything quite like this before, having strong leaders who care about the well-being of the students, faculty and staff—as well as the university as an institution—is a definite strength." This appreciation for a people-centered response to the crisis was prominent in some of the survey responses regarding the impact of the crisis on students who needed to return home safely and on employees who needed support in quickly transitioning to a remote work environment.

Initial Concerns.

Several of the themes noted as areas of strength were also recognized by many individuals as areas for greatest improvement at their institution. For example, timely, clear, and ongoing communication from senior leaders in response to the crisis was recognized as both a preparedness element and an area of greatest concern. Reflecting on the lack of communication in the early days of the pandemic, one respondent offered the following: "Communication has been poor. The messaging is not being handled centrally so different groups are getting different messages. There is no regular cadence of communication so no one knows when to expect updates, which is drowning central offices in emails asking when they will get info. Additionally, most messages that contain substance come after hours, which people are taking as a sign of avoidance by leadership." This sentiment was shared by others who took issue with the institution's failure to "set up consistent, transparent, broad, timely communication channels" and to "capture and share organizational artifacts and knowledge as decisions are made."

Like the reaction to the perceived absence of communication from senior leadership, some respondents expressed concern with the delayed response by individuals with emergency management responsibilities to adequately address the crisis. For example, as one person noted,

Fall 2020 ISSN: 1535-0975

"We seemed least prepared in our ability to take decisive action. We are still doing a lot of wait and see before we're willing to make the decision." Another respondent characterized their institution as being "late to the game," a sentiment shared by others who compared the institution's response to nearby companies in the region: "The response has been slow and the institution could have been more proactive in responding to COVID-19. Other nearby companies mandated remote working weeks prior to our institution."

Bearing in mind the importance, noted previously, of an institution's history with virtual learning and remote work, the reluctance to embrace trends in either of these areas in the past undoubtedly complicated the sudden transition to remote work required in this situation. For example, as suggested by one respondent, "Our institution is not well versed in these virtual tools and has always been rather conservative with remote work options. Some people even seem to think they still need to be in the office despite not being needed on campus just because they do not enjoy working from home." This sentiment was widely shared by survey respondents, as illustrated in the following response: "We have resisted staff requests to work from home for years; the university had to pivot quickly and find ways to equip and be okay with thousands of staff members working remotely." Additionally, survey results showed that "antiquated and paper-fueled processes," coupled with the very real difficulties of converting some in-person courses and programs to a fully online delivery, posed challenges for college and university personnel.

Inadequate efforts to appropriately engage the campus community and help stakeholders cope with the disruptive change was a final area of concern in the early days of the pandemic. This important dimension of crisis leadership that some perceived to be lacking involved "managing emotions" and "helping people cope with the isolation and change" triggered by the global pandemic.

***Desired Crisis Leadership Competencies*.**

Survey respondents were asked to identify the qualities most desired in higher education leaders in response to the public health crisis. As supported by much of the crisis management and crisis leadership literature, leading during times of crisis is a complicated endeavor, particularly due to the high stakes, ambiguous and uncertain conditions, and competing views of internal and external stakeholders. The following qualities/abilities emerged from the survey data as most preferred:

- Active listening
- Adaptability/flexibility
- Balance short- and long-term priorities
- Calm under pressure
- Clear, concise, and ongoing communication
- Compassionate, and committed to the well-being of students, faculty, and staff
- Confidence
- Creative/Innovative
- Discipline
- Emotionally intelligent
- Empathy
- Fairness
- Familiarity with best practices
- Fast but thoughtful decision-making

- Holistic point of view
- Honesty/integrity
- Humility/vulnerability
- Level-headed
- Mindful
- Optimistic
- Present, engaged, and responsive
- Resilient
- Resourceful
- Share clear expectations
- Transparency

The scale of the COVID-19 crisis is staggering, and its potential impact on institutions of higher education is extraordinary. Given the complexity of the crisis, three quotes presented in the survey data may serve as a useful guide for leading higher education institutions through this unprecedented situation. First, as one respondent indicated, compassionate risk-taking is most critical, for "we are going to have to be willing to take risks to survive this." Another individual recognized the need for one to "interpret and deliver copious changing information in a coherent manner," all the while having the "ability to inspire us to be our best selves in a time of uncertainty." Finally, as one person offered, "Redefining our priorities is critical. What was important two months ago is probably not what is most important now. Make decisions and make them quickly. We need to be ready to respond to the current situation at a moment's notice and de-prioritize things that are no longer top priority."

Infrastructure for Community Support.

A final question within the survey asked respondents to consider the ways in which NCCI could best support individuals and institutions during this challenging time. The open-ended responses are organized around five action items, which are also likely relevant to the work of other professional associations and consortia engaged in efforts to support university personnel:

- Deliver best practices for effective crisis management/leadership and ideas for leading teams and providing emotional support during changing times.
- Develop an infrastructure to help members learn from what other universities are doing to support students, faculty, and staff, and to identify approaches that are most and least effective.
- Provide links to member institution websites to highlight how they are addressing the crisis.
- Create virtual discussion or message boards to engage members in conversation with others and learn how others are adjusting their work to support their institution.
- Continue to offer webinars with content focused specifically on navigating current circumstances.

As these action items seem to suggest, professional associations and institution-specific centers and support units can play an important role in developing a platform for the exchange of relevant resources, an infrastructure for the exchange of salient best practices, and the development of community among geographically dispersed colleagues—each of which takes on an even greater level of relevance during times of organizational and environmental crisis.

Fall 2020 ISSN: 1535-0975

Discussion and Implications

Crises reveal the connected, interwoven, and interdependent features of the human condition. Within times of crisis, we can see more clearly what is broken, what is in need of healing, and what matters. As Solnit (2020) posits,

> When a storm subsides, the air is washed clean of whatever particulate matter has been obscuring the view, and you can often see farther and more sharply than at any other time. We may feel free to pursue change in ways that seemed impossible while the ice of the status quo was locked up. We may have a profoundly different sense of ourselves, our communities, our systems of production, and our future.

At this time, we find ourselves at only a partial and tentative moment of reprieve. We can look behind us to explore the immediate impact of the pandemic and the impact on leading sudden shifts to fully online work and learning environments, while also looking ahead to the inevitable disruptions that might continue to threaten the activities and operations of higher education. In consideration of the preliminary findings of this study, several paradoxes emerge that can contribute to how we engage in the analysis, exploration, interrogation, and practice of leading in times of disruption, uncertainty, and volatility.

The first paradox involves a craving for certainty, clarity, and information during a time of widespread uncertainty. In the immediate pivot to a fully online environment, frequent and ongoing communication from campus leadership was acknowledged as both an area of strength and an area for improvement by survey respondents. As we look ahead to the upcoming academic year and the potential for ongoing waves of disruption as a result of the virus, the desire for clarity during a time that is noticeably lacking such precision can help to guide as well as complicate approaches to leadership communication.

Second, the shift to a suddenly online environment for teaching, learning, and work exposed the affordances of available technologies (Leonardi, 2013) while also revealing the deficiencies that can result from a lack of human connection (Murthy, 2020). The sounds and scenes of the last few months—virtual graduation celebrations to honor the contributions and accomplishments of the graduating class, images of loved ones exchanging conversations separated by glass dividers, the chorus of shared music resonating from the physically distanced balconies of Italy, the routine cheers in New York City in support of first responders, and the now normalized parades and Zoom gatherings to celebrate special occasions—all serve as poignant reminders of the desire and need for emotional human connection during a time of physical and social distancing. The survey findings point to the importance of demonstrating and displaying care for the well-being of the entire community, and in navigating future shifts to fully online ways of being, leaders at various levels will need to continue to explore ways of communicating care and cultivating connection in both physical and mediated modalities.

The final paradox—and one that will continue to complicate the efforts of higher education leadership—is the need for swift and agile responses in a sector that prides itself on careful and collaborative decision-making. When crises strike, colleges and

Fall 2020 ISSN: 1535-0975

universities are held to the same expectations for a speedy and coordinated response as any other sector (Gigliotti, 2019), and as described by several of the survey respondents, the ability to quickly deploy an emergency plan in response to the outbreak of the pandemic was recognized as both a source of strength and area for improvement.

In light of these three paradoxes, below are several implications for theory, research, and practice during this unique historical moment:

- Revisit emergency response plans based on how the institution responded to the outbreak in March 2020, and critically consider how to move forward in what will likely be an increasingly ambiguous and uncertain environment for colleges and universities.
- Solicit feedback from key stakeholders representing various parts of the institution with a goal of learning the lessons, impact, and implications of the shift to suddenly online on teaching, learning, and workplace engagement.
- Crises threaten reputations and disrupt operations, and they require immediate responses and both frequent and ongoing communication from leaders. At both an individual and collective level, analyze the communication surrounding the shift to suddenly online, and through the lenses of representative stakeholders, consider the ways in which these messages align with the unit, department, or institution's mission, and how future messages on such topics might offer expertise, instill hope, build community, and allow stakeholders to engage in the decisions that impact the institution at large.
- Pursue physical and virtual infrastructures to support community, including the implementation of robust learning management systems and appropriate training opportunities for using such systems, sharing resources on ways of cultivating connections when leading virtual teams, and creating opportunities for forging new interdisciplinary relationships across the institution that can help ignite reinvention strategies that might be necessary to move the institution forward.
- Recognizing the impact on student well-being, consider the following research-informed recommendations from Blankstein et al. (2020) based on their study of student perceptions: continue to communicate with students; rethink how to adapt technical and specialized coursework for online instruction; enhance connection and collaboration with students in fully online modalities; invest in academic and financial advising; and target students with the greatest need. As the authors suggest, and as supported by many recent studies, "Students from groups that were historically underserved and marginalized before the pandemic were more likely to face challenges during the spring 2020 term" (p. 21), and it is incumbent on leaders across higher education to explore ways of best supporting equity, inclusion, and success across the student lifecycle.
- Reimagine the purpose of higher education and revisit how the mission of the unit, department, or institution may meet the needs of a post-COVID world. Many pundits are predicting that the pandemic will be the catalyst to

> forever change higher education, and in consideration of our collective and sudden shift to fully online, the conditions are ripe for some shared sensemaking on reasons for pursuing work in this sector, ideas for engaging more meaningfully with our students and colleagues, and principles to help guide how we intend to handle the inevitable future crises.

The themes raised throughout this article shed important insight on the varying perceptions of campus preparedness in response to this shift to a suddenly online environment; however, it is important to acknowledge several research limitations. The collection of data occurred during very early days of the crisis in the United States and perceptions of leadership during this period were still being established. As such, the survey findings accurately capture perceptions at the time of data collection, but not necessarily as the crisis unfolded throughout the spring semester and summer months. Additionally, although individuals from several institutions responded to the survey, more rigorous data collection from numerous individuals at each of the represented institutions would strengthen the data and perhaps expand on some of the exploratory themes discussed in this article. Finally, as with any qualitative methodology, the ideas raised throughout this article are not meant to be exhaustive or generalizable. Rather, these findings pose important connections and questions for those engaged in higher education leadership, and it is my hope that these themes will prove useful for those engaged in future research on this topic.

Conclusion

Ulmer et al. (2018) present a view of crises as opportunities for learning and improvement, "viewing them as they are perceived in Chinese culture, where the symbol for crisis in the Mandarin language is interpreted as *dangerous opportunity*" (p. 4). The danger, fear, and uncertainty found in this moment can paralyze our institutions; yet we may also use this opportunity to reorient ourselves toward renewal and growth that is centered on a commitment to key stakeholders, a commitment to correction and learning, and a commitment to the core values that uphold our work across higher education (Ulmer & Sellnow, 2002). As the findings of this project suggest, early reactions of campus preparedness in navigating a dramatic and sudden shift to fully online centered primarily on the importance of the deployment of careful and systematic emergency operations plans to prepare for such shifts, ongoing leadership communication, familiarity with and an investment in the infrastructure to support fully online work and learning modalities, and a people-centered response to the crisis. Looking ahead, research, theory, and practice may build upon these exploratory findings in considering more fully three paradoxes that are reflective of this historic, disorienting, and unsettling historical moment—the desire for information during a time of remarkable uncertainty, the hunger for connection during a moment of social distancing, and the need for agile leadership in an environment that privileges broad engagement and practice.

References

Alvesson, M., & Sveningsson, S. (2003a). The great disappearing act: difficulties in doing "leadership." *Leadership Quarterly, 14*(3), 359–381.

Alvesson, M., & Sveningsson, S. (2003b). Managers doing leadership: the extra-ordinization of the mundane. *Human Relations, 56*(12), 1435–1459.

Association of Public and Land-grant Universities (APLU). (2020). How COVID-19 changed everything and nothing at all. Retrieved from https://www.aplu.org/library/how-covid-19-changed-everything-and-nothing-at-all/file

Aucejo, E. M., French, J. F., Araya, M. P. U., & Zafar, B. (2020). The impact of COVID-19 on student experiences and expectations: Evidence from a survey. NBER Working Paper No. 27392. Cambridge, MA: National Bureau of Economic Research.

Baker, M., Hartocollis, A., & Weise, K. (2020, March 6). First U.S. colleges close classrooms as virus spreads. More could follow. *The New York Times.* Retrieved from https://www.nytimes.com/2020/03/06/us/coronavirus-college-campus-closings.html

Barton, L. (2001). *Crisis in organizations II* (2nd ed.). Cincinnati, OH: College Divisions South-Western.

Bartunek, J., Rousseau, D. M., Rudolph, J., & DePalma, J. (2006). On the receiving end: sensemaking, emotion, and assessments of an organizational change initiated by others. *Journal of Applied Behavioral Science, 42*(2), 182–206.

Blankstein, M., Frederick, J. K., & Wolff-Eisenberg, C. (2020). Student experiences during the pandemic pivot. Ithaka S+R. Retrieved from https://sr.ithaka.org/wp-content/uploads/2020/06/SR-Report-Student-Experiences-During-the-Pandemic-Pivot.pdf

Bowen, W. G. (2013). *Higher education in the digital age.* Princeton, NJ: Princeton University Press.

Branch, R. M., & Dousay, T. A. (2015). *Survey of instructional design models* (5th ed.). Bloomington, IN: Association for Educational Communications and Technology.

Coombs, W. T. (2018). *Ongoing crisis communication: Planning, managing, and responding* (5th ed.). Thousand Oaks, CA: Sage.

Dahlstrom, T. R. (2013). Telecommuting and leadership style. *Public Personnel Management, 42*(3), 438–451.

Fairhurst, G. T., & Connaughton, S. L. (2014a). Leadership: A communicative perspective. *Leadership, 10*(7), 7–35.

Fall 2020 ISSN: 1535-0975

Fairhurst, G. T., & Connaughton, S. L. (2014b). Leadership communication. In L. L. Putnam & D. K. Mumby (Eds.), *The SAGE handbook of organizational communication: Advances in theory, research, and method* (pp. 401–423). Thousand Oaks, CA: Sage.

Gigliotti, R. A. (forthcoming). The perception of crisis, the existence of crisis: Navigating the social construction of crisis. *Journal of Applied Communication Research*.

Gigliotti, R. A. (2019). *Crisis leadership in higher education: Theory and practice.* New Brunswick, NJ: Rutgers University Press.

Gigliotti, R. A. (2016). Leader as performer; leader as human: A discursive and retrospective construction of crisis leadership. *Atlantic Journal of Communication, 24*(4), 185-200.

Gigliotti, R. A., & Ruben, B. D. (2018). The role of communication theory in leadership training and development. In J. D. Wallace & D. Becker (Eds.), *The handbook of communication training: A best practices framework for assessing and developing competence* (pp. 238–252). New York: Routledge.

Gigliotti, R. A., Ruben, B. D., & Goldthwaite, C. (2017). *Leadership: Communication and social influence in personal and professional settings.* Dubuque, IA: Kendall Hunt.

Gigliotti, R. A., & Scott, K. (2019, June 20). Advancing quality and excellence in higher education. *eCampus News*. Retrieved from https://www.ecampusnews.com/2019/06/20/advancing-quality-and-excellence-in-higher-education/

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal, 12*(6), 433–448.

Guyot, K., & Sawhill, I. V. (2020, April 6). Telecommuting will likely continue long after the pandemic. *Brookings.* Retrieved from https://www.brookings.edu/blog/up-front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A., et al. (2020, March 27). The difference between emergency remote teaching and online learning. *EDUCAUSE Review.* Retrieved from https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Johns Hopkins Coronavirus Resource Center. (2020). Johns Hopkins University and Medicine. Retrieved from https://coronavirus.jhu.edu/

Johnson, C. E., & Hackman, M. Z. (2018). *Leadership: A communication perspective* (7th ed.). Long Grove, IL: Waveland Press.

Fall 2020 ISSN: 1535-0975

Kelderman, E. (2020, June 1). Spurred by coronavirus, some colleges rush to move online. *The Chronicle of Higher Education.* Retrieved from https://www.chronicle.com/article/Spurred-by-Coronavirus-Some/248893

Kellerman, B. (2016). Leadership—it's a system, not a person! *Daedalus, 145*(3), 83–94.

Klann, G. (2003). *Crisis leadership.* Greensboro, NC: Center for Creative Leadership.

Laermer, R. (2003). *Full frontal PR: Getting people to talk about you, your business, or your product*. Princeton, NJ: Bloomberg.

Lederman, D. (2019, October 30). Professors' slow, steady acceptance of online learning: A survey. *Inside Higher Ed.* Retrieved from https://www.insidehighered.com/news/survey/professors-slow-steady-acceptance-online-learning-survey

Leonardi, P. M. (2013). Theoretical foundations for the study of sociomateriality. *Information and Organization, 23*(2), 59–76.

Lindlof, T. R., & Taylor, B. C. (2017). *Qualitative communication research methods* (4th ed.). Thousand Oaks, CA: Sage.

Maitlis, S., & Sonenshein, S. (2010). Sensemaking in crisis and change: Inspiration and insights from Weick (1988). *Journal of Management Studies, 47*(3), 551–580.

Marcus, J. (2020, April 23). Will the Coronavirus forever alter the college experience? *The New York Times*. Retrieved from https://www.nytimes.com/2020/04/23/education/learning/coronavirus-online-education-college.html

Markarian, M. (2007). Remote access. *Career World, 36*(2), 19–21.

Means, B., Bakia, M., & Murphy, R. (2014). *Learning online: What research tells us about whether, when, and how.* New York: Routledge.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2019). *Qualitative data analysis: A methods sourcebook* (4th ed.). Thousand Oaks, CA: Sage.

Mitroff, I. I. (2004). *Crisis leadership: planning for the unthinkable*. Hoboken, NJ: Wiley.

Murthy, V. (2020). *Together: The healing power of human connection in a sometimes lonely world.* New York: HarperCollins.

National Center for Education Statistics. US Department of Education. (2020). Distance learning. Retrieved from https://nces.ed.gov/fastfacts/display.asp?id=80

Northouse, P. (2018). *Leadership: Theory and practice.* Thousand Oaks, CA: Sage.

Reeves, R. V., & Rothwell, J. (2020, March 27). Class and COVID: How the less affluent face double risks. Retrieved from https://www.brookings.edu/blog/up-front/2020/03/27/class-and-covid-how-the-less-affluent-face-double-risks/

Ruben, B. D. (2020). *Departmental and institutional renewal in the wake of the COVID-19 pandemic: Applying the Excellence in Higher Education framework*. Sterling, VA: Stylus.

Ruben, B. D., De Lisi, R., & Gigliotti, R. A. (2017). *A guide for leaders in higher education: Core concepts, competencies, and tools*. Sterling, VA: Stylus.

Ruben, B. D., & Gigliotti, R. A. (2016a). Leadership as social influence: An expanded view of leadership communication theory and practice. *Journal of Leadership and Organizational Studies, 23*(4), 467–479.

Ruben, B. D., & Gigliotti, R. A. (2016b). Communication: Sine qua non of organizational leadership theory and practice. *International Journal of Business Communication, 54*(1), 12–30.

Ruben, B. D., & Gigliotti, R. A. (2019). *Leadership, communication, and social influence: A theory of resonance, activation, and cultivation*. Bingley, UK: Emerald.

Solnit, R. (2020, April 7). "The impossible has already happened": What coronavirus can teach us about hope. *The Guardian.* Retrieved from https://www.theguardian.com/world/2020/apr/07/what-coronavirus-can-teach-us-about-hope-rebecca-solnit

Stephens, K. K., Jahn, J. L. S., Fox, S., et al. (2020). Collective sensemaking around COVID-19: experiences, concerns, and agendas for our rapidly changing organizational lives. *Management Communication Quarterly, 34*(3), 426-457.

Tourish, D. (2014). Leadership, more or less? A processual, communication perspective on the role of agency in leadership theory. *Leadership, 10*(1), 79–98.

Ulmer, R. R., & Sellnow, T. L. (2002). Crisis management and the discourse of renewal: Understanding the potential for positive outcomes of crisis. *Public Relations Review, 28*(4), 361–365.

Ulmer, R. R., Sellnow, T. L., & Seeger, M. W. (2018). *Effective crisis communication: Moving from crisis to opportunity* (4th ed.). Thousand Oaks, CA: Sage.

U.S. Bureau of Labor Statistics. (2020). Employed persons working at home, workplace, and time spent working at each location by full- and part-time status and sex, jobholding status, and educational attainment, 2019 annual averages. Retrieved from https://www.bls.gov/news.release/atus.t06.htm

Utz, R. (2020, June 24). Against adminspeak. *The Chronicle of Higher Education.* Retrieved from https://www.chronicle.com/article/Against-Adminspeak/249047

Wallace, J. D., & Becker, D. (Eds.). (2018). *The handbook of communication training: A best practices framework for assessing and developing competence*. New York: Routledge.

Fall 2020 ISSN: 1535-0975

Waters, K. A. (2015). Teleworking in higher education: What managers should know before developing teleworking policies. *College and University, 90*(3), 28–31, 34–38. Retrieved from http://www.aacrao.org/professionalresources/publications/college-university-journal-%28c-u%29

Weick, K. E. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies, 25*(4), 305–317.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628–652.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Williams June, A. (2020, June 4). Did the scramble to remote learning work? Here's what higher ed thinks. *The Chronicle of Higher Education.* Retrieved from https://www.chronicle.com/article/Did-the-Scramble-to-Remote/248928

World Health Organization Director-General's opening remarks at the media briefing on COVID-19. (2020, March 11). Retrieved from https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

Yan, Z. (2020). Unprecedented pandemic, unprecedented shift, and unprecedented opportunity. *Human Behavior and Emerging Technologies*.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Resilience in the Face of Crisis: Organizational Response to Developing Faculty eLearning Literacy in a Global Pandemic

Julie Donnelly, PhD, University of Central Florida

Ann Neville Miller, PhD, University of Central Florida

Michael G. Strawser, PhD, University of Central Florida

Keywords: crisis resilience, COVID-19, faculty development, online learning

Abstract

The COVID-19 pandemic created a crisis for university faculty. Facing position cuts, including furloughs and layoffs, and complete reorientation of normal operating procedures, faculty members also had to transition fully face-to-face classes into virtual modalities, adjust syllabi on the fly, or re-create lab spaces in a digital context. In the background, a host of faculty development, digital learning, and technological staff labored to support the sudden transition to fully online teaching. They provided training in eLearning literacy at an unprecedented rate, and for previously inconceivable numbers of instructors. Using the lens of disaster resilience, this study investigated the adjustment of such support units to the pandemic crisis in the first round of instructional transition at a large southeastern university.

Fall 2020 ISSN: 1535-0975

The slow and steady growth of distance learning took an exponential leap in the spring of 2020 as a result of the global COVID-19 pandemic. Thousands of faculty in universities across the United States had to transform face-to-face courses into fully online experiences within the space of a few days. They adjusted syllabi on the fly, salvaging what they could of face-to-face learning experiences and assignments, and struggled to recreate lab environments in the digital context. In the background, a host of faculty development, digital learning, and technological staff labored to support faculty members in the sudden transition to fully online classes.

Under normal circumstances, the development of technology or eLearning literacy in faculty is accomplished through a mix of technological and pedagogical training (Ertmer & Ottenbreit-Leftwich, 2010), often via a blended learning approach that combines online and face-to-face elements (Lackey, 2011), and with varying training modes (i.e. workshop, one-on-one consultation, hands-on training; Meyer & Murrell, 2014). The reality, though, is that the most appropriately designed professional development initiatives for online instruction have the benefit of time, experience, and purposeful instruction for the faculty members. The sudden move to online teaching as a result of COVID-19 forced institutions to promote eLearning literacy in faculty members at an unprecedented rate, and in previously inconceivable numbers. Training was invariably drastically different from the well-planned ideal (Hodges, Moore, Lockee, Trust, & Bond, 2020). The purpose of this study was to examine the experiences of these support units at a large southeastern university as they facilitated the movement of faculty "suddenly online" in spring 2020. We used the lens of disaster resilience to identify key practices and characteristics that enabled a relatively smooth transition.

Crisis Pedagogy and Disaster Resilience

By their nature, crises are non-routine events that create high levels of uncertainty and significant threats to high priorities of goals (Seeger, Sellnow, & Ulmer, 2003). As Weick (1993) observed, "What makes such an episode so shattering is that both the sense of what is occurring and the means to rebuild that sense collapse together" (p. 633). In the case of moving suddenly online due to the COVID-19 pandemic, colleges and universities found themselves rapidly shifting course modalities, thus requiring faculty to use tools with which many were unfamiliar and the effectiveness of which was often unknown. Although universities design crisis management systems for events like terrorist and mass shooter incidents, damage to institutional reputation, major lawsuits, declining enrollment, and natural disasters (Mitroff, Diamond, & Alpaslan, 2006), a global pandemic that completely shut down campuses for months was beyond what most institutions anticipated. All of this took place for faculty and support staff in the context of personal anxiety about their own health and the health of their loved ones in addition to economic concerns, and extended for months without a clear path to resolution.

Literature from a range of fields shows that crises like the sudden emergence of a novel and highly infectious virus can push the cognitive ability of people to the limit, and they may respond with fear, rigidity, and anxiety because sensemaking mechanisms have collapsed (Roux-Dufort & Vidaillet, 2003). In contrast, what is needed

during a crisis is innovation and creative problem solving (Freimuth et al., 2006; Weick, 1993). A substantial literature has, therefore, been devoted to determining what characteristics of communities and organizations are necessary for effective navigation of disaster events.

Our specific interest here is in disaster resilience. The concept of resilience is regularly used in a range of disciplines, from materials sciences and engineering to psychology and sociology. Resilience is associated with both strength and flexibility. In the context of disasters, it can be defined as "coping ability, the ability to bounce back, pull through or adapt to the disruption of a crisis" (Sellnow & Seeger, 2013, p. 123). The focus of organizational resilience is on organizations recovering from crises by dint of their own resources, although those resources can be encouraged via pre-crisis interventions and policies (Cutter, Burton, & Emrich, 2010).

The 4R theory, designed by Bruneau and colleagues (2003) to quantify community resilience following earthquakes, identifies four properties of physical and social resilience: 1) robustness, or the strength of a system to withstand stress; 2) redundancy, that is, the extent to which the system contains backups and substitutes that can be engaged in the event of a disruption; 3) resourcefulness, which is the capability of moving beyond the previous status quo to recognize new problems, set priorities, and marshal resources (material, financial, informational, human); and 4) rapidity, or the means to respond quickly so as to contain losses. They further conceptualize resilience as having technical, organizational, social, and economic dimensions, where the technical dimension refers to the ability of physical systems (e.g. IT systems, phone service) to perform to effectively in the face of threat; the organizational dimension is the capacity of the institution to make decisions and take actions toward mitigating negative outcomes of crisis; the social dimension consists of actions organizations take to alleviate or diminish negative consequences to its members and the community; and the economic dimension is the ability to reduce economic losses resulting from the crisis (p. 738).

Bruneau et al.'s (2003) model was designed to provide a heuristic for developing instruments to measure community earthquake resilience in each of 16 categories. Categories were obtained by crossing the 4Rs with the 4 dimensions identified. We follow Sellnow and Seeger's (2013) use of the model as a framework for analyzing data, in this case about the apparently effective response of the University of Central Florida in supporting its faculty in the sudden transition to remote learning in spring 2020. We sought to answer the question of how robustness, redundancy, resourcefulness, and rapidity were leveraged at the university in the early weeks of the pandemic to bring hundreds of classes online. We adapted Bruneau et al's 16 categories to address organizational support for faculty eLearning literacy early in the pandemic. Our adaptation of the categories is presented in Table 1 below.

Fall 2020 ISSN: 1535-0975

Table 1
Faculty Development Performance Measures

	PERFORMANCE CRITERIA			
	Means by which Resilience is Improved		*Resilience Desired Ends*	
PERFORMANCE MEASURES	Resourcefulness	Redundancy	Robustness	Rapidity
Technical	Diagnosis of technology needs for remote teaching and support	Backup, duplicate systems, equipment, and supplies	Damage avoidance and continued service provision	Optimizing time to return to pre-event functional levels
Organizational	Plans and resources to cope in service units	Backup human resources to sustain operations in service units	Continued ability of service units to carry out designated functions	Minimize time needed to perform key response tasks
Social	Plans and resources to meet faculty remote teaching needs	Alternative means of providing for faculty remote teaching needs	Avoidance of disruption to faculty teaching and student learning	Optimizing time to develop faculty eLearning literacy
Economic	Stabilizing measures in hiring freeze	Untapped or excess economic capacity	Avoidance of direct and indirect economic losses	Optimizing time to return to pre-event functional levels

UCF and the COVID-19 Timeline

To lay the groundwork for our analysis, some information about the context in which these events occurred is important. The University of Central Florida is a public research university located in metropolitan Orlando. With over 68,000 students and 4,000 staff, UCF is the second largest university in the country in terms of student population, and the transition to remote teaching was a massive undertaking. In one week, the university's support teams helped transition nearly 5,000 face-to-face courses and 700 mixed mode sections to be fully online.

Training continued for several weeks afterward, leading to the necessity for a complete reconceptualization of online teaching certification in order to process the number of faculty who needed to be prepared for online teaching in the fall semester. Although evaluation of the process is ongoing, average student evaluation of teaching at the end of the semester was actually higher than the previous year by .2 to 5.8% in face-to-face, mixed mode, fully

online courses. Only in one modality, a specific type of video streaming already being used by the College of Business, did evaluations fall by 5.0% (Provost Update, 2020). Controversy surrounds the value of student evaluations as a measure of student learning (Carpenter et al., 2020; Uttl, White, & Gonzalez, 2017), of course, but this does suggest that students in the aggregate were satisfied with the way the transition went. Additionally, in a university-wide survey of student experience 67% of students reported that faculty had adjusted moderately to extremely well to the situation (Provost Update, 2020).

The principal player in the transition was the Division of Digital Learning, which houses the Center for Digital Learning (CDL), the center of training and certification in online teaching, Information Technology (IT), and the Office of Instructional Resources which includes a Faculty Multimedia Center. The other unit on which this article will focus is the Faculty Center for Teaching and Learning (FCTL), which is housed under the Office of the Provost. Although there is some overlap between CDL's instructional designers and FCTL staff roles, FCTL has a more strictly pedagogical focus and also provides faculty development for teaching in the face-to-face modality.

As in other institutions, information at UCF about COVID-19 response developed rapidly. Figure 1 shows a summarized timeline of COVID-related events at the state/local/university level (light grey bars), UCF teaching-related events and communications (dark grey bars), and the professional development workshops (black bars) offered by CDL in collaboration with OIR and FCTL as a significant part of the university response.

Thus, although at the time we are writing this manuscript the crisis is ongoing, and a second phase of intensive training has been completed for the Fall 2020 semester, the initial adaptation was most intense and key pivotal decisions were made mostly in the first half of the month of March. This is what the crisis and emergency risk communication model (Reynolds & Seeger, 2005) terms the "initial event" phase. It is the onset of a crisis, which requires the dissemination of messages to reduce uncertainty, promote reassurance, and foster self-efficacy among the individuals affected by the crisis. Decisions made in this stage are critical, as they can have long term impact on crisis management in either positive or negative directions (Freimuth, 2006; Murphy, 1996). It is that initial crisis phase that is the focus of our analysis.

Method

For this case study, we analyzed data from data analytics of initial training in remote teaching conducted by CDL staff, and interviews of key informants in the Division of Digital Learning. Additionally, two of the authors were on staff at the Faculty Center for Teaching and Learning at the time, and were intimately involved in preparing faculty for the mid-semester transition in modalities. Therefore, their personal experiences were also tapped. Approval for human subjects research was obtained from the university institutional review board.

