A case study of adult education and literacy programs and the transition to remote services during the COVID-19 pandemic

Chih-Wei Wang1,2 | Amanda Sainz1,2,3 | Suresh C. Joshi4 | Mary V. Alfred1,2

1Department of Educational Administration and Human Resource Development, Texas A&M University, College Station, Texas, USA
2Texas Center for the Advancement of Literacy and Learning, Texas, USA
3Department of Educational Psychology, Texas A&M University, College Station, TX, USA
4Jindal School of Psychology and Counselling, O.P. Jindal Global University, Sonipat, Haryana, India

Correspondence
Chih-Wei Wang, Department of Educational Administration and Human Resource Development, 4226 Texas A&M University, College Station, TX 77843-4226, USA.
Email: amywang523@tamu.edu

Abstract
The COVID-19 pandemic drastically impacted the Texas Division of Adult Education. As a result, Texas’s grant-funded adult education and literacy (AEL) programs transitioned to remote instruction. There was a need to understand how this unfolded. Thus, the purpose of this case study was to explore how the Texas Division of Adult Education guided AEL programs in the transition to remote services. Several published records were collected and analyzed using document and content analysis. The research findings revealed effective crisis management strategies and professional development interventions implemented by state leadership. This study also highlights the challenges and potential advantages of remote learning. These outcomes are helpful because they could guide other state agencies in incorporating remote learning courses. Ultimately, professional development training evaluations indicated the need for further program support to foster training transfer. This article concludes with implications for AEL programs and suggestions for future research.

KEYWORDS
adult education, crisis, distance education, remote instruction, virtual professional development

Prior to COVID-19, adult education and literacy (AEL) programs provided educational and workforce literacy courses in traditional face-to-face classrooms with distance learning options. These programs serve various adult students from diverse cultural backgrounds, economic statuses, and ethnicities. Most adult students enrolled in these programs are from underserved populations (Ginsberg & Wlodkowski, 2020), and this pandemic crisis led to even more challenges for both programs and their students. Social distancing requirements forced programs to offer their courses remotely (Kaiper-Marquez et al., 2020). Programs needed additional professional development training and guidance (Kaiser & McKenna, 2021). Therefore, this study aimed to investigate the strategies and professional development interventions that aided the transition to remote services. This case study presents a successful example of the Texas Division of Adult Education's change to remote services amid a crisis. This study also demonstrates the challenges faced and the crisis management strategies utilized in response. This case is relevant to all Adult Education agencies, especially during emergency response situations. Program leadership could also apply these strategies to introduce new instructional models and transition to a new model of instruction.

BACKGROUND OF THE STUDY

Approximately 43 million adults in the United States cannot read or write above a third-grade level (National Center for Educational Statistics, 2019). According to the U.S. International Assessment of Adult Competencies
program report, 28% of the Texas adult population falls at or below level one literacy proficiency (National Center for Educational Statistics, 2020). Adults at or below level one proficiency struggle with vocabulary and reading comprehension. Additionally, over 40% of adults with low literacy skills live in poverty (Literacy Texas, 2021). Educational and workforce development programs help students function on the job, within their families, and in society (Scully-Russ & De Col, 2020). AEL programs support adult students with various literacy services such as adult basic education, high school equivalency, English as a second language, family literacy, citizenship preparation, career pathways, integrated education and training, digital literacy, and health literacy courses (Texas Workforce Commission, 2020). The Office of Career, Technical, and Adult Education and the U.S. Department of Education (n.d.) provides funding for AEL programs. This office manages grant funding at the state level under the Workforce Innovation and Opportunity Act of 2015, which streamlines workforce development, adult education and literacy, and vocational rehabilitation activities by emphasizing collaboration at the federal, state, and local levels.

The Workforce Development Agency in Texas has several divisions, such as childcare, adult education, vocational rehabilitation, unemployment benefits, and tax programs (Texas Workforce Commission, 2021). The Division of Adult Education (DAE) awards funding to the statewide professional development resource center (PDRC) to provide instructional support to eligible programs. Professional development (PD) is the formal training PDRC offers practitioners to expand their instructional knowledge and skills. Programs utilize the Texas Educating Adults Management System (TEAMS) database to document and report information related to AEL services. According to this database, Texas awarded grants to 35 organizations in the 2019–2020 program year. With the DAE’s guidance and the PDRC’s support, Texas programs serve approximately 90,000 adult students per year. Most adult students enrolled in program year (PY) 2019–2020 were female (over 70%), and the student demographic breakdown was 70% Hispanic or Latino, 10% White, 10% Black or African American, 6% Asian, and 4% other race/ethnicity. Among those students, 58% were enrolled in English as a second language courses, 39% were enrolled in adult basic education courses, and 3% in other courses. Most students enrolled in Texas AEL programs during PY 2019–2020 were second language learners who struggled with communication barriers. The onset of COVID-19 exacerbated these communication barriers, and many students relied on their instructors for support.

