Chicagoland PK-12 Teachers’ Experiences Transitioning to
e-Learning amid COVID-19

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Abstract

Amid the COVID-19 outbreak in the United States, PK-12 teachers quickly transitioned from their face-to-face classrooms to an e-learning environment due to the shutdown of schools. To better understand teachers’ experiences with this transition, a 31-question survey was developed and sent to in-service PK-12 teachers enrolled in a small, private liberal arts Lutheran university in the Chicagoland area. Survey responses (n=109) demonstrated needs relative to classroom management, e-learning pedagogy, technology access, and clearer policies for e-learning moving forward. Next steps for continued research into this topic and the ways to support those who are teaching children in today’s online classrooms are discussed.

Keywords: PK-12 teachers, e-learning, educational technology, COVID-19

Introduction

During the coronavirus (COVID-19) outbreak in the United States, PK-12 teachers had to quickly transition from their face-to-face classrooms to an e-learning environment due to the shutdown of schools and shelter-in-place orders across states in the spring of 2020. Many teachers were new to the e-learning landscape and found that they suddenly needed to support students and parents who were acclimating to learning at home. Additionally, educational policymakers were scurrying to put policies in place that would support teachers and their students while considering various limitations of e-learning.

As teachers were suddenly switching to e-learning during the shutdowns due to COVID, the researchers sought to better understand the strengths and challenges with this transition to assist other teachers and administrators in adapting to emergency e-learning situations in the future. This article provides an introduction to the research study, a look at the profile of survey respondents, and the patterns and themes identified from the data collected. The conclusion provides information about what this means for educators as well as ideas for the next steps in this research.

Theoretical Framework

There are several theoretical perspectives that provide insight into the function and design of online learning experiences. The “community of inquiry” model developed by Garrison, Anderson, and Archer (2000) is particularly helpful for this purpose. In their model, it is claimed that three “presences” combine to shape a student’s online educational experience: cognitive presence, social presence, and teaching presence. Cognitive presence is the extent to which participants can learn through sustained communication with other participants. Social presence is the ability of participants to connect socially and emotionally in the environment. Teaching presence is the ability of the teacher to effectively design and deliver instruction.
The “community of inquiry” model provides a helpful lens for analyzing the responses teachers provided about the constraints, resources, technology tools, successes, and failures, experienced during the move to e-Learning because of the COVID-19 pandemic.

Method

A 31-question survey was developed by the researchers about teachers’ backgrounds and settings in e-learning, including their instructional practices, the technology used, and recommendations moving forward based on their experiences transitioning to e-learning during school shutdowns due to COVID-19.

The survey also included questions informed by the community of inquiry (COI) model, which suggests that a successful online learning environment must incorporate teaching presence, social presence, and cognitive presence (Garrison, Anderson, & Archer, 2000). The COI model links to Kolb’s (1984) experiential learning cycle, which focuses on a student’s real-life learning context, particularly in the form of primary social relationships as contexts for experiential learning, as well as the input of the teacher (teacher presence) and content (cognitive presence).

The survey was sent to in-service PK-12 teachers enrolled in graduate-level teacher education programs at a small, private Lutheran university just outside of Chicago. The university has offered teacher education since the late 1800s, and teachers continue to make up a significant portion of its student body. The majority of teachers in these programs teach in private and public school districts in the Chicagoland area; a smaller portion of teachers are from other parts of Illinois and out-of-state. The researchers are members of the faculty at this institution, so the sample was one of convenience but also made sense considering the need for quick and easy access to a teacher population during the emergency COVID-19 situation.

With IRB approval granted, the survey was developed in Qualtrics and distributed via a link in an announcement in the teachers’ courses in the university’s learning management system one month after Illinois Governor Pritzker’s shelter-in-place order on March 21, 2020. Participants gave their informed consent, were assured anonymity, and were assured that their participation would not affect their grades. The survey consisted of multiple-choice, fill-in-the-blank, and Likert scale questions related to teachers’ school setting, resources, understanding and implementation of policies, instructional strategies, and overall experience using educational technology in the transition to e-learning during the COVID-19 pandemic.