Fall 2020 ISSN: 1535-0975

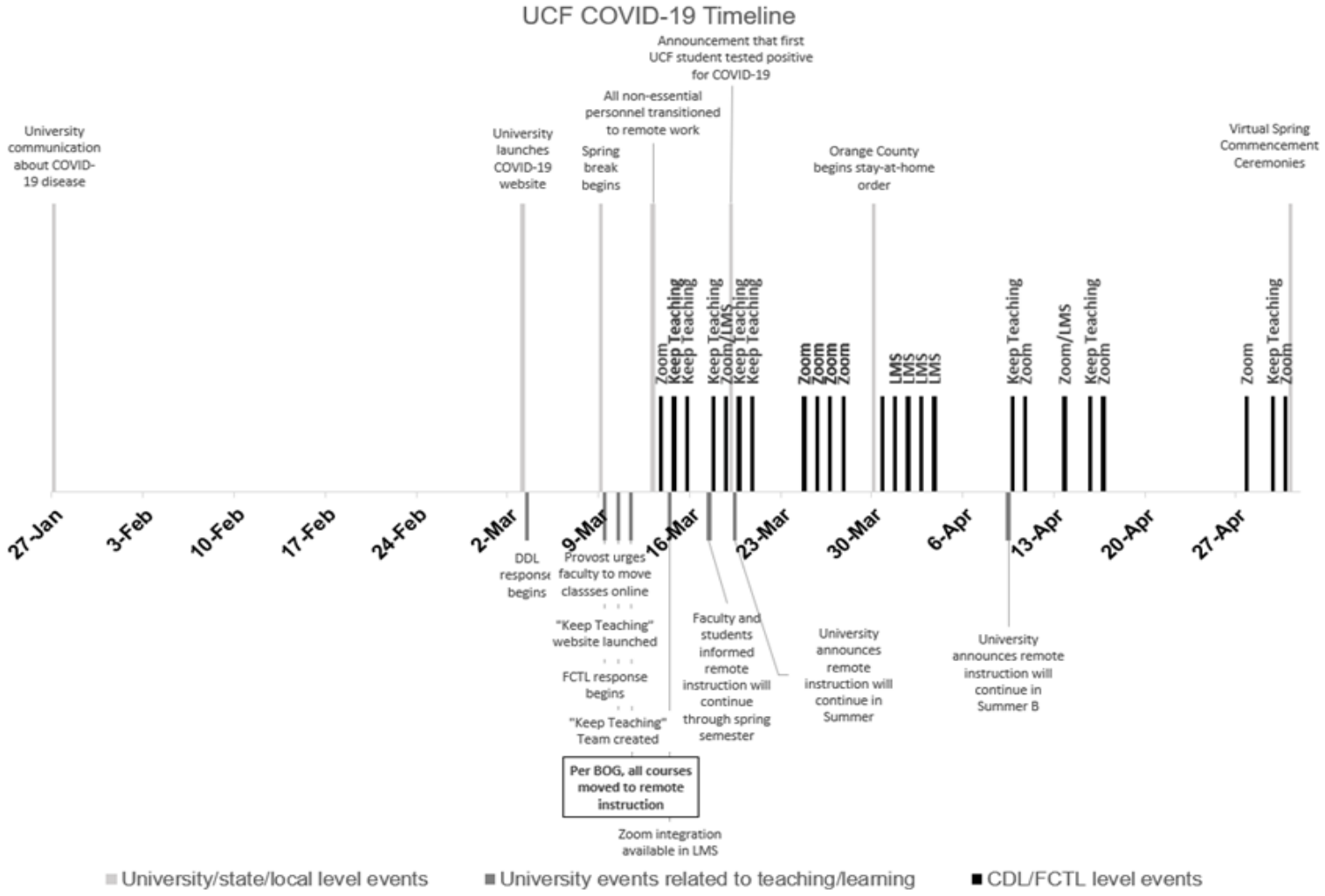


Figure 1. Timeline of UCF response with emphasis on teaching and learning events. Light grey bars - relevant university or local events. Dark grey bars: events that directly impacted teaching and learning. Black bars: workshops developed and facilitated in direct response to the transition, labeled with general topics. "Zoom" workshops included specific themes (e.g. Breakout Rooms, using the whiteboard, recording/publishing recordings, and integrating Zoom with Canvas). LMS workshops mostly covered creating assessments in Canvas. Keep Teaching workshops covered overviews of this information or tutorials on creating, captioning, and publishing recording video lectures. BOG – Board of Governors, which oversees the management and operations of Florida public universities

Fall 2020 ISSN: 1535-0975

Key Informant Interviews

Interviews were conducted via video conferencing software with two instructional designers, the director of the Faculty Multimedia Center (FMC), the learning content development lead, the interim director of the instructional design team, and the program director of iLab, a program management team in the Center for Distributed learning. The explanation of exempt research and interview guide were sent to interviewees in advance. At the time of the interviews and focus groups, researchers first reminded participants of the purpose of the project, and asked permission to record the interview. Participants were asked what they saw as the biggest challenges in the move to remote teaching, what resources they had for taking up the challenges, what types of assistance requests they received from faculty/type of assistance they requested from whom, and what their concerns were going forward. Interviews lasted about 45 minutes.

Interviews were recorded and transcribed using various transcription software including Zoom transcriptions and Otter. All transcripts were checked against the full recordings for accuracy.

Data Analytics

Data analytics were obtained from the Division of Digital learning's learning content development team and Faculty Multimedia Center.

Analysis

Transcripts were analyzed in line with categories provided by the 4R theory by one of the researchers. In the first stage, the first author gained familiarity with the data by reading line-by-line transcripts repeatedly. In the second stage, the same author employed the constant comparison method (Glaser & Strauss, 2009) to identify themes, or clusters of words that, when taken together, refer to an underlying, unified idea (Weber, 1990). This was a repetitive process, with the first author going through the transcripts multiple times refining categories, checking for fit, and looking for exceptions (LeCompte & Schensul, 1999). In the third stage, the second author reviewed the analysis in light of the levels specified by the 4R theory.

Results

The resilience of the organization from a faculty support perspective is evidenced mostly by performance measures in the technical, organizational, and social dimensions of the 4R framework. Here we discuss measures of each of the 4Rs within these dimensions. We begin by presenting evidence of the means by which resilience was improved (resourcefulness and redundancy) and the describe how the organization in this case met the desired ends of resilience (robustness and rapidity).

Resourcefulness

Technical

In the technical dimension of Resourcefulness, a resilient organization shows evidence of the capacity to identify problems with some kind of diagnostic technology or methodology. For the Keep Teaching team, the diagnostic methodology that was the most valuable was the constant assessment of types of requests to the various departments that made up the team.

Fall 2020 ISSN: 1535-0975

The communication between teams and team members on this topic led to the development of several "channels" within the Keep Teaching Support Team. One of the first specific channels was used for development and facilitation of the Keep Teaching workshops. Since then, channels have been created that are specifically for Zoom, Remote Proctoring, and Online Assessment questions.

Organizational

A major resource that lead to the resilience of the organization during this crisis was the number of faculty already credentialed to teach online at UCF. Of the approximately 1600 instructors of record during Spring 2020, 78% had completed minimal to rigorous training by CDL. The rigorous programs offered by CDL are used to credential UCF faculty to teach online and approximately one third of instructors of record had been through one of these programs.The director of the iLab commented on the significance of this resource to the resilience of the organization:

> *A lot of faculty will go through IDL 6543 [UCF's online certification training course] and they are prepared for how to design an online course. In reality, they may get the credential and only teach one or two online courses a semester and the rest are mixed mode or face-to-face. But they have that core credential and that core training to where they could very quickly scale up and make more of their courses fully online, which is a far more robust experience than quickly moving to remote instruction.*

For faculty without training, or with little experience teaching online, resourcefulness was a product of task forces. The iLab was part of task forces in three colleges and one at the state level that were responsible for creating comprehensive lists of resources that faculty could reference when thinking about how to translate their courses to a remote delivery. These task forces were focused on STEM fields and finding resources for faculty in these disciplines to deliver laboratory and senior design courses remotely.

A task force at the university level was created to develop plans for returning to on-campus instruction. This task force included faculty and representatives of a range of faculty support units across campus and continues now to present possible scenarios for on-campus instruction in the fall.

The support of administration for faculty-facing teams was a significant source of strength for the technical measure of the resourcefulness dimension during the transition. Leaders of the faculty support teams felt that even while administrators were asking them to take on momentous tasks in a short time, they also provided the teams with resources to be successful. The leader of the Instructional Development team said, in response to an inquiry about what made them successful, *"the support of the executive team. It was critical and they asked a lot of us. In return they made sure that we had what we needed to get it done. They kept us informed."*

Social

The outcomes of the previously mentioned task forces were, most significantly, virtual repositories of resources for remote instruction. For example, the College of Engineering and Computer Sciences published a report from their task force that included evaluations of virtual lab resources and recommendations

to both the instructors and college leadership for rapidly developing quality online lab courses.

More broadly, the Keep Teaching webpage was launched on March 9 and within about one week there were 1500-page views. This page served as a living repository for resources related to the transition to remote instruction. Main sections on the Keep Teaching page included announcements about upcoming workshops, resources for using the LMS, tutorials and resources for creating videos, and contact information for faculty support.

Another contribution to the strength of this measure was faculty themselves. CDL and FCTL had existing and extensive networks of faculty who were frequent participants of programming and, thus, considered to be resources by both the faculty support team members and faculty themselves. CDL calls such faculty "webvets". These faculty volunteered or were asked to help their peers who had less experience teaching online, using Canvas, or navigating the technology that was now a necessity. In fact, one faculty member took it upon herself to create short video tutorials about specific features in Zoom. Although this study did not gather data about the proportion of faculty who were assisted by their peers, an internal survey of faculty at the institution indicated it was substantial.

Economic

The initial response by the organization to stabilize itself economically were hiring, travel, and large purchase freezes. Of the two, the hiring freeze had a more significant impact on the faculty support team. The hiring freeze left the Faculty Center down by 25% of their program staff. The leader of the Instructional Development team said, "*What do my teams need now? Some more people that provide support. With a hiring freeze. That's really hard.*" However, she noted that exceptions to the hiring freeze had been made for the hiring of instructional designers, and she had hopes that requests for additional personnel in her own unit would eventually be honored. Under the equipment freeze, requests under $10,000 were still permissible. At least for our interviewees, requests for extra equipment to enable staff to work remotely had been filled.

Redundancy

Technical

The technical dimension considered, for one, the simple fact that staff had equipment they needed to work from home allowed them to continue to carry out their functions. In some cases, when equipment was not already available, it was easily and quickly obtained.

A second measure of Redundancy in the technical dimension was the duplicate and alternative systems made available to faculty who were in a rush to create content before campus closed, and in a panic to create content after campus closed. Typically, the FMC is a space that houses equipment for creating online content. FMC staff work alongside faculty to tutor them in use of technology. A popular tool in the FMC is the Lightboard - a pane of glass on which the instructor can write out notes and record "lectures" that can be used in the learning management system (LMS). The announcement that UCF would transition to remote instruction came seven days before campus closed. Several faculty members made recurring appointments to use tools like the Lightboard to record lectures for their newly remote courses. The increased demand for this tool led to the acquisition of

Fall 2020 ISSN: 1535-0975

a backup Lightboard during the frantic week before campus closure. These backup Lightboards existed because UCF recently opened a new Downtown Campus and additional Lightboards were purchased for that location. This excess capacity for content development in the FMC proved to be useful as faculty prepared for the transition.

After campus closed, some faculty members contacted the FMC wondering how they were to create content without these tools. FMC staff were able to help by having Wacom tablets from the library checked-out to faculty to take home and recommending tools and software that might already be available to faculty remotely (e.g. iPads). The husband of one staff member, an engineer, realized how critical the Lightboard was to STEM faculty in particular:

> *So he built four of them and then they delivered them to the faculty and they're using them, like in their garages or in their house and spare bedrooms to actually work at home, but with the light board.*

Like almost every other industry during this time, software tools made it possible for communication and instruction to continue, although redundancy in that area became a problem. Microsoft Teams, Skype, Slack, and Basecamp were all tools used by members of the faculty support team prior to the transition. Zoom was also introduced in days prior to the transition. In fact, the number of available tools became a problem to be solved. A team lead described the process:

> *We struggled with finding a way. We ended up going with Teams because we needed to have one place that we could, we could work with instead of six different places. Which is kind of where we were before. We were using Skype. We were using Zoom. We were on Teams. We were using Slack. We had all these places to communicate and it was, it got really tough trying to keep up with. We had to as a unit say, "Okay let's focus our efforts on one place. Let's start just working on Teams." Everything we needed to do, we could do on Teams. And once we started funneling information in one place really helped. It was really in the beginning because of the volume of information that was coming at us. Trying to make it more manageable for people.*

Finally, in order to support faculty in delivering their courses, students needed support. For example, for faculty wishing to continue to conduct synchronous exams, proctoring of exams was the subject of many inquiries. Many tools used to proctor online exams require webcams, to which not all students had access. Instructional design teams had to find alternatives for students so they could continue taking their courses.

> *Equipment started disappearing. Kind of like toilet paper. Everything started just disappearing and you could get it, but it wouldn't come for, you know, another month or something. They were looking for innovative ways to do that. And they found a couple of solutions that students could use that wouldn't require a webcam. And we put a page up for what alternative students could use instead of a webcam.*

Because the transition to remote learning was announced over Spring Break, many students did not have their textbooks

Fall 2020 ISSN: 1535-0975

at home with them. UCF very quickly made digital textbooks available to faculty and students via an online resource so that they could access the texts without the physical books.

Organizational

The units involved in supporting the Keep Teaching effort had a great deal of built-in overlap. A number of employees had been drawn from the ranks of student workers in other units and were therefore effectively already cross-trained in a range of tasks. This overlap allowed alternative means for providing support. Some teams were experiencing higher than normal volumes of requests while others were experiencing fewer requests. The webcourses support team lead explained:

> *The [webcourses] support team supports everybody in Canvas [the LMS], but obviously not everyone has been using [the webcourses support team]. They've been avoiding using it and now they're suddenly forced to use it. We and the [webcourses] support team handled some of that, but because we were concerned about the volume they were getting hit with, the IT team volunteered to help. Staff on these teams were also willing to work outside of their normal roles.*

Administrative and office staff who weren't as busy as usual volunteered to take on projects to support the Keep Teaching Team.

> *One admin [was] not as busy as she was when we were on campus. And so she volunteered to manage our records processing or at least do them for a period of time. That was really nice. We can reach out to other members on the team who aren't quite as busy and get their help. That's been awesome.*

Outside of the official faculty support offices, some colleges and departments constituted committees and task forces who also provided some of the support faculty needed.

The existing and developing relationships between the units in the Keep Teaching team were critical to the strength of the organizational strength in the redundancy dimension. These units, especially within CDL, had a long history of collaboration. However, the geographic proximity of FCTL to the FMC had promoted collegial visits and hallway conversations. CDL, FCTL, and the FMC also already regularly collaborated on programming, workshops, and open office hours during conferences and new faculty orientations. Reciprocal participation on search committees was a norm between units. One instructional designer explained:

> *We just kind of formed these really tight-knit relationships where we were working like 16 hours together to make sure we were collecting all those questions from you know the [Microsoft Teams] feed. You know, "Hey, I have this problem. Hey, I'm seeing this problem. I saw that too!" And making sure that we were developing those workshops. But none of this would have been successful if we didn't have those elements of support along the way. And those relationships, it would have been impossible. If it was just the Instructional Design team, we would have failed. If it was just Support, they would have failed. And the same thing across the board. It*

> *was that connection piece between the entire division that really kind of made a cohesive response team."*

Another instructional designer confirmed the value of relationships developed during the crisis:

> *So, maintaining those relationships with the faculty that I was already working with and then jumping into action with identifying the immediate needs and training for the use of Zoom. Which kind of led to building on to those existing relationships with folks within the division of digital learning over at the FMC. That kind of grew into a workshop series that we started focusing on.*

Social

Redundancy was also evident within departments and teams as they worked together to meet faculty needs. Much of this happened within the Teams feed. An instructional designer recalled:

> *It became a collective effort honestly. We started using Teams. The moment that we went remote Teams came into a daily part of our lives. And there was a news feed that I'm sure you [the researcher] could see and we would basically reach out to one another in this news feed and say, "Hey, I have a faculty member really concerned with, and she wants. For example, she wants to host a Zoom session. But while she is hosting a Zoom session. She wants to also do this or do that; how do we make this work?"* Or, *"Have a faculty member that's really concerned with how they're going to do an assessment of their presentations. Does anybody have any tips or tricks to do that?"*

Economic

Other than the aforementioned backup Lightboards and tablets, economic redundancy was not mentioned by interviewees.

Robustness

Technical

UCF Faculty support offices were seemingly able to continue offering services in large part due to the large number of people on the "Keep Teaching" team. CDL has an extensive staff, with over 20 instructional designers, 12 staff working in LMS support, 16 members of the learning content development team, and 20 web app developers, tech rangers, and data science engineers on the learning systems and technology team. Other offices that provided significant support in the Keep Teaching workshops--the Faculty Multimedia Center and the Faculty Center for Teaching and Learning--are much smaller, but were able to contribute expertise in technologies and pedagogies and extensive faculty volunteer networks that helped support the transition. The total team, including leadership, consisted of more than 100 staff members.

Nevertheless, members of the leadership for this team recognized that, in anticipation of remote instruction continuing into the fall semester, as large as the number of personnel was, it would not be enough to sustain the support. Typically, instructional designers and the instructional development team provide support to 40 to 50 of faculty each, but as we continue to experience the repercussions of COVID-19, it appears that the increase in demand for support will continue in the long-term. For example, the learning content development team lead responded, *"What do my teams need now? Some more people that provide support."*

Fall 2020 ISSN: 1535-0975

The director of the instructional design team lamented, *"There's no way the instructional design team can take on 400 new people here. They just, theres's not enough manpower. And I don't see any money in the budget to hire enough people to do that."*

Organizational

This strength of the organization measure of the robustness dimension was directly impacted by the strength of the technical measure of the resourcefulness dimension. Faculty support teams were able to continue to carry out their functions for two main reasons. First, most staff already had laptops and other necessary equipment that could be easily moved out of the office into their home or remote working environment. One team lead explained:

> *One of the things that helped us is that everybody. And this is going to sound silly, but the fact that everyone on my team had a laptop. And so, going remote was a fairly painless process. So, we packed up our things; we made arrangements. Everybody had the resources they needed to work from home. Those of us who had dual monitors took our dual monitors home so we could pretty much replicate our work environment at home. That that I think was that was key to being productive.*

Second, the administration was hugely supportive of these teams and their need for duplicate or back up equipment. Teams that typically make graphics and videos in conjunction with faculty for online courses had equipment that was not easily moved to a different location. However, when they requested equipment they needed in order to carry out their functions, they were able to get it quickly.

> *If we've needed some software to make something happen, we've gotten it. . . . [For example,] their biggest struggle was their drives. They were having a real problem with that because what they work with is huge. Their videos are huge. And we requested five portable drives to the tune of about 1500 dollars. Which was approved and purchased because they just couldn't be productive without it. They just didn't have the connectivity. They didn't have the equipment that they were working with. They didn't do what they needed to do and so we got that for them quickly so they could be productive. Things like that. Whenever we've asked for something that keeps us productive, we've gotten it.*

Social

Contributing to the robustness of the organization was the flexibility and commitment of the staff members. Many staff members devoted more than the typical 40-hour week in the days leading up to and immediately following the announcement that a transition to remote instruction was mandatory. Some teams worked into the middle of the night and on weekends to provide support, develop workshops, and finish projects. In this way, the "Keep Teaching" team facilitated workshops registered 1100 attendees over the three weeks following the announcement that courses would transition to remote instruction.

While this characteristic of staff is a huge support for resilience in the short-term, this particular crisis is expected to last at least through the end of the calendar year. The leadership quickly recognized that this

was not a sustainable approach to faculty support. Staff felt "burned out" after the first few weeks of working this way. For most of the team, this was remedied with more flexibility in the following weeks. One team lead explained:

> *When they put in all this time when everybody works all these hours. Then, when we get a break, they may not put in 40 hours, right? They may goof off a little bit. And that's encouraged of them, at least from my direct supervisor. He acknowledges that, you know, there are times when I need a little downtime. And I passed it on to my folks.*

However, the combined stress of the increased workload, transition to remote work and classes, and changes in personal lives due to the pandemic was too much stress for some. One staff member disappeared from their supervisor's radar and never returned to work. After weeks of trying to get in touch with the student worker, the supervisor found out that they had fallen into a depression and begun using drugs to cope with the stress of the pandemic and classes and work transitioning to remote modes.

Economic

Given that our interviews took place just past the peak of the crisis, interviewees were unable to conjecture what the economic implications of the crisis for robustness would be.

Rapidity

Technical

The strength in the rapidity of the response to the effect on instruction due to COVID-19 at UCF was the preventative measures taken by the faculty support offices. For example, the Keep Teaching Support team was created *before* the announcement that UCF would be moving to remote instruction, or even before the option to move to remote instruction was made available to faculty. Keep Teaching workshops were also in development and announced *before* this announcement. Because of preventative measures like these, the faculty support staff never lost functionality. While functions may have changed, functional levels arguably never dropped below what they were pre-crisis.

This may be a result of the familiarity with response to natural disasters in Florida. Fall semesters begin during the height of hurricane season, and 3 of the past 4 years UCF and other universities in the state have closed campus for various periods of time while students, staff, and faculty reorganize their lives after the events. The response to COVID-19 was different, in that faculty and students could, for the most part, be assumed to have electricity and thus be able to work from home. Nevertheless, faculty have become accustomed to changing syllabi to accommodate new schedules on short notice. Thus, the audience for the training efforts was, in some measure, already adept at rapid adaptation.

Organizational

UCF faculty support staff continued to offer services and minimized the time needed to provide services directly related to the transition to remote instructions. Events planned in response to the transition were developed before tools were even available for staff to familiarize themselves with.

> *He kept saying we need training on Zoom but we didn't have a license yet, so we didn't know how it works. Writing training for something that*

> *we didn't have yet was a challenge. Time was of the essence. And we appreciate and understood that need. But it was a real challenge.*

Initial "Keep Teaching" workshops consisted of content that would help faculty understand, at a very basic level, both the Learning Management System (Canvas) and Zoom and would be facilitated over the next seven days. The first Zoom workshop was offered on March 13, but the integration with Canvas wasn't available until the following day. After these general workshops, facilitators were able to identify, based on questions raised by participants, specific topics that could be covered in additional workshops. Since using Zoom seemed to be the most pressing question, between March 24 and 27, 13 workshops were offered that covered specific of using Zoom (i.e. Getting Started with Zoom, Accessing Zoom with a Mobile Device, Accessing Zoom with SSO). Between March 30 and April 4, 6 workshops were held focusing on conducting assessments in the LMS. During the remainder of April, 8 more workshops focused on Zoom were offered including: How to use the Zoom Whiteboard, Zoom breakout rooms, and Auto-transcribing recordings in Zoom.

Social

The rapidity of the response to the sudden transition to remote teaching was a result of the existing and rapid development of faculty eLearning literacy. A significant number of faculty were already credentialed to teach online and, as is shown in Figure 1, numerous training opportunities were offered in the days leading up to and weeks immediately following the transition. Additionally, in order to prepare faculty to continue teaching either remotely or online, a "bootcamp" version of the established credentialing program was offered over the summer semester. The only "lapse" in services (i.e. instruction) was the cancellation of classes the first two days following Spring Break. UCF cancelled classes during these two days to give faculty time to prepare for the transition to remote instruction. The announcement that classes would be conducted remotely for at least two weeks was made on March 11 and nearly 5000 mixed mode and face-to-face courses were transitioned by March 18.

Economic

Although there were undoubtedly economic implications of the rapid scale up to provide faculty training, at the time of our interviews it was too soon for interviewees to determine what those would be.

Discussion

Our focus in this case study was on the properties that enabled these latter units to prepare hundreds of faculty for a drastic shift in pedagogy with about one week's notice.

Broadly speaking, our findings echo a well-known fact in crisis management, that individuals affected by crises are often more resilient than they are given credit for, and are usually the true first responders (Drabek & McIntire, 2003). By the descriptions of our interviewees, the bulk of staff and faculty alike threw themselves into making the transition to remote learning as smooth as possible for students.

We found evidence of all four Rs from the 4R theory (Bruneau et al., 2003) operating in the Keep Teaching team. The University of Central Florida may not have been typical in its Resources, with an existing institutional focus on online

Fall 2020 ISSN: 1535-0975

teaching. Clearly, the number of faculty already credentialed to teach online through a range of faculty development programming opportunities was a valuable resource. Connections between Keep Teaching team members and academic colleges also contributed the Resourcefulness of the organization, resulting in resources that could be used by faculty to continue instruction. Furthermore, extensive experience with disaster management experience because of nearly annual adjustments to hurricanes and tropical storms on the Florida peninsula enabled the university to move quickly to address the new challenge of COVID-19. Timely communication from administration to team leads strengthened the Rapidity of the response. Dedicated staff and prioritization by university administration of faculty support resulted in Robustness across a range of issues.

The R that clearly came out most strongly among our interviewees, however, as well as in the experience of the authors was Redundancy. Much of this redundancy was already in existence at the time the crisis hit, including existing software tools, overlapping roles and experiences of different support offices and staff. Existing personal relationships between offices strengthened Redundancy, making it possible for faculty to get information from multiple outlets. Some of the redundancy, however, was purposefully created in response to the pandemic, such as multiple resources for students and faculty. The role flexibility of staff, an element that is often pinpointed as critical in crisis response literature (Freimuth, 2006; Weick & Sutcliffe, 2011), was key during this time, to the point that even staff pitched in across departments and units to assist with training.

With respect to lessons learned for crisis preparedness in faculty development, then, we suggest that support teams purposefully develop redundancy in functions by regularly collaborating within and across unit and departmental boundaries toward common goals. This has the added benefit of establishing strong relationships which then contributing to a more robust response. Furthermore, redundancy needs to be built into crisis response at the initial event. This requires a willingness to shed previously defined roles and deference in the university setting of higher level administrators to expertise on the ground (Weick & Sutcliffe, 2011).

We used Bruneau et al.'s (2003) model atypically, as a guideline for qualitative data collection and analysis, not as inspiration for development of instrumentation for measure of characteristics of crisis. Furthermore, we applied all categories to faculty support systems within a single organization, rather than using it as a framework for evaluating the effectiveness of multiple agencies on community earthquake resilience. Overall, the matrix provided by the model was a useful tool. However, aspects of our project focus meant the fit was not exact. For example, given the short time frame of our focus—the one month immediately following a massive crisis event—the economic dimension was of only limited applicability.

More importantly, the intra-organizational nature of our analysis meant that the *organizational* category ended out being something of a catch-all. It encompassed policies, procedures, and relationships. We categorized data about communication channels and practices there, but in retrospect we suspect that including questions about communication patterns in

Fall 2020 ISSN: 1535-0975

the interviews would have elicited richer data regarding not only supporting team communication among each other and with faculty, but communication with upper administration. Communication becomes the means by which the resourcefulness, redundancy, robustness, and rapidity are enabled.

Complex systems such as large universities, by their very nature, are systematically vulnerable to disorganization during crises (Sellnow & Seeger, 2013). When these breakdowns happen, there is natural self-organization in which patterns re-emerge out of the chaos, often from the ground up. The grassroots handling of the COVID-19 teaching crisis at UCF involved individuals who took it upon themselves to develop or locate resources for departmental colleagues, departments who identified liaisons to link to broader resources, and especially dozens of staff in the Division of Digital Learning and the Faculty Center for Teaching and Learning who developed university-wide training and resources. The transition for faculty in spring 2020 to teaching suddenly and exclusively online depended to a great extent on the flexibility and determination of faculty members themselves, but it would have been impossible at large scale without the resources, redundancy, robustness, and rapidity of response from faculty support units at the institution.

Fall 2020 ISSN: 1535-0975

References

Bruneau, M., Change, S. E., Eguchi, R. T., Lee, G. C., O'Routke, T. D., Reinhorn, A. M., Shnioozuka, M., Tierney, K. T., Wallace, W. A., & von Winereldt, D. (2003). A framework to quantitatively assess and enhance the seismic resilience of communities. *Earthquake Spectra, 19,* 733-752. DOI: 10.1193/1.1623497

Carpenter, S. K., & Witherby, A. E. (2020). On students' (mis)judgments of learning and

teaching effectiveness. *Journal of Applied Research in Memory and Cognition, 9*, 137-151. https://doi.org/10.1016/j.jarmac.2019.12.009

Drabek, T. E. & McEntire, D. A. (2003). Emergency phenomena and the sociology of disaster: lessons, trends and opportunities from the research literature. *Disaster Prevention and Management, 12,* 97-113. DOI: 10.1108/09653560310474214

Ertmer, P. A. & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education, 42*, 255-284. https://files.eric.ed.gov/fulltext/EJ882506.pdf.

Freimuth, V. S. (2006). Order out of chaos: The self-organization of communication following the anthrax attacks. *Health Communication, 20,* 141-148. https://doi.org/10.1207/s15327027hc2002_5

Glaser, B. G., & Strauss, A. L. (2009). *The discovery of grounded theory: Strategies for qualitative research*. Transaction Publishers.

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

Kapucu, N., & Khosa, S. (2013). Disaster resiliency and culture of preparedness for university and college campuses. *Administration & Society, 45*(1), 3-37.

Lackey, K. (2011). Faculty development: An analysis of current and effective training strategies for preparing faculty to teach online. *Online Journal of Distance Learning Administration, 14*. https://www.westga.edu/~distance/ojdla/winter144/lackey144.html

LeCompte, M. D., & Schensul, J. J. (1999). Designing and conducting ethnographic research (Vol. 1). Rowman & Altamira.

Meyer, K. A., & Murrell, V. S. (2014). A national study of training content and activities for faculty development for online teaching. *Journal of Asynchronous Learning Networks, 18,* 1-16. https://olj.onlinelearningconsortium.org/index.php/olj/article/download/355/97

Mitroff, I. I., Diamond, M. A., & Alpaslan, C. M. (2006). How prepared are America's colleges and universities for major crises: Assessing the state of crisis management. *Change, 38,* 61-67.

Murphy, P. (1996). Chaos theory as a model for managing issues and crisis. *Public Relations Review, 22,* 95-113. https://doi.org/10.1016/S0363-8111(96)90001-6

Provost Update. (2020, June 17). UCF Board of Trustees Meeting, Educational Programs Committee Agenda.

Reynolds, B., & Seeger, M. W. (2005). Crisis and emergency risk communication as an integrative model. *Journal of Health Communication, 10*(1), 43-55. DOI: 10.1080/10810730590904571

Roux-Dufort, C. (2007). Is crisis management (only) a management of exceptions. *Journal of Contingencies and Crisis Management, 15,* 105-114.

Roux-Dufort, C., & Vidaillet, B. (2003). The difficulties of improvising in a crisis situation. *International Studies of Management and Organization, 33,* 86-115. https://doi.org/10.1080/00208825.2003.11043675

Seeger, M. W., Sellnow, T., & Ulmer, R. R. (2003). *Communication and organizational crisis.* Praeger.

Sellnow, T. L., & Seeger, M. Q. (2013). *Theorizing crisis communication.* Wiley.

Uttl, B., White, C. A., Gonzalez, D. W. (2017). Meta-analysis of faculty's teaching effectiveness: Student evaluation of teaching ratings and student learning are not related. *Studies in Educational Evaluation, 54,* 22-42. http://dx.doi.org/10.1016/j.stueduc.2016.08.007

Weber, R. P. (1990). *Basic content analysis.* (2nd ed.). Sage.

Weick, K. E. (1993). The collapse of sensemaking in organization: The Mann Gulch disasters. *Administrative Science Quarterly, 38* 628-652. https://psycnet.apa.org/doi/10.2307/2393339

Weick, K. E. & Sutcliffe, K. M. (2011). *Managing the unexpected:Resilient performance in an age of uncertainty* (2nd ed.). Jossey-Bass.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Not So Suddenly Online: Preparing UMGC's Students and Faculty for Online Success

Article Info

David Leasure
Stephanie Blaher
Christopher Davis
Erica Ellsworth
Marsha Fortney
Martina Hansen
Kathleen Hogan
Darragh McNally
Beth Mulherrin
Heather Willis

University of Maryland Global Campus

Keywords: college teaching, student success, personal validation, online learning, first-term experience, personally relevant curriculum, academic coaching, social integration of students, growth-mindset, career-focus, active learning, collaborative learning

Abstract

The COVID–19 pandemic has forced institutions of higher education to replace face-to-face classes with online and hybrid offerings. Faculty and students find themselves suddenly online and isolated in remote learning environments; further, many practices successful in classrooms fail to translate to online. Relying on its deep experience with student-centered online education, educators at the University of Maryland Global Campus (UMGC) built a course to prepare students for online success. The Professional and Career Exploration (PACE) course is based on learning and persistence theory and high-engagement practices; the seven effective principles for enhancing learning and retention in higher education (summarized by Cuseo, 2018) are incorporated in the design of PACE 111. Faculty members are supported by two faculty support courses (FACDEV 411 and FACDEV 111). As a result, qualitative and quantitative data indicates that students' completion and re-enrollment rates are higher than comparable early term courses. Students also report high degrees of satisfaction and confidence in their academic direction after the PACE course. As a result, this paper may inform educators in other institutions as they seek to make successful transitions to online learning environments.