Programs administer National Reporting System (NRS, n.d.) approved baseline and postassessments upon enrollment and completion of a class. Baseline assessments test student language and skill levels when they enter a program, and postassessments track student progress throughout their time in a course. Before COVID-19, these baselines and postassessments were administered to students in person. Programs facilitated assessments at local adult education centers, community colleges, independent school districts, or public libraries. However, these facilities were closed to meet social distancing guidelines. The NRS did not write assessments for a virtual environment; therefore, students could not test when programs closed their doors. Moreover, AEL field practitioners often work part-time for low pay and minimal benefits, making them economically vulnerable as well (Boeren et al., 2020). Sudden program closures brought services to a halt and restricted the PDRC and all stakeholders from hosting classes or PD sessions, resulting in the transition to remote instruction.

Along with face-to-face courses, AEL programs provide distance learning options for students. Distance learning students complete their online assignments outside of class, and then instructors review the material with students during class (Kaiper-Marquez et al., 2020). This format is beneficial because students can review distance learning activities and learn at their own pace. Texas has a list of 33 approved distance learning software applications such as Aztec, Burlington English, and Khan Academy. AEL programs can choose a software application from this list to meet their students’ needs. However, before the COVID-19 pandemic, students and teachers had limited access to technology resources such as computers, tablets, and the internet due to funding and grant restrictions (Rose et al., 2019). AEL students have often faced difficulties accessing technology resources due to limited income, educational background, and geographic location (Ryan, 2018). Although many programs were already utilizing distance learning platforms, there was still limited program-wide infrastructure for teaching remote courses.

Remote instruction courses are synchronous; thus, the instructor and students interact in real-time via virtual platforms (Kaiper-Marquez et al., 2020). Remote courses require instructors and students to have stable internet connections, computers or tablets, video cameras and microphones, and the digital skills to navigate the course. Instructors also need technology and virtual instruction skills to engage students in remote learning. Before COVID-19, many AEL instructors had reservations about learning new technology, so they had limited computer technology skills (Rose et al., 2019). AEL students needed more access to technology resources and digital literacy skills training to successfully participate in distance learning and remote instructions (Vanek et al., 2019). These limitations indicated that AEL programs needed further support from the DAE to cope with these challenges during their transition to remote services.
With the challenges noted above, the purpose of this study was to examine how the Texas DAE led the transition to virtual learning as precipitated by the need for social distancing to avoid the spread of the COVID-19. Therefore, we used a case study approach (Yin, 2009) for this investigation to assess the DAE using document and content analysis (Bowen, 2009). We aimed to answer the following research questions:

1. How did the state’s DAE respond to the needs of Adult Education and Literacy programs during the early phases of the COVID-19 pandemic (i.e., March–May 2020)?
2. How did AEL programs utilize virtual professional development support in response to the COVID-19 shutdown?

Findings from this study can guide other organizations when responding to systemic disruptions. Adult education courses are hosted in various places, including colleges and universities, public school systems, the workplace, and community organizations; therefore, practitioners within all of these contexts may find these outcomes helpful.

THEORETICAL FRAMEWORK

The theoretical framework for this study is based on chaos theory (Thietart & Forgues, 1995), which refers to situations that are difficult to control and predict. Chaos theory outlines how complex dynamic systems with nonlinear relationships are sensitive to slight changes, resulting in unintended consequences (Thietart & Forgues, 1995). For example, unpredictable natural disasters, turbulence, and stock-market changes may result in chaos, leading to other related crises within the system (Sellnow et al., 2002). However, these “complex and unpredictable results [are] actually not random but, rather, could be expected in systems that are sensitive to their initial conditions” (Swanson & Holton, 2009, p. 129). The global pandemic was unpredictable, and most notably, difficult to control, leading to catastrophic impacts on health and wellbeing, economic systems, and the education enterprise worldwide. Chaos theory has been used to understand the phenomena of social sciences in subject areas such as education, economics, psychology, organizational studies, and crisis communication and management (Kiel & Elliott, 1996; Levy, 1994; Swanson & Holton, 2009). Thus, Chaos theory was determined to be a viable analytical lens for assessing the ripple effects of the Texas DAE’s actions in response to the pandemic. This study attempts to understand how one state organization rapidly responded to the disruption of its complex adult education system and continued to serve students.

The present study utilizes the four underlying principles of Chaos theory: the butterfly effect, unpredictability, mixing, and feedback (Fractal Foundation, n.d.; Kiel & Elliott, 1996) to understand how the COVID-19 pandemic impacted AEL programs in Texas and how the DAE responded. The butterfly effect reflects how minuscule actions can lead to drastic long-term outcomes. The principle of unpredictability highlights how it is impossible to identify all the initial conditions within a complex system, making it impossible to predict the result of the system. The mixing principle explains how two adjacent points in a complex system will be in different positions over time because of chaotic events. Lastly, the feedback principle describes how a system will often become chaotic when receiving feedback from multiple sources.

The four principles described above align with the DAE’s crisis amid COVID-19 closures. First, the COVID-19 outbreak began in Wuhan, China but quickly became a global pandemic that affected millions of people (World Health Organization, 2020). Second, this global pandemic created an unpredictable environment, making it difficult for programs to anticipate when it would be safe to gather socially. Third, AEL programs were at different phases of the technology integration process before the pandemic began. These inconsistencies made the transition to remote services different for every program, despite receiving the same guidance and support from the state office. Lastly, a large volume of information about COVID-19 was released, which led to an overwhelming number of questions and concerns from AEL program staff, instructors, and their students. These four underlying principles illustrate how the crisis unfolded within Texas AEL.