Survey responses (n=109) were collected from April 24 to June 26, 2020. The researchers conducted a descriptive analysis of the quantitative data and thematic coding of the qualitative data using Qualtrics analysis software.

Survey Respondent Profile

Responses were received from teachers from a variety of settings. Of the 109 respondents, 38 taught in K-4 settings, 41 taught in grades 5-8 settings, and 24 taught in high school settings. The greatest number of respondents had 4 to 6 years of teaching experience. But there were many teachers with even more teaching experience. So data was collected from a large number of very experienced veteran teachers.
On the other hand, the vast majority of teachers had little or no experience teaching students fully online. In fact, only four respondents said they had taught their students fully online as a part of their school’s regular curriculum.

Survey Results

The results are grouped into four categories: (1) preparation and professional development received, (2) changes in practice, (3) technology used, and (4) recommendations from respondents.

Preparation and Professional Development Received

Teachers prepared for e-learning in three major ways: professional development, preparing, organizing, and sharing content, and setting up communication and record keeping. The list below provides examples teachers gave for each of these categories.

Professional development:
- planning day at school before shutdown
- some training/professional development for technology at school and district level: PLC, coaches
- divided work and collaborated with teacher teams
- research online resources, Teachers Pay Teachers, etc. for making lessons and assignments digital

Preparing, organizing, posting content:
- consider what activities and technology students were already familiar with
- make checklists, daily schedules, routines
- wrote out instructions for classroom assignments
- recorded instructional videos and built slideshows
- prepared to teach with print as well as digital resources; convert print to digital
- posted digital content to LMS and district websites
- not much to do if already using an e-learning platform or had a blended or flipped classroom

Setting up communications and record keeping:
- set up video conferencing software
- create email/phone lists
- set up virtual office hours
- send expectations to parents and students
- set up log for tracking work and participation

Almost all respondents participated in some type of professional development during the initial shutdown of schools, whether offered by their school, through teaching teams, or self-directed learning. To prepare for the school response to the Covid-19 pandemic, 75% of respondents indicated that they had received at least some form of e-Learning training before moving to a fully online environment (see Figure 1). Of those who received some combination of training, 45% participated in formal professional development meetings, 21% received video or other multimedia training resources, and 26% received written materials. About two thirds of the
respondents said they had access to someone at their school who was knowledgeable of the technology integration, strategies, and pedagogical approaches to fully online teaching most of the time or always.

Figure 1

Prior e-Learning Training

Teachers then began to prepare, organize, and share content, such as by making daily checklists, creating instructional videos, and posting content to their e-learning platform or district website. However, some respondents noted that if their school was already 1:1 (e.g. each student uses a device on loan from the school) or if they were already using apps for learning, they didn’t have to prepare much.

Lastly, they set up communications and ways to keep records of students’ experiences with e-learning, such as video conferencing software, virtual office hours, and logs for tracking attendance and participation.

Changes in Practice

The requirements teachers received from their districts for online learning varied, but 38% reported needing to do daily briefings for students. 25% took no attendance, and 50% were told not to give grades. With the move to online, 78% of respondents said they communicated with their students multiple times each week, with 50% saying they did so every day. Communication frequency with parents saw an increase for 67% of respondents, while only 6% reported a decrease in the frequency (compared to before the shutdown).

With the move to fully online learning, it was expected that a teacher’s sense of being socially connected to students (or ”social presence”) would get worse. Not surprisingly, 76% of teachers who responded to this specific question, felt their sense of social connection worsened during the shutdown. A teacher’s ability to effectively design and deliver instruction (or ”teaching presence”) also saw a negative change, with 70% of teachers who responded to this specific question, indicating that things got worse (see Figure 2). Finally, the ability to promote student learning through reflection and discussion (or ”cognitive presence”) saw a negative change, with 74% of teachers who responded to this specific question, indicating that things got worse.
When asked, “What has been going well and not well in your role as teacher during COVID?”, the strength appeared to be in the technologies that allowed for synchronous communication and social presence. On the flip side, the weaknesses mirror other responses, specifically dealing with the platform flexibility, the preset curriculum, difficulty with grading and attendance policies, workload issues, and the general lack of resources. The lists below show responses to the question, “What has been going well and not well in your role as a teacher during COVID-19?”