Fall 2020 ISSN: 1535-0975

The COVID–19 pandemic has forced U.S. institutions of higher education to replace face-to-face classes with online and hybrid offerings. Faculty and students have found themselves suddenly online, and many feel disconnected and isolated in remote learning environments; further, many practices that are successful in face-to-face classrooms fail to translate to the medium. Students who are new to higher education may face the double challenge of adapting to a new way of learning as well as a new learning environment.

What are the suddenly online to do? What can their institutions do to help? All may look to the experiences of online universities for guidance since each online student and facilitator has had to make a shift from face-to-face instruction to the online learning environment. They found themselves *suddenly online*.

The University of Maryland Global Campus (UMGC) has a long and innovative record of preparing and graduating online learners. UMGC was recently renamed from the University of Maryland University College (UMUC) and has a history dating back to 1947 of delivering distance education to working adults. While the tools and approaches to learning have evolved significantly since 1947, the common thread has been non-traditional learners with many outside obligations. A student-focused culture, and in particular, a military-student-focused culture, evolved alongside the tools and approaches and is a part of that thread.

The latest innovation by UMGC to help students adapt to online learning is the development of the course *Program and Career Exploration 111*, *PACE 111*. The university required PACE 111 for all undergraduate students new to UMGC and launched it in August 2019. Rather than reading about the mechanics of online learning, students learn to navigate the online environment as they engage with learning resources and complete their discussions and assignments. PACE 111 focuses on engaging students and easing their transition to higher education and potentially a new career.

College Success Preparation

UMGC designated PACE 111 as an undergraduate General Education course. Each of its eight weeks includes an interactive discussion and an assignment based on the interests of students. The topics include setting goals, evaluating one's own learning skills and strengths, exploring one's degree program, creating a schedule, dealing with distractions (team project), identifying three trends in one's career field, networking, completing an informational interview, and creating a college success plan. As explained in the section, *Rationale for the Design of PACE 111 and FACDEV 111*, the courses are designed to apply the research findings in an integrated way to achieve a higher level of learning and persistence in their online degree programs.

To help faculty facilitate well in the online environment, UMGC offers two required preparation courses, taken in order, Faculty Development 411 New Faculty Academic Orientation (FACDEV 111) and Faculty Development 111 Coaching and Providing Feedback That Matters (FACDEV 111). All faculty members must complete FACDEV 411; faculty members designated to teach PACE must also complete FACDEV 111. FACDEV 411 prepares faculty for online learning at UMGC by welcoming them and providing information about UMGC’s unique history, mission, values, and non-traditional students, while

preparing them to teach effectively in the student-facing learning management system. FACDEV 111 facilitates faculty coaching skills to create an active and motivating presence in the classroom. In the course, faculty members to first establish trust and build supportive relationships with each student to improve persistence and academic success. Faculty who may be accustomed to asynchronous-only online courses come to appreciate the power of video conferencing. In FACDEV 111 they create a welcome video to use in their PACE 111 class. They also conduct periodic check-ins with students by video, phone, or, if necessary, email.

Seven Learning Principles

Research over the last three decades has shown seven effective principles for enhancing learning and retention in higher education (summarized by Cuseo, 2018) that are incorporated in the design of PACE 111. These principles were largely researched in face-to-face courses, and extend, with adaptation to the technology, to online learning. The seven principles are reviewed in the following subsections.

Personal Validation

Numerous studies found personal validation improved students' learning and persistence (see e.g. Rendón, 1994; Schlossberg, Lynch & Chickering, 1989; Terenzini et al., 1996). Students feel validated when they are recognized as individuals, shown to matter to the college, and find personal significance in their experiences. These feelings are enhanced when members of the college community care about their success.

Self-Efficacy, Growth Mindset, & Grit

These three concepts are closely tied, from a practical viewpoint, and support improved learning and persistence (see, e.g., Aronson, Fried, & Good, 2002; Bandura, 1977; Chemers, Hu, & Garcia, 2001; Dweck, 2000, 2006; Duckworth, 2016; Elias & Loomis, 2002; Multon, Brown, & Lent, 1991; Paunesku et al., 2015; Rendón & Garza, 1996; Solberg et al., 1993; Weiner, 1986, 2000). Student learning and persistence is maximized when students possess self-efficacy, the belief that they can influence or control their educational fate and succeed in any situation. Students with a growth mindset believe that mistakes are learning opportunities; that they aren't stuck with their in-born talents; and that their knowledge can be "grown." Grit, as defined by Duckworth (2016), combines a passion for an outcome with the belief that tenacity and endurance will overcome any obstacles to the goal. Growth mindset pairs with grit which results, for those who have it, in positive academic outcomes achieved through personal effort, perseverance, and resilience.

Meaning and Purpose

Students are more likely to persist and have enthusiasm for learning when they find meaning and purpose in their undergraduate experience, and when they appreciate the significance of a college education and connect their academic learning, current life, and future goals together (see e.g. AAHE, ACPA, & NASPA, 1998; Ausubel, 1978; Fink, 2013; Kuh & O'Donnell, 2013; Parks, 2000: Ryan & Deci, 2000; Winkelmes, 2013; Wlodkowski, 1998).

Fall 2020 ISSN: 1535-0975

Active Involvement (Engagement)

Student learning and persistence increase proportionately to the amount of time and energy students invest in their college experience—both inside and outside the classroom (see e.g. Astin, 1984, 1999; Chickering & Gamson, 1987; Kuh et al., 2005; Kuh & O'Donnell, 2013; McKeachie et al, 1986; Pace, 1990).

Reflection

Learning and persistence improve when students take time to reflect on, think deeply about, and connect their learning experiences to what they already know. Students may also reflect on how they learned to improve their learning skills (see, e.g., Baxter Magolda, 2004; Belenky et al., 1986; Dewey, 1933; Rogers, Kuiper, & Kirker, 1977; Symons & Johnson, 1997).

Social Integration

Student learning and retention are facilitated by interacting, collaborating, and forming relationships with other students and members of the college community, including peers, faculty, staff, administrators, and alumni (Astin, 1993, Berger & Luckman, 1967; Bruffee, 1993; Ewell, 1997; Feldman & Newcomb, 1969; Johnson, Johnson, & Smith, 1998; Pascarella & Terenzini, 1991, 2005; Ryan & Deci, 2000; Slavin, 1996; Tinto, 1993, 2012).

Self-Awareness (Self-Knowledge)

Students' learning persistence increases when they gain self-insight into, and remain mindful of, their (a) learning strategies and habits, (b) ways of thinking, and (c) personal talents, interests, and values (AAHE, ACPA, & NASPA, 1998; Buckingham & Clifton, 2001; Hart, 2004; Langer, 1997; Pintrich, 1995; Schön, 1987; Smith, 2011; Weinstein & Underwood, 1985; Willis, 2006; Zimmerman, 1990).

In Student Learning

The learning goals of PACE 111 draw on the seven principles discussed above. The course, which addresses student readiness, motivation, and mindset with a focus on academic and career goals, seeks to provide personal validation for individual students through instructor connections and assignments that encourage self-reflection. Upon completion of PACE 111, students should:

- Have improved academic readiness
- Have developed a growth mindset
- Be able to practice self-reflection to set and maintain personal, academic, and career goals
- Feel confident they belong at the university and can succeed
- Feel connected and significant to the university, faculty, and other students
- Understand the requirements of their chosen degree programs and connect with the career paths they hope to pursue.

PACE 111's Performance Goals

The goals of PACE 111 follow:

1. Improve completion rates compared with other courses that students take early in their programs
2. Achieve higher persistence, as shown by a higher continuation rate to the next term
3. Raise the average student satisfaction scores

Fall 2020 ISSN: 1535-0975

4. Enhance faculty satisfaction with teaching the course
5. Prepare students for continuing success in other courses by
    - Enhancing self-efficacy and confidence
    - Elevating engagement in the course over typical courses
    - Connecting with faculty and other students

The course quality principles include the following. The first three principles are adopted from Merrill's *e*^{3} principles of course quality (2012) and the fourth, empowering, is contributed by UMGC:

1. Effective—do the students achieve the learning goals?
2. Engaging—do the students find the course interesting and motivating?
3. Efficient—do the activities of the course make good use of the students' time in achieving their results?
4. Empowering—do the activities in the course support the growth of the students' personal and professional capabilities?

Rationale for the Design of PACE 111 and FACDEV 111

Each of the seven learning and persistence principles are mapped in the following sections to the elements of PACE 111 and FACDEV 111 that implement them.

Personal Validation

PACE 111 encourages personal validation by beginning with a focus on the power of inspirational stories, with an opportunity for students to share their personal stories and to reflect on their goals, motivations, and values and what drives them to accomplish milestones. Videos of university alumni and a student commencement speaker offer advice from graduates and share the obstacles they overcame as new students on the way to accomplishing their goals. The one-on-one communication with the instructor is also introduced as an opportunity for students as a resource to answer any questions and help guide them on their way. The sense of community is established at multiple levels—peer to peer as well as with the instructor and the university.

FACDEV 111 instructors coach faculty to validate students by showing genuine interest in their biographical posts. Validation continues through coaching on any aspect leading to student success. Faculty members are coached to validate students' performance in several critical ways, to include providing feedback that emphasizes students' strengths in the performance and opportunities for improvement rather than corrections. Faculty members validate students' potential for success with feedback because they believe that their students can improve and learn. The coaching scenario models providing and receiving feedback through a dialogue exercise that reinforces concepts as both an instructor and a learner.

Self-Efficacy, Growth Mindset & Grit

The adult learner may have a variety of contexts to reflect on their problem solving and learning experiences in a professional or nonacademic setting yet still lack confidence in their academic abilities. PACE 111 emphasizes less the habits of mind of being a good student and more of how to learn, and how adopting a growth mindset can enhance personal agency. The course instructor presents research on the brain's proven ability to adapt and grow and

Fall 2020 ISSN: 1535-0975

offers strategies for improving learning. In a discussion topic, students are asked to share some examples of how they can apply growth mindset in daily interactions in either a professional or an academic setting. Students consider a learning experience that was successful and what they were able to learn and what did they did that helped them succeed, and how they would apply those strategies to their classwork. Growth mindset and grit are explicitly taught and reinforced through coaching, and projects are designed with a "low floor but high ceiling" (Boaler, 2019) that do not require deep prior knowledge but are challenging for all students so they become proud of the result.

In FACDEV 111, faculty model the growth mindset through communication and coaching on interactions. Trainers encourage faculty to rethink their practice and beliefs in student engagement and classroom management.

Meaning and Purpose

The course content and activities of PACE 111 all focus on establishing and reinforcing connections to a student's individual goals and purpose in attending the university. Early in the course they develop goals, values, and motivations and link them to the course. The final week asks students to prepare a motivational speech that they would give to someone close to them who questioned their decision to enroll in the university right now. To prepare the speech, they are asked to review their Goals, Values, and Motivations assignment from week 1 and to reflect on how their perspective may have changed since the first week and what they learned about themselves in the process. The Learning Management System (LMS) has a "Locker" feature and students are encouraged to save all their work to revisit and review for up to four months.

Faculty have experience in the disciplines (i.e., business, cyber security, military) and can offer feedback generally and broadly on careers and degree paths. In FACDEV 111, trainers instruct faculty who will be teaching online classes. The trainers model coaching in their feedback to faculty members' diverse responses to scenarios. The training encourages faculty trainees to reflect and modify practice.

Active Involvement (Engagement)

The PACE 111 course encourages students' involvement in their learning by incorporating activities that ask students to evaluate how they have learned successfully in the past and consider how they would apply those concepts to their academic work. They also create a four-week schedule that lays out all events competing for their time, to include work, family, and leisure activities. This schedule recommends that students get commitments from partners and other family members to support their educational goals.

Students also create a reflective success plan that includes their short- and long-term goals, the most efficient path to a bachelor's degree, and support systems to sustain students in their learning journeys. Six distinct models of PACE 111 enable students to become more immersed in their field from the start, thus increasing relevance of the course to their goals in the curriculum. The six models are focused on the disciplines of Business, Communication and Humanities, Multidisciplinary Studies, Public Safety, Healthcare and Sciences, and Technology programs.

In FACDEV 111, the faculty coach responds to all introductions and offers feedback to all scenarios and discussions,

modeling desired behavior and feedback principles.

Reflection

Throughout the PACE 111 course there are multiple opportunities for students to reflect on their prior experiences and how to improve their learning skills. Early in the course, students reflect on their experiences and dreams to develop their goals, values, and purpose statement. The final week *Reflection: Putting It All Together* asks students to reflect on what they've learned about themselves, their strengths, and their support needs. The goal is not "busy work" but a personally meaningful plan for their educational and professional goals that asks them to specifically reflect on their professional and academic progress during the course.

Social Integration

Course activities promote students' social integration in weekly discussions, moderated by the faculty member but mostly between student peers, enabling students to form collegial relationships and exchange ideas. The two one-on-one instructor connections forge student-to-mentor relationships, building trust and a shared commitment to students' goals and well-being. Students also learn about the breadth of career services that promote connections, networking opportunities, along with the other foundational support resources, to include student advising, the student services portal, and program planning. Finally, students work on a team project to produce a short presentation on distractions and how they can be avoided. This assignment creates a shared experience and comradery.

FACDEV 111 teaches faculty how to use Zoom Pro to create ADA-compliant introductory videos which enable them to strengthen their social presence in PACE 111. These videos are required of all PACE 111 faculty. Students can see and hear their professor prior to their one-on-one instructor connection, thus putting them more at ease during their first interaction.

Self-Awareness (Self-Knowledge)

The course activities invite students to reflect on their personal attributes, learning strategies, and how they are motivated to learn by asking them to explore their own goals, motivations, and values to understand what drives them in their personal and professional lives. They also learn how to apply a growth-mindset way of thinking to their everyday lives, and to step out of their comfort zones to schedule and conduct a short interview with a professional in their field. This assignment builds students' confidence as they overcome their natural reticence to engage with successful people.

In FACDEV 111, faculty are prompted to examine their own approach to feedback and improvement coaching through a series of questions about building trust, removing judgmental language, emphasizing strengths, and providing opportunities for growth. The coaching, mentoring, and teaching roles are explored; faculty complete an activity to identify behaviors and attitudes associated with each role.

Methodology

The sample consists of students who took the PACE 111 course in the first and second terms in which the course was offered. The success, reenrollment, and student satisfaction rates are compared to

Fall 2020 ISSN: 1535-0975

those of students in other courses that students take in their first terms at UMGC.

In addition to these standard metrics, to determine whether students in the PACE 111 group felt more confident and prepared for college than they might have felt without the course, PACE 111 students and a comparison group of similar students who did not take the course were surveyed about these issues in Fall 2019. Survey results are shown in Figure 4 below. Because the course was made available to all students, we could not conduct a true randomized test of the efficacy. However, the design used approximates that approach as well as possible under the circumstances.

Almost four thousand students took PACE 111 in the first term (Fall 2019); 5,280 students took the course in the next term (Spring 2020), and 3,524 students took the course in the third term (Summer 2020), which is cyclically lower. The UMGC population is diverse and spans a broad age range. The PACE students in Fall 2019 were 53% female, with an average age of 31 (min: 17; max: 74). Students self-reported their races to be 36% White, 34% Black or African American, and 12% Hispanic or Latino. The Spring 2020 group was similar, with 47% female students and an average age of 32 (min: 16; max: 76). Students enrolled in Spring 2020 self-reported their races to be 37% White, 31% Black or African American, and 12% Hispanic or Latino.

We also report data on faculty who taught the PACE 111 course. Faculty were surveyed after completing the training for PACE 111, which focused on mentoring students in an online environment.

The three survey instruments used for the evaluation were the student end of course evaluation questionnaire, the student survey on growth mindset, and the faculty satisfaction survey. The end of course survey included textual responses to be analyzed qualitatively.

Findings

Students enrolled in PACE 111 in Fall 2019 were asked which components of the course they found most useful. The survey produced 627 textual responses that have been analyzed qualitatively. Students' responses to the question of what they found most useful were coded into 27 concepts, totaling 898 encodings. Each concept was analyzed for its relevance to the research and mapped to one of 10 categories, the learning and persistence principles, the *supportive environment*, the *method of delivery*, or *knowledge of their program*.

The following comments provide representative samples of the responses that were coded and the recorder's rationale for assigning a category:

> "The informational interview was the most challenging assignment for me. I'm not very outgoing, so contacting people and conducting an interview pushed me out of my comfort zone, but it was a good assignment and gave me insight into the industry."
> [this statement was coded as *interview* and categorized as *meaning & purpose.*]

> "I found the support services very interesting. My last college didn't have anything remotely similar. I found some of the assignments challenging, such as creating a success plan and the list of my goals and values. It caused me to reflect a lot which is rare for me to

do." [the statement was coded with *supportive environment, learning challenge, preparation for success in program & life,* and *self-assessments & reflection*; it was categorized as *supportive environment, meaning & purpose,* and *self-knowledge.*]

The distribution and categorization of the encoding of all statements are shown in Table 1.

Table 1

The Relative Frequency of the Coding Categories and the Combined 7 Principles of Learning and Persistence

Category	Number of Encodings	% by Category, *n*=898
Supportive environment	225	25%
Delivery method	13	1%
Learn about program	10	1%
One or more of the 7 principles	650	72%

If it were a principle, the category *supportive environment* would have been the most encoded with 225 or 25% of all encodings. The students included *helpful faculty* (46) and *supportive resources* (179) in that category. The *delivery method* refers to the interface, organization, and navigation of the course. It registered at 1% of the mentions and was often the only mention by the student, which suggests that course navigation could have been a significant barrier for them. The *learn about program* category represents the responses showing students valued knowing their program better and/or learned how to accelerate their program completion either through the scheduling module in the course or through awareness of alternate forms of credit.

Beyond these relevant encodings and not included in the 898 encodings in Tables 1 and 2, were 11 responses that indicated that the course was redundant to the students' prior learning, and 12 responses that strongly recommended the course for all students. Table 2 presents the relative frequency of the encoded 7 principles.

Fall 2020 ISSN: 1535-0975

Table 2

The Relative Frequency of the Encodings for Each of the Seven Principles of Learning and Persistence

Principle	Number of Encodings	% of Encoded Principles, *n*=650
Engagement	145	22%
Meaning & purpose	151	23%
Mindset & learning skills	70	11%
Self-knowledge	34	5%
Reflection	40	6%
Social integration	136	21%
Personal validation	74	11%

Of the seven principles, we see what students value the most from the course, in particular, *meaning and purpose, engagement,* and *social integration*. Within *meaning and purpose,* career goals outweighed life goals 14% to 9%. Within engagement, the interview of someone in their field garnered 8% of the encodings, followed by interesting curriculum at 7% and learning & challenge at 6%. From the students' view, the interview assignment can be seen as one of the most important assignments in the course, since it contributes to *engagement* in the course and is also connected to *meaning & purpose* as a career-oriented activity. It is also connected to *social integration* for the networking that it initiated. *Social integration* includes counts of references to networking, discussion boards, and other mentions of connecting with students and faculty, and comprises 21% of the encoded principles.

Other interesting findings from the data were mentioned less frequently but demonstrate the impact the course had on some of the students. The use of video for one-on-one meetings between faculty and students was noted 28 times. Many of the 34 students who mentioned something in the *self-knowledge* principle expressed welcome surprise at considering their emotions, goals, and life purpose for the first time.

The principles form a large part of what students mentioned as being *most useful* in the course at 72% of the total mentions. Since these principles are validated in the literature as leading to learning and progression, we can argue that the course has succeeded in its design objectives. Longer-term analysis of student learning and their progression term-to-term and to graduation will give support to the validation of PACE 111's purpose.

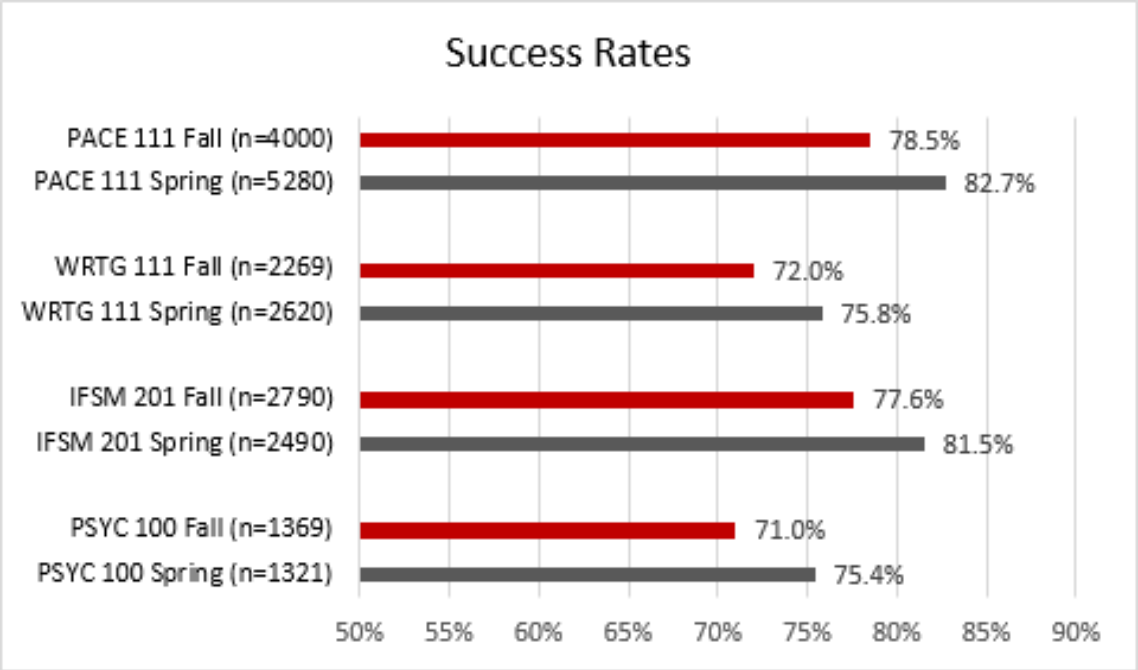
Success Rates (Fall 2019 and Spring 2020)

Three courses were selected for the comparison group to determine whether PACE 111 was performing well. The Introduction to Writing (WRTG111), Concepts and Applications of Information Technology (IFSM201), and Introduction to Psychology (PSYC100) courses are all high enrollment courses that students generally take in their first few terms at UMGC. While not a comparison to all undergraduate courses, Figure 1 shows that PACE 111

performed as well as or better than its comparison courses in the Fall 2019 and Spring 2020 terms. In both terms, PACE 111 had significantly higher success rates than two out of three of the comparison courses ($p<.01$).

Figure 1

Comparative Course Success Rates, Fall 2019 & Spring 2020



Re-enrollment Rates

Table 3 shows the percentage of students in each course who enrolled in the subsequent term. While Summer enrollment is lower across the board (even non-traditional students enjoy some time off in the Summer), PACE 111 outperformed each of the other three courses in both terms ($p<.05$, two-tailed).

Table 3

Reenrollment Rates

	IFSM 201	PSYC 100	WRTG 111	PACE 111
Fall to Spring	70%	58%	59%	74%
Spring to Summer	58%	49%	52%	63%

Fall 2020 ISSN: 1535-0975

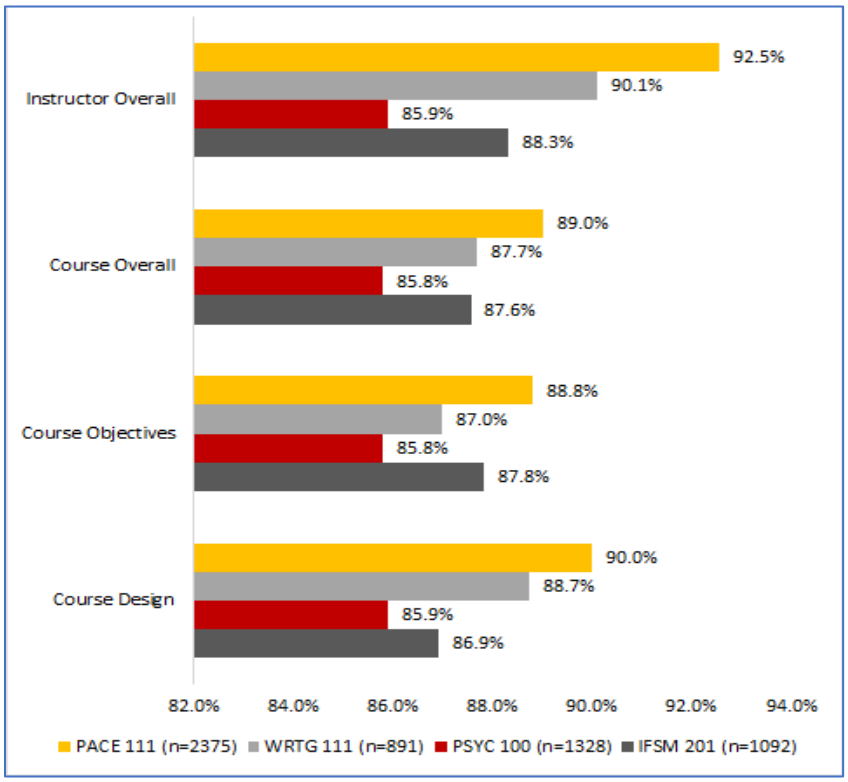
Evaluation Ratings

The quantitative responses for the end of course student evaluations were extremely positive. Because these data are collected anonymously, it is not possible to break the data down by demographics of interest. Responses are coded as 1 if the student agrees or strongly agrees with the statement.

As shown in Figure 2, Fall 2019 PACE 111 scores are higher than the comparison courses for every category. Perhaps most importantly, the differences between PACE 111 and the other courses are statistically significant, tested using a z-score for two population proportions ($p<.05$, two-tailed test): students rated the PACE 111 instructors significantly higher than instructors in the comparison courses.

Figure 2

Fall 2019 Average Course Evaluation Scores

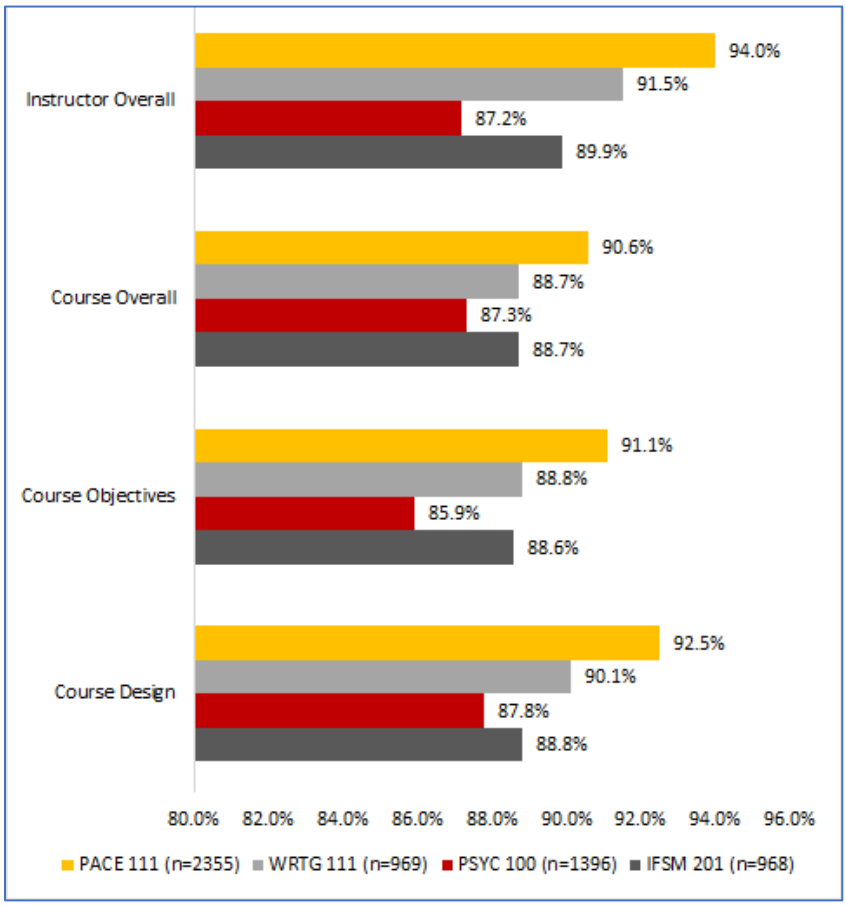


For Spring 2020, Figure 3 shows the results to be similarly positive for PACE 111. For this term, not only are the results for instructors significantly higher than for other courses ($p<.05$, two-tailed), but the results for the other categories are also statistically significant (except for course overall, where the differences between PACE 111 and IFSM 201 and WRTG 111 are not significant).

Fall 2020 ISSN: 1535-0975

Figure 3

Spring 2020 Average Course Evaluation Scores



Students' qualitative responses to the end-of-course evaluation showed an overwhelmingly positive experience for the PACE 111 course. When asked to discuss the topics they found most interesting, the most common student responses included getting to know more resources at UMGC, getting the opportunity to think more deeply about their goals and the academic plan that would help them to reach the goals, as well as interactions with their fellow students and faculty members through the discussion boards and instructor connections.

Preparedness Survey (Fall 2019)

As part of the PACE 111 course, students were asked to participate in a post-course survey (separate from the course evaluation survey). This survey asked eight questions related to confidence, preparedness, knowledge of resources, community, and growth mindset. A separate survey of non-PACE students in their first term at UMGC was also completed to allow comparison of the results of the PACE 111 group to a control group. The results (Figure 4) show that the PACE 111 respondents have higher scores in every category about which we asked.

Fall 2020 ISSN: 1535-0975

Six hundred and thirty-one PACE 111 students completed the survey in the first session of the Fall 2019 semester (OL1), and 159 non-PACE students participated in the control group (a response rate of 5.3%). Responses are coded as 1 for strongly agree and somewhat agree, and 0 otherwise.

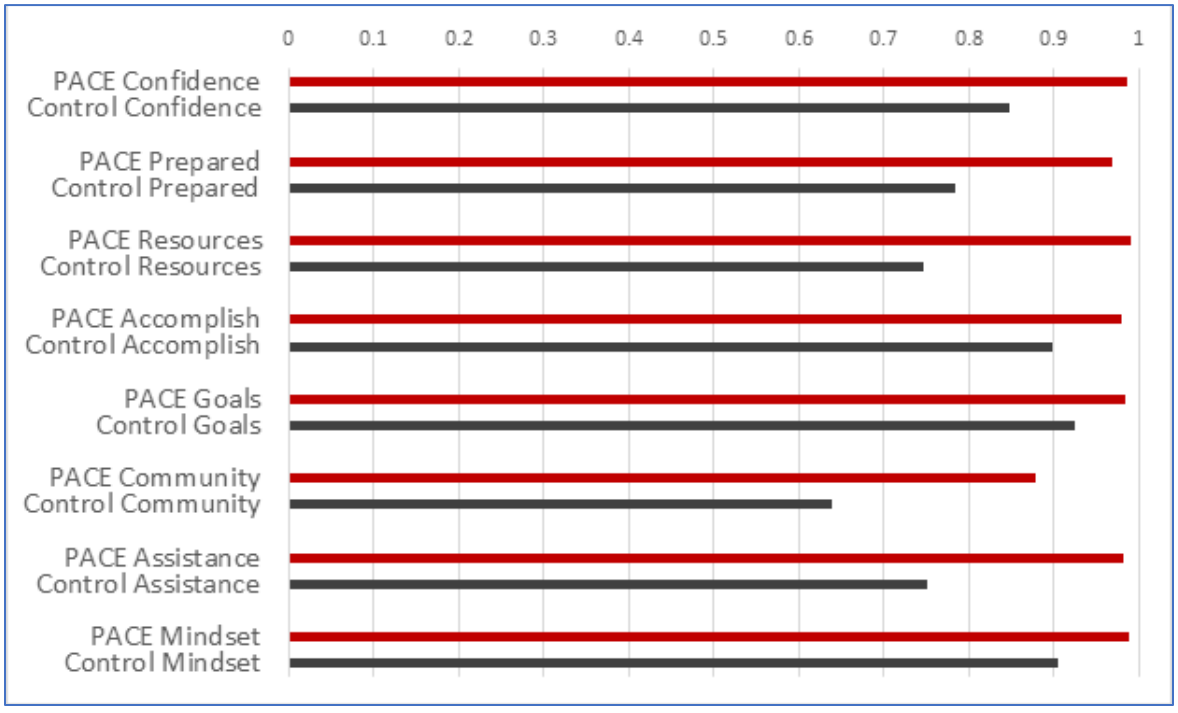
As shown in Figure 4, the responses are higher for PACE 111 for every question. The difference is also statistically significant for every question. As such, compared to non-PACE students, PACE 111 students are significantly more likely to:

- Feel confident they will be able to complete the work they need in order to graduate
- Feel prepared for future courses at UMGC
- Know where to find resources for student support at UMGC
- Know what they want to accomplish during their time at UMGC
- Have set goals to work towards
- Feel like a part of the UMGC community
- Know where to turn for assistance if they run into academic hurdles
- Feel their abilities can be improved through hard work and a commitment to learning (growth mindset)

Several of these measures have been shown in the literature to correspond with academic success and add further evidence to the impact of PACE on retention and graduation.