COVID-19, EDUCATIONAL IMPACTS, AND ADULT EDUCATION

This section presents a literature review of COVID-19’s general impact on education, especially adult education. Governments and educational boards in various countries across the globe took steps to curve the effect of COVID-19 (Garcia & Weiss, 2020; Tran et al., 2020). For example, the Chinese government launched an emergency educational policy, “Suspending Classes without Stopping Learning” (Zhang et al., 2020, p. 1), to continue
learning online. Such initiatives, however, faced numerous challenges, including a lack of solid and widespread online infrastructure, information gaps and overload, and a lack of teacher and learner preparedness (Ali, 2020). Several education agencies made important decisions to help students adversely affected by school closures (García & Weiss, 2020). The U.S. Department of Education granted a targeted 1-year waiver to all 50 states on federal testing requirements for the 2019–2020 school year (U.S. Department of Education, 2020). The outbreak of COVID-19 tested educational structures at various levels and indicated a need to have a robust system in place to survive an epidemic or pandemic.

The COVID-19 pandemic has stressed the entire education system (DePietro, 2020), and adult education was no exception. COVID-19 significantly impacted AEL programs because many students and teachers struggled with social and economic disparities before the pandemic (Boeren et al., 2020; Miles, 2021). These disparities include low income, limited access to technology, lack of technology skills, legal residency status, and lack of healthcare (Sulak et al., 2020; U.S. Department of Education, 2019). By April 9, 2020, 20 million American adults filed for unemployment claims, and the unemployment rate hit 14.7% in the United States, the highest percentage since 1940 (Lambert, 2020). Such high unemployment numbers affected adult education programs because, as previous studies indicate, adult education enrollment tends to increase with unemployment rates (McKinney, 2017; Sandberg et al., 2016). In Texas, over 2 million people became unemployed between March 15 and May 16, 2020 (Novak & Ferman, 2020). COVID-19 also affected career opportunities (Hite & McDonald, 2020) and labor market needs (Green, 2020). Additionally, “nearly 75% of adult education is related to the workplace” (Boeren et al., 2020, p. 2), indicating a potential shift in workforce development curricula. Altogether, the COVID-19 pandemic affected adult learning programs, but the extent of these effects remains unknown.

**METHODOLOGY**

This qualitative study explores how the Texas DAE responded to COVID-19 program closures (Creswell, 2015). A case study approach was most suitable because it is an empirical inquiry that investigates a phenomenon in the context of real life. This approach allowed for an in-depth exploration of issues within a bounded system (Yin, 2009), helping to identify critical factors for transitioning to remote services amid a crisis. We made a case for The Texas DAE within the context of AEL programs. This case study aimed to explore how the DAE responded to program needs within the bounded system of Texas AEL. This study also aimed to identify how AEL programs utilized virtual PD support to transition to remote instruction. To provide a comprehensive description of the issues in this case and to support the purpose of triangulation, it is necessary to use multiple sources of information (Yin, 2009). Therefore, we collected various datasets reflecting Texas AEL programs and leadership.

Document analysis is “a systematic procedure for reviewing or evaluating documents, containing text (words) and images that [were] recorded without a researcher’s intervention” (Bowen, 2009, p. 27). Further, content analysis helps researchers organize and process information in the context of the central research questions (Bowen, 2009). Reliability and validity were ensured via member checking (Merriam, 2002). All findings were ultimately sent to the PDRC’s Managing and Communication Directors for review. Data collected from the PD Portal were also verified by the PDRC’s Manager of PD Logistics. The DAE immediately established a weekly meeting schedule with program facilitators across the state to maintain communication amid closures. Thus, two groups of participants were involved in this data collection. The first set of participants were the DAE administrators, PDRC leaders, AEL program directors, and coordinators from the weekly meetings. The second group of participants were AEL instructors and staff who took virtual PD sessions and completed the anonymous training evaluation survey.

**Data source**

The data for this study included information from the PDRC website, AEL policy and guidance letters, the DAE health and safety memorandum, a frequently asked questions (FAQ) document, weekly meeting recordings, and PD training evaluation reports. The PDRC website was the primary data source for this study because much of the data was published there. AEL policy and guidance letters outlined policy measures for grant recipients to follow and maintain funding. The DAE issued a health and safety memorandum to AEL grantees on March 16, 2020. This memorandum contained COVID-19 health and safety acknowledgments and contact information for respective grant management teams. The DAE orchestrated an FAQ document that included detailed explanations of frequently asked questions regarding AEL services during COVID-19. The DAE updated this document regularly to include new questions and information from each meeting. Weekly meetings were hosted and recorded via
Zoom or Teams from March 16–May 21, 2020. The DAE, PDRC, AEL program coordinators, and service providers were required to attend these meetings. Researchers transcribed meeting recordings for further analysis. The PD Portal is the learning management system used by PDRC, where PD offerings, participation reports, and training evaluation surveys are made available. PD training evaluation surveys were distributed by PDRC for each session between March 16 and May 15, 2020, to collect participant feedback on their satisfaction with the training session and the application of their learning.

