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

GUEST EDITORS:
J. D. Wallace, Brian Burton, Robert Chandler, Douglas Darby

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

Article Info	Abstract
Dr. David John Petroski Southern Connecticut State University Dr. Dana Rogers Southern Connecticut State University **Keywords:** online, gameful, wayfinding, teaching, learning	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. .

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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

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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

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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

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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

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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.

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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."

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"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

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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:

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[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,

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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.

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Figure 1

Natural History of Emails for All Classes in Fall 2019 and Spring 2020
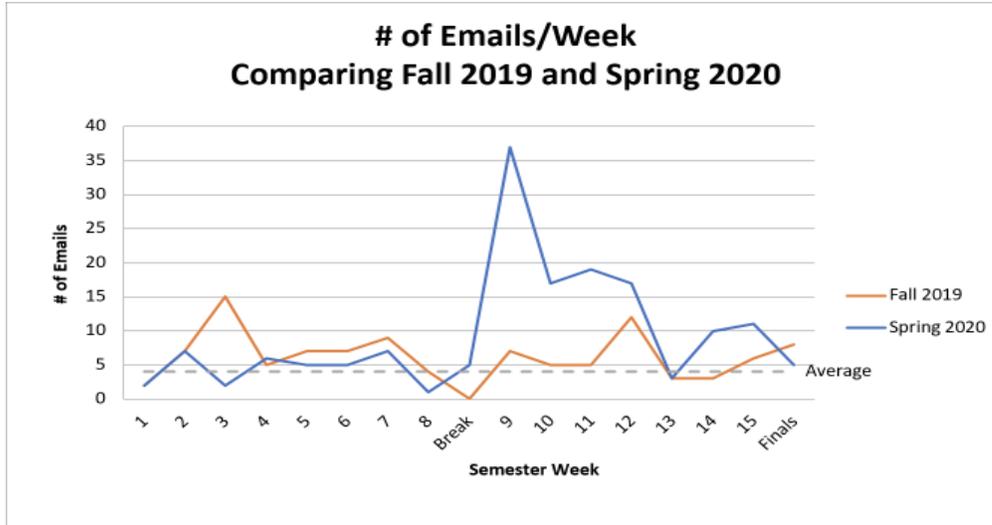
Figure 2 shows the emails sent in the two semesters, separating gameful classes from those with a traditional classroom format. Here, the peak at week 9 is more pronounced for traditional instruction. The gameful classes had an increase in email traffic at that point as well, but at nearly half the number 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.

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Figure 2

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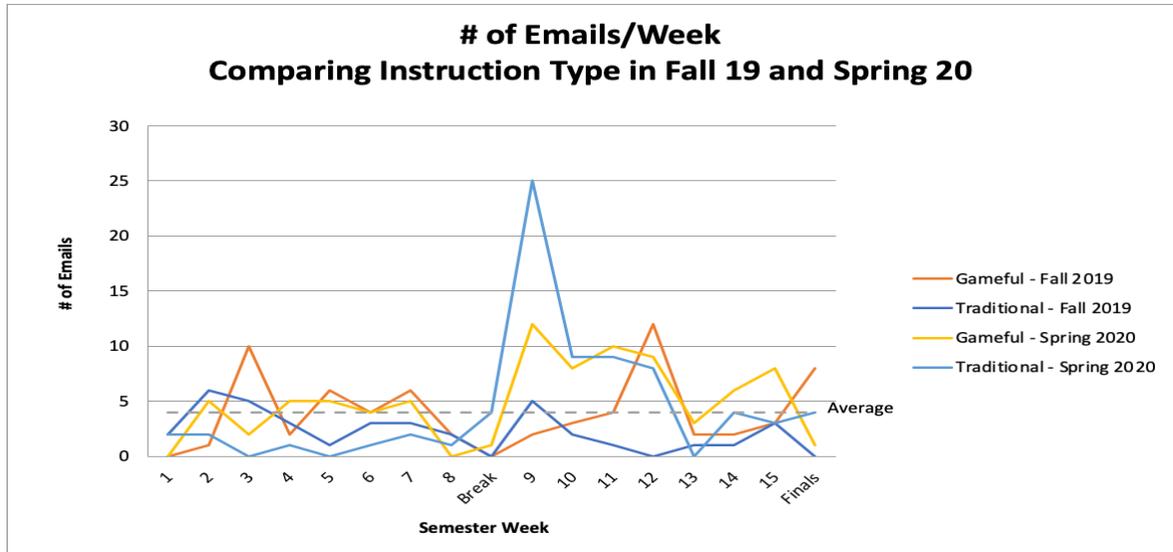
Content of Email Messages

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%)

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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%)

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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.