Figure 4

Fall 2019 Post-Course Preparedness Survey



Fall 2020 ISSN: 1535-0975

Faculty Satisfaction with the FACDEV 111 Course

A survey was sent to faculty who taught PACE 111 in the first term to follow up on the FACDEV 111 training course and determine how it could be improved in the future. Thirty-two of the 52 instructors who were invited chose to participate, for a response rate of 62%.

Three-quarters of respondents (75%) indicated that the FACDEV faculty training course prepared them to teach PACE 111. Of the respondents who did not believe it prepared them, respondents cited uncertainty around the instructor connection and uncertainty or lack of familiarity with the course content. Respondents also indicated that they felt the FACDEV 111 course was designed to help faculty mentor/coach students, rather than being a specific PACE 111 training course.

Throughout the duration of the first term of the course, faculty feedback was gathered through a Google Form that allowed faculty to raise issues with the course administrators and suggest areas of improvement. Most of the issues raised in the faculty feedback form were minor. These included confusion around the grading of group work, frustration around the technology used to schedule instructor connections, and small mistakes or typos in assignment instructions. Many instructors also took the time to report they encountered no issues.

Discussion

Learning Goals

Direct evaluation of the students' assignments demonstrate that the learning goals have been met, since course completion depends on meeting these goals. This is shown in Figure 1, *Comparative Course Success Rates,* where PACE 111 exceeds other course completions.

Design Goals

PACE 111's design goals have been met, as discussed in the section *Rationale for the Design of PACE 111 and FACDEV 111*.

Quality Goals.

Figures 2 and 3 demonstrate sufficient evidence that the quality goals for PACE 111 have been met, particularly the questions on overall course quality, course objectives, and course design. The efficiency goal is indirectly demonstrated by overall satisfaction as well as high completion and re-enrollment rates.

Performance Goals

PACE 111's performance goals are discussed in the following list:

1. *Improve completion over other first term courses*.
   As shown in Figure 1, the success rate of PACE 111 on a term-wise basis has exceeded other first term courses by 5 or more percentage points, in all but one case, where it exceeded IFSM 201 by an average of 1 percentage point.
2. *Achieve higher persistence, as shown by a higher next-term continuation rate.*
   Table 1 shows that PACE 111, term-wise, exceeded the next term re-enrollment rate of other first term courses by 4 to 16 percentage points.
3. *Raise the student satisfaction scores average over other first-term courses.*
   Figure 2 demonstrates that PACE satisfaction in Fall 2019 exceeds the other courses' scores in all four

satisfaction categories of overall instructor, overall course, course objectives, and course design. Figure 3 demonstrates an even higher satisfaction level and generally wider gap with other courses' results.

4. *Enhance faculty satisfaction with teaching the course.*
   Survey results discussed in the section, *Faculty Satisfaction,* show that 75% of faculty felt prepared. Satisfaction results and qualitative comments by students reporting greater connection with faculty and other students reinforce this report. Future work could involve adding topics directly related to the teaching of PACE 111.

5. *Prepare students for continuing success in other courses.*

   No data has been collected on subsequent course success; however, as shown in the survey results reported in Figure 4, students report they feel more prepared than students in other first-term courses. Additional analysis will follow as students complete subsequent terms.

Conclusions and Future Research

The research outcomes have a number of limitations that deserve noting. The first is the dissimilarity of the comparison courses to PACE 111. Reasons the student ratings of the PACE 111 may exceed those of the comparison group are that they have a traditional cognitive focus, are taught by general faculty, are likely more challenging in workload and complexity of knowledge to be learned. As elements of the approach begin to be implemented in other courses, they could also improve. A second possible limitation is the higher instructional burden of the PACE 111 course. Faculty communicate more frequently with students and invest more of themselves in student relationships. These emotional and time burdens need to be measured and reviewed for reduction of activity not essential to the success of students. A third limitation on the general applicability of the outcomes is the short time of the study of outcomes. Ideally, progression and graduation rates would be available to show degree of shift in the progression curve (how much credit students earn before stopping). Differential learning success between the treatment and control groups in subsequent courses should also be analyzed in a longer study. Finally, there is some concern that students may have expectations for high engagement and support in subsequent courses that may not be met. The incorporation of various positive elements, such as but not limited to synchronous video, self and goal reflection, and coaching could mitigate gaps between expectations and the reality of general courses. More widespread faculty development in the areas of strategies for learning and progression could narrow the gap, as well.

Students reported being better prepared than before for future academic work and re-enrolled at higher rates. Significantly, a re-enrollment rate that is between 4 and 16 percentage points higher represents 40 to 160 more continuing students per 1000 students. Students also reported that the design goals of the course were met, and these goals are derived from principles of student learning and persistence from the research. Longer term research is needed to demonstrate the impact.

Creating and tracking performance objectives goes beyond the typical learning objectives of a course yet are critical to achieving overall objectives of the university to support its mission of graduating students prepared to thrive in their careers. Since meeting the performance scores can be partially attributed to the course design and faculty preparedness, PACE 111's success is attributed to the

Fall 2020 ISSN: 1535-0975

mapping of the course onto the seven principles of learning and persistence and the use of faculty development courses.

Due to the transparency of the design described herein, other institutions may follow the design principles presented in this paper to create a similar course to ease the transition and enhance the success of their "suddenly online" students.

Fall 2020 ISSN: 1535-0975

References

American Association of Higher Education (AAHE), American College Personnel Association (ACPA), The National Association of Student Personnel Administrators (NASPA) (1998). *Powerful partnerships: A shared responsibility for learning*. Washington, DC: Authors.

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology, 38*, 113-125

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*, 297-308.

Astin, A. W. (1993). *What matters in college?* San Francisco: Jossey-Bass.

Astin, A. W. (1996). Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development, 37*, 123-134.

Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 40*, 518-529.

Ausubel, D. (1978). The facilitation of meaningful verbal learning in the classroom. *Educational Psychologist, 12*, 251-257.

Bandura, A. (1977). *Self-efficacy: Toward a unifying theory of behavioral change*. Psychological Review, 84(2), 191-215.

Baxter Magolda, M. B. (2004). Evolution of a constructivist conceptualization of epistemological reflection. *Educational Psychologist, 39*(1), 31–42

Belenky, M. F., Clinchy, B. M., Goldberger, N. R., & Tarule, J. M. (1986). *Women's ways of knowing*. New York, NY: Basic Books.

Berger, P. L., & Luckman, T. (1967). The social construction of reality: A treatise in the sociology of knowledge. New York: Anchor Books.

Boaler, J. (2019). *Limitless mind: Learn, lead, and live without barriers*. HarperOne.

Brown, P. C., Roediger, H. L., III, & McDaniel, M. A. (2014). *Make it stick: The science of successful learning*. Cambridge, MA: Belknap Press.

Bruffee, K. A. (1993). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore, MD: Johns Hopkins Press.

Buckingham, M., & Clifton, C. (2001). *Now, discover your strengths*. New York: Free Press.

Chemers, M. M., Hu, L. & Garcia, B. F. (2001). Academic self-efficacy and first year college student performance and adjustment. *Journal of Educational Psychology, 93*, 55-64.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles of good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3-7.

Cuseo, J. (2018). 7 timeless and universal principles for learning and persistence [Keynote address]. National Symposium on Student Retention (NSSR), Salt Lake City, UT.

Dewey, J. (1933). How we think: A restatement of the relation of reflective thinking to the educative process. Lexington, MA: D. C. Heath.

Dewey, J. (1938). *Experience and education*. New York: Collier Books, Macmillan.

Duckworth, A. (2016). Grit: The power of passion and perseverance. London: Vermilion.

Dweck, C. S. (2000). Self-theories: Their role in motivation, personality, and development. Philadelphia: Psychology Press.

Dweck, C. S. (2006). *Mindset: How you can fulfill your potential*. New York: Random House.

Elias, S. M. & Loomis, R. J. (2002). Utilizing need for cognition and perceived self-efficacy to predict academic performance. *Journal of Applied Social Psychology, 32*, 1687-1702.

Ewell, P. T. (1997). Organizing for learning: A new imperative. *AAHE Bulletin, 50*(4), pp. 3-6.

Feldman, D. C., & Newcomb, T. M. (1969). *The impact of college on students*. San Francisco: Jossey-Bass.

Fink, L. D. (2013). Creating significant learning experiences: An integrated approach to designing college courses (2nd ed.). San Francisco: Jossey-Bass.

Flavell, J. H. (1985). *Cognitive development* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Hart, T. (2004). Opening the contemplative mind in the classroom. *Journal of Transformative Education*, *2*(1), 28-46.

Johnson, D., Johnson, R., & Smith, K. (1998). Cooperative learning returns to college: What evidence is there that it works? *Change, 30*, 26-35.

Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.

Kuh, G. D., & O'Donnell, K. (2013). *Ensuring quality and taking high-impact practices to scale*. Washington, DC: American Association of Colleges and Universities.

Langer, E. J. (1997). *The learning power of mindfulness*. New York: Perseus Books.

McKeachie, W. J., Pintrich, P., Lin, Y., & Smith, D. (1986). *Teaching and learning in the college classroom: A review of the research literature*. Ann Arbor: College of Michigan, NCRIPTAL.

Merrill, M. D. (2012). *First Principles of Instruction* (1st ed.). Pfeiffer.

Multon, K. D., Brown, S. D. & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38*, 30-38.

Pace, C. R. (1990). *The undergraduates: A report of their activities and progress in college in the 1980's*. Los Angeles, CA: The Center for the Study of Evaluation, Graduate School of Education, University of California, Los Angeles.

Parks, S. D. (2000). Big questions, worthy dreams: Mentoring young adults in their search for meaning, purpose, and faith. San Francisco: Jossey-Bass.

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science, 26*(6), 784-793.

Pascarella, E. T., & Terenzini, P. T. (1991). How college affects students: Findings and insights from twenty years of research. San Francisco: Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students, Volume 2: A third decade of research*. San Francisco: Jossey-Bass.

Pintrich, P. R. (Ed.) (1995). *Understanding self-regulated learning*. New Directions for Teaching and Learning, no. 63. San Francisco: Jossey-Bass.

Rendón, L. I. (1994). Validating culturally diverse students: Toward a new model of learning and student development. *Innovative Higher Education, 19*(1), 23-32.

Rendón, L. I., & Garza, H. G. (1996). Closing the gap between two- and four-year institutions. In L. I. Rendón & R. O. Hope (Eds.), *Educating a new majority: Transforming America's educational system for diversity* (pp. 289-308). San Francisco: Jossey-Bass.

Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology, 35*, 677-688.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.

Schlossberg, N. K., Lynch, A. Q., & Chickering, A. W. (1989). Improving higher education environments for adults: Responsive programs and services from entry to departure. San Francisco: Jossey-Bass.

Slavin, R. (1996). Research for the future: Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary Educational Psychology, 21*, 43-69.

Smith, E. (2011). Teaching critical reflection. *Teaching in Higher Education, 16*(2), 211-223.

Solberg, V. S., O'Brien, K., Villareal, P., Kennel, R., & Davis, B. (1993). Self-efficacy and Hispanic college students: Validation of the college self-efficacy instrument. *Hispanic Journal of Behavioral Sciences, 15*(1), 80-95.

Symons, C. S., & Johnson, B. T. (1997). The self-reference effect in memory: A meta-analysis. *Psychological Bulletin, 121*(3), 371-394.

Terenzini, P. T., Rendón, L. I., Millar, S. B., Upcraft, M. L., Gregg, P. L., Jalomo, R., Jr., & Allison, K. W. (1996). Making the transition to college. In R. J. Menges, M. Weimer, & Associates, *Teaching on solid ground: Using scholarship to improve practice* (pp. 43-74). San Francisco: Jossey-Bass.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: The University of Chicago Press.

Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago: The University of Chicago Press.

Weiner, B. (1986). An *attributional theory of motivation and emotion*. New York: Springer-Verlag.

Weiner, B. (2000). Intrapersonal and interpersonal theories of motivation from an attributional perspective. *Educational Psychology Review, 12*(1), 1-14.

Weinstein, C. E., & Underwood, V. L. (1985). Learning strategies: The how of learning. In J. W. Segal, S. F. Chapman, & R. Glaser (Eds.), *Thinking and learning skills (*pp. 241-258). Hillsdale, NJ: Erlbaum.

Willis, J. (2006). Research-based strategies to ignite student learning: Insights from a neurologist and classroom teacher. Alexandria, VA: ACSD.

Winkelmes, M. A. (2013). Transparency in teaching: Faculty share data and improve students' learning. *Liberal Education, 99*(2), 48-55.

Wlodkowski, R. J. (1998). Enhancing adult motivation to learn: A comprehensive guide for teaching all adults. San Francisco: Jossey-Bass.

Zimmerman, B. J. (1990). Self-regulated learning and academic achievement: An overview. *Educational Psychologist, 25*(1), 3-17.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

How to Be Socially Present When the Class Becomes "Suddenly Distant"

Jeanine Warisse Turner, Ph.D.
Georgetown University,
Washington DC

Fan Wang, M.A.
Georgetown University,
Washington DC

N. Lamar Reinsch, Jr, Ph.D.
Lubbock Christian University.

Keywords: attentional social presence, dramaturgy, online learning, mediated communication

Abstract

"Suddenly Online," in response to the COVID-19 pandemic, created a unique challenge for communicating presence within the university classroom. Social presence, or the degree of salience of another person within an interaction, was especially challenged within the online context. This paper explored two unique challenges in establishing social presence: 1) the collision of front stage and backstage as faculty and students connected from their homes over videoconferencing and 2) specific strategies created for engaging attentional social presence. Goffman's (1956) theory of social interaction and Turner and Foss's theory of attentional social presence (2018) were used to explore the experience of 16 graduate students as they moved from in-person to online classes. In depth, semi-structured interviews were used to examine the key themes associated with the concepts of front stage and back stage and the four choices of attentional social presence as they applied to the students' experiences. The themes helped to explain the way participants described the abrupt move online. Additionally, participants provided advice and pedagogical strategies are recommended that were informed by these theories to help faculty understand the implications of creating presence within the online classroom.

The sudden transition to on-line education in the spring of 2020 was, as one student told us "a bit of a shock" (Interview 14, May 27, 2020). While distance learning and online learning has a long history (Spector, 2014), moving from a traditional format to an online format within less than a week is rare.

Virtual learning has been previously introduced quickly during emergencies (Czerniewicz et al., 2019; Tull et al., 2017). Holzweiss et al. (2020) did a case study on the online courses of the college community in Houston, Texas, during the Hurricane Harvey crisis in 2017. The study found that some faculty members didn't recognize the potential student challenges like bad internet connections or not having a computer and recommended that educational institutions make specific crisis plans in case of an emergency by providing support for students and faculty. Facing the aftermath of Hurricane Katrina in 2005, the Sloan Consortium built up an online learning platform (Lorenzo, 2019; Moore, 2012). Researchers found that virtual classrooms helped but challenges still existed. Teachers could not reach some students because the disaster cut off communication. Additionally, some students performed poorly because they could not adjust to the new online learning format.

Several studies have already explored the suddenly online experience of COVID-19 from the teacher's experience. Johnson et al. (2020) surveyed 897 staff and faculty among 672 U.S. higher educational institutions in April 2020. They found that about 90% of the institutions executed virtual learning. After moving the class online, half of the faculty respondents reported that they did not set the same expectations for assignments. Two thirds of the respondents had had no online teaching experience. Many faculty stated that although they were stressed about being suddenly online, they were always willing to help students relieve pressures by making accommodations like decreasing the workload of the course. Sadler et al. (2020) considered videoconferencing technologies, such as breakout rooms to be a significant tool for online engagement. Trust and Whalen (2020) found that inadequate preparation and training with technologies hurt the effect of teaching remotely. Doucet et al. (2020) reported that teachers had difficulty giving feedback to students in larger classes.

So far, little research has explored the student's experience during the pandemic. Peters et al. (2020) interviewed 15 graduate students in a university in Beijing, China. Through auto-ethnographic stories, the study described students' struggles. Some students were so worried about the disease and the university lockdown that they could not focus on their academic work. Others had trouble with communicating and collaborating with fellow students online. This paper seeks to contribute to the literature by exploring the students' perspective of the experience of the suddenly online transition

Theoretical Perspectives and Research Questions

This study brings together insights from two bodies of theory, dramaturgy as articulated by Erving Goffman (e.g. 1959, 1963) and the concept of interactional presence as developed by Turner and her colleagues (e.g., Turner & Foss, 2018; Turner & Reinsch, 2007, 2011). The former provides an overall framework and helps to

explore the consequences of placing home offices, bedrooms, and other normally private spaces on-line. The latter helps us to understand participant decisions related to projecting, monitoring, and managing on-line presence.

Dramaturgy

Goffman focused explicitly on "social interaction . . . in which two or more individuals are physically in one another's response presence (1983, p. 2), drawing some of his examples from classrooms (e.g., 1963, pp. 50, 63, 89). But he "did not overlook encounters that were not strictly face-to-face" (Klowait, 2019, p. 606; see, e.g., Goffman, 1963, p. 30, note #5, and 1983, p. 2).

Goffman's work provides several useful concepts. Those especially relevant to this research include situational proprieties (Goffman, 1963, p. 24), involvement/engrossment and "involvement shields" (Goffman, 1963, p. 38), and the distinction between "front" and "back" regions or stages (Goffman, 1959, chap. 3).

Situational proprieties are ground rules for behavior within a social gathering. Face-to-face interaction "renders persons uniquely accessible, available, and subject [i.e., vulnerable] to one another" (Goffman, 1963, p. 22). Consequently, communities develop normative guidelines some of which—including situational proprieties—become cultural expectations with "moral" force (Goffman, 1963, p. 24). The situational proprieties provide guidance with regard to interpersonal communication--Among other things, they "shape participants' focus and intensity of involvement during . . . interaction" (Schultze & Brooks, 2019, p. 713). When these guidelines are not followed, participants may receive negative sanctions.

Because participants wish to avoid negative sanctions, "we may expect to find a variety of barriers to perception used as *involvement shields*, behind which individuals can safely do the kind of things that ordinarily result in negative sanctions" (Goffman, 1963, p. 39, emphasis added). Involvement (or, more accurately, lack thereof) can be shielded by "blocking perception of either bodily signs of involvement or objects of involvement, or both. Bedrooms and bathrooms are perhaps the main shielding places in Anglo-American society" (Goffman, 1963, p. 39).

The distinction between front and back regions is one that Goffman develops with the concrete example of waitstaff moving from a dining room (in which they served food in a formal manner) and a kitchen (in which they behaved with considerably less formality). In many—but not all—situations, front and back regions are demarcated by a physical barrier such as a kitchen door. A back region "can be instantiated wherever BR [back region] behavior takes place" (Ross, 2007, p. 315). Situational proprieties differ between front and back, and adult persons are expected to recognize and to abide by the appropriate ones.

Attentional Social Presence

Turner and colleagues developed the concept of multicommunication, the simultaneous participation in more than one conversation (Reinsch & Turner, 2019; Reinsch et al., 2008). As part of that work they observed that multicommunicators frequently divide their attention among multiple interactions (Turner & Reinsch, 2007) and discussed how communicators

attempt to project their presence into multiple interactions (Turner & Reinsch, 2011). This work led, in turn, to an analysis of presence in on-line interactions at a more macro level (Turner & Foss, 2018).

Turner and Foss's theory of attentional social presence (2018) describes the need for communicators to address the fact that individuals carry digital devices that can distract them from conversations. The increased practice of multi-communicating demands that communicators must often first engage the attention of their audience before they can start a conversation (Reinsch et al., 2008). Attentional presence describes four strategies for managing attention: budgeted, entitled, competitive and invitational. Specifically, the *budgeted* strategy involves situations where communicators allocate part of their presence to one communicator and part to another. *Entitled* describes a presence strategy where one communicator tells another communicator to put their distracting technology away and focus on the conversation. *Competitive* presence describes situations where the communicator competes for audience attention using persuasive strategies. Finally, *invitational* presence describes a strategy where a communicator focuses completely on the conversation with the goal to understand audience perspectives and learn. Professors often find their students engaging in budgeted presence; professors can respond by trying to establish entitled ("put away your phones"), competitive ("how can I make my lecture more interesting?"), or invitational ("let's discuss this topic together").

The concept of presence has been pivotal to the success of distance learning (Boettcher et al., 2016). Goffman's (1963) front and back stages and Turner and Foss (2018) attentional social presence are new ways of understanding presence in online educational environments.

Research Questions

To better understand the impact of the spring, 2020 transition to on-line university education we posed the following research questions.

Research Question 1: How did participants confronted with the challenge of being suddenly online manage their front stage and back stage presence?

Research Question 2: How might the theory of attentional social presence provide a framework for understanding the construction of social presence within the suddenly online experience?

Method

Data were collected from 16 graduate students, over a two-week period following the end of the 2020 semester at a university located on the east coast of the U.S. (The study was approved by the University's Internal Review Board as part of an ongoing exploration of presence.) This university suspended in person classes on March 16, 2020 while students were away during spring break.

Respondents

Data were gathered in semi-structured interviews with 16 students; the interviews averaged one hour in length. This study consisted of 13 Chinese students, one U.S. student, one Indian student, and one student from the U.K. The age of the participants ranged from 22 to 29. Two of them were male and fourteen were female.

One student was a second-year graduate student, and the rest were first-year graduate students. Two of the students completed their classes while residing in hotels (for quarantine) and then in their own homes in China. Three students shared rooms in India with family or roommates, and 11 students had single-occupancy rooms in the U.S. Interviews are referred to in this research according to their number to keep the participant anonymous.

Interview Questions

In order to explore Goffman's front stage and back stage concept (1963), participants were asked to comment on the logistic challenges they faced ("What difficulties have you had during the online learning process in the past two months?"). Additionally, they described their home environment that they had to create to participate online. To explore the theory of attentional social presence, participants were asked about questions addressing the characteristics of each type of presence. Finally, participants were asked to give advice to both students and teachers on how to approach online classes going forward ("What advice would you give to a student/teacher taking online classes in the fall?").

Analysis Process

To analyze the data, each interview was transcribed, read, and reread for recurring, emergent patterns. Using Tracy's (2013) and Saldaña's (2016) steps to inductive analysis. On a line by line basis, each interview was coded initially with primary cycle coding by *in vivo* codes (Tracy, 2013). These codes were then assigned to categories. As new codes were added to categories, these categories were continuously compared to the initial category and the definition of this category was adjusted. These categories were grouped, and themes were created to explain the groupings.

The next step of the analysis was to examine the theoretical constructs of budgeted, entitled, competitive, and invitational presence theory to understand how the themes representing the participant experiences fit within attentional presence theory. Similarly, the front stage and back stage concept was used as a code to understand instances where participants addressed the challenges of dealing with their online academic environment within the context of their home environment

Results

All sixteen participants reported a disruption as they moved from the traditional classroom to the online context. They also noted that faculty and some of their fellow students appeared to be having similar experiences. Within the context of how students navigated their experiences of front stage and back stage we identified 8 themes describing their experience. Two themes described challenges associated with connecting to the class: technical issues and lack of transitions. Three themes described challenges with staying engaged during the class: motivation, invisibility and distractions. Three themes associated with describing the experience itself: informality, virtual window, and social presence.

Within the context of understanding the types of presence that students experienced, we found themes that we used to describe participant reflections that were associated with each of the four types of presence. Some themes talked about issues that constrained that type of presence and

other themes talked about how that type of presence was facilitated within the online environment. Specifically, we found three themes within the category of budgeted presence (distraction, invisibility, and technological function), two themes within the category of entitled presence (technical rules and physical classroom rules), two themes within the category of competitive presence (content, and format), and three themes exploring invitational presence (online opportunities, online constraints and informal dialogue).

Front Stage and Back Stage

The first research question asked how participants managed their front stage and back stage presence within the suddenly online environment (See Table 1, themes are organized in order of frequency of themes). All the participants experienced Zoom, synchronous videoconferencing for their classes. As students and faculty tried to translate the classroom experience to the virtual videoconferencing classroom, they discussed the challenge of managing their house environment which became the backdrop for the their virtual connection to their classroom environment by discussing challenges with connecting, staying engaged in class, and the classroom experience itself.

Table 1

Sample Quotation for Each Theme within Front Stage and Back Stage Construct

Sample Quotation	Theory	Theme	Frequencies
Interview 3: "I think I participate more in the face to face more than the online environment. Because I like to communicate directly with teachers or classmates, but in Zoom online classes I can only type to my classmates or raise some questions to the teacher because I don't want to interrupt anyone during the class."	Front/Back Stage	Technical Issues	21
Interview 10: "So it's not only about how to take a class, but also about the way we regard this class. Most of the students wear pajamas to attend the class. So I just feel like these online classes are totally informal."	Front/Back Stage	Informality	10
Interview 7: "We can see my professors' shelves. I can see the setting, I mean, the decoration in their house. I even can see, you know, some of my classmates, they used their own wallpapers on the zoom	Front/Back Stage	Virtual Window	8

camera which represents their taste. I think it is really interesting."			
Interview 13: "Some professors have shrunk the class time and this means that we don't have much time and many opportunities to participate. Usually, if we did this in a physical classroom, there would be some free time for us to ask questions or talk with the professor. But if it's just one hour, the time is tight and limited, we would just focus on the real important thing to do at that time. So I cannot ask questions like ask as many questions as I can during class time and once it ends it's finished. I don't have the motivation to send an email to him to ask the question if that's not a super important question. For me, it's harder to participate in the virtual class than in face to face classes. And if there's not good timing or opportunity, I usually choose to not participate that much."	Front/Back Stage	Motivation	7
Interview 10: "You know, a camera cannot always record every single corner in a picture of yourself. So, there are some, you know, some corner that the camera cannot record. You can always see the picture projecting it on the screen and you will always find that there's a single you know corner that a teacher in the classroom cannot find what you are doing. So it definitely makes it easier to distract to focus on something else."	Front/Back Stage	Invisibility	6
Interview 12: "The weirdest thing I noticed is that I would feel like I'm talking to myself. Like, I am not used to Zoom like any kind of video. I've never done video conferencing before this. For the most part, I'm very used to face to face interaction and seeing people in real-time reacting, like how their body positions, you know, react to what you're saying, or	Front/Back Stage	Social Presence	6

you can kind of feel the presence of a person that way. So I would if I was doing a presentation or like going on like even now, and I'm like, talking just in my apartment. It's like I'm just sitting in my apartment talking at a computer as opposed to talking to a human being."			
Interview 6: "I think At times, it could just like drag on a lot You know, say if they were just like sat talking and talking and talking and it wasn't really like a presentation or the presentation was like one or two slides, but it was just like them being in this environment where you know you have like your phone right next to you, or like a TV or music or the kitchen or whatever, you can just go and do things. Um, I think if they're just going to sit there and talk at you, they're going to lose your attention, super quickly. And they can't really do anything about it because they're not in a classroom where you can't really do those other things."	Front/Back Stage	Distractions	4
Interview 3: "I think I participate more in the face to face more than the online environment. Because I like to communicate directly with teachers or classmates, but in Zoom online classes I can only type to my classmates or raise some questions to the teacher because I don't want to interrupt anyone during the class."	Front/Back Stage	Lack of Transitions	4

Challenges with Connecting

Technical Issues.

The technical issues associated with connecting could also be distracting. The effort associated with participants trying to decide when to talk and remembering to unmute could contribute to awkward communication. Participants talked about the challenge of sharing a screen with the rest of the class and then remembering that everyone could now see everything that was on their laptop. Another technical issue that came up involved the use of virtual backgrounds. Zoom technology provided the capability for some students with a certain advanced level of computer processor to change their virtual background so that other people in the class could not see their actual home environment. While some participants

liked the virtual backgrounds, other participants found the virtual backgrounds distracting and disruptive, especially when students changed them multiple times during one class session.

The lack of technical skill of the professor could also be disruptive as professors had to learn how to teach with the technology *while* teaching with the technology. But the most challenging aspect of the videoconferencing environment was the inability to keep from talking when someone else was talking. Or the difficulty in knowing when the professor was looking at a student or when a student was looking at another student. The object of any one person's eye contact was difficult to determine which contributed to the challenge of knowing when to talk. One participant said this:

> You can't have multiple conversations going - and there's always that awkward moment where somebody says something right before the professor says something and it's like, "No, go ahead. Go ahead." Everyone's trying to kind of figure out who gets to go first. That was to be the biggest annoying thing. (Interview 12, May 26, 2020)

This technical challenge was noticed by participants as it influenced discussion as well as how it influenced the professor. One participant commented about his professor:

> He's used to being in a lecture-style classroom talking to people. . . And he can kind of read the tension or whatever in the room and tell when people kind of want to contribute or raise our hands. Now you can say something, and you'll see 20 squares of people not react. (Interview 12, May 26, 2020)

Lack of Transitions.

A unique aspect of the suddenly online environment was a recognition that while the virtual window was the lifeline to the class, it did not involve a commute of any kind. There was no need to drive, take a bus, or walk to a class. In fact, a student never had to leave his or her bed. With a click of the computer, the student was in class. There was no transition time built in. Not only was there no need for transportation to the class, the lack of transitions also meant that students did not have to prepare or get their bodies ready in the same way for an online class that they did for a virtual class. They could attend class in their pajamas or at least without changing their clothes. Many of the activities that we might do to get ready for a face-to-face meeting can provide the opportunity for mental preparation time. Even the ten-minute allocation within the university schedule allowing students to move from one class to another gives the student some transition time. Said one participant:

> When walking to campus, I step out of my apartment 40 minutes in advance. During the walk, I will adjust my attitudes and have some exercise so when I arrive, I can focus better because I changed not only the physical environment, but also my psychological feelings… but when I stay at home, I just moved from my bed to my desk. (Interview 1, May 18, 2020)

Fall 2020 ISSN: 1535-0975

Staying Engaged in Class

Motivation.

Another theme that emerged when examining the front stage and back stage collision was the participant's lack of motivation. The traditional classroom environment, the buildings, and the campus, constructed a space that contributed to a student's ability to focus and engage in the learning contract. For many students, the lack of these cues made learning difficult and made it hard to stay motivated. Said one participant:

> Until two weeks ago I used to love the classes. I used to love being there, and now I kind of like hating it and then feeling really bad because the teachers are trying like twice as hard. I just didn't feel as engaged ...I felt really bad because they're putting in like one hundred and fifty and I'm putting in like way less. (Interview 14, May 27, 2020)

This response really illustrated the critical challenge of reducing everything that a university has to offer (buildings, campus, study areas, trees, gates, walls, activities, clubs) to a videoconference window and an asynchronous platform. It reinforces that the front stage and backstage of participants came together to provide a link but with that link, left so much behind while also letting so much in.

Invisibility.

In addition to the window revealing distractions, the virtual window was also limited visibility and sometimes created a sense of *invisibility*. The camera's view was limited to a certain square. Activities outside the square were invisible. Participants talked about the distraction that this window could create because they felt invisible. This distraction could lead to disengagement. Said one participant:

> When I'm in a real class … I'm used to looking into the instructor's eyes to generate some eye contact or give a nod when I agree with what the instructor said…which helps me concentrate when I'm in a real class, but I'm not that visible in a virtual class. (Interview 5, May 21, 2020)

Another participant reinforced this idea and talked about how the invisibility influenced his motivation to participate:

> In a zoom classroom, since nobody is looking at me or nobody's noticing what I'm doing. Nobody is focusing on me, so I don't have to do [participation]. I don't want to do this. So my participation is basically decreasing. (Interview 7, May 21, 2020)

Distractions.

The virtual window provided a view into other homes which could create distractions. When students and professors share the same environment (in an in-person class), the background is shared so it becomes less distracting. When students and professors do not share the same environment, the window into different environments can be distracting, as well as the various environments themselves can distract students. In the example of the student feeding the baby in class, not only were other students distracted, it is very probable that the student mother was also distracted. Participants were connecting from different time zones. One participant asked to give her end-of-semester presentation early in the class period since it was midnight where she was connecting

from and she did not want to keep her family awake. She presented from the bathroom of her house with a shower curtain behind her and the door closed. Said one participant about distractions:

> I share the same room. It's my boyfriend, so I don't have an independent space. So sometimes whenever I have class, my boyfriend is next to me, having meetings, or talking. Sometimes he just passed by behind me, it's kind of distracting to me. (Interview 15, May 21, 2020)

Distractions also came in the form of text messages and notifications that arrived on the very same devices they were using for class. Finally, the distraction of the health concern of the pandemic while also trying to concentrate on class was consistently in the backstage of every participant.

Classroom Experience

Informality.

Finally, when it came to the front stage and back stage collision associated with the course, participants talked about the informality of their surroundings and its impact on their participation. Some participants felt more comfortable in class because they were participating from their own room. Others commented that the informal, casual atmosphere could make it difficult to focus. One participant reflected:

> I feel more relaxed expressing myself online because it's not in our classrooms where I feel that everyone's looking at me. I feel more pressure to say something in the classroom. Online, I don't care because I'm not so sure that everyone is paying attention to me so I can just talk freely. (Interview 2, May 22, 2020)

Virtual Window.