**Professional development evaluation survey measures**

PDRC utilizes the four-level Kirkpatrick training evaluation model (Kirkpatrick & Kirkpatrick, 2006) to assess PD quality. Level 1 measures participant reactions, level 2 evaluates learning during training sessions, and level 3 considers how participants apply newly acquired knowledge and skills to their jobs. The purpose of the 4th level is to review these results and make improvements to future PD sessions. Level 1 and 3 evaluations are included in this study to determine participant reactions and on-the-job behaviors after completing virtual PD sessions. Before the pandemic, level 1 feedback surveys were paper-based and distributed at the end of each face-to-face session. This process ensured an almost 100% response rate because participants completed their surveys before leaving the session. However, level 1 evaluation distribution became virtual when the pandemic struck, significantly impacting the response rate.

Level 1 evaluation surveys become available in the PD Portal immediately after a participant completes a training session, and they have 7 days to complete it. Level 3 evaluations are distributed 8 weeks after the completion of a session. These evaluations are anonymous and voluntary. A reminder email for taking the evaluation survey is sent 5 days after the survey is distributed. Level 1 evaluations have 15 questions divided into three categories: environment, content, and trainer. The questions use a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), and each category has a space for comments. The reliability estimates of Cronbach's alphas for the three environment items, five content items, and seven trainer items were 0.88, 0.89, and 0.96, respectively. Environment questions assess the convenience of the webinar, visual and speaking clarity, and whether the webinar environment was conducive to learning. Content questions focus on the session's objectives, quality of content, applicability to practice, relevance to the AEL field, and the amount of information presented within the time frame. Regarding the trainer category, questions cover whether the trainer was engaging and professional, started on time, appeared prepared, delivered content clearly, and the trainer's knowledge on the topic and training pace. There were 448 survey responses collected, reflecting a 10.8% response rate.

Level 3 evaluations focus on participants' implementation of PD materials and strategies by asking the following questions: What have you implemented from this training? Or, if you have not implemented anything, please explain what prevented you from doing so. The average response rate for level 3 evaluations collected between March 22 and May 15, 2020, was 14%. The response rate for each PD session varied between 3%–43%. There was a total of 578 text responses analyzed for this case study.

**Data analysis**

Data from the PDRC website, AEL policy and guidance letters, the FAQ document, weekly meeting recordings, and the DAE health and safety memorandum were analyzed using document and content analysis. Content analysis is “the process of organizing information into categories related to the central questions of the research” (Bowen, 2009, p. 32). A content analysis allowed us to track the development and changes within Texas AEL during COVID-19. We used weekly meeting transcripts as a guide for developing a timeline of all significant correspondence between the DAE, PDRC, and AEL service providers. These meetings revealed the DAE's decision-making process for supporting programs throughout the initial stages of the pandemic. We also chronologically organized critical information from the PDRC website, the FAQ document, AEL policy and guidance letters, and the health and safety memorandum to better understand how the DAE responded to program needs. PD training evaluation survey responses were analyzed using descriptive analysis and content analysis to identify the satisfactory level of PD sessions and how AEL practitioners utilized what they learned from these sessions.

**FINDINGS**

Study findings present key strategies that the Texas DAE implemented during the transition to remote services amid COVID-19. Two significant strategies aided this transition: (a) robust communication and information
dissemination and (b) increased professional development around technology integration. These findings also revealed the outcome and impact of these PD interventions during the initial stages of COVID-19 (March–May 2020).

**Communication and information dissemination**

The DAE and the PDRC collaboratively supported AEL programs using several strategies to continue serving adult learners. Upon receiving notice of COVID-19 and the closure of AEL programs, The DAE established an emergency response plan. This plan included the following strategies: establishing a new webpage, conducting virtual weekly meetings, releasing an FAQ document, distributing surveys, revising AEL policy and guidance letters, providing remote instruction and testing guidance, providing grant funds for digital resources, and offering additional PD training opportunities (Figure 1).
The PDRC launched the “Pandemic and Distance Education Resource” webpage on March 12, 2020, to establish a central location for communication. The site has two interfaces, one for AEL providers and one for students. The provider webpage contains information on serving students at a distance, for example, remote instruction, remote testing, unemployment insurance, weekly meeting recording links, an informational video with website updates, DAE contact information, wellness resources, internet provider resources, communication tools, and upcoming deliverables. The student webpage contains the following information: pandemic fact sheets in multiple languages, web links to check class openings, information about High School Equivalency testing centers, unemployment insurance information, family support resources, free learning resources for adults and children, free internet provider offers, and wellness tools. Teachers and students can find tips for working from home, managing anxiety, and coping with the impacts of the pandemic.

The DAE released a health and safety memorandum (i.e., health and safety concerns of employees), an official acknowledgment that COVID-19 caused challenges for continued operation because of social distancing requirements, on March 16, 2020. Grantees were encouraged to remain flexible while providing quality services and ensuring safety, and grantees were also asked to submit all questions to the DAE. Beginning March 19, 2020, the DAE initiated weekly meetings with all AEL grantees and providers via Zoom or Teams. In the first weekly meeting, the director of DAE addressed that:

“I’ve been through the 9/11; I went through several hurricanes, Hurricane Katrina, Rita, Harvey, big recessions. And when those things happen, everybody gets very lenient. This is more pervasive than even most of those in terms of impacting adult education and students because schools are closed.