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Figure 3

Historical Timeline of Email Message Content for Traditional Instruction – F19
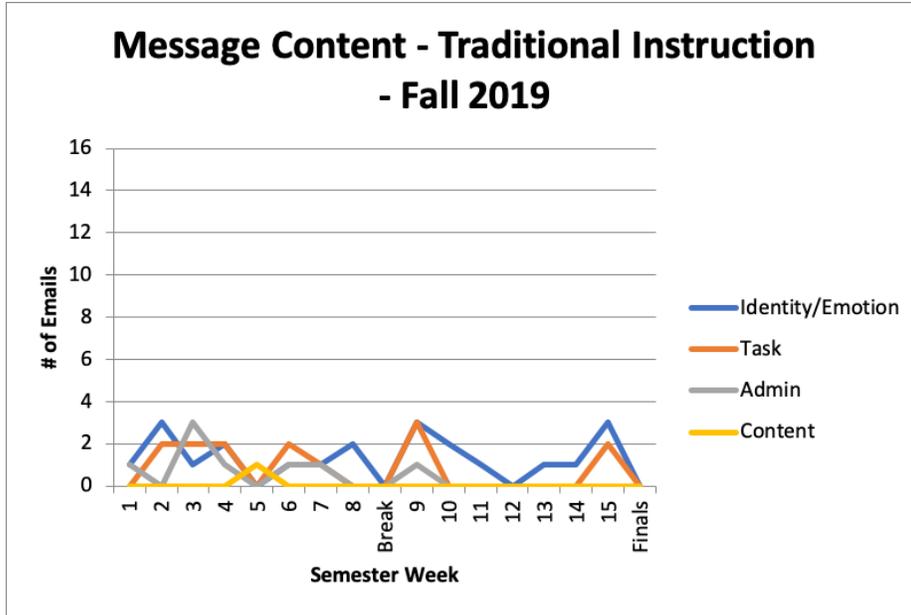
Figure 4

Historical Timeline of Email Message Content for Traditional Instruction – S20

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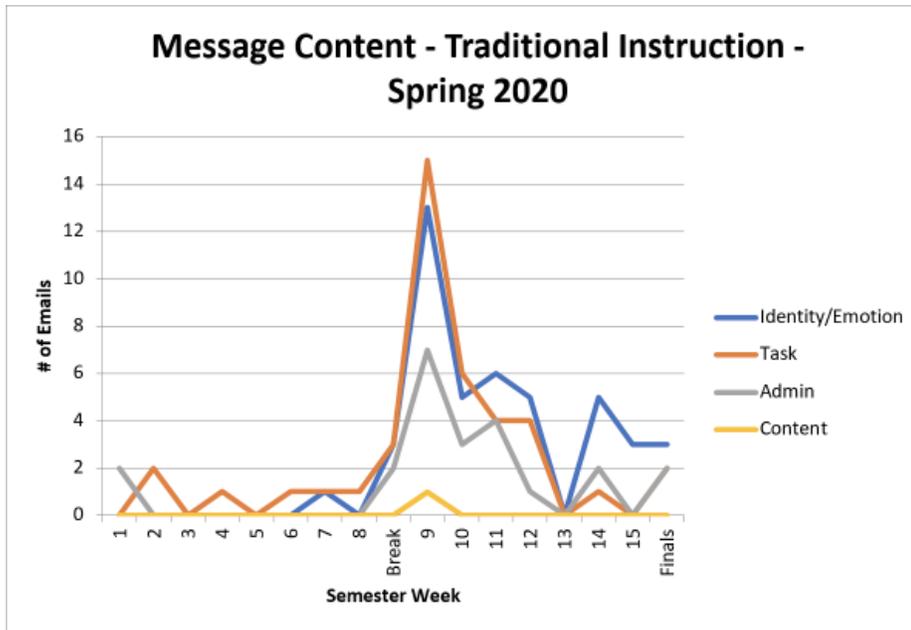
The timelines for the Gameful instruction classrooms also provided insight about the distribution of the message content throughout the semester. Figure 5 shows a high concentration of Task related emails at the start of the semester and during week 12. This seems to reflect that the Gameful approach 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

