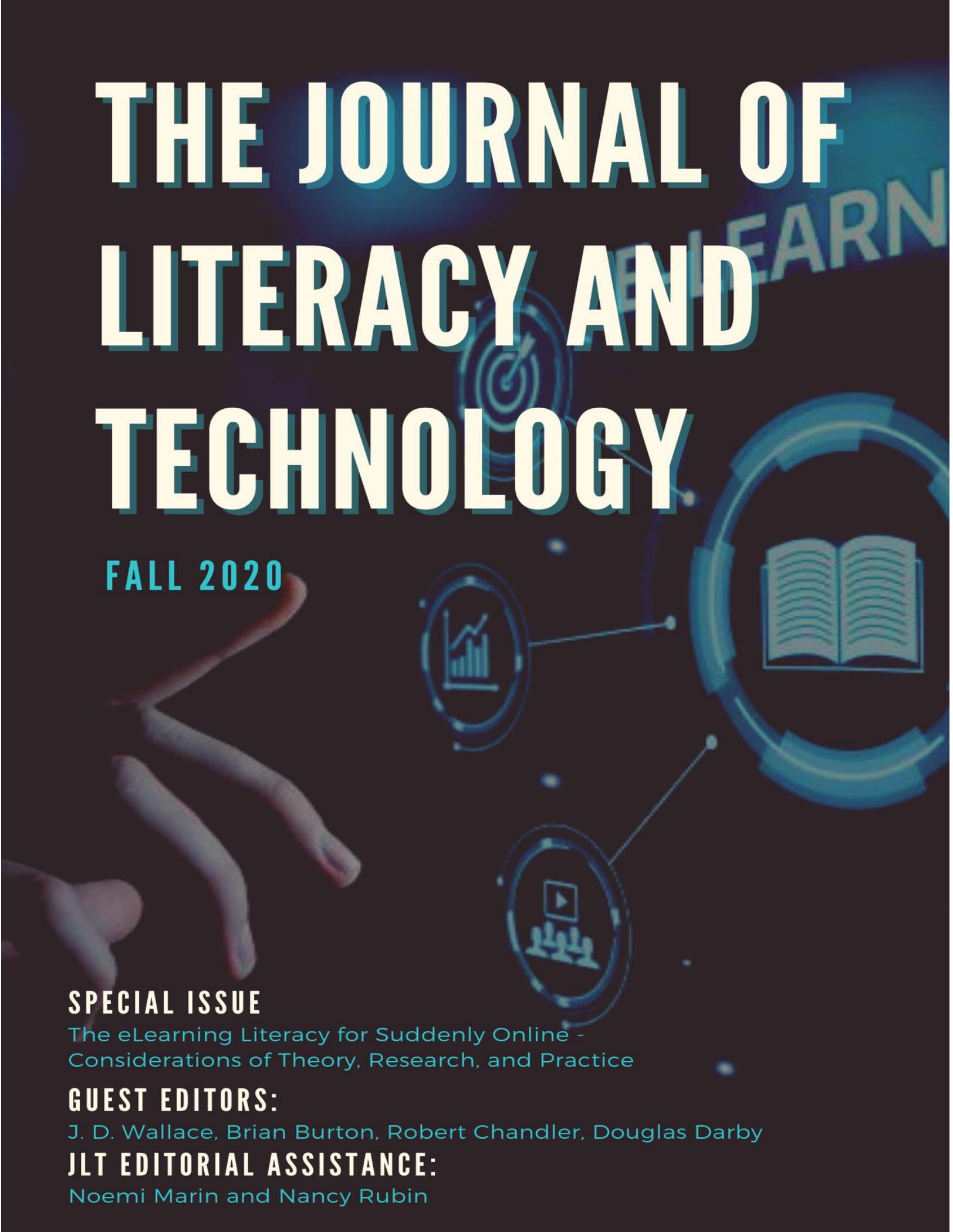


THE JOURNAL OF LITERACY AND TECHNOLOGY



FALL 2020

SPECIAL ISSUE

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

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

Article Info	Abstract
<p data-bbox="241 716 565 821">Dawn Mollenkopf, Ph.D. University of Nebraska - Kearney</p> <p data-bbox="248 842 558 947">Martonia Gaskill, Ph.D. University of Nebraska - Kearney</p> <p data-bbox="201 1016 586 1234">Keywords: Digital learning, Remote Learning, Emergency Remote Education, Online Learning, Higher Education, Instructional Design, Instructor Interactions, Student Autonomy and Responsibility, Life/Environment, COVID-19</p>	<p data-bbox="669 663 1414 1094">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.</p>

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-VanBerschoot & 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 of the 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,