This statement indicated that the director had a wealth of experience leading and supporting his team through crises. The DAE also addressed updates and answered AEL grantees’ questions in these meetings. The DAE compiled all questions into a 67-page FAQ document that was continuously revised and updated. The document included an interactive table of contents with a timestamp for each question, and the DAE highlighted new information in yellow for reference. The DAE also released the first modified AEL policy and guidance letter (i.e., PY 2019–2020 AEL enrollment and performance targets) to address funding issues and lift restrictions on technology-related purchases on March 19, 2020. The FAQ document and policy guidance letter contained DAE contact information, grant allocations, performance measures, remote learning information, technology, and program operations.

The PDRC responded to remote teaching needs by providing additional PD training sessions to AEL providers beginning March 23, 2020. The PDRC invited distance education experts to host the first virtual training on remote instruction via WebEx on March 25, 2020. After this training session, the PDRC launched a series of remote instruction webinars via Zoom to serve more participants. Each webinar had one or two assigned personnel from PDRC as tech assistants to help trainers and participants navigate the live presentation and interactive process. Most live webinar sessions were recorded and uploaded to the PD Portal, the learning management system, for AEL staff to access at any time. Prerecorded webinars uploaded into the PD Portal as course curricula contain videos, notes, accessible outlines, and summative assessments. These PD opportunities equipped instructors and staff with the technical skills necessary for serving students remotely.

On May 5, 2020, the DAE updated the AEL policy to include relaxed expectations for performance measures impacted by COVID-19. These disclosures reminded grantees to continue serving students, regardless of performance measures. Additionally, the DAE sent out various surveys asking AEL providers to disclose their program operation status. For example, one survey question asked programs, “What delay in operations has your institution implemented?” This feedback helped the DAE decide on grant flexibility, remote instruction resources, and digital device loan services for AEL students. These changes allowed programs to purchase and provide technology to students and staff, making it possible for services to continue.

NRS testing was another statewide barrier during the early phases of the pandemic. Social distancing guidelines made it impossible for testing to take place, and the TEAMS database requires an NRS score to register new students in the system. The DAE gave temporary approval for programs to use unauthorized baseline assessments to test and document new students. They also provided directions for tracking these new students outside of TEAMS so that services could continue. Ultimately, 264 new students enrolled in programs by the end of April 2020.

Once NRS approved test publishers developed remote testing guidelines and procedures, the PDRC immediately developed new PD sessions for remote testing. Beginning April 24, 2020, AEL instructors and staff could become certified test administrators to facilitate remote NRS approved baseline and post-assessments. The PDRC launched remote assessment certification training sessions for Basic English Skills Test Plus (BEST Plus 2.0), Tests of Adult Basic Education (TABE), and the Comprehensive Adult Student Assessment System (CASAS). Although training for remote test administration began in late April, programs did not start remote testing services until
approximately July 2020. Remote testing availability varied based on AEL program readiness. By the end of June 2020, there were 1829 certified remote test administrators in Texas (548 for TABE, 699 for BEST Plus 2.0, and 582 for CASAS).

**Professional development around technology integration**

Technology and distance learning PD training sessions were available to practitioners before the pandemic; however, the number of registered participants was low. Most PD sessions primarily focused on adult learning principles and classroom teaching strategies. However, as the need for technology support increased, PD content focused more on incorporating virtual platforms and remote teaching strategies. For example, sessions titled “I’m Taking My Classroom Virtual, Now What?” and “An Overview of Zoom as a Virtual Classroom Tool” were developed to demonstrate how to teach online. According to PD Portal records, registration numbers drastically increased between March 23 and May 15, 2020, with over 4500 participants attending live PD webinars.

With the shift in PD delivery from in-person to Zoom, there was a drastic increase in participation. There were seven webinars with over 200 participants in each session. Table 1 reflects topics covered in the webinars and the participant counts. There was also an increase in the number of participants who completed course curricula and live webinar sessions compared to previous quarters of the program year (Figure 2). 1723 participants completed 7690 courses in the PD Portal, earning a total of 12,043 PD hours between March and May 2020. PD Portal usage expanded throughout this time.

**Impact of professional development intervention**

Researchers collected 448 level 1 and 578 level 3 survey responses between March and May 2020. Although the PD evaluation response rate was low, the student retention rate and the number of certified remote testers proved that AEL programs continued serving students at a distance. TEAMS data showed that AEL programs retained 78% of their adult learners (35,064 total students) between March and May 2020, compared to a retention rate of 79% in the spring of 2019. PD evaluation surveys indicated that these interventions had an overall positive impact on virtual instruction. These evaluation surveys also outlined areas for improvement and challenges faced by programs amid this transition. Feedback from Table 1 PD webinar topics is presented in the following section.