**Going well:**
- Zoom and other virtual conferencing software
- Seeing students and connecting with students
- Many students have become self-directed
- Collaborating with teachers
- Teachers sharing tasks: e.g. one teacher creates a video and the other takes another task
- Lots of resources
- Having 1:1 computers at home
- Supportive teaching teams and online teacher groups

**Not going well:**
- Students struggled with motivation and engagement
- Incomplete work or no work submitted
- Students are not ready for digital education: struggle with completing assignments
- Students are overwhelmed and frustrated; do not understand process of e-learning
- Students and parents lack of resources and tech support while at home
- Internet disruptions
- Attendance
- Honesty and integrity, students are cheating
- Staying connected: more meetings, email, calls than usual
- Reduced work speed with higher workload
- Struggles with instructional design online
- Preset curriculum is hard to follow
- Online feedback, grades, and management is a difficult, long process
Lack of expectations & guidance from school/ISBE
Completing IEPs
Parents did not see e-Learning as school

Teachers were more confident in transitioning to e-learning during COVID when they were already 1:1 and using e-learning technologies when they were allowed to be flexible in how and when they could teach, and when schools were fair and clear in their expectations. They also appreciated when their administration already had a plan for emergency e-learning situations and were consistently communicative, and when parents were responsive in noting their child’s participation and completion of work. Teachers’ confidence was greater when they worked together to set goals and plan curriculum, when monitoring technology was available, and when they actually had more time to complete the additional work that e-learning required of them.

Technology Tools Used

Our qualitative data revealed that teachers used a wide variety of digital tools as they transitioned to fully online learning when their schools closed. Tools they mentioned ranged from e-learning platforms to video conferencing tools, to assessment apps, to educational apps across various subjects. About three quarters of teachers who responded mentioned using at least two tools besides their school’s e-learning platform to teach students. The most popular was content creation tools and video conferencing tools. See several examples of the technology tools for e-learning during COVID-19 mentioned by respondents below. Of the wide variety of e-Learning platform tools used, Google Classroom was the most common with 53% of respondent’s mentioning it (see Figure 3).

- **e-Learning Platform/Learning Management System (LMS):** Google Classroom, Class Dojo, Canvas, PowerSchool, Haiku, Seesaw, Flipgrid, Padlet
- **Video conferencing tools:** Google Meets, Zoom, Microsoft Teams
- **Content creation tools:** Google Slides, iPad screen recorder, Seesaw, Google Docs, Adobe Creative Suite, YouTube, Microsoft 365, TikTok, Screencastify
- **Assessment:** ALEKS, Quizziz, Kahoot, Assignments and quizzes in LMS
- **Education/subject-level apps:** Edgenuity, RAZ-Kids, IXL, XtraMath, Freckle, Seesaw, Artsonia, Remind App, Mystery Science, Khan Math, Newsela, GoodReader, EdPuzzle, Google CS First: game design course
The e-Learning platforms used appeared to have a noticeable impact on a teacher’s ability to promote social, teaching, and cognitive presence. 50% of teachers who responded to the social presence question, indicated that the e-Learning platform they were using helped promote social presence very well or somewhat well (see Figure 4) Similarly, 49% of teachers who responded to the question about e-Learning platforms and Teaching Presence, indicated that the e-Learning platform they were using helped promote teaching presence (see Figure 5). However, when it came to promoting student learning through reflection and discussion (or “cognitive presence”), most respondents to this question indicated that their e-Learning platform did not do a good job helping with that (see Figure 6).
The data collected also showed variations depending on factors like grade level taught (see Figure 7). For example, e-learning platforms were seen to help encourage teaching presence by a large number of Grade 5-8 teachers (62%) and Grade K-4 teachers (45%). But, e-learning platforms were not viewed as favorably by High School teachers.
Figure 7

**e-Learning Platforms Promoting Teaching Presence by Grade Level**

Recommendations from Respondents

Teachers provided tips and recommendations for both parents and teachers who were new to e-learning. Four categories of replies were identified: managing the “new normal,” communication, instruction, and technology.

The first theme was around managing the new normal. Teachers suggested that parents and teachers be patient, practical, consistent, simple, and offer incentives for their students.