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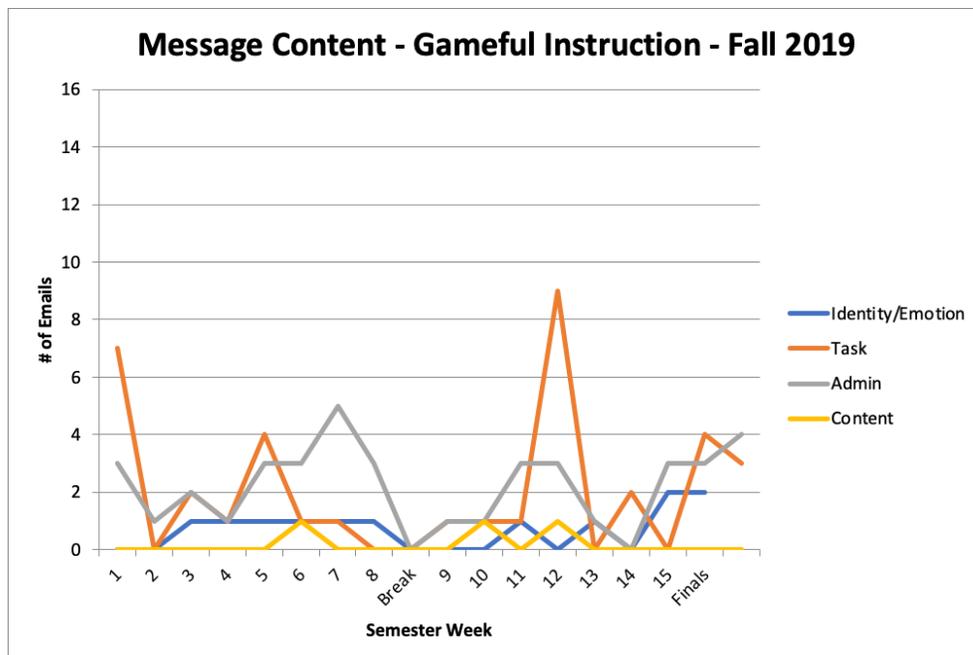
Figure 6

Historical Timeline of Email Message Content for Gameful Instruction – S20
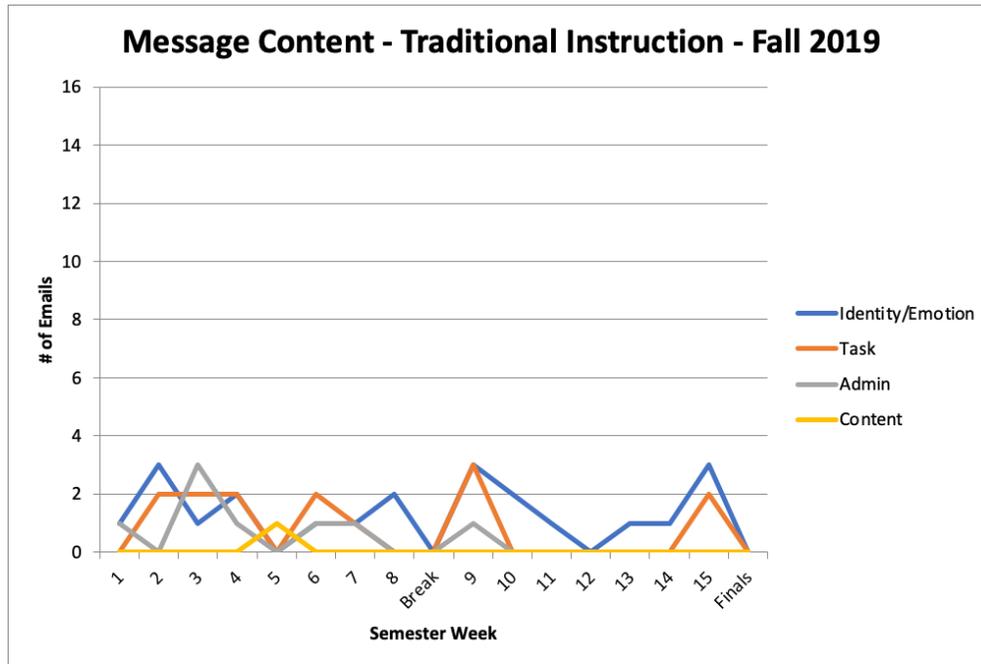
In comparing the two teaching approaches, one can consider the charts shown in Figures 2 to 6 as an EKG of student attention throughout the semester. The spikes indicate points at which students gave greater attention to their classes. The low levels of email initiation in fall 2019 for the Traditional 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

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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..."

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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

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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

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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

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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

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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

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

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.

The Journal of Literacy and Technology
Special Issue for Suddenly Online – Considerations of Theory, Research, and Practice
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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.

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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.