Level 1 evaluations assess the session environment, the content, and the trainer. The mean score for the environment was 4.56 (maximum score = 5), indicating that overall, participants were satisfied with the online platform. There were 10 positive comments regarding the environment (e.g., comfortable, good learning environment) and two negative comments (e.g., problems with the internet connection). The mean score for content was 4.59 (maximum score = 5), indicating that overall, participants were satisfied with the content presented. There were 68 positive comments regarding content (e.g., very helpful, informative, relevant, applicable, and great information/resources) and 13 negative comments (e.g., too basic, need more time, too much information
| Date       | Online professional development webinar topic                                                                 | Number of participants |
|------------|-------------------------------------------------------------------------------------------------------------|------------------------|
| 3/23       | TX AEL Manager Monday: A Culture of Inclusion                                                               | 40                     |
| 3/25       | Workforce Wednesday: Tips for Teaching Resume Writing                                                       | 32                     |
| 3/25       | I’m Taking My Classroom Virtual, Now What?                                                                   | 283                    |
| 3/26       | Engage! Taking Your Class Live & Online                                                                     | 87                     |
| 3/26       | An Overview of Zoom as a Virtual Classroom Tool                                                              | 250                    |
| 3/27       | Just in Time WebEx Training for Teachers                                                                     | 151                    |
| 3/27       | Engage! Taking Your Class Live & Online                                                                     | 103                    |
| 3/27       | Tech and Tell: Wonderopolis®, Part 2                                                                         | 71                     |
| 3/30       | Just in Time WebEx Training for Teachers                                                                     | 120                    |
| 3/31       | An Overview of Zoom as a Virtual Classroom Tool                                                              | 220                    |
| 4/01       | Planning a Flipped Approach to Online Learning (AM & PM)                                                     | 131                    |
| 4/02       | Creating Effective Educational Video (AM & PM)                                                               | 117                    |
| 4/07       | The Census and Real-World Math                                                                             | 35                     |
| 4/10       | Distance Learning Academy 1: Nuts and Bolts                                                                  | 106                    |
| 4/13       | TX AEL Manager Monday: Bridging the Data Analysis Gap                                                       | 103                    |
| 4/14       | Teacher Tuesday: Where We Are Now in AEL                                                                    | 175                    |
| 4/17       | Tech and Tell: Riding the Wakelet Wave, Part 1                                                               | 65                     |
| 4/22       | Workforce Wednesday: Retooling Transitions to College to Meet English Language Learner Student Needs         | 55                     |
| 4/24       | Tech and Tell: Riding the Wakelet Wave, Part 2                                                               | 57                     |
| 4/24       | BEST Plus 2.0 Remote Testing Administration (AM & PM)                                                         | 502                    |
| 4/25       | Student Persistence and Motivation                                                                           | 31                     |
| 4/25       | Building Persistence and Resilience                                                                          | 30                     |
| 4/29 and 30| Integrating Digital Literacy Instruction for College and Career Success Training of Trainers (TOT)           | 40                     |
| 5/01       | TABE 11/12 Remote Test Administration for Texas                                                              | 242                    |
| 5/04       | Google Classroom: The Basics                                                                                | 34                     |
| 5/05       | Using The Change Agent to Teach Writing                                                                     | 21                     |
| 5/05       | TABE 11/12 Remote Test Administration for Texas                                                              | 222                    |
| 5/06 and 07| Google Classroom: The Basics                                                                                | 126                    |
| 5/11       | Manager Monday: TEAMS Measurement Skills Gain Management Report for Administrators                           | 199                    |
| 5/12       | Learning Upgrade Digital Literacy                                                                           | 63                     |
| 5/12       | Texas Style CASAS (TOT)                                                                                      | 23                     |
| 5/12       | Teacher Tuesday: Measuring Student Outcomes Just Got Easier P2                                               | 145                    |
| 5/13       | Integrating Employability Skills: A Framework for All Educators                                              | 21                     |
| 5/14 and 15| Distance Learning and Technology Integration Virtual Symposium 6 sessions                                    | 647                    |
| 5/15       | Integrating Services in AEL, Workforce, and Vocational Rehab (TOT)                                            | 14                     |

in too short of time). There were seven suggestive comments where participants requested a follow-up session for more practice and more time for detailed information for the session.

The mean score for the trainer was 4.67 (maximum score = 5), indicating that overall, participants were satisfied with the trainer’s presentation. Most comments regarding the trainer were positive (46 out of 50). Positive comments included “easy to follow,” “awesome presentation,” “engaging and entertaining,” and “willing to answer questions.” There were three negative comments (e.g., the webinar was too fast, not enough time, not enough detail in answering the questions for practices) and one suggestive comment (e.g., slow down the pace).
Level 3 evaluations assess whether participants implemented what they learned in PD sessions. Text responses were coded into three categories: 63% did apply new strategies or materials, 31% did not use new strategies or materials, and the remaining 6% of responses were not relevant to strategy or material implementation.

Did apply new strategies or materials: Among these responses, 17% of participants reported that they practiced some of the knowledge and skills learned from the PD but did not explain how they implemented it. Participants said that they did implement the online strategies and remote testing guidelines presented in PD sessions and that their experience was positive. For example, “we tried it and loved the way it worked” and “the ideas and strategies were useful in my lessons.” Five percent of participants simply responded: “in progress”; however, more than half (58%) of the participants shared how they implemented the knowledge and strategies acquired from virtual PD sessions. After attending PD sessions about using Zoom for class meetings, participants discussed the importance of incorporating the virtual whiteboard, document camera, and share screen functions during class. One instructor reported, “All of my students have access to the online course. If they encounter technical issues, I am able to assist to resolve [them]. We use the whiteboard for writing in-class assignments and chatroom for some discussions for those without audio.” These sessions provided participants with the technical skills necessary to facilitate a virtual classroom in Zoom.