The second theme was that of communication. Teachers suggested that reaching out should be reciprocal among parents, teachers, and students. They identified different ways to use virtual meeting time beyond instruction, including check-ins, Q&A sessions, games, show and tell, and guided reading and discussion groups. They also suggested that communications should focus not only on academics but also on empathy and physical, social and emotional wellness.

The third theme of tips for teachers and parents centered around instruction. Tips included slowly moving activities from easy to difficult, being creative and experimenting with activities, collaborating with other teachers for ideas across subjects, getting regular feedback from students, regularly assess students with low-stakes assignments like quizzes, and consider using grades and scores even if it’s not required by the state to increase motivation.

The final theme was that of technology. Teachers advocated for using a combination of tools such as e-learning platforms, conferencing software, apps, and email. It would be best if these were tools that students, teachers, and parents were already familiar with. They also felt that preparing and organizing digital content such as videos and screencasts of lessons was key, although time-consuming sometimes. Lastly, they suggested using technology that was fun and motivating, such as games, simulations, modeling videos, and activities with scores.

Teachers were also asked for any suggestions for their school or district administration. Their main comments were on the need for planning, policy around grading, technology resources such as 1:1 and e-learning platforms, dedicated technology support for students and parents, and ongoing professional development. They also appreciated flexibility, communication between administration and staff, and more support for converting print
resources and guidance around e-resources that were opened up to the public during COVID. A more detailed list of these suggestions for administration during COVID-19 is provided below.

- Put a plan in place and provide specific instructions for teachers, staff, students, parents
- Grading policy: graded assignments leads to higher motivation and participation
- Participation standards/accountability need to be established
- e-Learning platform should be in place
- Equal access and training for student 1:1 technology
- Dedicated technology support for students; teachers shouldn’t be tech support
- Ongoing professional development and teacher community/forums; subject specific
- Flexibility – students/parents/teachers need a break
- Consistent communication
- More synchronous Q&A sessions between administration and staff
- More support for managing and converting print resources
- Take advantage of e-resources made free/available by companies and organizations during COVID

Discussion

The results suggest several issues and opportunities for making decisions about potential next steps and future research to support in-service K-12 teachers facing the transition to e-learning amid COVID-19. These include the need for further pedagogical support for K-12 teachers in integrating e-learning tools and activities, especially on when and how to use synchronous versus asynchronous strategies for different subjects and grade levels. Teachers also demonstrate a need for clearer guidance on how to develop and implement consistent and reasonable assessment and attendance policies in emergency e-learning situations that also support student engagement and motivation. The role of technology access, training, and implementation in the PK-12 e-learning environment is apparent as well. There were clear differences for teachers in schools that already had a 1:1 technology program before the pandemic.

The results also suggest that there are clear needs for implementing and balancing Garrison et al.’s (2000) three constructs of social, cognitive, and teaching presence within the e-learning environment. Achieving this balance requires instructional design that incorporates not only the presence of the instructor, but also uses technology that can enhance student engagement and cognitive presence in synchronous and asynchronous activities and communications. While teachers stated that e-learning platforms mentioned in this study were useful for social presence and teaching presence, they were not as useful for cognitive presence. The presences need to be intentionally created as these three elements are foundational to the development of deep and meaningful educational experiences in e-learning environments (Dunlap, Verma, & Johnson 2016).

Conclusion

In addition to additional professional development for teachers and administration about pedagogy as well as policy, researchers should conduct a closer analysis for themes around the teaching, social, and cognitive presence in e-learning at the PK-12 level. The developers of e-learning software and hardware can benefit from understanding the importance of this
framework in the development of their products as well. Evaluating the technologies most frequently mentioned in this study are a starting point. Follow up surveys with teachers and administration would aid in this regard to better understand their next steps pending the decisions made concerning e-learning in the new school year.

While many are beginning to embrace the new normal of the pandemic, others continue to believe that we will return to what we were prior to the pandemic. This may or may not be true; but we cannot wait to find out. We need to find more ways to replicate the avenues for cognitive presence, teaching presence, and social presence not only in our academic online classes, but also reflectively in our lives. Using technology effectively, adapting the pedagogical approach to teaching online, and opening our minds up to change are a good place to start.

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References