The front stage of the classroom collided with the backstage of people's homes. The students and the faculty had a view into each other's worlds. Some connected from a quarantined hotel in China, others from a basement or closet in their family's home, others from a bedroom. The majority of the participants talked about this *virtual window* that provided a view into the backstage of people's lives showing details about those people that would never be revealed in a traditional classroom. For example, some professors or students had pets that walked through the screen, creating a more informal environment. One participant commented:

> Our professor has a cat and he likes his cat very much. It surprised me because he was so strict in the classroom. In the course before he never shared his daily life with us. He just talked about the content of courses. When we can see him in his house … he always interacts with his cat. (Interview 1, May 8, 2020)

While some participants saw this window as an opportunity to learn more about the professor or the people in the class, other participants mentioned the distraction created by this *virtual window*. Said one participant, "One of my classmates always held her dogs and sometimes the dog was barking, and she had to feed her dog" (Interview 2, May 22, 2020). Another participant described watching another student take care of her child during class:

> One of the students had a baby. The time that the class met was also the time that it was like lunchtime for

> them. She would sit there and feed the baby off camera during class. (Interview 6, May 24, 2020)

Social Presence.

A final theme identified as it relates to the front stage backstage construct were comments concerning the sense of presence that participants experienced. Many participants talked about the nature of the online experience and how close they felt to their students and the class. Said one participant:

> Sometimes I feel closer because I see people's faces. But sometimes I feel more distant, we can see each other but it's hard to have personal conversations with them. So, I have some trouble. I feel that my classmates and teachers are far away from me. (Interview 13, May 26, 2020)

The next section of the paper will talk about the types of presence that participants experienced, using the attentional social presence framework.

Attentional Social Presence

The second research question asked how might the theory of attentional social presence provide a framework for understanding social presence within the online experience of students? To answer this question, themes were identified as they related to each type of attentional social presence (See Table 2, themes are organized in order of frequency of themes).

Table 2

Sample Quotation for Each Theme within Attentional Social Presence Construct

Sample Quotation	Theory	Theme	Frequencies
Interview 2: "He said that we had to use our videos so he could see our face each time. And if we just closed the camera and he would call our name and say, 'Please open your camera, please. I wanted to see all your faces.'"	Entitled	Technical Rules	24
Interview 4: "I prefer sharing my ideas during the office hour in an online environment because I could prepare what I want to discuss ahead of time so I could talk with my professors in a more organized way."	Invitational	Online Opportunities	19

Interview 8: "During the first week I could not focus because I was not used to taking class just on the screen. I feel like there is too much distraction beside me. I can have my food. I have my water all beside me and I can play with my phone anytime I want. So that is too much distraction and I cannot focus."	Budgeted	Distraction	14
Interview 3: "And as for the competitive presence, I think teachers are competing with students' mobile phones. It's really hard. Some teachers might use their pets to attract students' attention. I think most teachers will improve their content of this course to compete with mobile phones."	Competitive	Content	10
Interview 12: "We will have a presentation, at the end he would kind of ask, 'Okay, any questions?' People would be a little hesitant to answer, I think, for a variety of reasons. So he would just start his questions and start talking. And once he broke the ice that people would start to contribute, I think. People can yield to his authority a lot of times, because he was the person in charge."	Competitive	Format	8
Interview 11: "About the group project, I still find it easy to have some face to face communication and we can meet in the library and ask some questions and have a deep conversation. But if it's over Zoom, I fear that some people are tired, and some people just refuse to say things and some people may get confused. Sometimes it's a little awkward to talk over the internet. So, I think the efficiency of group discussion is not very great."	Invitational	Online Constraints	8

Interview 7: "At the moment that you turn on the camera, you will notice that on the screen people can only see part of you. They can't see your table. They can't see what you're doing off the camera. You know, you do something with your mobile devices off the camera."	Budgeted	Invisibility	6
Interview 4: "Before every class begins, Dr XX will have a very casual talk with us like just talk about our recent life, the coronavirus, just like that. It isn't related to the teaching, just the casual talk. Sometimes he would say, 'You're so shy. What about the coronavirus in China?' or 'What do you think about it?' something like that."	Invitational	Informal Dialogue	5
Interview 1: "If I am in face to face classes, I dare not check my phone. I will put it in my bags and just check the emails after classes."	Entitled	Physical Classroom Rules	3
Interview 5: "I think as we can activate multiple conversations at the same time, just as budgeted presents define will have a virtual class, you can use the chat functions on zoom and immediately ask whatever you want to ask where you have a question."	Budgeted	Technological Function	1

Budgeted Presence

Budgeted presence involves the practice of multicommunicating or participating in multiple conversations at once. Many of the participants discussed how the compartmentalization or the *invisibility* of their behavior to the professor and the other students, as well as the *technological functions* of Zoom on their laptop had a huge impact on their decision to multicommunicate. The invisibility of their behavior meant that students needed to police themselves to keep from multicommunicating. Said one participant:

> One of my good friends was in literally every single one of my classes and so the entirety of each class we were just texting each other the whole time. In that sense everybody else was not as engaged or motivated or focused…And then as I said, no one can see everything that you're doing so. It makes it a little bit easier. (Interview 6, May 24, 2020)

The *invisibility* of multicommunicating behavior and the appearance of other students not as engaged influenced students to multicommunicate more. Said one participant, "I noticed that some of my classmates, they talk less in a zoom call class. Actually, sometimes it seems like they're playing games or doing other things and other people don't pay attention to teachers at all" (Interview 2, May 22, 2020). One participant talked about the importance of taking ownership of her own classroom environment by removing these *distractions*:

> Now if I want to pay full attention to the instructor, I need to do more … like muting my phone. Exit messenger on the desktop or open the zoom… so that I can't see any other applications in the background. I think that helps me concentrate. (Interview 5, May 19, 2020)

Finally, another participant reinforced the invisibility challenge:

> In the space that the camera cannot catch you just can do whatever you want. Maybe you can use your mobile device to reply to your friends' messages. I know some of my friends watched a TV series. (Interview 7, May 21, 2020)

Finally, in addition to the distractions from having immediate access to the digital devices to keep you from class, a *technological* function within the videoconferencing environment allowed students to multicommunicate within the context of the class. With the chat function built into the videoconferencing environment, students and faculty could participate in a chat about the course content while the professor or other students were talking. Students could chat generally with the whole class or privately chat with individual people. When this practice was encouraged by the professor, it could keep students more engaged. Said one participant, "I think as we can activate multiple conversations at the same time...you can use the chat functions on zoom and immediately ask whatever you want to ask" (Interview 5, May 19, 2020).

Entitled Presence

Entitled presence concerns efforts by the communicator to control the attention of their audience. Participants compared *technical rules* in the online environment with *physical rules* in place face-to-face. The traditional classroom environment of face-to-face in the same room offers a power and authority to the professor that could allow them to make *physical classroom rules* regarding use of laptops or digital devices. Specifically, many participants mentioned how their professors had *physical classroom rules* preventing the use of digital devices. In the online environment, the lack of visibility of the professor, as well as the need to use a digital device to access the course, made the implementation of entitled presence less feasible. However, many professors exerted *technical rules* in their online classrooms to try to control the environment. Specifically, participants noted that some professors required that students show themselves on camera. Said one participant, "A lot of my professors were adamant about keeping your video on while you were in class to make sure that you're actually participating" (Interview 12, May 26, 2020).

For those students that could not show themselves on camera because of a technical problem or a bandwidth challenge, professors told them they needed to participate frequently in the chat. One

participant talked about her experience, "One student went back to China and her computer was broken. The professor said she must send him a message privately every three minutes or five minutes to prove that she was listening to his class" (Interview 10, May 18, 2020). Other participants talked about feeling silenced when professors used the "Mute All" feature. Said one participant, "Some of my professors, they were like directly muting all of the students. We have to listen, like we cannot speak anymore" (Interview 7, May 21, 2020).

Competitive Presence

*C*ompetitive presence is an important strategy for professors in the traditional, face-to-face environment as they vie for the attention of the students in their classroom. This strategy is even more important in the virtual, online environment where the students face distractions (only some which they can control) in their home environments. Many of the participants talked about specific strategies that they saw professors use. It seemed professors focused on both *content* and *format* strategies to compete for student attention. For *content*, some professors used simulations, technological tools, and videos to engage students. In addition to attending to course content, professors also found ways to structure the session to keep students engaged. For example, professors used break-out sessions to create opportunities to mix up the content using a different *format*. One participant talked about how a professor would organize the class around the thoughts of the students:

> There is one class where our professor would ask each of us to submit one to two of our personal thoughts about that week's topic and then she organized the class based on what our thoughts were. We were more involved - more like a mutual communication. (Interview 8, May 18, 2020)

Invitational Presence

Finally, invitational presence is a strategy that requires a partnership. Unlike competitive presence where the professor oversees the content and is trying to convince the students to engage or to persuade students to engage, invitational presence is much more of a dialogue or partnership. Participants described finding invitational presence most often in small groups or in office hours. Some technical features helped to construct invitational environments providing *online opportunities*. Just as participants saw breakout rooms as a mechanism to keep students engaged, some participants saw the breakout rooms as an opportunity to engage in dialogue in a more intimate way. One participant talked about the opportunity of virtual break out rooms for creating space for students to talk during class, "My professor used breakout rooms. Basically simulating the idea you would do in a normal classroom when you turn your desk to the left or right to talk to the people next to you" (Interview 12, May 26, 2020).

Some participants talked about the value of the chat function for creating a dialogue within the context of the class. One participant suggested that professors should create questions throughout the lecture and encourage students to answer the questions in the chat. They suggested, "I think like it would be good to establish like okay, I'm going to talk for 15 or 20 minutes. If you have any questions, put them in the chat and I'll answer them" (Interview 12, May 26, 2020).

An interesting surprise in the data was the opportunity for invitational presence created by virtual office hours. Many participants talked about how much easier it was to get to office hours, so it then helped them to be more comfortable. Office hours were much easier to get to and created a more "equal" setting since the student was participating from his or her own environment rather than meeting in the office of the professor. One participant commented on this:

> I think the office hour creates an invitational environment because the professor invites us to an online meeting where we can talk to each other. Online virtual office hours are more comfortable and relaxed than real office hours - communication actually increases. (Interview 2, May 22, 2020)

While some technical features like breakout rooms and chat could facilitate invitational presence, the lack of spontaneous opportunities for interaction that could be found in a traditional class were difficult to replace. In this way, some of the features of the virtual environment created *online constraints*. Said one participant:

> I did feel that it's harder to talk to the teachers privately and classmates as well in class. If we go to the actual classroom, we can talk with the teacher after class - like during the break or after the class and with classmates. Online, we don't have this kind of opportunity. (Interview 13, May 26, 2020)

Participants also talked about the casual conversations that led to an environment more conducive to dialogue. Some professors would ask students how things were going with the quarantine or to express concerns about the students' uncertainty about classes, graduation, or life outside of school. Participants reflected that this dialogue occurred much more often in the virtual classroom. Said one participant:

> Professors would occasionally talk about just random things in life. One would talk about his dog or show pictures of his dog and ask people to show pictures of like their dogs ... just taking a little break to have a real-life conversation. Just to get you engaged again. (Interview 6, May 24, 2020)

While some participants viewed this *informal dialogue* as productive and contributing to the class, other participants felt that it was a waste of time and that it took away from course content. One participant felt that the professor might be filling up time because he had no other course content to fill up the time. He thought that the professor was also trying to be aware of the variety of time zones that students were dealing with and reduced the time of the class, " I also think a part of the reason was that they didn't necessarily have enough content to go for the full two hours" (Interview 6, May 24, 2020).

Advice

As part of the questions that participants addressed, the advice that participants had for future classes was illuminating. This advice was provided not only for future pedagogical strategies for faculty but also for students going forward into a new online course. Considering the frameworks discussed, the advice of many students for faculty could be categorized as *entitled presence* (See Table 3). Ironically,

with the lack of structure associated with the online environment, and the distractions created by the front stage and back stage challenge of combining their academic environment with their home environment, many participants wanted faculty to articulate more explicit guidelines for students. While faculty were trying to relax some of their requirements to be more flexible to the needs of students during a very difficult time, many participants expressed that they needed more structure. One participant said:

> It just doesn't feel normal. I think I need to come up with strategies to make it as normal as possible. Maybe teachers could enforce a dress code, make turn on the video be strict about deadlines. I would like things to be more normal. (Interview 14, May 27, 2020)

Many participants talked about the importance of faculty requiring video of all participants. Obviously, bandwidth issues needed to be considered, but to the extent to which students can use their videos, requiring that videos be used could be helpful to keep the class engaged. Said one participant, "I know it sounds a little bit inhuman, but I really hope that every teacher could set up rigid rules that a student should open their videos and keep the videos on" (Interview 10, May 18, 2020). Other participants focused on *competitive presence* strategies by encouraging content that could be more intense to keep students engaged. Said another participant, "I think if teachers can create online quizzes during the class, it will give students more pressure to push them to focus on the classes" (Interview 2, May 22, 2020). Another participant focused on the importance of consistency in class timing:

> I think classes need to be consistent. You know, if a class is meant to be two and a half hours like stick to that don't cut it down to like 15 minutes or whatever. They kept changing the time of the class and the length of it ...I think consistency is key. (Interview 6, May 24, 2020).

Another participant advocated cold calling. She said, "Cold call is definitely an effective way that you can use...please" (Interview 7, May 21, 2020).

Finally, participants also talked about the importance of *invitational presence* strategies. These participants suggested that faculty should continue to find ways to understand their students and reach out to them to get to know them. Said one participant, "I think it's better to communicate more with students to care about them... It's better for them to care about each of them, to listen to their voices, and give them more opportunities to express themselves" (Interview 13, May 26, 2020).

Advice participants had for students facing online classes also involved *entitled presence* (See Table 4). Specifically, participants emphatically advised students to remove distractions when participating in classes. Said one participant, "Students should put away their phones or just shut down their phones, when they are taking online classes so they can pay more attention" (Interview 3, May 22, 2020). Advice also included the importance of managing their *front and back stage*. Said one participant:

> Maybe dress less casually. Make your desks tidier and don't put pillows around you that makes you feel you're at home...or you can move to another room or your lobby

> to give you a different environment and the feeling of having a real class. (Interview 5, May 19, 2020)

Another suggested:

> Set up that routine and those boundaries so you can have the difference between like being in class and like watching TV - get into that classroom mindset. (Interview 6, May 24, 2020)

Finally, participants encouraged *invitational presence* by suggesting that students talk with their professors about what they need. Said one participant "Tell [professors] what you need ... Maybe next semester I will say that, well, Professor, I am really that kind of student who cannot focus, so could you could call me? And I think I would do much better" (Interview 7, May 21, 2020).

Table 3

Advice for Teachers

Quotation	Theory
Interview 5: "I think professors can expect all the students to turn on their video cam. Because if they all just show their profile photo or they turn off the video cam, it didn't give reactions to the professor, so they can't feel what you think. That will decrease their activity to teach."	Entitled Presence
Interview 1: "Give them some small break during the courses and notice the time. If the courses will finish at 4:30, don't delay to five o'clock because they may need a break for the next courses. I always just close this zoom meeting and jump to the other without any real break. You're so tired, but they may have a less conception of the time on the Zoom. If they can set alarms on their phones, after one hour have a small break, and it is time up for the close and let us go."	Competitive Presence
Interview 14: "Maybe like once or twice in the semester do a one-on-one check-in or not even a one-on-one even like one-on-three. Because I understand it's difficult for teachers to spend so much time, but if you do a one-on-two like do it in pairs or threes, so maybe four times a semester do one-on-fours. That's possible. I think that would be quite helpful I think."	Invitational Presence

Table 4

Advice for Students

Quotation	Theory
Interview 1: "Have a comfortable chair. Because if you need to have online courses you need to sit in front of your desk for a long time. I feel very hard on my muscles. If you need to take online courses, you need to have comfortable chairs and check your internet connection stable. It's quiet without any noise. Do not put your mobile phones on your desk if you want to focus on it better."	Front/Backstage
Interview 10: "Turn your video on. Because it will really help you to concentrate on what the teacher has said, and it is really important because our classes are very essential and critical for our development in the future. Last semester we needed to take virtual classes. If we still have many virtual classes next semester, I hope I could soon turn on the video to feel the connection between each other as much as possible."	Entitled Presence
Interview 12: "You may not be able to get as much in class time as you want. But it's also the ability to do these Zooms that allows you to really reach out to your professors and have one-on-one time with them more easily. You don't have to make an office appointment or go to the office or do any of that you just can do all from your apartment."	Invitational Presence

Discussion

The results of our study support several conclusions. First, humans need situational guidelines, that is, agreed-upon proprieties in Goffman's terms (1963). An important insight from this research points to the co-created environment made up of contributions of the faculty and the students. The absent, invisible member that is critical to the development of learning and community is the physical space at the university—what Goffman would term "a specific material setting" (Schultze & Brooks, 2016, p. 714; cf. Klowait, 2019). Absent this particularly important element, both faculty members and students need to engage in the learning experience in a new and different way. The physical environment of the university and the transitions to and from campus are instrumental to the learning environment so students and faculty need to work together to create an online environment that helps students transition into a learning mindset. This new virtual

environment is co-created by both the faculty members and the students and requires a new type of motivation and involvement for each.

We were struck by participant requests for explicit expectations and rules within the classroom—built-in transition time, rules for camera use (keep the video on), and strategies for calling on students. What became clear from the research was how important it is for faculty to be very explicit about what they are doing and why, so that students understand how the classroom objectives are being translated within this new environment. We expect that many faculty members failed either to recognize the absence of well-established proprieties for the new physical environment or to explicitly provide guidelines for themselves and their students. Similarly, students did not realize how much focus and attention was required of them when the physical infrastructure was stripped away.

Disruption of the Involvement/Shield Economy

Second, our results demonstrate that the transition to on-line education disrupted the classroom economy of involvement and engrossment. That involvement expectations constitute a moral order is vividly illustrated by the participant who acknowledged "feeling really bad because the teachers are trying like twice as hard. I just didn't feel as engaged" (Interview 14, May 27).

While the physical environment of the university and the copresence of faculty and other students helped to create a sense of urgency, focus, and agency, the on-line environment (as deployed in the Spring of 2020) does not. Furthermore, the transition to on-line education has provided students with an enlarged repertoire of involvement shields, meaning that when involvement lags, the disinterested auditor can easily hide that fact and, as some respondents noted, multicommunicate, play games, or watch television while ostensibly attending class. This issue does not, of course, affect only students—the faculty member who appeared not to have prepared sufficient material to make use of the allotted class time may have been struggling with his own motivational challenges. Both students and faculty need to work to compensate for the invisible work that the campus infrastructure did in the traditional face-to-face environment.

New "Front-ish" Regions

Third, our results provide a new perspective on Goffman's front region and back region concepts. In Goffman's original formulation, front stage and back stack were physically close, allowing a person to move physically from one to the other. The transition from front to back (or vice versa) was frequently marked by a door, curtain, or passageway which restricted or precluded observation (Goffman, 1963, p. 253). While the virtual window (provided by Zoom or another service) that allows on-line education can be assessed in terms of front and back stage, it also shifts the perspective in important ways. We note, for example, that the virtual window links two back regions. Both professor and student are located in spaces that were, a few days ago, emphatically backstage—a bedroom, a kitchen, or even a bathroom with a shower curtain backdrop.

Furthermore, the virtual window seems to create expectations that both spaces, which have now become regions in which professors and students perform their appropriate tasks, should become more like front spaces with, perhaps, fewer pillows, children, and cats. Our students noted the

informality that one would expect when looking into a back space: In some cases they found it charming. But, on balance, our respondents would like for their classmates and professors to behave in manners more like those they display in front regions.

Yet the back regions that are partially visible through the virtual window are unlikely to become fully front regions. Those spaces are frequently private living quarters, and—just outside the camera's view—normal backstage life is going on.

It is not just the limited camera view that is important. Both participants can toggle their computer camera and microphone between "on" and "off," retaining the ability to transform the performance space into a hidden back space where one can attend to private matters such as blowing one's nose or speaking with one's significant other. However, this description suggests more control on the part of the faculty and students than might be available. Depending on how many people are sharing the physical space, unplanned disruptions can take place. Thus, the regions made accessible by the narrow eye of the computer camera are not likely to become front regions so much as "front-ish." Perhaps a good analogy would be what marine biologists refer to as the "intertidal zone," that is, the part of the seashore that is underwater at high tide and dry land at low tide (National Geographic Society, 2019). The intertidal zone is, in marine biology terms, an extreme system that subjects its residents to drastic changes and stresses.

Attentional Social Presence

Fourth, our results illustrate the usefulness of the various categories of attentional social presence (Turner & Foss, 2018). Students clearly budgeted their presence between class and other activities such as exchanging a message with a friend. Their descriptions of professorial behavior also provide evidence of attempts to produce entitled, competitive, and invitational presence. Reinsch and Turner have argued that entitled presence is not a viable instructional strategy for on-line interaction—they propose invitational presence as an ideal alternative (2019, p. 162). The results of the current study raise questions about those views. Several participants explicitly called for faculty to maintain an entitled presence, manifesting a desire for clearer behavioral standards and a more front-ish experience.

Future research could explore student experiences of online classroom behavior once they have had more time to be socialized to it. Many of the participants in the present study had never experienced online classes before so the experience was very new to them. It would be interesting to follow students who gained experienced with the online classroom to explore how their notions of presence have changed or evolved. Additionally, it would be interesting to further explore use of some of the strategies suggested to see whether they created a better learning environment for students. The lack of transition time for students and the need to create a psychological break between one class and another or between one class and the next part of the day seemed very salient. It would be interesting to continue to investigate strategies that students and professors can use to improve the transition between these virtual spaces.

Fall 2020 ISSN: 1535-0975

Conclusion

This research explored graduate students, many of whom were international students who were also participating in class from far away spanning different time zones. This research provides insights about their perspectives but may be different than that of an undergraduate student perspective or a more domestic group of students. Additionally, the small sample size and cultural differences associated with this group of students who primarily identified as Chinese may frame a specific perspective regarding classroom interaction, professor pedagogical style, and online versus in-person experience. However, all of the students had experienced at least 9 months of graduate school within their university within an in-person environment. This study provides a fresh, real time perspective, in close proximity to the experience of going suddenly online.

The intertidal zone is a challenging place to live. Those creatures who thrive there—and many do—have adapted to the environment. As professors and students in the age of COVID-19, we too must learn to adapt, to do our work within the purview of the front-ish region of the virtual window.

References

Boettcher, J. V., & Conrad, R.-M. (2016). *The online teaching survival guide: Simple and practical pedagogical tips* (2nd ed.). Jossey-Bass.

Czerniewicz, L., Trotter, H., & Haupt, G. (2019). Online teaching in response to student protests and campus shutdowns: Academics' perspectives. *International Journal of Educational Technology in Higher Education, 16*(1), 43. https://doi.org/10.1186/s41239-019-0170-1

Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). *Thinking about pedagogy in an unfolding pandemic an independent report on approaches to distance learning during COVID19 school closures*. Education International & UNESCO. https://www.learntechlib.org/p/216735/

Goffman, E. (1959). *The presentation of self in everyday life*. Anchor Books.

Goffman, E. (1963). *Behavior in public places: Notes on the social organization of gatherings.* The Free Press.

Goffman, E. (1983). The interaction order: American Sociological Association, 1982 presidential address. *American Sociological Review*, *48*(1), 1-17. https://doi.org/10.2307/2095141

Holzweiss, P. C., Walker, D. W., Chisum, R., & Sosebee, T. (2020). Crisis planning for online students: Lessons learned from a major disruption. *Online Learning*, *24*(2). https://doi.org/10.24059/olj.v24i2.2135

Johnson, N., Veletsianos, G., & Seaman, J. (2020). U. S. Faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. Online Learning, 24(2). https://doi.org/10.24059/olj.v24i2.2285

Klowait, N. O. (2019). Interactionism in the age of ubiquitous telecommunication. *Information, Communication & Society*, *22*(5), 605–621. https://doi.org/10.1080/1369118X.2019.1566487

Lorenzo, G. (2008). The Sloan semester. *Journal of Asynchronous Learning Networks*, *12*(2), 5–40. https://doi.org/10.24059/olj.v12i2.1693

Moore, J. C. (2012). A synthesis of Sloan-C effective practices. *Journal of Asynchronous Learning Networks*, *16*(1). https://doi.org/10.24059/olj.v16i1.238

National Geographic Society. (2019, October 10). *Intertidal zone*. National Geographic Society. http://www.nationalgeographic.org/encyclopedia/intertidal-zone/

Peters, M. A., Wang, H., Ogunniran, M. O., Huang, Y., Green, B., Chunga, J. O., Quainoo, E. A., Ren, Z., Hollings, S., Mou, C., Khomera, S. W., Zhang, M., Zhou, S., Laimeche, A., Zheng, W., Xu, R., Jackson, L., & Hayes, S. (2020). China's internationalized higher education during Covid-19: Collective student autoethnography. *Postdigital Science and Education*. https://doi.org/10.1007/s42438-020-00128-1

Reinsch, N. L., Jr., & Turner, J. W. (2019). Multicommunicator aspirational stress, suggestions for teaching and research, and other insights after 10 years of multicommunication research. *Journal of Business and Technical Communication*, *33*(2), 141–171. https://doi.org/10.1177/1050651918816356

Reinsch, N. L., Jr., Turner, J. W., & Tinsley, C. H. (2008). Multicommunicating: A practice whose time has come? *Academy of Management Review*, *33*(2), 391–403. https://doi.org/10.5465/amr.2008.31193450

Ross, D. A. R. (2007). Backstage with the knowledge boys and girls: Goffman and distributed agency in an organic online community. *Organization Studies*, *28*(3), 307–325. https://doi.org/10.1177/0170840607076000

Sadler, T. D., Friedrichsen, P., Zangori, L., & Ke, L. (2020). Technology-supported professional development for collaborative design of COVID-19 instructional materials. *Journal of Technology and Teacher Education*, *28*(2), 171–177.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE.

Schultze, U., & Brooks, J. A. M. (2019). An interactional view of social presence: Making the virtual other "real." *Information Systems Journal*, *29*(3), 707–737. https://doi.org/10.1111/isj.12230

Spector, J. M. (Ed.). (2014). *Handbook of research on educational communications and technology* (4th ed.). Springer.

Tracy, S. J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Wiley-Blackwell.

Trust, T., & Whalen, J. (2020). Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic. *Journal of Technology and Teacher Education*, *28*(2), 189–199. https://www.learntechlib.org/p/215995

Tull, S. P. C., Dabner, N., & Ayebi-Arthur, K. (2017). Social media and e-learning in response to seismic events: Resilient practices. *Journal of Open Flexible and Distance Learning*, *21*(1), 63–76.

Turner, J. W., & Foss, S. K. (2018). Options for the construction of attentional social presence in a digitally enhanced multicommunicative environment. *Communication Theory*, *28*(1), 22–45. https://doi.org/10.1093/ct/qty002

Turner, J. W., & Reinsch, N. L., Jr. (2007). The business communicator as presence allocator: Multicommunicating, equivocality, and status at work. *Journal of Business Communication*, *44*(1), 36–58. https://doi.org/10.1177/0021943606295779

Fall 2020 ISSN: 1535-0975

Turner, J. W., & Reinsch, N. L., Jr. (2011). Multicommunicating and episodic presence: Developing new constructs for studying new phenomena. In K. B. Wright, & L. M. Webb (Eds.), Computer-mediated communication in personal relationships (pp. 181-193). Peter Lang.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

An Examination of Student Responses to a Suddenly Online Learning Environment: What We Can Learn From Gameful Instructional Approaches

Article Info

Dr. David John Petroski
Southern Connecticut State University

Dr. Dana Rogers
Southern Connecticut State University

Keywords: online, gameful, wayfinding, teaching, learning

Abstract

The disruption to the educational environment caused by the COVID-19 pandemic forced academic institutions and individual educators to scramble to try and maintain persistent learning environments. This project examines the impact of a sudden transition to online learning through the analysis of student emails from classes using either traditional or gameful instructional approaches. Distinct features of student messaging in light of the disruption caused by the pandemic were found for the two different teaching approaches. The content of the emails indicates specific gameful learning strategies such as wayfinding, may be used by instructors to help students better navigate a suddenly online learning environment.

.

The disruption to the educational environment caused by the COVID-19 pandemic left academic institutions and individual educators scrambling to maintain persistent learning environments. For many students, the sudden change in learning environment challenged their ability to navigate uncertainty and created a disconnect experience that contradicted their self-concept as learners as they were abruptly forced to become online students. Such a structural change served to amplify the ambiguity of the learning moment for many students and, left alone, these students were caught in a liminal state with no clear sense of direction.

The ability to navigate disruption or the unexpected is a skill that is encouraged through gameful instructional practices. In ordinary circumstances, gameful learning provides instructors with a means of disrupting expectations in the classroom. The gameful learning space suspends traditional educational systems in favor of game-like structures that provide alternative paths to knowledge acquisition (Walz & Deterding, 2015; Petroski & Call, 2015). Functionally, the disruptive tenets of game-like executions prompt students to more freely explore and investigate course content in such a way that cultivates critical inquiry, and simultaneously develops their identity as learners (Petroski, 2017). Gameful instruction places identity control in the hands of the student and this sense of autonomy can offer an advantage in an online learning environment. As such, the contingent expectations for learners offered through a gameful instructional approach, may position students to better navigate the instructional and identity challenges that suddenly online learners face.

The extreme disruption caused by the COVID-19 pandemic provides an opportunity to explore student reaction to an abrupt change in learning environment and examine the effects of different instructional approaches on student online literacy in the midst of a sudden shift to a completely online mode of teaching and learning. In order to best take into account the circumstances and impacts of the COVID-19 pandemic on teaching and learning, this study utilizes the constitutive view of communication as a theoretical frame. From this perspective, communication is considered central to human experience.

Conceptual Framework

The constitutive view (Mokros & Deetz, 1996) posits that communication is not transactional, but rather is an amalgam of lived experience, pre-existing and evolving social structures, and moments of interaction. From this view, communication constitutes our perception of the world, consequently shaping our identities as they evolve with each communicative moment.

We interact with each other in and through communication spaces. Rather than simply the physical environment, communication space is the product of social discourses, personal self-reflections, and moments of interaction (Petroski, 2003). This dynamic system can be instrumental, creating communication products, but it also generates and reifies identity for individuals. In the context of education, the class environment, the roles of teachers and students, and the interactions intended to facilitate learning, is labeled as a learning space.

The structure of engagement and the communicative moves available to participants in a communication space is largely determined by social discourses. Seen as a broad and often tacitly agreed upon structuring, these discourses provide the “rules” that we follow in interactions. When we engage one another, the space forms based on our explicit and implicit definitions of the situation, where roles and communicative possibilities are brought into

play. Participants in the interaction make assumptions about the situation, what is possible and what is not, based on their perceived identity. These assumptions may be openly acknowledged and stated (e.g., "I am the teacher.") or, more likely, they may be out of the awareness of the participants.

The assumptions inherent in the definition of the situation establish, confirm, or disconfirm the identity of the participants. A distinction can be made between discourse assumptions and individualized experience. Discourses, seen as existing social rules, shape identity largely related to specific identity roles. These rules take the form of "theories of practice," which are the expected behaviors and routines of work and exercises of applied knowledge. These practices are largely the domain of the "expert" or individual who is privileged with a particular understanding (Stephenson, 1998; Mokros, Mullins, & Saracevic, 1995). In the context of the classroom, dominant social discourses define what it means to be a part of the classrooms, including authority and knowledge claims and status of teachers and students.

By contrast, lived experience is marked by "theories of personhood" which address "questions of identity: 'How do I regard myself and others and how do I wish and expect to be regarded by others'" (Mokros, et al, p. 356). These theories of personhood subsume to the defined situation and its related theories of practice. In moments of interaction, we navigate the situation by making communicative choices that support our theories of personhood or not. For example, a teacher might enter a classroom with the notion, "I am a kind and supportive teacher." This embraces the classroom role (the teacher, as a theory of practice), while choosing how to enact that role (being kind and supportive, as a theory of personhood).

An important qualifier for theories of practice and theories of personhood is that they accompany action in ways that "are largely out of awareness and unstable" (Mokros, Mullins, & Saracevic, 1995, p. 256). While we may be able to articulate the qualities and actions appropriate to a particular role, the ability to explain or even recognize how we enact those attributions may escape us.

Student identity is problematic in that, on the whole, they are not necessarily aware of theories of practice that permeate their disciplinary studies. Broadly, each discipline has its own theories of practice, which set expectations for what it means to be knowledgeable and the ways in which that knowledge may be obtained. As students move through a curriculum, they are acculturated to a discipline's ways of thinking, best practices, and means of achieving success. This combined with their accumulated understandings of what it means to be a "good student" based on years of engagements in the educational system, establish theories of practice and personhood that are difficult to navigate in ordinary circumstances.

Teaching Strategies for Identity Trials

While teachers are faced with parallel identity challenges of their own, the scope of this project limits discussion to the ways teachers may consider enhancing student learning experiences with the concepts of variability and uncertainty in mind. Two particularly relevant approaches to these challenges are gameful learning spaces and wayfinding in conceptual and experiential structuring.