Participants who could conduct remote testing for BEST Plus 2.0, CASAS, or TABE remote testing PD sessions reported that they learned strategies and best practices for remotely administering assessments. One participant wrote, “I have implemented the distance training for testing TABE students, and it has gone very well. Most students have adapted great to this new system.” Other participants mentioned they could generate testing reports and follow the guidelines for remote testing. This feedback indicated that AEL instructors applied what they had learned in virtual PD sessions.

For other PD sessions, participants discussed how they could design their own Wakelet (a webpage where you can create and share your content) and run MSG (Measurement Skill Gains) reports to track student progress. After implementing methods they learned in PD sessions, several participants indicated that they could engage students in remote classes. One participant shared that “flipping the classroom has made the class sessions more worthwhile and engaging. Students are required to come ready to discuss or review the assignments, and I believe this makes online learning not feel like online learning.” The examples mentioned above revealed that most participants were experiencing positive outcomes when utilizing the strategies presented in PD sessions.

Fourteen percent of responses were related to future implementation, where participants discussed plans for applying new strategies or materials. Participants who had not implemented materials or methods but planned to in the future explained that their programs were not offering classes at the time due to COVID-19 closures. Some participants mentioned a specific time they plan to apply their learning, such as “working on integrating new resources in 2020–2021 fiscal year” and “when we return to class July 6, 2020, I will implement Bridging the Data Analysis Gap Behavior.” Other participants made more general statements. For example, “I am about to implement all tips and basics provided in this webinar” and, “We will discuss how we can best implement this soon.” Additionally, around 4% of participants mentioned that they would share the training materials with others to support their roles. The last 2% of responses were related to knowledge or skills gained. While most responses were about new strategies and material implementation, negative responses revealed what inhibited their application.

Did not apply new strategies or materials: Among those who reported that they did not apply new strategies or materials, 57% of participants indicated they lacked opportunities to implement what they learned. Most of them explained that the COVID-19 situation affected their course offerings. For example, one Zoom PD session participant said: “I haven’t been able to implement much since I didn’t have enough students to form a Zoom classroom.” Other PD topic participants said: “The topics covered in training may not have been implemented due to lack of resources due to pandemic.” For remote testing PD sessions, most participants explained that their program was not yet offering remote testing, which limited their application. In reference to sessions about online platforms and programs, a few participants specified that they were not applying any skills acquired because their program was using a different platform. For example, “Not clear on how to implement [Google Classroom]; using Blackboard instead;” “Department decided not to use Zoom” or “Nothing [WebEx training] - all of our instructors decided to use Zoom.” More than half of the participants stated that they did not apply new strategies or materials because they did not have the resources.

Twenty percent of participants explained that they lacked the time or that the training did not apply to their roles. The other 20% of participants pointed out other reasons such as “lack of staff with technology” or “not clear how to implement.” Some instructors highlighted that “students do not have access to Google Classrooms,”
making it difficult for them to integrate this program into their classroom. Other instructors stated that it “will be a difficult task for my students that have limited technological skills,” emphasizing that students’ technology skills are a vital component for remote learning. The remaining 3% of participants did not provide any explanations. Altogether, these responses revealed different barriers that prevented participants from implementing PD session strategies or materials.

The findings described above presented the strategies and professional development implemented by the DAE during the transition to remote services amid the COVID-19 pandemic (March to May 2020). The DAE and PDRC collaboratively supported AEL programs by establishing robust communication and information dissemination and increasing professional development around technology integration. These findings also revealed several challenges and areas for improvement. For example, limited access to the internet made it difficult for instructors and students to participate in virtual learning. The additional virtual PD training sessions allowed the PDRC to serve more participants. Over 12,000 PD hours were completed between March and May 2020, with more than half of the participants indicating that they could apply what they learned to their positions.

DISCUSSION

This study analyzed how the DAE responded to the needs of AEL programs during the early phases of the COVID-19 pandemic (i.e., March–May 2020) and how Texas AEL programs transitioned to remote instruction. The DAE established a web-based central location to disseminate information to maintain constant communication amid program closures. Further, they scheduled weekly meetings and distributed surveys to AEL practitioners to collect feedback and status updates. They also provided remote instruction and testing guidance, grant funds for digital resources, and additional virtual PD training sessions. An FAQ document was released that outlined all changes to policy and guidance, and it was updated after every weekly meeting. The outcomes of these communication and crisis management strategies and PD interventions will be discussed.

The DAE acknowledged COVID-19 as a crisis by releasing a memorandum and developing an entire webpage for resources, updates, and announcements. The DAE then launched an FAQ document to reference all pandemic and program-related questions. The DAE also initiated a weekly meeting schedule and distributed several feedback surveys to reach every AEL program in Texas. Together, these communication strategies and actions helped reduce workplace anxiety so that employees could focus on their job priorities. These strategies further support the importance of effective communication in a time of crisis, that is, managing information and managing meaning (Coombs, 2015). Managing information is related to the timely collection and dissemination of information. Managing meaning is related to the efforts made by leaders to influence how stakeholders perceive the situation is perceived by all stakeholders involved. By providing AEL programs with the relevant information they needed to continue serving students, all programs could persist, and the overwhelming amount of feedback was reduced.