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

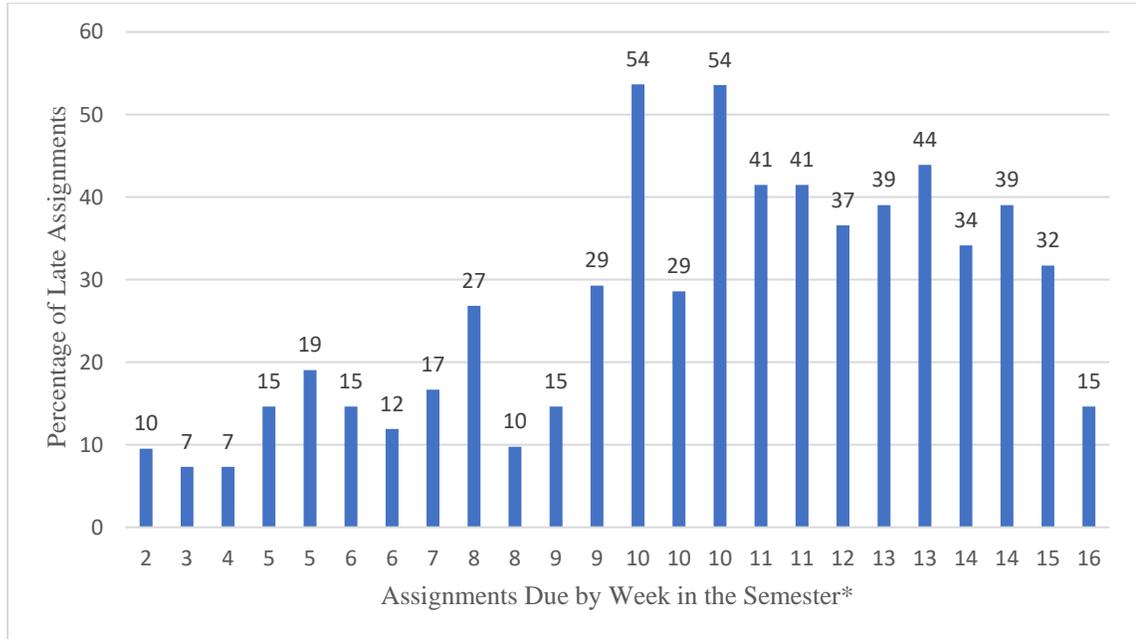
posted in the Canvas LMS which resulted in both quantitative and qualitative data sets. The quantitative portion of the survey included eleven questions using a 5-point rating scale (1 = strongly disagree; 5 = strongly agree), and the qualitative portion included seven open-ended questions. Descriptive 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:

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 where students were 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).

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Table 2
Student Participation in Alternate Assignment Options and Comments about COVID-19

Week	Assignment (alternate is in parentheses)	Alternate		COVID-19	
		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.

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.	%
○ Moving to remote learning was disruptive to my learning.	35	13	37.1
○ My learning was not compromised during COVID-19	35	17	48.6
○ The transition to remote learning was smooth.	35	27	77.1
○ I was able to keep a balanced schedule between learning remotely and other important activities (family, childcare, work, etc.)	35	23	65.7
○ 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.	%
○ I was well informed about what I needed to do to successfully complete the course.	34	33	97.1
○ The instructor adjusted the course (deadlines, assignments, lecture, etc.) to maximize learning remotely).	35	35	100
○ The adjusted course assignments and deadlines were reasonable to complete via remote learning.	35	35	100
○ 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.	%
○ I was able to communicate (Zoom, email, phone, etc.) with my instructor when I needed to.	35	34	97.1
○ 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 respond 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 open-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

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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

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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.

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

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

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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

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crucial in remote learning situations where students are experiencing trauma and where lives are disrupted (Bali, 2020).

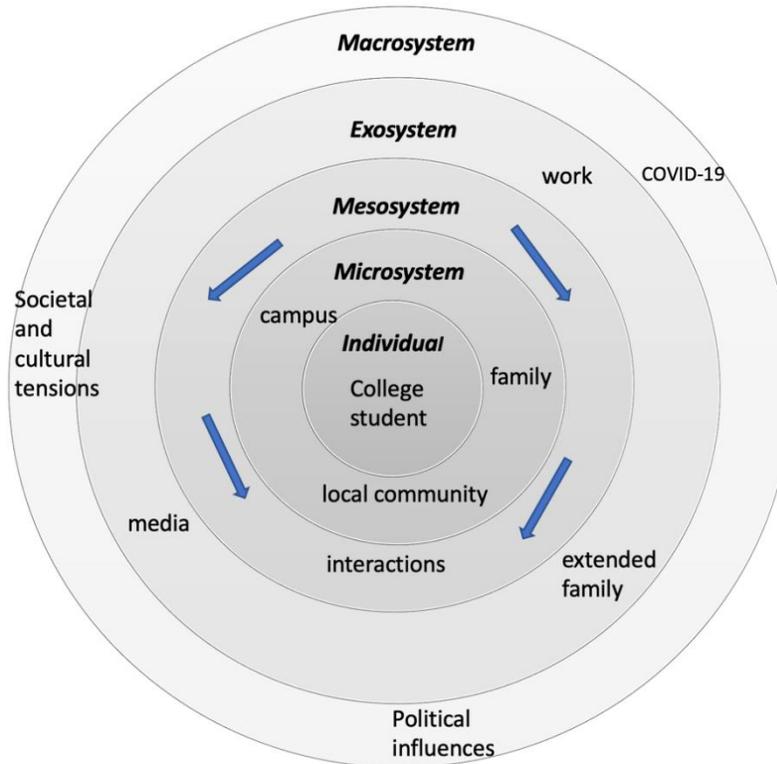
Consistent with Bronfenbrenner's Ecological Systems Theory (EST) (1994) findings from this student suggest that student learning is impacted by the factors beyond their immediate environment and that these interactions within the different systems influence their learning. EST is usually applied to young 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.

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 communication, or in the survey itself indicated that COVID-19 was a macrosystem influence that directly impacted both their exosystems and microsystem and made the mesosystemic 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

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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 normally 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.

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.

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

Fall 2020

ISSN: 1535-0975

- 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 research: 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-VanBerschoot, 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>

The Journal of Literacy and Technology
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Fall 2020

ISSN: 1535-0975

- 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.