Gameful Learning Spaces

Gamification is broadly defined as "the use of game design elements in non-game contexts" (Deterding, et al, 2011). The popularization of gamification and its introduction to educational settings has drawn numerous critiques. Bogost (2010) argues that gamification functionally reinforces systemic patterns of behavior and performance in

accordance with neo-liberal discourses and values. As such, gamification serves to re-inscribe traditional models of student control that limit agency, and the development of an engaged and reflexive thinking subject (Baerg, 2012; Giroux, 2005). Gamification "…often concerns designing extrinsic and formulaic motivation outside school settings" (e.g. Kapp, 2012) (Holden, et al., 2014, p. 4).

Counter to this approach, "gameful" spaces draw upon elements of games as a means of structuring experience (McGonagal, 2015; 2011). "Whereas the emphasis of gamification lies with the strategy of using game design elements, gameful design explicitly assumes the goal of having experiential and behavioral outcomes similar to those of gameplay" (Songer & Miyata, 2014). Further, "gameful learning… seeks to describe why teachers and students are intrinsically motivated to play, experiment with identity, question, and learn – all within school. The primary objective of this dynamic framework is synthesizing multiple influences into a teaching and learning 'way of being' with games, digital media, and play" (Holden, et al., 2014, p. 4).

In pedagogical praxis, teachers adopting a gameful learning approach,

> "… use games as inspiration for changes to the type and structure of tasks given to learners, with the goal of better supporting intrinsic motivation. This process requires simultaneously increasing the opportunities for students to have autonomy and mitigating the impact of failure, such that learners are empowered to exert effort in spaces that they might otherwise have avoided" (Aguilar, Holman, & Fishman, 2018, p. 45).

From this perspective, students are invested with greater agency, so that they can develop their understanding, and consequently develop and affirm their identity. Inherently, it seems that games and instructional play provide a powerful means of contextualizing critical and creative thinking, provided that the surrounding instructional framing is sound.

Taking inspiration from Self-determination Theory (Ryan & Deci, 2000), gameful approaches to pedagogy invest students with a sense of autonomy (making meaningful choices), competency (challenging, but achievable tasks), and belongingness (connectedness to those around them). As understood for this project, a gameful instructional approach has five practical features that are intended to enhance autonomy, competency, and belongingness (What is Gameful?, 2019, December 04).

First, the grading structure is based on a leveling system, where students begin with 0 points and accumulate points by completing assignments to "level up" to a grade ranking. Modeled off of reward systems from video games, the ranks are easy to earn at the start, but become incrementally more challenging to attain as ranks increase.

Second, the gameful classroom embraces "safe failures" as a pedagogical tool. While revision may be encouraged in a traditional classroom approach, poor performance on assignments may block forward process. Tasks that are particularly challenging may lead students to feel frustrated and discouraged despite their best efforts to revise. In response to this, the gameful class provides alternative paths to reach learning objectives. If a student "fails" they are encouraged to continue to revise or explore alternative assignments or modalities that may better help them demonstrate understanding. This encourages students to take more creative risks, rather than viewing assessment as an impediment to progress.

Third, the gameful classroom provides students with multiple options and paths for exploration. Student agency leads to greater

ownership and investment in the tasks they undertake. Simultaneously, the options provide students with stronger potential for scaffolding as they build understanding on accomplished tasks.

The two remaining features are instructor-centered and point to structuring of student experiences. Fourth, the instructor provides substantive feedback that is immediate and frequent. This helps to instill confidence and a sense of connection for students. Fifth, the gameful class is transparent about assignments and evaluation. Students have access to all assignments from the start of the course, allowing for greater independence. With all options available, the students are empowered to make choices about their assessment options and see the implications of their choices as they relate to the immediately accessible feedback.

Wayfinding

Wayfinding is a "cognitive psychological process for finding a pathway from an origin to a specified destination" (Xia et al., 2008, p. 447). The concept originated in navigation as travelers planned routes from one place to another using maps, compasses, and the like. Over time, the concept has changed locus to built environments, such as when visitors might find their way to a particular location within a building. Various disciplines have investigated principles and factors relevant to wayfinding, including urban planning, architecture, library and information science, computer programming, and health services (Alexander, et al, 2020; Farr, et al., 2012). However, most relevant to the context of this discussion, wayfinding has also been studied as a means for navigation of social spaces (Farr et al.), knowledge and skill acquisition, and identity formation (Alexander, et al, 2020).

To ground wayfinding in the previous discussion of learning spaces, students, particularly those new to a subject area, find themselves in unfamiliar territory as they explore ideas and the connections they may have to their own experiences. While theories of practice serve to guide study in a particular field, these conventions may be hidden or are not immediately accessible to students. They need a guide to assist with identifying and co-opting the content and conventions. Teachers, as course designers, are in the position to provide this guidance.

Carlson and Bose (2015) characterize the necessity of wayfinding in the following way, "Getting lost is generally unpleasant, irritating, and imposes a poor impression of a destination in which a visitor is attempting to navigate and explore" (p. 36). While this description is intended to comment on wayfinding in built environments, it is evocative of the kinds of feelings students have when faced with a learning space absent of wayfinding assistance. Teachers that can construct learning spaces that support paths for students to find their way, can lead to greater levels of content mastery, and simultaneously help the students better understand themselves, their expectations, and goals.

To be clear, wayfinding is not exclusively guiding students through paths of knowledge acquisition, although that this the most obvious connection. Rather, wayfinding can provide assistance in discovering who they are or what it means to acquire skills and competencies. Alexander, et al. (2020) make this connection poignantly in their study of using wayfinding as a metaphor for writing literacy. In one of the cases used in the study, they discussed Kaya, a student who had graduated and gone on to a career in professional writing. They specifically discuss her awareness of the changes in the writing ecologies that surround her new career.

The point here is that learning spaces using a gameful approach encourage independent exploration and wayfinding, leading students

Fall 2020 ISSN: 1535-0975

toward the development of important critical thinking skills and a heightened sense of self-awareness. Students explore new possible connections and, with guidance, are better positioned to integrate their learning into their identity.

Methods

In this exploratory study, we address the following research questions: How do students cope with an extremely disruptive event like the COVID-19 pandemic? What are the opportunities and challenges for being part of a learning space that suddenly shifts to a completely online mode of delivery? What are the effects of different instructional approaches on student online literacy in the midst of a sudden shift to a completely online mode of teaching and learning? What can the suddenly online learning environment teach us about how gameful learning works? How might instructors adapt their teaching practice to reflect the needs of students in such ambiguous circumstances?

This study uses a qualitative textual analysis (Titscher, Meyer, Wodak & Vetter, 2000) to identify and describe student experiences during the sudden transition to online learning in the spring of 2020 as compared to student experiences during the previous semester. Utilizing a textual analysis approach enables consideration of the context in which the text is found. As such, this method allows for an examination of cognitive similarities and differences across individuals during a shared experience, in this case the COVID-19 crisis.

A convenience sampling of email correspondence from undergraduate students in eight classes taught by two professors in the fall of 2019 and from undergraduate students in eight classes taught by the same two professors in the spring of 2020 was used to examine student reaction to the suddenly online learning environment and compare themes of student communication between a typical semester of learning and the disruptive spring 2020 semester. Over the course of the two semesters, both instructors taught classes within the same discipline and each taught a variety of undergraduate class levels (from 100 to 400-level classes). While the class levels and student body were similar for both instructors, one instructor utilized more traditional teaching methods such as lectures and structured quizzes and tests, where the power and responsibility for learning to occur is held solely by the instructor. The other instructor utilized more of a gameful instructional and grading approach where students are given freedom to choose their own learning pathway via customized assignments. For example, in a communication design course, the students created profiles for fictitious companies that would populate a simulated advertising marketplace. To apply and practice their design skills, groups of students (agencies) would create projects for these fictional businesses to address the needs articulated in the profiles. A loose competition followed as the student agencies vied for the attention of the marketplace businesses.

Fall 2020 ISSN: 1535-0975

Table 1. Data Summary

	Gameful Instruction		Traditional Instruction	
	Fall 2019	Spring 2020	Fall 2019	Spring 2020
# of Students	100	82	70	71
# of Emails	87	84	38	76
# of Unique Senders	35	26	23	38
% of Students Initiating Correspondence	35.0%	31.7%	32.9%	53.5%

All student correspondence was categorized by the instructor it was sent to, the class the student was enrolled in, and the date the email was received. All authors of the emails were students enrolled in one of the selected courses. If an email was part of an ongoing thread, only the student email that initiated the thread was included. Each of the authors were assigned either a number or a letter as an identifier and in the cases where names of other students were used within the correspondence, those names were substituted with XXX, YYY, etc. Otherwise no edits were made to the emails.

Message Content

Email correspondence was analyzed and a codebook created to systematically identify key themes. Discussions about the data and emerging patterns allowed for an iterative process in exploring emerging concepts, comparing findings, and validating code applications (Glaser & Strauss, 1967). Codes were identified using the open coding process where the data is scrutinized for similar comments and are grouped together to form categories. In examining the correspondence, the following four themes emerged:

Identity/Emotion

These messages were student articulations of their emotional state during the sending of the e-mail and/or statements that gave a sense that the student was reflecting upon their identity in some way. Bucholtz and Hall (2005) explain that identity is constituted through the indexicality of linguistic statements made by individuals. In discursive engagements, words and phrases are semiotically linked to interactional contexts (Ochs, 1992; Silverstein, 1995). They derive their meaning from the way the situation is defined, as per the constitutive view, but at the same time reinforce the social structures they reference. For example, a statement like, "I am a good student" references what it means to be good student. Though the theory of practice may vary—it could include studying hard, embracing new ideas, and being inquisitive—invoking that idea supports a particular social understanding, giving it greater substance and credibility for future interactions.

Identity statements were identified in the email messages through student use of "I" statements. These were a primary means for students to articulate their identity concerns. Specific examples of student statements in this category include:

"*I personally feel that the expectations that are asked of us right now are too much to handle…Online classes just aren't the same as in-person classes, and that is why I (as well as my other classmates that I've been in contact with) am frustrated, confused, lost, and stressed*."

Fall 2020 ISSN: 1535-0975

"*The adjustment to remote learning has been difficult for me, I didn't realize how much I relied on the structure of physical class in order to stay on track.*"

"*I don't do well with online classes and I'm really not used to having five classes all online and it's harder for me to get work done when I see everything that is due at once on a computer*."

"*I've been struggling a lot more than usual with the online format due to lack of instructions."*

"I did't go to this school for on line courses I am very angry right now. I don't do well with online classes at all."

"I am not one to ever miss a presentation or be late with my assignments…"

"I'm proud of myself and those that put in a lot of work!"

Task

Task statements made by students were related to assignments and activities the instructor requested. These statements sought clarification for completing an assignment, such as the steps to be taken or resources to be used. Messages coded in the task category included questions about format, deadline confirmations, confirmation of work completed, and general expectations for assessment. Specific examples of student statements in this category include:

"*Do you have any suggestions of what to focus on most in the chapters?*"

"*I was wondering if there was anything I had due for what would have been tomorrows class. Are we still completing journals?"*

"Where do I put my submission for our team's creative execution 2?"

"Will we be having any scheduled class meeting times online (video chat) that I will need to attend during the semester?"

"Let me know if my submission submitted correctly on your end please."

Administration

This category related to student threads that sought clarity about the ways the instructor administered the class. Grading clarifications, late assignments, attendance issues, and clarification of class structure were messages coded in this category. Specific examples of student statements in this category include:

"*I couldn't edit or delete the other post for some reason*."

"*I'm having trouble finding the appearance tab on my computer can you please help me locate it.*"

"*I looked on Blackboard but I don't see where to submit these assignments anymore*."

"*While completing the final exam for COM 335, my computer logged me out of Blackboard.*"

Content

This category reflected a student request for clarification of course content. This included student requests for explanation or reiteration of

concepts, theories, or processes considered to be the knowledge focus for the course. For several classes, assignments were tied to the use of specific software as part of the course learning objectives. In these cases, email threads that addressed software taught as part of the course were considered content messages. When the transition to a completely online format was made, technology questions tended to focus on ways students would interact with other students, the teacher, or the class as a whole. Questions or statements about how class would be conducted were also coded in the task category as some students were learning new software, like Microsoft Teams and Zoom, in order to continue with the course. Specific examples of student statements in this category include:

"*If I'm sampling college students in New Haven, per se, is that considered stratified sampling*?"

"*I'm trying to add bullet points in Illustrator and I'm not sure if I'm doing it correctly.*"

"*I have a question regarding the situation analysis, can you explain more information about the Micro environmental factors…"*

"Is there somewhere we could go to reference that would help us understand the economic and financial talk?"

Analysis

To test these code categories, the study's authors independently coded the complete set of emails (n= 285) using the defined code groups. In some cases, email content fell into more than one category and were coded accordingly. These were counted as part of any identified categories for overall category totals. Inter-rater reliability (IRR) was determined using the formula described in Miles and Huberman (1994): reliability = number of agreements/number of agreements + disagreements. For this study, IRR was calculated at 89%.

An aspect of the data that we wanted to preserve was the ecological integrity of the collected emails. As Scheff (1996) explains, research attempting to understand human expression must consider its context. Without properly addressing context, human activity is "profoundly ambiguous" (p. 33). The challenge for researchers is that the context includes a voluminous amount of detail pertaining to culture. The constitutive view adopted in this study frames the problem in a similar way, but instead of using "culture" as central to understanding as Scheff does, the constitutive view discusses the complex context through discursive practices, individualized self-reflections, and formulations of identity.

While each email represented the initiation of an interchange thread, each individual email could be seen as a snapshot of student concerns at a particular moment in time. While full threads could be the focus, the choice was made to focus on the emails that initiated a thread, thus fore-fronting the students' intentional moves to initiate dialogue. Each email represented what the students were specifically attending to at the moment the email was sent. The timed sequence of sent emails was preserved to catalog the order of these moments. This enabled examination for larger themes or attention currents of the collection as a whole.

To further contextualize the coded email correspondence, an adaptation of an Interpretive Microanalytic method developed by Mokros (2003) was used to analyze the data. According to Mokros (2003), Interpretive Microanalysis involves three stages of inquiry:

[1] systematic description of a communication record in relation to the phenomenon of interest through the development of multiple transcripts or maps of the phenomenon; [2] systematic analysis of features of these maps, the interactional terrain; and, finally [3] interpretation, through the positing of plausible observable alternatives to observed, contextualized, interactional features revealed through description and analysis. (p. 21)

For the record of the data in this process, we created a time-based mapping of email frequencies, first noting the number of emails sent each week for both semesters studied. Though the semester calendar indicates a 15-week semester, the break and final exam period are included in our analysis, mainly because students continued to correspond with faculty during those times. In considering the calendar for the fall 2019 semester, which has no break, a gap was left at week 8 in related figures in order to align weeks during the semester. In both the fall and spring semesters, midterm grades are reported at about week 8 as well. This has implications for messaging in the regular (fall 2019) semester, which will be discussed later.

Both instructors in the study taught a comparable course load during the two semesters studied. Each had the same proportion of courses within the communication major and general education program. Both instructors routinely use an online learning management system to support their face-to-face and hybrid courses. Both teach in the same concentration within the major, advertising and promotions. In a given semester, but particularly true of the semesters studied, both instructors teach at all academic levels. The biggest distinction between the two is that one has fully committed to a gameful approach to instruction, while the other uses predominantly traditional teaching strategies.

The gameful courses used Gradecraft.com, a learning management system designed with gameful approaches to instruction in mind. As such, the courses adopted the five gameful features described in the Conceptual Framework section. In addition, the gameful instructional courses incorporated project-based assignments that were inspired by game structures. For example, in a design course, the students completed projects for fictitious companies in a class-generated marketplaces. In a senior-level capstone course, the students participated in a semester-long learning simulation of an advertising agency. In another course, the students in an Interdisciplinary Studies course co-created a fictitious world, where groups invented fictional cultures that were in direct competition for the world's resources.

As a second pass in data recording, we sorted the emails by instructor, labeled as "gameful" and "traditional" with respect to teaching approach, and again mapped the frequencies. As a third pass, we mapped the emails using the four coding categories to draw out comparisons between message content, and in time sequence.

Steps 2 and 3 provided an iterative process of examining the previously developed maps for defining features (e.g., where there were high or low concentrations of activity). Examining the maps at the "whole" level of the semester timeline (i.e., where all students in all classes were included) suggested where attention was needed in the class-level mappings. The whole semester and class-level mappings then directed attention to specific emails and potential patterns or key moments within a given week. This, in turn, led to the selection of specific email cases for individual consideration. Such cases were investigated in relation to the previous coding, particularly with respect to the "Identity and Emotional States" category.

While the Interpretive Microanalytic method typically uses audio or video data as a means of preserving communication behavior,

the email mapping used here is an analog of the coding of behavior details captured in the approach. In studies where Interpretive Microanalysis was applied (e.g., Petroski, 2003; Cockett, 2000; Stephenson,1998), researchers examined micro-moments within a transcript or mapping, identifying key moments of initiation and termination of communication sequences. In this study, the initial emails in threads indicated a starting point, where students frame the interaction that follows. These initiating emails are telling in that they reveal how students perceive and articulate the situation, which in turn gives insight to their disposition and identity. Viewed as a whole stream of behavior, the emails suggest larger social currents surrounding the students.

Findings and Discussion

The findings of our study are organized to reflect the analytical sequence offered by the Interpretive Microanalytic method. A mapping of the natural history of the interaction leads to a closer analysis of specific interactions. We use the overall message history as a backdrop for the discussion of contextualized messages, leading to a comparison of instructional approaches.

Sequential History of Email Messages

Consistent with the described Interpretive Microanalytic approach, the analysis begins with a historical overview of the communication in question. Table 2 shows the number of email threads initiated by students each week of the semester. There was a 66% increase in the number of email threads initiated by students in the spring 2020 (COVID) semester.

Table 2

Email frequencies per week

Semester Week	1	2	3	4	5	6	7	8	Break	9	10	11	12	13	14	15	Finals	Total
Fall 2019	2	7	15	5	7	7	9	4		7	5	5	12	3	3	6	8	105
Spring 2020	2	7	2	6	5	5	7	1	5	37	17	19	17	3	10	11	5	159

Figure 1 provides a sequential history of the emails in chart form. In our institution, the campus closed due to the COVID outbreak at the seventh week of classes, coinciding with midterms and spring break. Not surprisingly, there was a precipitous spike in emails sent by students when the spring 2020 semester resumed online after break. Based on the previous fall 2019 semester, the average number of email threads initiated by students was 4. The figure shows that a higher than average number of email threads were sent after the break. The drop at week 13 is consistent with email traffic in the fall 2019 semester, though this rises above the average again in weeks 14 and 15.

Fall 2020 ISSN: 1535-0975

Figure 1

Natural History of Emails for All Classes in Fall 2019 and Spring 2020

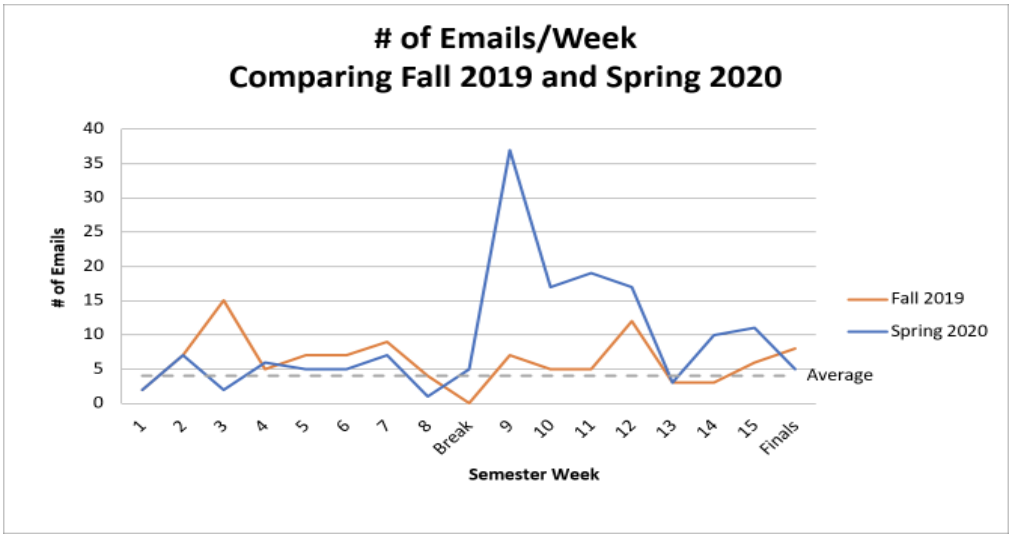
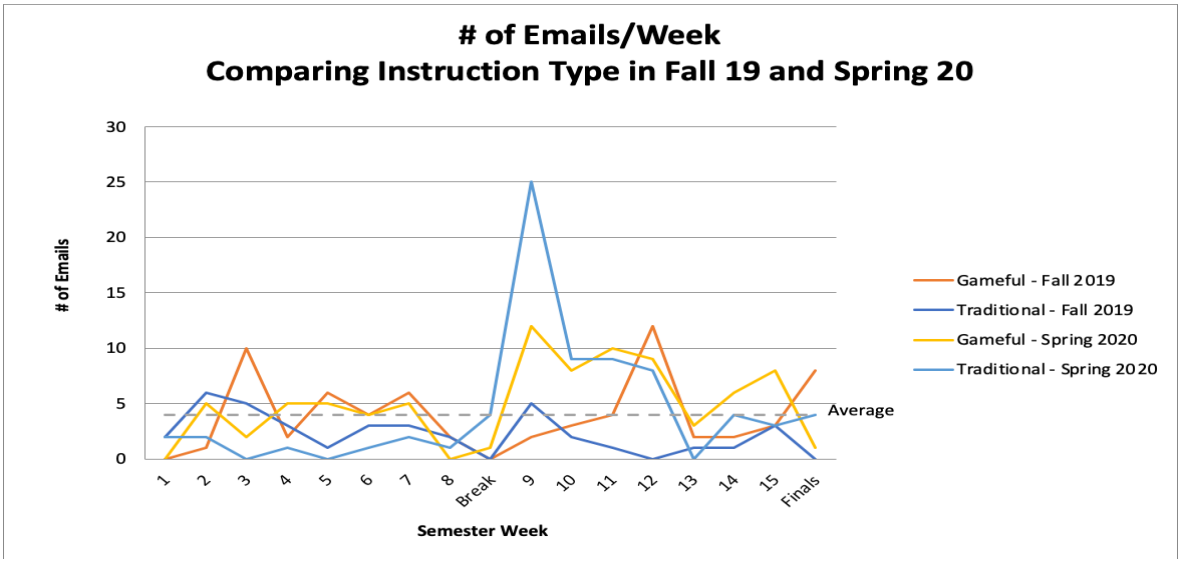


Figure 2 shows the emails sent in the two semesters, separating gameful classes from those with a traditional classroom format. Here, the peak at week 9 is more pronounced for traditional instruction. The gameful classes had an increase in email traffic at that point as well, but at nearly half the number of the traditional class approach. Interestingly, the gameful classes showed a higher number of initiated emails early in the semester, peaking at week 3, as well as another peak at week 12. Upon reflection, this seems to coincide with a curriculum-wide project focus at the end of the semester. Culminating projects are typically introduced a few weeks after midpoint in the semester. This seems to account for the comparably low levels of initiated threads at week 13 in both semesters.

Fall 2020 ISSN: 1535-0975

Figure 2

Natural History of Emails Comparing Instructional Type in Fall 2019 and Spring 2020



Content of Email Messages

The message content of the emails shows the relevance each of the categories (identity and emotional states; task clarification; administration and technology issues; course content clarification) had for students as they communicated with their teachers. Table 3 shows that student messages were evenly distributed between three of the categories. Identity/Emotion messages were as important as Task focus and Administration, with each accounting for about 30% of the threads initiated. Content was barely mentioned by students, with only about 3% of the messages pertaining to content clarification. While disappointing for teachers, this is illustrative of a tendency for students to focus on grade performance rather than knowledge acquisition and understanding, particularly in the context of email exchanges.

Table 3

Message Content Categories by Semester

	Fall 2019	Spring 2020	Total
Identity/Emotion	36 (25.90%)	70 (32.86%)	106 (30.11%)
Task	51 (36.69%)	78 (36.62%)	129 (36.65%)
Administration	48 (34.52%)	59 (27.70%)	107 (30.40%)
Content	4 (2.88%)	6 (2.82%)	10 (2.84%)
Total	139 (100%)	213 (100%)	352 (100%)

The coding of emails illustrated differences between student message purposes between the gameful and traditional instructional approaches in the semesters examined. In Tables 4 and 5, the distribution of emails among the categories is uneven. In the traditional classroom approach (Table 4), the Identity/Emotion messages were more numerous than the other categories, accounting for 48.89% of the messages in the fall 2019 semester and 42.86% of the overall messages sent to the instructor. This represented an 8.52% decrease in Identity/Emotion messages. Task oriented messages increased 6.5% between fall and spring, while Administrative messages increased by 3.32%. Content messages remained lower than anticipated, with a decrease in messages in the spring semester to less than 1%. By contrast, the messages initiated in gameful instruction classes remained stable during the two semesters (Table 5). There was an 8.89% increase in Identity/Emotion messages between fall and spring, while the there was a decrease in Task (-3.78%) and Administration (-7.94%) messages. Content messages remained slightly higher than the traditional instruction classrooms, accounting for 4.04% of the messages initiated by students in the gameful instruction classrooms.

Table 4

Message Content Categories in Traditional Classes by Semester

	Fall 2019	Spring 2020	Total
Identity/Emotion	22 (48.89%)	44 (40.37%)	66(42.86%)
Task	14 (31.11%)	41 (37.61%)	55 (35.71%)
Administration	8 (17.78%)	23 (21.10%)	31 (20.13%)
Content	1 (2.22%)	1 (0.92%)	2 (1.30%)
Total	45 (100%)	109 (100%)	154 (100%)

Fall 2020 ISSN: 1535-0975

Table 5

Message Content Categories in Gameful Classes by Semester

	Fall 2019	Spring 2020	Total
Identity/Emotion	14 (14.89%)	26 (25%)	40 (20.20%)
Task	37 (39.36%)	37 (35.58%)	74 (37.37%)
Administration	40 (42.55%)	36 (34.62%)	76 (38.38%)
Content	3 (3.19%)	5 (4.81%)	8 (4.04%)
Total	94 (100%)	104 (100%)	198 (100%)

While the frequency breakdowns of the message categories provide a sense of the differences between the instructional approaches, it does not give a complete picture without examining the sequence in which the emails were sent. It gives a sense of topics that have import, but it is not until the emails are shown in a natural history that concentrations of emails at particular points reveal how students reacted to circumstances, namely the COVID-19 lockdown. Figures 3 and 4 show the progression of emails sent by students in the traditional instructional approach over the two semesters studied.

Figure 3 shows that emails were fairly consistent between the categories in fall 2019, but the number of emails sent did not exceed 3 emails per week in any of the message categories. There were several points (weeks 5, 10, and 12) where emails sent dropped to 0. Week 5 was an interesting qualification to this observation in that it was the only week during the semester that a Content message email was sent. It is also worth reiterating, that the average number of emails sent in the fall semester between both teachers' classes was 4, so the number of emails sent during those weeks seem to be lower than expected.

Aligning with the COVID lockdown of the campus, Figure 4 tells a dramatically different story than the previous fall semester for the traditional instructional approach. From this timeline, the first half of the semester showed a lower than expected average of 4 emails per week. There is slight upturn at week 8 and over the break, but when classes began in a strictly online format in week 9, there was a decisive jump in email communication. Notably, Identity/Emotion messages and Task messages were considerably higher. While Administrative messages did not increase as much, there is a clear sense that all three categories were a major concern for students. Reflective of the data presented in Table 4, the single Content related email for the semester was sent as the new online initiative began. There was a drop to 0 emails at Week 13, but the cause for this change is not clear. As previously mentioned, this may have been a week that was devoted to the pursuit of a semester project. There is another shorter spike in Identity/Emotion emails, which may indicate an increase in uncertainty as the semester began to draw to a close.

Fall 2020 ISSN: 1535-0975

Figure 3

Historical Timeline of Email Message Content for Traditional Instruction – F19

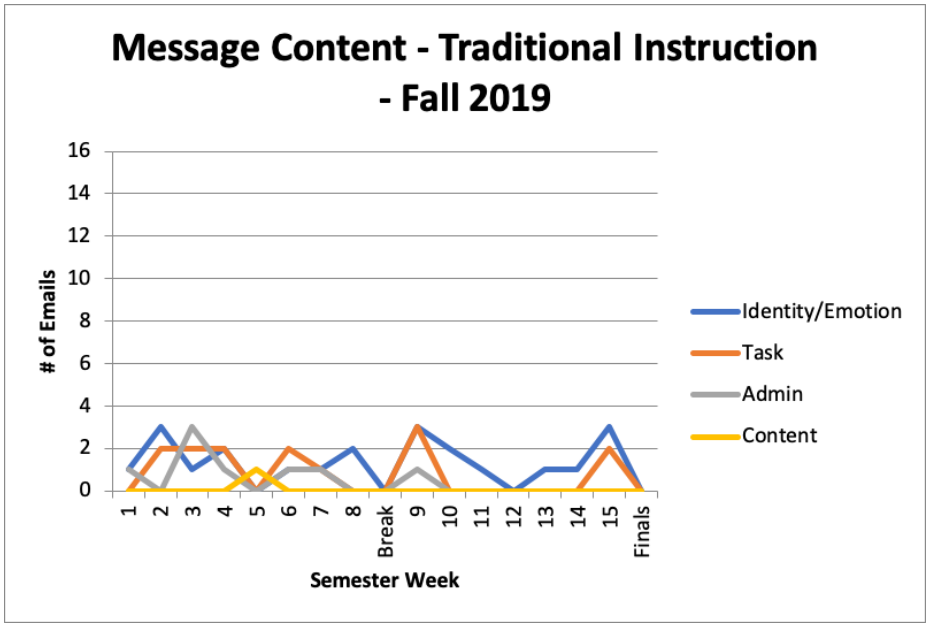
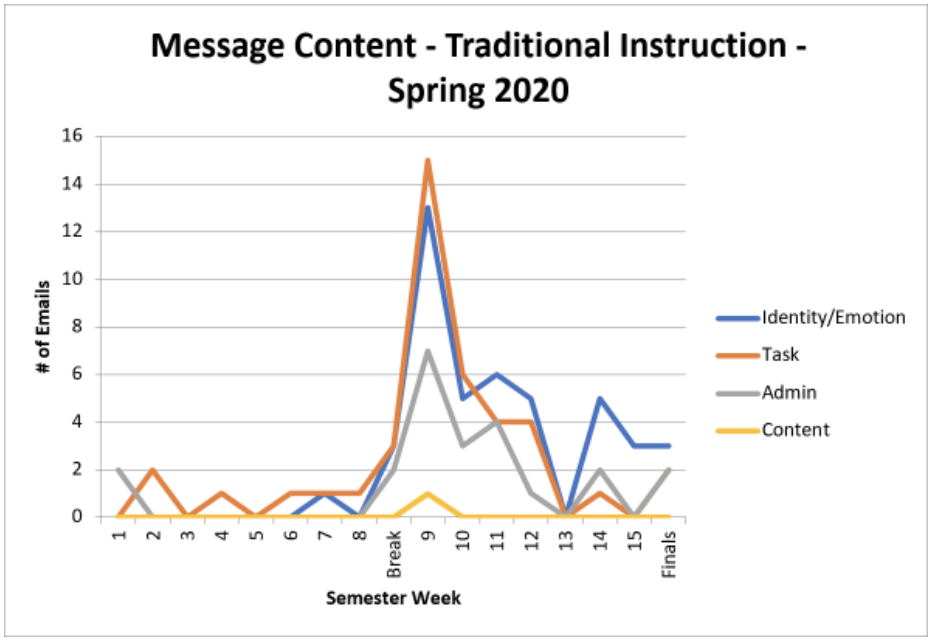


Figure 4

Historical Timeline of Email Message Content for Traditional Instruction – S20



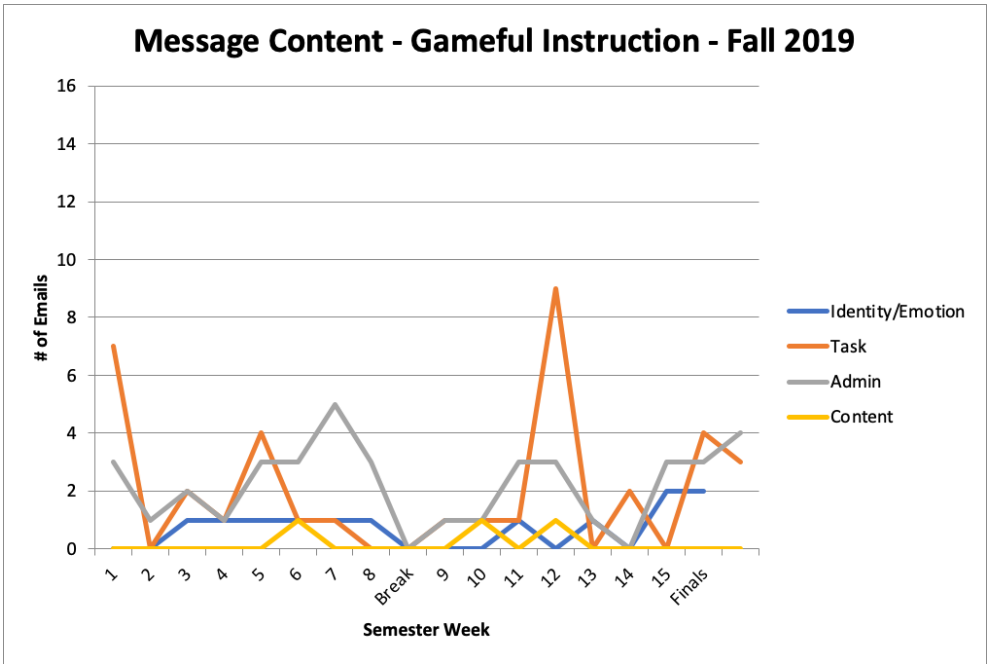
Fall 2020 ISSN: 1535-0975

The timelines for the Gameful instruction classrooms also provided insight about the distribution of the message content throughout the semester. Figure 5 shows a high concentration of Task related emails at the start of the semester and during week 12. This seems to reflect that the Gameful approach setting requires some orientation for the students as they grow accustomed to the set-up. Initial assignments tended to focus on helping the students understand the format and expectations, which for some students is quite different from what they are used to. The spike at week 12 reflects the point at which final projects are introduced. The independent exploration of final projects usually injects uncertainty into the mix, so it is not surprising to find students seeking clarification of options at that point. It is also worth noting that Identity/Emotion messages were quite low throughout the semester, with only a slight uptick as finals approached.