Several factors within AEL were affected due to the unpredictable circumstances of COVID-19. For example, the pandemic affected classroom accessibility, course availability, access to technology, instructional methods, enrollment rates, and student retention. Financial needs were impossible to predict because technology availability varied from program to program. These circumstances made decision-making processes even more challenging for AEL service providers, the DAE, and the PDRC. DAE leadership provided top-down support to practitioners to make this transition possible. PDRC hosted 55 virtual professional development intervention sessions for remote teaching and testing. Our findings showed a drastic increase in participation for these PD sessions compared to previous quarters. Between March and May of 2020, there was a 67% increase in attendance for live webinar sessions and a 70% increase in attendance for online curricula courses (Greer & Snow, 2020). These additional PD sessions helped AEL instructors and staff acquire the skills to provide remote instruction.

Due to the implementation of the strategies discussed above, AEL programs successfully transitioned to remote instruction. AEL instructors and staff are becoming technologically equipped due to this transition, so they can support students with learning at a distance. This climate was beneficial because it pushed instructors and students to adopt technology skills. Virtual PD will also remain available because PDRC can reach a more significant population with this format. Although the spread of COVID-19 is no longer emergent, the DAE and PDRC continue to apply these strategies. For example, PDRC hosted its first conference in a hybrid format in the fall of 2021. PDRC accommodated more attendees this way and invited presenters from all over the nation. This transition experience revealed the potential advantages of remote learning; therefore, it should be further promoted in AEL. This case study provides successful strategies for transitioning to a remote learning environment. Other state education agencies should consider implementing these strategies to support their programs transitioning to remote
learning environments. One significant benefit to this format is the elimination of travel barriers, allowing state agencies to serve more instructors and students.

From a human resource development perspective, the DAE, as a leading entity, demonstrated strong crisis management capabilities. Their crisis management strategies align with the processes discussed in the literature review by Mitroff (2005) and Hutchins and Wang (2008), which states that crisis management and containment involve effective communication with internal and external stakeholders to address how resources and investments are being secured and disseminated. Once AEL program closures occurred, corresponding plans to control the situation were prepared and distributed step by step. Additional technology resources became available to AEL programs because grant restrictions were temporarily lifted. DAE leaders continuously learned from AEL program feedback to improve their strategies and aid this transition.

PDRC staff demonstrated their robust learning and training design abilities by accommodating the latest remote instruction software. PD intervention was critical for AEL practitioners to acquire the knowledge and skills needed to adopt technology into their classrooms (Kobrin et al., 2021). Further, virtual PD provided more learning opportunities for AEL practitioners to participate in training sessions because it was convenient, inexpensive, and met health and safety guidelines. However, the fundamental development of technology infrastructure and digital resources for all AEL programs should be reexamined to ensure that they can successfully continue with distance learning and remote services in the future. This crisis containment experience should be critically reflected and documented by the DAE so that the AEL system in Texas can foster organizational and individual learning that prepares for the future.

Professional development evaluations revealed that most PD sessions delivered were practical and helped the transition to remote instruction and assessment. Although the evaluation response rate was low, the data disclosed several barriers to training transfer that should be addressed. Factors that impacted participants’ abilities to apply lessons learned from training sessions are organized into three categories: learner characteristics, training intervention design and delivery, and workplace environment influence (Burke & Hutchins, 2007). The main barriers found in this study are related to the workplace environment influence category: lacking opportunities, time, and support, and having to take PD that is not applicable. To better support training transfer of PD interventions, it is recommended that AEL programs create a transfer climate that supports innovation and learning. They should also provide opportunities for instructors and staff to practice new skills, purchase relevant technology resources, and promote supervisor and peer support. Additionally, we suggest that AEL programs reconsider the time and resources needed to integrate new knowledge and skills and their PD selection criteria to ensure an adequate support system.

Limitations and recommendations for future research

There are three limitations in this study that should be discussed. First, this study investigated the transition to remote instruction at the organization and program level. We did not examine how adult students transitioned to remote learning. Therefore, future research might focus on students’ experiences with remote learning. Second, most of the data for this study relied on information from the professional development portal. The feedback survey format became digital, requiring respondents to learn a new system. This change drastically reduced the response rate. Conducting follow-up interviews with instructors on their remote instruction experiences and practices could provide additional implementation strategies for the field. Further work is also needed to understand how remote instruction functions within AEL classrooms. Lastly, this study focused on grant funded AEL programs, which receive guidance and support from the DAE and PDRC. Nonfunded community- or faith-based programs may encounter other challenges not presented in this study. Therefore, future investigations might explore how community-based AEL programs support and operate remotely during the pandemic.

CONCLUSION

Times of uncertainty require adaptable leaders and employees to work together to surmount challenges. The strategies executed by the DAE and the professional development training sessions conducted by the professional development resource center supported the needs of AEL programs. However, continued support for technology resources and skill development should not be neglected. Further guidelines and reinforcements should also persist. This crisis management experience could serve as an example for the field of adult education to prepare for future disruptive events. Although the future trend of AEL services is still unclear, ongoing learning and adaptation to technology are recommended for all AEL practitioners and adult learners.
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