The disruption at the midpoint of the spring 2020 semester for the Gameful teaching approach classrooms is reflected in Figure 6. Just as the Traditional instructional approach classrooms showed, there was a large spike at week 9 as online classes began. However, some interesting features tell a different story about how the students in the gameful approach classes reacted to the major change. Task, Identity/Emotion, and Administration messages all show large upturns after the break. Content questions were more frequent during this semester prior to the break, but then dropped down to a single message during the second half of the semester. This may indicate that the students who may have been interested in discussing content with the teacher became preoccupied with the uncertainty caused by the disruption. Identity/Emotion issues remained on the students' minds throughout the second half of the semester, even as their Task and Administrative messages decreased.

Figure 5

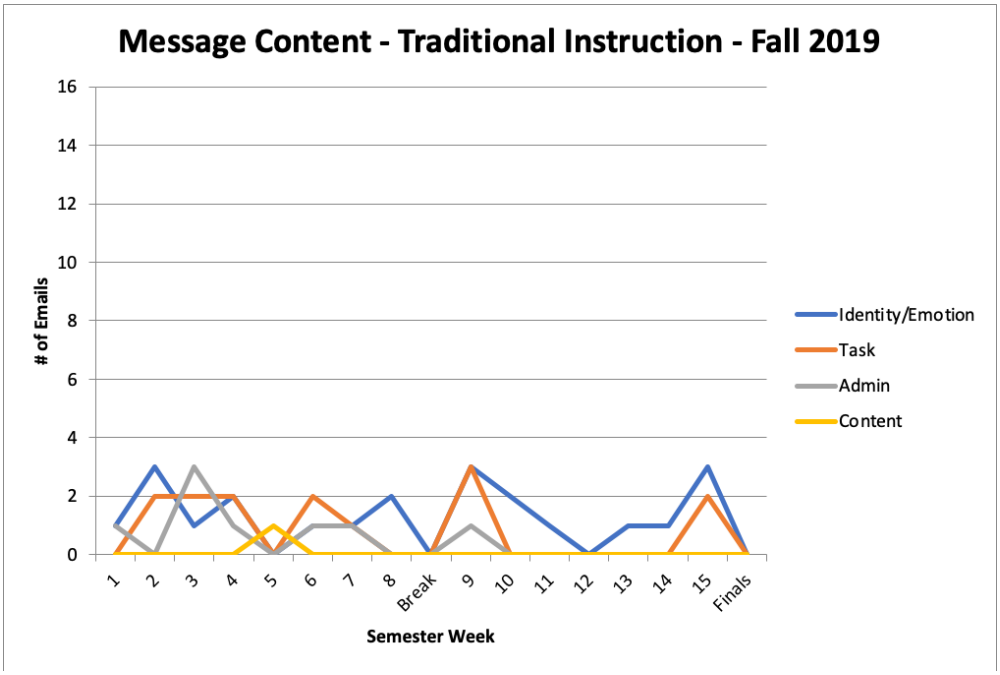
Historical Timeline of Email Message Content for Gameful Instruction – F19



Fall 2020 ISSN: 1535-0975

Figure 6

Historical Timeline of Email Message Content for Gameful Instruction – S20



In comparing the two teaching approaches, one can consider the charts shown in Figures 2 to 6 as an EKG of student attention throughout the semester. The spikes indicate points at which students gave greater attention to their classes. The low levels of email initiation in fall 2019 for the Traditional approach classes indicates an adequate interchange, but not particularly striking. The Gameful instructional approach classes have decidedly more "pulse" points, where student attention is directed towards creative exercises. With an exploratory emphasis, the students are encouraged to reflect on what is happening routinely, which may lead to an openness towards sharing what is on their minds. In spring 2020, the students in the Traditional instructional approach classrooms experienced a shock to the system, which was followed by a resumption of activity that was not much more than what was shown in the previous semester. The Gameful instructional approach classes, while also experiencing a shock, seemed to be less dramatically impacted, or at least did not show their reaction the same way as students in the Traditional instructional approach classes. The comparatively high levels of messaging during the second half of the semester suggests that the students were willing to openly discuss what they were experiencing at that point. The students in the Traditional approach classes seemed to power down and not interact through email as much as the students in the Gameful approach classes.

Messages in Context

Using the timelines to provide context for further analysis, we examined messages sent to instructors during weeks 9 through 12. The dramatic increase in student messages may not be surprising for those who experienced campus shutdowns. However, we were interested in identifying differences in student experience

Fall 2020 ISSN: 1535-0975

between Traditional and Gameful approaches at the time of the disruption. The timeline related to message content counts provided a broad sense of context, while the student experience was more evident in how the students articulated their concerns.

We examined the specific instances of emails to more closely consider the details of the message. This was akin to examining micro-moments in the Interpretive Microanalytic frame. Looking more closely at the Identity and Emotion content messages, we identified key phrasing present in the messages, then iteratively used the phrasing to examine all messages regardless of the identified content categories previously described. Doing so revealed persistent identity markers across the messages, which further revealed student perceptions and experiences that may not have been overtly articulated in the text. As we delved deeper into message content, it became clear that the emails incorporated a substantial amount of identity work.

Drawing directly from the "I" statements previously discussed as an entry into our analysis, we found the students often articulated statements related to how they were feeling at the moment of writing. For example, one student email expressed frustration with her circumstances:

> "For the past two weeks, I have been struggling to get work done. I feel very frustrated because this is the first time I do badly in a class. I have problems with the language and I am having difficulties navigating the website. I am also having problems communicating with my classmates…"

Emails such as these led to identification of other phrasing that captured the students' emotional state. In addition to specific statements of "I feel," related terms were, confused, struggle, sure/not sure, uncertainty, and stress. These statements were almost exclusively made during the spring 2020 semester. Only 3 such statements of 66 overall were made in fall 2019.

The severity of the statements varied, but certain instances revealed a sense of urgency that reached beyond the issues the student was addressing in the email. For example, one student stated,

> "I saw that I got a 0 on my discussion question, I didn't mean to hand it in late, I totally did it on my google docs I thought I handed it in and I didn't. I am in an extreme amount of stress right now due to my family situation."

Relating that she was soon to be homeless later in the email, this statement extends beyond an excuse for a late assignment. Another student said plainly in her email, "I'm extremely stressed out right now, to the point where I'm really not okay." This was part of a longer email in which the student expressed concerns about workload after the break. Messages such as these represent the students struggling to make sense of the situation and largely feeling overwhelmed by the circumstances.

Concurrent with messages that openly expressed emotion, more messages endeavored to clarify expectations. While these messages were present in fall 2019 (36 instances), the requests for clarification nearly doubled in spring 2020 (78 instances). Clarification messages manifested in one of two forms. One was a teacher focus, with the student specifically asking the instructor to clarify a requirement. For example, one student wrote,

> "Can you give me a little bit more information on how you'd like me to create this project, and give examples of what kind of information you want it to contain? What kind of format? Etc..."

The second was a student-centered request. Frequently, the students sending these messages sought affirmation for decisions made related to assignments. For example, a student working on a collaborative project wrote,

> "In order for this to be a real contribution to the wiki could the student post a few of their photos/videos from the day on the social media page? This was just a small idea I had and wanted to ask your opinion on it!"

Related phrasing that complicated student messaging choices was the use of the word "want." This seemed to be a move intended to justify action, or, perhaps present the action as a conditional face-saving strategy. For example, a student wrote, "I wanted to let you know that I completed my profile assignment. Not sure if you wanted to know when it was completed." This kind of statement could easily have been, "I completed my profile assignment." The phrase, "I wanted to let you know" could be taken as a move to be polite. The frequency with which such phrasing occurred (63 times over the two semesters) may suggest a cultural norm or etiquette. However, the second sentence, "Not sure if you wanted…" qualifies the statement, positioning the student as being responsible and attentive. Many of the "I wanted to…" phrases throughout the emails sent during this time period seemed to call attention to the message as if to say, "I've thought about this and see what I'm doing." To make a finer point, such phrases appeared twice as frequently in spring 2020 as in fall 2019, for both the Traditional and Gameful instructional approach classes. This increase suggests that, whether aware of it or not, students were making moves within their correspondence to confirm their identities and reduce uncertainty.

The phrase "Just in case" appears to be another message marker with relational significance. As an example, a student attached a copied file and noted that it was sent "just in case." The student uses the phrase to frame the action as helping the teacher. In this respect, "Just in case" becomes a courtesy. The instructor will not have to request a duplicate file, it is already provided. This kind of message framing implies a relational value to the message along the lines of, "I'm thinking of you." This is further emphasized through salutations, where the students wrote, "I hope you're doing well." Interestingly, this kind of courtesy was only affiliated with messages from spring 2020. It suggests a greater emphasis on relationships as an affirmation of identity. By articulating the concern for others, there is a confirmation of theories of personhood. In the crisis situation, expressions of caring and support reinforce notions of what it means to be a good community member and a mindful student.

Relational markers in student messages were further supported through expressions of apology. When an expectation was not met, students often couched the related interaction through regret and deference to the teacher. For example, one student wrote, "I hope by attaching my submission to this email makes it easier to examine. I apologize for the inconvenience." The student explains her action as one of courtesy (making it easier), as well as a statement of apology, that acknowledges that the teacher's time and effort are valued. "Sorry" also served as a hedge when students took action that they knew was outside of expectations. For example, one student wrote, "I won't be able to make it in today either, I'm really sorry. Again, I will catch up on what I miss with my team." In this case, this was not the first absence for the student and the "sorry" was a move to minimize the consequence of a repeated policy infraction. The "catch up" statement serves as a deferential move, where the student acknowledges her responsibility in the circumstances.

In the spring 2020 semester, several students used relational concerns as a means of supporting their own coping. In explaining their

request, the student invoked a concern for other students as a means of bolstering their point-of-view or reinforcing their feelings in the situation. As an example, one student wrote,

> "The concern I have for this is that students may have had their work load tripled since moving into a remote state and having to do all their classes online going forward. With that, students may not be able to get the work done on time and thus not having the advantage of submitting the work on time."

Framing the issue as one that was common for all students may have been a move to substantiate her own position. Later in the same email, she states,

> "On behalf of other students that I have spoken to, there is a shared concern that the expectations going forward might not be realistic for all of us given the circumstances of this unfortunate situation…"

This instance illustrates the student couching her opinions in an empathetic plea for her fellow students. While there is merit to such an approach, the underlying move is to reinforce a theory of personhood that places the needs of the community above those of the individual, a narrative that has been repeated in public discourse surrounding the COVID crisis (e.g., CDC guidelines state, "A mask may not protect the wearer, but it may keep the wearer from spreading the virus to others." (*About Cloth Face Coverings,* 2020)).

Comparing Traditional and Gameful Approaches

There is no denying that the COVID-19 pandemic caused considerable disruption for students. Unexpected shifts in routines and expectations led students to question their identities as learners. The increases in emails initiated by students at the time of the campus lockdown was not surprising. It also was not surprising to see that students use email correspondence with their instructors to reinforce their perceptions, and the theories of personhood surrounding them.

Fundamentally, the email messages exchanged with instructors had importance because they were a straightforward, almost low-tech, means of confirming priority issues for students–what is required for the next assignment and how does assessment translate to grading? Messages that focus on assignments and grades are straightforward and easy for the students to formulate. They are concrete markers of course progress. At the same time, these messages became a mechanism for processing the chaos and trauma surrounding them.

At the start of this project, our goal was to explore student reactions to the sudden shift to online learning, anticipating differences between traditional and gameful instructional approaches in those reactions. The expectation was that findings would uncover strategy recommendations to address the needs of students in uncertain circumstances. As we worked to analyze the student emails, we realized that we, too, were coping with and trying to make sense of an unanticipated global tragedy. As such, our analysis may not simply reveal strategic differences in the teaching approaches, but also provide a sense of how profoundly difficult it has been for our students (and us) to process the chaos the pandemic has caused.

With this said, there were some distinct features of student messaging in light of the disruption for the two identified teaching approaches. For classes using both the Traditional and Gameful approaches, there was a definitive increase in the messages sent by students in the comparable four-week time period in the fall 2019 and spring 2020 semesters. Table 6 provides a numerical

reporting of the message characteristics across the two semesters and teaching approaches during the time period in question. The table aggregates the number of statements made that sought clarification or made a request for assistance into a single category called "Clarifications and Requests". The second category shown, "Identity Expressions" tracks the number of instances where students explicitly or implicitly revealed their feelings or made relational moves to shore up their theories of personhood. Based on these counts, there was an increase in messages for both categories between fall 2019 and spring 2020. Both teaching approaches had about the same number of overall messages in spring 2020, but the Traditional approach classrooms showed a bigger shift in this time period between the two semesters. The Gameful approach classes showed about double the message instances in both message categories. By contrast, the students from the Traditional approach classes had seven times the number of identity expressions in the crisis period than in the previous semester.

Table 6

Message Instances by Semester

	Traditional - Fall 2019	Traditional - Spring 2020	Gameful - Fall 2019	Gameful - Spring 2020
Clarifications & Requests	15 (60%)	53 (43.1%)	37 (55.2%)	66 (51.2%)
Identity Expressions	10 (40%)	70 (56.9%)	30 (44.8%)	63 (48.8%)
Total	25 (100%)	123 (100%)	67 (100%)	129 (100%)

While this gives some sense that there was a difference between the teaching approaches, it is difficult to say with confidence that the change was due to teaching style. The shift to an entirely online context in addition to the crisis could account for some of the difference. Among the messages, students referred to technical issues 24 times in their messages during this time period, 16 of which were mentioned in the Traditional instructional approach context in spring 2020. As one student explained,

> "I am having connection problems I am poor and have the lowest of the low of internet they currently can not help me and i have 3 children who also have online classes regularly that they are having issues taking because our internet is lagging so badly. Unfortunately word is now an online program and not a program manually downloaded onto computers so I am having a hell of a time getting my work done."

This poignant message highlights the disparity of access. In this crisis moment, the teaching approach is irrelevant if the students are unable to engage due to technical barriers.

In substance, the student messages were comparable between the two teaching approaches. Students from both approaches made comments that were reflective of being isolated and alone. They stated that it was a "struggle" to get things done and were finding it

difficult to balance. In a few instances, the students from the Gameful instructional approach classes seemed to be more expressive about their feelings regarding the intensity of the situation. As one student described,

> "Again, we're not trying to make excuses to do less work, but we're just asking to be accommodated because as repeated throughout this email, we're already feeling lost and anxious with what is happening in the world right now."

The sentiments seemed to be the same in both sets of students, but the expressions of being "lost and anxious" recurred throughout their emotional comments. The students from the Traditional approach classes referred to their anxieties less explicitly and more often equated "lost" with assignment directions, rather than a general apprehension related to world events. Apart from this mode of expression, both instructional approaches were quite similar in terms of student issues and expression. All were trying to navigate the ambiguity of the situation that brought into question, not just the outcomes for the semester, but their individual identities.

Limitations and Future Research

While this study examines a relatively small group of students from a single mid-sized public university, the context of the school and the participants are typical of other state universities across the country. As with many public institutions, there is a disparity in access to technology, so the circumstances surrounding the crisis made these inequities particularly noticeable. At the point when data was collected, the technology access issues were not fully formulated as part of the project and therefore were not fore-fronted as a central concern.

Although the classes examined here are parallel in subject and academic level, only two semesters worth of classes were assessed. It is inappropriate to assume that the fall 2019 semester is the norm for student messaging. Tracing emails back further would have been preferred, but access to messages beyond one year was limited. The characteristics of the student messaging discussed here is descriptive of what was present in these two semesters. Future studies should work more longitudinally to establish a baseline for messaging behavior as a comparison to critical moments, like the pandemic shutdown. Additionally, it would also be advantageous to use a pool of instructors as a source for data. An array of instructional data sources would help defuse the possibility that student correspondence might be related to personal relationship with an instructor (i.e., is openness in messaging a result of a student's fondness for an instructor and therefore more willing to self-disclose?).

In further study, it will be critical to consider the implications that a teaching approach has for identity development. For example, it would be useful to consider the messaging that reflects student tendencies towards a growth mindset or other perspectives that may reflect basic challenges for identity formation.

Conclusion

The unique circumstances that surrounded the spring 2020 semester found many higher-education institutions at a loss to determine a course of action. As the COVID-19 pandemic coursed through the world, the shift to an entirely online mode of interaction led the day. Among the many challenges people faced was how classes could continue and still preserve the integrity of the educational experience. The sudden shift to completely online learning challenged both students and instructors to maintain persistent learning. These unusual circumstances allowed for an

Fall 2020 ISSN: 1535-0975

examination of how students cope with extreme disruptions to the learning environment and encouraged a reflection on what a sudden shift to an online learning environment can teach us about the roles different instructional approaches play in online learning.

Examining correspondence students had with their instructors during the sudden transition to online teaching did not indicate that students receiving different instructional approaches reacted substantially differently during the crisis. The pandemic shutdown was a significant challenge regardless of the teaching style used for class. The promise of a Gameful learning approach is that it specifically fosters student autonomy and uncertainty management. As such, it is plausible that students who were already acquainted with and engaged in gameful learning practices before the sudden shift to online classes were better able to manage the disruption, particularly its challenges to individual theories of personhood, compared to students not as familiar with gameful learning techniques. While this study did not find conclusive evidence to support this claim, it does not preclude the notion that practice in coping with ambiguity would make one better equipped to cope with ambiguous situations in the future. Gameful learning allows students to explore options and make new connections to material more independently, so students familiar with this technique might be more comfortable identifying and evaluating options, making it easier for them to find alternatives when change occurs. Further, the awareness of personal capability may build confidence in the student self-concept, offering more stability in a turbulent time. While there may be a great deal of uncertainty regarding the path forward, the gameful approach may lead students to be more self-assured in their decision making; feeling they can figure this out. In the context of the pandemic, it may be that the enormity of the crisis short-circuited the students coping mechanisms; it was so far outside of their experience that they were unable to make connections to helpful processing strategies.

While our analysis of student emails did not reveal clear effects of different instructional approaches, the content of the emails indicates gameful learning strategies may be used by instructors to help students better navigate a suddenly online learning environment. For example, wayfinding, an integral part of the gameful learning approach, can help improve student success at navigating disruptive change in learning environments by encouraging evolution of learner identity, confidence, and self-sufficiency. For the instructors in this study, wayfinding check points for students during the COVID crisis became an opportunity for affirmation of student identity in light of the major disruption. Efforts to anticipate what apprehensions students may have, as is routinely incorporated into gameful instructional approaches, can go a long way towards helping students find a path forward in uncertain circumstances.

If we seek to empower learners, then wayfinding becomes a grander proposition. Wayfinding is not simply signposts for next steps, but rather a means to reinforce ways of knowing and problem solving. Put another way, it establishes values as set by a particular disciplinary frame. In order for students to develop adequate coping mechanisms, instructors need to actively engage with wayfinding that leads them towards a threshold understanding; one that provides self-confidence in spite of turbulent circumstances. For instructors, it is easy to take for granted that the implicit supports for wayfinding in face-to-face contexts are embedded in our class interactions. We model thinking and behavior with every lecture, discussion, and assignment. So, in the online format, there is a necessity to make those supports more explicit, redundant, and directive. Utilizing wayfinding techniques and gameful learning approaches can not only help

Fall 2020 ISSN: 1535-0975

instructors anticipate and address potential problems in understanding but can also provide multiple coping options for the students to overcome those problems.

Fall 2020 ISSN: 1535-0975

References

About Cloth Face Coverings. (2020, August 6). Retrieved August 21, 2020, from https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-facecoverings.html

Acriguest. (2015, January 30). What's the matter with threshold concepts? [Web log post]. Retrieved June 30, 2020, from https://acrlog.org/2015/01/

Aguilar, S. J., Holman, C., & Fishman, B. J. (2018). Game-inspired design: Empirical evidence in support of gameful learning environments. *Games and Culture*, *13*(1), 44-70.

Alexander, J., Lunsford, K. & Whithaus, C. (2020). Toward wayfinding: A metaphor for Understanding writing experiences. Written Communication, 37 (1), 104-131.

Baerg, Andrew. "Risky Business: Neoliberal Rationality and the Computer RPG" in *Dungeons, Dragons, and Digital Denizens: The Digital Role Playing Game*. Approaches to Digital

Games Studies Vol. 1. Call, Voorhees, and Whitlock eds. Bloomsbury. 2012.

Bogost, I. (2010). *Persuasive games: The expressive power of videogames*. Mit Press.

Carlson, E., & Bose, M. (2015). Wayfinding design as a tool for community empowerment and storytelling: a case study from central Appalachia. *Environmental Design Research Association*, 35.

Carnes, M. (2004, October 08). The Liminal Classroom. Retrieved June 30, 2020, from https://www.chronicle.com/article/The-Liminal-Classroom/9659

Cockett, L. S. (2000). Self, other, and situation in collaborative contexts: A study of personhood in a group decision-making meeting. Unpublished doctoral dissertation, Rutgers University.

Cousin, G. (2006). An introduction to threshold concepts.

Deterding, S., Sicart, M., Nacke, L., O'Hara, K., & Dixon, D. (2011). Gamification. using game design elements in non-gaming contexts. In *CHI'11 extended abstracts on human factors in computing systems* (pp. 2425-2428).

Farr, A. C., Kleinschmidt, T., Yarlagadda, P., & Mengersen, K. (2012). Wayfinding: A simple concept, a complex process. *Transport Reviews*, *32*(6), 715-743.

Giroux, Henry. "The Terror of Neoliberalism: Rethinking the Significance of Cultural Politics". *College Literature*: 32.1. 2005.

Glaser, BG. and Strauss, AL. (1967). The constant comparative method of qualitative analysis. In: Glaser BG and Strauss AL (eds) The Discovery of Grounded Theory: Strategies forQualitative Research. New Brunswick, NJ: Aldine, pp. 101–158.

Holden, et al., (2014). Gameful learning as a way of being. *International Journal of Learning Technology*, 9(2):181.

Kapp, K. M. (2012). *The gamification of learning and instruction: game-based methods and strategies for training and education*. John Wiley & Sons.

Kapp, K. M. (2013). *The gamification of learning and instruction fieldbook: Ideas into practice*. John Wiley & Sons.

Kligyte, G. (2009). Threshold concept: A lens for examining networked learning. In *Proceedings of the Ascilite 2009 Conference* (pp. 540-543).

Krippendorff, K. (2011). Agreement and information in the reliability of coding. *Communication Methods and Measures 5*(2): 93–112.

McGonigal, J. (2015). I'm not playful, I'm gameful. *The gameful world: Approaches, issues, applications*, 653-658.

McGonigal, J. (2011). *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*. New York: Penguin Press.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (Second Edi). Sage Publications.

Mokros, H. B., & Deetz, S. (1996). What counts as real? A constitutive view of communication and the disenfranchised in the context of health. *Communication and disenfranchisement: Social health issues and implications*, 29-44.

Mokros, H. B., Mullins, L. S., & Saracevic, T. (1995). Practice and personhood in professional interaction: Social identities and information needs. *Library & information science research*, *17*(3), 237-257.

Mokros, H. B. (2003). Chapter 1: A constitutive approach to identity. In H.B. Mokros (ed.) *Identity matters: Communication-based explorations and explanations*.

Meyer, J., & Land, R. (2003). *Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines* (pp. 412-424). Edinburgh:University of Edinburgh.

Petroski, D. J. (2003). *Understanding communication space through instructor use of tools: A two study exploration of the dynamic relationship between instructional engagements and tools of coordination*. Unpublished doctoral dissertation, Rutgers University, New Brunswick, NJ.

Petroski, D. J. & Call, J. (2015). "The Promise of the Gameful Classrooms: Conceptualizing the Communicative Potential of Digital and Analog Games for Learning Spaces," NCA Game Studies Pre-Conference, Las Vegas.

Petroski, D. J. (2017). "Game-Based Learning and Student Identity," PCA/ACA Annual Conference, Popular Culture Association/American Culture Association, San Diego.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68.

Scheff, T. J. (1996). Part/whole discovery: Stages of inquiry. In B. D. Ruben (Series Ed.) & H.B.

Mokros (Vol. Ed.), *Information and Behavior: Vol. 5. Interaction & Identity* (pp. 25-44). New Brunswick, NJ: Transaction.

Songer, R. W., & Miyata, K. (2014, October). A playful affordances model for gameful learning. In *Proceedings of the Second International Conference on Technological Ecosystems for Enhancing Multiculturality* (pp. 205-213).

Stephenson, H. C. (1998). *Guiding becoming: One instructor's approach*. Unpublished doctoral dissertation, Rutgers University, New Brunswick, NJ.

Fall 2020 ISSN: 1535-0975

Titscher, S., Meyer, M., Wodak, R., & Vetter, E. (2000). Methods of text and discourse analysis. Sage Publications, London.

Walz, Steffen P., and Sebastian Deterding. *The Gameful World: Approaches, Issues, Applications*. Mit Press, 2015.

What is Gameful? (2019, December 04). Retrieved September 09, 2020, from https://www.gamefulpedagogy.com/what-is-gameful/

Xia, J., Arrowsmith, C., Jackson, M., Cartwright, W. (2008). "The wayfinding process relationships between decision-making and landmark utility." *Tourism Management* 29(3), 445–57. doi:10.1016/j. tourman.2007.05.010.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
Fall 2020 ISSN: 1535-0975

Technological Transience in a Time of Unprecedented Change: Student Support Strategies in College Courses for Those "Suddenly Online"

Article Info

Keywords: Digital learning, Remote Learning, Emergency Remote Education, Online Learning, Higher Education, Instructional Design, Instructor Interactions, Student Autonomy and Responsibility, Life/Environment, COVD-19

Dawn Mollenkopf, Ph.D.
University of Nebraska - Kearney

Martonia Gaskill, Ph.D.
University of Nebraska - Kearney

Abstract

The current COVID-19 pandemic has rapidly shifted institutions of higher education to emergency remote education, which has impacted student learning in unknown ways. The authors analyzed the course and surveyed college students to determine how learning was impacted by the shift to remote learning during the COVID-19 pandemic, and identify which factors created barriers and which helped students succeed. Results indicate instructional design, instructor interactions, student autonomy and responsibility, and life/environment factors intersected to create the student learning environment.

Fall 2020 ISSN: 1535-0975

Introduction

As technology-based learning evolves, the lines between online and face-to-face learning have become increasingly blurred, creating a shift for both students and instructors. Students today have online, blended, and hybrid modalities that provide them greater flexibility to access learning at any time and place, but also require them to take more responsibility and accountability for their own learning (Hoskins, 2011). Students may have good working knowledge of various technologies for personal use, but they often lack the skills necessary to navigate and analyze online resources, employ self-regulation skills to manage their learning, and critically analyze the information they access (Greene, Yu, & Copeland, 2014). They need support to master the digital literacy learning continuum from authentic technology use to generalized application to what they need to learn (Ting, 2015).

Likewise, instructors shift because their role in an online environment differs meaningfully from traditional roles in face-to-face classroom settings (Guri-Rosenblit, 2018). Instead of building relational connections face-to-face, technology is now the venue for the instructor-student, student-student, and student-information connections for learning; consequently, instructors must alter their environment to match (Ladell-Thomas, 2012).

Instructors now must go beyond conveying knowledge to learners to actively learning about their students, matching delivery modes to their needs, providing resources for learning that support student autonomy, making sure assignments are meaningful, allowing students opportunities to improve and master learning, and providing clear feedback and positive interactions (Linder-VanBerschot & Summers, 2015). Certainly, instructors planning to teach online can incorporate instructional design elements that promote successful teaching and learning in a digital environment. However, when instructors and students are "suddenly online" as in the COVID-19 pandemic, the instructor-student relationships and student supports for e-learning must change rapidly while modalities shift. The resulting, obligatory "emergency remote education" differs from planned and purposeful online instruction instructors choose to participate in (Bozkurt, et. al., 2020).

Remote learning, a variant of distance education, applies many features of online learning and other educational approaches seen in modern education (Hodges et al., 2020; Huang et al., 2020); however, it is distinct from distance and online education because it results in an unplanned, temporary shift in the delivery of instruction to an alternative delivery mode due to a crisis (Hodges et al, 2020) with the intent that the delivery is to return to the initial approach once the crisis has passed. The COVID-19 experience has helped define the essential skills and competencies needed to be able to survive the crisis the current pandemic has caused. While digital literacy has long been identified as the most critical skill needed by both instructors and students, it has become even more critical during COVID-19 due to the amount of information available via social media and Internet which is not always accurate and requires sufficient analysis (Depoux et al., 2020). Another important skill is online learning pedagogy. Traditional teaching does not easily transfer to online learning format because the of natural constraints between the two teaching approaches; therefore, educators need to be able to apply online learning pedagogy skills that will enhance the remote learning environment so that students will be successful learners. To do this, educators also need sufficient digital technology to navigate the online learning platforms and informational resources that will enhance digital learning opportunities for their students.

Emergency remote education also requires more from the student in terms of

cognitive processing. In constructivist learning, students use their prior knowledge and experiences to help them make sense of new information. The relationships they generate and connections they make build meaningful learning opportunities that strengthen their learning (Jonassen, 1992). The constructivist perspective shifts the responsibility for learning information from the teacher as a primary source to the student (Jarvis, 2006), which is more reflective of the online learning environment. The logical reasoning and analytical thinking skills used in this construction is important in any learning environment; however, it becomes even more important to intentionally embed these cognitive structures in online learning environments so that students will be engaged to make meaningful connections to the information they are learning (Cavanaugh, 2005). Educators, then, should use an instructional process that facilitates the students' internal cognitive structures to help them be more successful learners (Gutiérrez-Santiuste et. al, 2015).

As adult learners, college students are more self-directed than younger students, can use their life experiences to facilitate their learning, and are more internally driven (Knowles, 1990). However, even though college students have some level of autonomous learning skills online and remote learning environments require more self-regulation skills than in face-to-face environments because there is less personal interaction and more autonomy is required (Lee & Choi, 2014). Self-regulation is a high predictor of success in online classes (Chu & Tsai, 2009); consequently, educators should provide multiple options such as email, phone, and threaded discussions to facilitate online interaction (Dunn, & Rakes, 2015). Educators can also support students' self-regulation skills by creating a social presence. Students can feel social presence by the degree to which they perceive the instructor reacting and responding to them in the online environment (Chen, 2007). When instructors react and respond to students in a timely fashion, do check-ins, provide feedback and interact, students respond positively (Weiner, 2013) and are more likely to succeed.

This paper shares the case of one instructor who utilized several research-based design elements "mid-stream" to rebuild two sections of a course to an online/remote learning format which allowed students to: (a) negotiate learning and choose assignments options that matched their needs (Ting, 2015), (b) engage in scenario-based learning through case studies and videos, (c) access video tutorials for digital literacy learning targeted to specific assignments, (d) request "on demand" instructor support for individual assistance through videoconferencing, email, or phone, and (e) utilize flexible due dates and alternate assignments (Linder-VanBerschot & Summers, 2015). The purpose of this study was to determine the extent to which students were impacted by the pandemic and whether the instructional design elements and instructor interactions provided sufficient supports to enable students to navigate and analyze online resources, employ self-regulation skills to manage their learning, and maximize their learning.

Methodology

Participants

The participants were N = 42 college students enrolled in two sections of an early childhood teacher education class during the spring semester of 2020 when COVID-19 interrupted learning across the USA and the world. All of the students were female, upper level students (junior, senior, post-baccalaureate) and 29 of the students were enrolled in the online section of the course while 13 participated face-to-face on campus. Both traditional (18-22 year-old's living on campus) and non-traditional (older students with families,

Fall 2020 ISSN: 1535-0975

returning to college) were enrolled. Also, all of the students had taken at least one online class as part of their college experience prior to the pandemic. A large percentage of the assignments were focused on field-based experiences with young children in early childhood programs; consequently, both online and face-to-face students were impacted when field experiences no longer were an option due to public schools closure, and both classes shifted to remote learning.

Participants for the survey were selected using purposeful sampling, which is widely used in qualitative research because the researcher can select participants who are associated with the phenomena or problem being studied (Creswell & Clark, 2011). From the total, n= 35 agreed to participate by voluntarily responding to the online survey. The rate of return was 83%, which is considered high. For the course analysis, the assignments of all 42 students were analyzed.

Instrument and Data Collection

Data was collected via an online survey, which was created in Qualtrics. Research participants were invited to take part in the study via a course Announcement posted in the Canvas LMS which resulted in both quantitative and qualitative data sets. The quantitative portion of the survey included eleven questions using a 5-point rating scale (1 = strongly disagree; 5 = strongly agree), and the qualitative portion included seven open-ended questions. Descriptive statistics was used to analyze the quantitative data. To analyze the qualitative data, the researchers downloaded the open-ended responses, coded participants' written responses and looked for patterns. Additional data was collected by analyzing patterns of assignment completion and students' interaction with course materials and assessments during the time COVID-19 affected our traditional classrooms and suddenly shifted to remote learning.

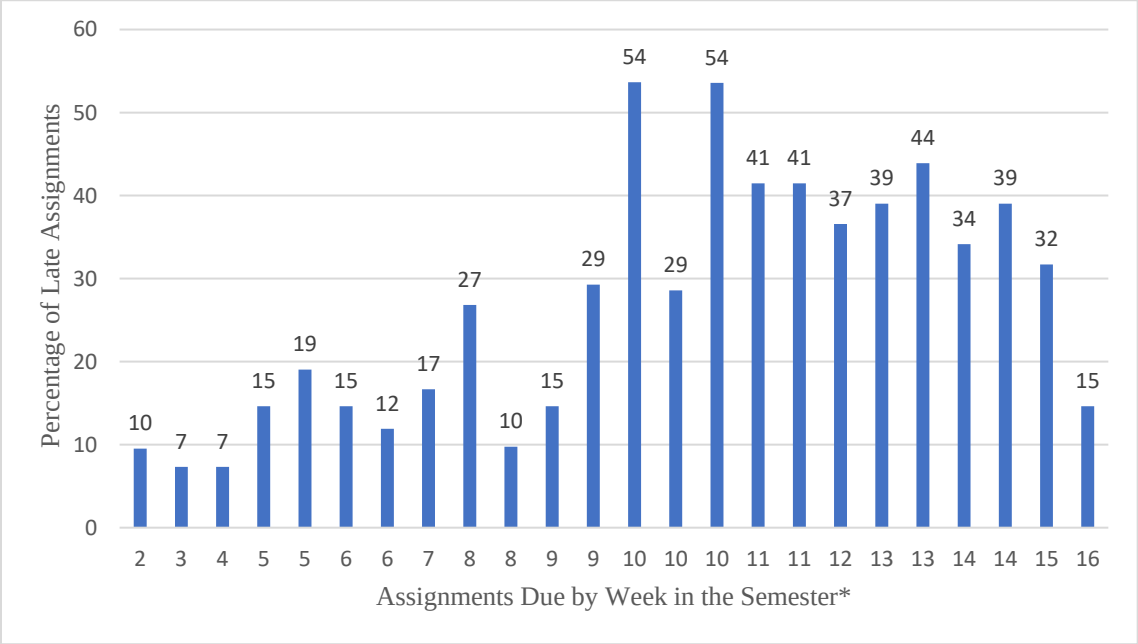
Course Data Analysis

To determine the extent to which the shift to remote learning during the COVID-19 pandemic impacted student learning, the researchers coded the course assignments for completion rates, assignment tardiness, alternate assignment options completed, and student comments regarding the pandemic. Assignment tardiness is displayed in Table 1:

Fall 2020 ISSN: 1535-0975

Table 1

The Percentage of Late Assignments Turned in Each Week During the Semester



*Note: Numbers that are repeated indicate that more than one assignment was due that week.

The course was originally designed to have flexible due dates on each assignment, and at the beginning of the course, some of the students did turn in late assignments. However, between weeks eight and nine, the COVID-19 pandemic began to affect different parts of the state were students located, consistent with the fluctuating increase in late assignments. By week ten, all of the students were impacted by the pandemic and over half of the class experienced issues with late assignments. Students continued to be challenged most of the semester and late assignment rates were noticeably higher in the latter half of the course than at the beginning. Also, prior to week eight, only three assignments were never turned in. For the last half of the semester, 16 assignments were never turned in, with 11 of those assignments falling between weeks 8-10.

By week nine, students began to talk about the COVID-19 pandemic, particularly in assignments that would have originally been authentic learning experiences in the field (e.g. journals, child reports, teacher interviews, and home visits). Eleven of the 42 students commented in their journals on the shutdown and closure concerns for their early childhood programs and wanted to know how they would complete their fields. By week 10, right after spring break, the instructor had alternate options for each of those experiences (see Table 2).

Fall 2020 ISSN: 1535-0975

Table 2
Student Participation in Alternate Assignment Options and Comments about COVID-19

		Alternate		COVID-19	
Week	Assignment (alternate is in parentheses)	Number	Percent	Number	Percent
10	Child Report (case study)	2	4.8	2	4.7
10	Journal 6 (scenario)	25	59.5	4	9.5
11	Teacher Interview (website/videos)	15	35.7	14	33.3
11	Journal 7 (scenario)	40	95.2	5	11.9
12	Journal 8 (scenario)	41	97.6	3	7.1
13	Home Visits (videos)	35	83.3	20	47.6
13	Journal 9 (scenario)	42	100.0	1	2.4
14	Child Report (case study)	41	97.6	1	2.4
14	Journal 10 (scenario)	42	100.0	1	2.4
15	Child Report (case study)	42	100.0	0	0

In weeks 10 and 11, not all students are not equally impacted by the COVID-19 pandemic. Nearly all students were able to complete the first child report before their early childhood programs shut down and 40% of the students were able to still complete Journal 6 on the children they had been working with. However, although only 35% of the students needed to complete the alternate teacher interview assignment through website and video resources, 14 of the students completing the original interview said they were not able to meet face-to-face but interviewed through other means such as email. Two students were able to continue working with at least one of their children through Journals 7 and 8, which allowed one to complete her child report on that child, but by week 13, all students completed alternate assignments and no longer had access to their children. When students mentioned COVID-19 in their assignments, the most common comment was inability to complete the original assignment because of COVID-19 impacting their access. Students talked about this impact most in their teacher interview and home visitation assignments.

Quantitative Survey Data Analysis

The instructor also sent an online survey the last week of class via Qualtrics to determine the extent to which students were impacted by the pandemic and whether the instructional design elements and instructor interactions provided sufficient supports to enable students to navigate and analyze online resources, employ self-regulation skills to manage their learning, and maximize their learning. The survey included eleven questions using a 5-point rating scale (1 = strongly disagree; 5 = strongly agree) and seven open-ended questions and the response rate was 83% (35/42). Descriptive statistics were used to analyze the rating scale data and are displayed in Table 3.

Fall 2020 ISSN: 1535-0975

Table 3
The Frequency and Percent of Students Who Agreed or Strongly Agreed on Statements of Influencing Factors During the Shift to Remote Learning

Life/Environmental factors	N	Freq.	%
o Moving to remote learning was disruptive to my learning.	35	13	37.1
o My learning was not compromised during COVID-19	35	17	48.6
o The transition to remote learning was smooth.	35	27	77.1
o I was able to keep a balanced schedule between learning remotely and other important activities (family, childcare, work, etc.)	35	23	65.7
o I had, or was able to access, the necessary technology such as a device (laptop, desktop, tablet, etc.) and Internet access to be successful during remote learning.	35	35	100
Instructional Design factors	**N**	**Freq.**	**%**
o I was well informed about what I needed to do to successfully complete the course.	34	33	97.1
o The instructor adjusted the course (deadlines, assignments, lecture, etc.) to maximize learning remotely).	35	35	100
o The adjusted course assignments and deadlines were reasonable to complete via remote learning.	35	35	100
o I had a variety of learning materials available such as videos, writing journals or case studies, online reading, discussion boards, quizzes, etc. to keep me engaged in my remote learning experience.	35	33	94.3
Instructor Interaction factors	**N**	**Freq.**	**%**
o I was able to communicate (Zoom, email, phone, etc.) with my instructor when I needed to.	35	34	97.1
o I received the support I needed from the instructor to be successful in this class.	35	34	97.1

As indicated in the table, students' personal lives and related environmental factors were impacted by the COVID-19 pandemic. Over a third (37.1%) of the student responses said moving to remote learning had been disruptive and half (51.4%) of the responses indicated learning had been compromised. Three-fourths (77.1%) of the students believed that the transition to remote learning went smoothly and all were able to access the necessary technology for remote learning. However, a third (34.5%) of the students struggled with balancing their commitments to remote learning with other important activities

such as family needs that competed with their time. During the transition to remote learning the instructor adjusted instructional design elements and technology-based interactions, and students rated these factors highly. Regarding instructional design factors, they believed they were well informed about what they needed to do to complete the course successfully, the adjusted assignments and deadlines were reasonable and maximized their learning remotely, and there was sufficient variety of learning materials available to help promote their engagement. They also stated that they were able to communicate readily with the instructor through various means when they needed to and that they received sufficient support from the instructor to be successful in the class.

Qualitative Survey Data Analysis

To analyze the qualitative survey data, the instructor downloaded the open-ended responses, looked for patterns, and then used the patterns to code the responses. Not all students chose to response to the open-ended questions and some responses could be coded into more than one pattern (e.g. a response including instructor flexibility with assignments and prompt feedback to student questions would be coded in both categories). The opened-ended question data most reflective of the overall COVID-19 experience are displayed in Table 4.

Table 4

Frequency and Percent of Student Responses to Open-Ended Questions about the Overall COVID-19 Remote Learning Experience

Q1. What were your concerns in shifting to online/remote learning? (n =26)	Freq.	%
Finishing the class without access to field experiences	15	57.7
Balancing life/family factors	1	3.8
Whether the quality of learning would be impacted	4	15.4
Handling autonomy/responsibility (e.g. time management, motivation)	3	11.5
None	3	11.5
Q2: How would you describe your learning experience during remote learning (n = 29)	Freq.	%
Positive	13	44.8
General statements (e.g. Excellent, Good, Great).	8	61.5
Instructional/learning Supports	5	38.5
Neutral (e.g. Decent, OK, interesting).	4	13.8
Negative	12	41.4
General statements (e.g. Stressful, difficult, challenging)	7	58.3
Student Autonomy/Responsibility (e.g. focus, organization, time management, motivation, need to persevere)	5	41.7

Q3. Did you feel prepared to move to remote learning? (n = 29)	Freq.	%
Yes	27	93.1
No	2	6.9
Explain. (n = 33)		
Instructional Design factors (flexibility, assignment options, resources)	7	21.2
Instructor Interactions (communication)	5	15.2
Life/Environmental Factors	2	6.1
Student Autonomy/Responsibility (time management; motivation, etc.)	4	12.1
Online already/previous online experience	15	45.5
Q4. Did you feel supported during remote learning? (n = 25)	**Freq.**	**%**
Yes	25	100.0
No	0	0.0
Explain. (n = 23)		
Instructional Design Factors (flexibility, assignment options, resources)	9	39.1
Flexibility with assignments/due dates	5	55.6
Instructional Supports (clear instructions, resources, assignment options; balanced workload)	4	44.4
Instructor Interactions (communication, check ins)	14	60.9
Accessibility	4	28.6
Prompt feedback to questions	4	28.6
Check-ins	6	42.9

As seen in Table 4, when students found out they would be moving to remote learning experiences, over half of the responses (57.7%) expressed concerns with completing or passing the class because field experiences were no longer accessible and 15.4% were concerned with whether this would compromise learning. Some students (11.5% responses) were concerned with their ability to self-regulate sufficiently to manage their own learning and an equal number of responses indicated that some students had no concerns at all. Responses were fairly evenly divided on whether the student remote learning experience was positive or negative, and a few were neutral. Of the positive statements, 61.5% were general, while 38.5% cited specific learning supports such as resources included in the course or instructor assistance. Over half of the negative responses were general (58.3%), but the 41.7 that were specific, cited self-regulation and the ability to manage the student's own learning.

Overall, responses indicate that most students (93.1%) felt prepared for the shift, particularly since 45.5% indicated that they were

online already or had experience with online courses. Seven (21.2%) responses cited instructional design factors such as having flexible due dates, alternate assignment options, or course resources to complete and understand assignments as factors which helped them feel prepared for the shift while 5 (15.2%) indicated that the ability to interact with the instructor and get help as needed made them feel prepared. The two students who indicated that they were not prepared, stated this was not the course itself, but juggling the responsibilities between school and work, while teaching their own children at home. Some students who said that they were prepared, indicated that it was still harder after the shift to remote learning to focus, organize their time, and stay motivated.

When asked whether they felt supported during the shift, 100% of the students who responded to this question said, "yes." Nearly forty percent (39.1%) of the responses indicated instructional design elements were clearly important in providing this support, with 55.6% citing flexibility with assignments and due dates, and 44.4% citing other instructional supports such as clear instructions, resources posted to help guide learning, providing alternate assignment options, and being cognizant of students' workload. The majority of the responses 60.9% of the responses stated that the instructor interactions made the difference for them, with check-ins being the most cited (42.9%) and prompt feedback and instructor accessibility being identified next.

The opened-ended question data most reflective of the COVID-19 experience directly impacting learning are displayed in Table 5.

Fall 2020 ISSN: 1535-0975

Table 5

Frequency and Percent of Student Responses to Open-Ended Questions about the Direct COVID-19 Impact on Learning

Q1. How did COVID-19 impact your learning in this class? (n = 28)	Freq.	%
Instructional Design Factors (Missed opportunities fields)	12	42.3
Life/Environmental Factors (Family, workload, mental health, stress)	5	17.9
Student Autonomy/Responsibility (time management, motivation, focus)	4	14.3
Not Affected	7	25.0
Q2. What instructional strategies, learning activities or materials did you benefit the most from during remote learning? (n = 28)	**Freq.**	**%**
Alternate assignment options	5	17.9
Case studies/scenarios	5	17.9
Zoom videoconferencing	2	7.1
Videos for learning and tutorials	8	28.6
Instructor Interactions	3	10.7
Everything/All	3	10.7
None	2	7.1
Q3. What did the instructor do particularly well in transitioning to remote learning? (N = 38)	**Freq.**	**%**
Instructional Design and Supports	26	68.4
Flexibility/flexible due dates	7	26.9
Resources to support learning (e.g. videos)	3	11.5
Alternate assignments/options	13	50.0
Organization/clear schedule	3	11.5
Instructor Interactions	12	31.6
Communication	5	41.7
Compassion/understanding (check ins; sensitive to workload)	7	58.3

Of the 28 responses to how COVID-19 directly impacted learning in the course, the majority (42.3%) cited the missed opportunities because of the loss of the field experiences which were authentic learning experiences for them. A quarter of the students did not feel that their learning was affected while 17.9% cited life/environmental factors such as balancing

Fall 2020 ISSN: 1535-0975

home and school responsibilities or having work disrupted because of the pandemic which, in turn, created stress and mental health challenges. Another 14.3% cited that motivation, time management, will power, and focus were affected.

Regarding instructional strategies, learning activities, and materials that benefitted students most, responses were varied which suggests that students need different supports, depending on their needs. Videos used for scenario-based learning or tutorials on how to do assignments were the most cited (28.6%), followed by alternate assignment options and case studies/scenarios. A few of the responses (10.7%) indicated instructor interactions and another 10.7% said that "everything" or the combination of strategies was the most beneficial. Two students (7.1%) indicated that the "on demand" Zoom videoconferencing with the instructor was very helpful and another 7.5% said that nothing was the most beneficial to their needs.

When asked what the instructor did best to support them in the transition to remote learning, the majority of student responses (68.4%) indicated instructional design and support elements with 50% citing the alternate assignment options, 26.9% mentioning the flexibility with assignments and due dates, 11.5% stating the resources such as the videos and tutorials, and another 11.5% indicating the clear schedule and organization of the course. About a third of the student responses (31.6%) indicated the importance of instructor interactions with seven (58.3%) of the responses using words like "compassion" and "understanding" to describe the check-ins and sensitivity to the students' unique situations. Five of the responses (41.7%) noted communication about expectations, assignments, and any changes in the course.

Limitations of the Study

The unanticipated nature of Emergency Remote Education created a "rapid-response" approach to the research design and methodology; therefore, several limitations of the study should be noted. First of all, the content included in the survey was based on the instructor's "best guess" about the needs of the students and not on any literature review or past history. There is no history to a novel virus. Since the survey was time-sensitive, it was not possible to pilot-test the survey for content validity or get feedback on the relevance of the questions or the breadth of the survey's coverage prior to its launch. There was only sufficient time to do an electronic "test drive" of the survey to make sure it was operational. Consequently, the data from these questions may not capture a complete picture of the student experience. The survey was also designed so that respondents were anonymous. This encouraged students to respond more openly without fear of being identified; however, there was no way to link the students' responses with their actual course performance. Furthermore, the Canvas LMS platform was set up for grading, not research, which limited what the instructor could analyze based on student performance post-hoc.

Another limitation of the study is the specialized nature of the respondents themselves who were upper level students who had some experience in college and with online environments. Their ability to make the transition to remote learning and stay reasonably committed to completing the course cannot be generalized to all college students. For example, freshman who have not yet learned to navigate college or students unfamiliar with online environments may have been more challenged in the transition. Also, more online students than were in the course than on-campus students; consequently, the results may not adequately reflect the traditional campus student experience. Therefore, the results of this study

should be interpreted cautiously. Future research should include students that have a broader range of demographic representation and student college experience.

Discussion

The purpose of this study was to determine the extent to which students were impacted by the pandemic and whether the instructional design elements and instructor interactions provided sufficient supports to enable students to navigate and analyze online resources, employ self-regulation skills to manage their learning, and maximize their learning. Several patterns emerged. From the course analysis, it appears that students were affected between weeks 8-10 of the semester as the pandemic hit different communities and began to struggle more with late assignments, even with adjustments in the course. Given the comments in the survey about the importance of flexibility with due dates and assignments in their success, it appears that several students used the flexibility to help them juggle the competing life/environment factors created by the COVID-19 pandemic. As students began to lose access to the children in their field placements, students became more dependent on selecting the alternate assignments to complete the course.

Students in this study were fairly well-equipped to move to remote learning. All had access to technology, and all had taken at least one online course before. As seen in the survey data although life/environmental factors were impacted and several found the experience disruptive, students felt the transition was smooth, learning was not compromised, and that they received sufficient supports through instructional design elements and instructor interactions to be successful in the course. Students' primary concern was the loss of opportunities through the cancelled field experiences. These missed opportunities are particularly hard on students and are difficult to replicate in remote learning environments; however, scenario-based learning with videos and case studies can be meaningful alternatives (Mollenkopf & Gaskill, 2020) as noted by the students in this study. Assignment choice has been used to help students stay motivated and engaged in their learning and it is usually used to provide options for students based on preferences or learning styles.

In this study, the assignment options posted weekly allowed the students to select the option based on what they could access. For example, if they still were able to work with one or more of their children, they could write the original child report or journal. If they did not have access to the children, they could write a case study or journal based on the case study or scenario of a fictitious child. Other design elements that students found meaningful were videos, both for assignments such as home visits, and for tutorials that were posted with the assignments to show how to complete the assignments. Students were able to revisit and review the videos at their own pace to check their understanding, which is an important benefit the online learning environment (Luscinski, 2017). These resources helped students be more autonomous in their learning. Students also appreciated clear instructions, and scheduling, adjusted due dates, and flexibility as students worked to complete the assignments for the class.

In addition to instructional design supports, students were particularly appreciative of the instructor interactions and found this as important as the instructional design elements. Students commented most on the importance of frequent check-ins from the instructor to see how they were doing and having instructor access to help with questions and explain things. Having multiple options to contact the instructor and getting prompt responses was important to their success. Although a pedagogy of care has always been important in learning and will remain so after the pandemic, it is particularly

Fall 2020 ISSN: 1535-0975

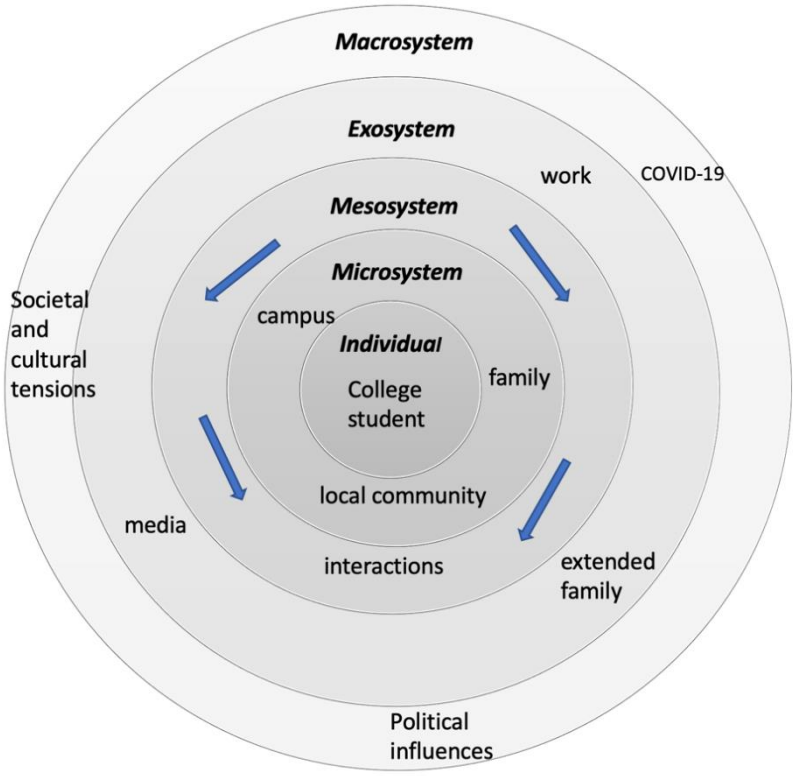
crucial in remote learning situations where students are experiencing trauma and where lives are disrupted (Bali, 2020).

Consistent with Bronfenbrenner's Ecological Systems Theory (EST) (1994) findings from this student suggest that student learning is impacted by the factors beyond their immediate environment and that these interactions within the different systems influence their learning. EST is usually applied to young children whose development is impacted by their immediate family, school, and others close to the child (microsystem) and the interactions (mesosystem) between those entities in the microsystem. The exosystem includes factors more distant to the child such as their parent's work, neighbors, and local social factors. Although the macrosystem of social and cultural influence seem remote, a significant event that impacts the child's macrosystem can filter down through the other systems and influence the child's development and learning.

This model has been previously applied to the college student population with the recognition that the college student experiences close, or proximal processes between them and their environment that share them and their learning experience. That experience is also influenced by historical or cultural events as well as social and biological transitions (Kitchen, Hallett, Perez, & Rivera, 2019). Figure 1 describes such a model for students in the COVID-19 experience.

Fall 2020 ISSN: 1535-0975

Figure 1
Bronfenbrenner's Ecological Systems Theory Applied to College Student COVID-19 Experience



Although it was not possible to capture and analyze each students' stories and circumstances, anecdotal information from those who shared comments with the instructor in assignments, personal communicaton, or in the survey itself indicated that COVID-19 was a macrosystem influence that directly impacted both their exosystems and microsystem and made the meosystemic interactions difficult. As the students' environments shifted, students needed to rely more on their individual, internal factors to accommodate their changing situations. Both campus and non-traditional college students had all of these systems impacted, but in slightly different ways.

For college students living on campus, some did not have homes they could go home to or were in work situations where they had to decide whether they could stay in the dorm and stay employed or lose income and move home. A few who wanted to stay and work, lost employment and had to move home. A number found that after they moved home, they were now in charge of siblings while their parents worked. Some students did not have quality study time or quiet places to focus because of family dynamics. Others mentioned struggling

with motivation and time management because the home environment was less controlled.

Although the non-traditional students were more likely to be better managers of their time and highly motivated to study, many found themselves challenged with new demands at work. Several worked in childcare programs or schools and were faced with teaching remotely or altering their instruction and care to accommodate the COVID-19 virus. Directors of childcare programs had to address the needs of their staff as well as the children and families they served. Some students or their spouses lost employment. Others had family members who were on the frontlines and they had to "hold the fort" at home, or they found themselves caring for sick family members, including those with COVID-19. Juggling the work changes while home schooling their children, including those with special needs, was an unexpected and demanding challenge that some said was particularly exhausting.

As reflected by this study, college students in the wake of the COVID-19 pandemic were influenced by ecosystemic factors affecting their campuses or learning spaces, family and home environments, places of employment, and the interactions among these. They also brought their own resiliency factors and skill sets for learning with them. Social and cultural influences normak impact learning but are often more distant and less influential than those at the microsystemic level. However, the current COVID-19 pandemic has impacted all systems and the shift to remote education has made it more difficult for students to engage in learning.

Instructional design and instructor interactions were able to help mitigate the interactions in these systems and provide a buffer to help students be able to navigate the remote learning environment and successfully learn. Since the alternate assignments were new, it is not possible to make a direct comparison to previous semesters; however, academically, the students did well. With the exception of one student who took an incomplete due to COVID-19 circumstances, all of the other students completed and passed the course with a C or better, which is not always the case in non-pandemic years. This is not necessarily a reflection that students actually learned more, but it may have been related to the combination of supports, flexibility, and a student reaction to simply wanting to "outwit the virus", which may not hold true under future semesters impacted by "COVID-fatigue."

Emergency remote education differs from planned and purposeful online instruction instructors choose to participate in (Bozkurt, et. al., 2020); consequently, it carries with it its own unique challenges and drawbacks as well as opportunities for new research. Although emergency remote education can be daunting, specific instructional design principles can be implemented that can assist both instructors and students to be successful. Beyond application to the current pandemic, the insights from this study may help students in communities impacted by natural disasters such as floods or hurricanes or other community crises. Additionally, instructors may find that these principles and strategies of remote education can be applied on a much smaller scale for one or more students any given semester experiencing a personal crisis that interferes with their ability to perform in class. Having a temporary "remote education experience" may allow them to academically learn and complete a course they would otherwise not finish until the personal crisis has passed.

Fall 2020 ISSN: 1535-0975

References

Bali, M. (2020a, April 16). *Care is not a fad: Care beyond COVID-19.* Reflecting Allowed. https://blog.mahabali.me/pedagogy/critical-pedagogy/care-is-not-a-fad-care-beyond-covid-19/

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S. R., Al-Freih, M., Pete, J., Olcott, Jr., D. Rodes, V., Aranciaga, I., Bali, M., Alvarez, Jr., A. V., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., de Coëtlogon, P., Shahadu, S., Brown, M., Asino, T. I. Tumwesige, J., Ramírez Reyes, T., Barrios Ipenza, E., Ossiannilsson, E., Bond, M., Belhamel, K., Irvine, V., Sharma, R. C., Adam, T., Janssen, B., Sklyarova, T., Olcott, N. Ambrosino, A., Lazou, C., Mocquet, B., Mano, M., & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education, 15*(1), 1-126. https://doi.org/10.5281/zenodo.3878572

Bransford, J. D., Sherwood, R. D., Hasselbring, T. S., Kinzer, C. K., & Williams, S. M. (1990). Anchored instruction: Why we need it and how technology can help. In D. Nix & R. Spiro (Eds.), *Cognition, education and multimedia: Exploring ideas in high technology* (pp. 115- 141). Hillsdale, NJ: Lawrence Erlbaum.

Bronfenbrenner, U. (1994). Ecological models of human development. In International Encyclopedia of Education, Vol. 3 (2nd ed.). Oxford, England: Elsevier.

Cavanaugh, J. (2005). Teaching online: A time comparison. *Online Journal of Distance Learning Administration, 8*(1). Retrieved from http://www.westga.edu/

Chen, S. J. (2007). Instructional design strategies for intensive online courses: An objectivist- constructivist blended approach. *Journal of Interactive Online Learning, 6*(1), 72-86. Retrieved from http://www.ncolr.org/issues/jiol/v13/n1/3

Creswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed method research. 2nd Sage. *Thousand Oaks, CA, 201*.

Depoux, A., Martin, S., Karafillakis, E., Preet, R., Wilder-Smith, A., & Larson, H. (2020). The pandemic of social media panic travels faster than the COVID-19 outbreak. *Journal of Travel Medicine, 27*(3), 1-2. https://doi.org/10.1093/jtm/taaa031

Garrison, D. R., Anderson, T., & Archer, W. 2000, 'Critical inquiry in a text-based environment: Computer conferencing in higher education', *The Internet and Higher Education*, vol. 2, no. 2–3, pp. 87–105.

Garrison, D. R., Cleveland-Innes, M., & Fung, T. S. 2010, 'Exploring causal relationships among teaching, cognitive and social presence: student perceptions of the community of inquiry framework'. *The Internet and Higher Education*, vol. 13 no. 1–2, pp. 31–36.

Greene, J.A., Yu, S.B., & Copeland, D.Z. (2013). Measuring critical components of digital literacy and their relationships with learning. *Computers & Education, 76,* pp.55-69.

Guri-Rosenblit, S. (2018). E-Teaching in higher education: An essential prerequisite for e-Learning. *Journal of New Approaches in Educational Research, 7*(2), pp. 93-97. DOI: 10.7821/naer.2018.7.298

Gutiérrez-Santiuste, E., Gámiz-Sánchez, V. M., & Gutiérrez-Pérez, J. (2015). MOOC & B- learning: Students' barriers and satisfaction in formal and non-formal learning environments. *Journal of Interactive Online Learning*, *13*(3), 88-111.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). 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

Hoskins, B. (2011). Demand growth, and evolution. The Journal of Continuing Higher

Education, 59, pp. 57–60, Association for Continuing Higher Education. ISSN 0737-7363. DOI: 10.1080/07377363.2011.546267

Huang, R. H., Liu, D. J., Tlili, A., Yang, J. F., & Wang, H. (2020). Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak. Smart Learning Institute of Beijing Normal University. https://iite.unesco.org/wp-content/uploads/2020/03/Handbook-on-Facilitating-Flexible- Learning-in-COVID-19-Outbreak-SLIBNU-V1.2-20200315.pdf

Jarvis, P. (2006). *Towards a comprehensive theory of adult learning*. London, UK: Routledge.

Jonassen, D. (1992). Objectivism versus constructivism: Do we need a new philosophical paradigm? *Educational Technology Research and Development, 39*(3), 5-14. https://doi.org/10.1007/BF02296434

Kitchen, J., Hallett, R., Perez, R., & Rivera, G. (2019). Advancing the use of ecological systems theory in college student reseach: The ecological systems interview tool. *Journal of College Student Development, 60(4),*pp. 381-400.

Knowles, M. (1990) *The adult learner: A neglected species* (4th ed.). Houston, TX: Gulf Publishing.

Ladell-Thomas, J. (2012). Do-it-yourself information literacy: Self-directed learning at a distance. *Journal of Library and Information Services in Distance Learning, 6(3,4*), pp. 376-386. DOI: 10.1080/1533290X.2012.705168

Lee, Y., & Choi, J. (2014). A structural equation model of predictors of online learning retention. *Internet and Higher Education, 16,* 36-42. https://doi.org/10.1016/j.iheduc.2012.01.005

Linder-VanBerschot, J.A. & Summers, L. (2015) Designing instruction in the face of technology transience. *Quarterly Review of Distance Education, 16*(2), pp. 107-117.

Luscinski, Autumn, "Best practices in adult online learning" (2017). Theses and Dissertations. 843. https://digitalcommons.pepperdine.edu/etd/843

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education, 59*, pp. 1065-107.

Richardson, J. & Swan, K. (2001). An examination of social presence in online learning: students' perceived learning and satisfaction. Seattle, WA: *Paper presented at the annual meeting of the American Educational Research Association.*

Shea, P. J., Swan, K., Fredericksen, E. E & Pickett, A. M. (2002). Student satisfaction and reported learning in the SUNY Learning Network. In J. Bourne & J. C. Moore (Eds) *Elements of Quality Online Education, Volume 3*. Olin and Babson Colleges: Sloan Center for Online Education.

Ting, Y. (2015). Tapping into students' digital literacy and designing negotiated learning to promote learner autonomy. *Internet and Higher Education, 26*, pp. 25-32.

Weiner, B. (2013). *Cognitive views of human motivation*. Burlington, VT: Elsevier Science.

Weiner, B. (2013). *Cognitive views of human motivation*. Burlington, VT: Elsevier Science.