# Chapter 2
# Resilience in Crisis: Developing Community Through Action Research

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## ABSTRACT

*Teacher action research serves as a framework that can transform practice while supporting inquiry, investigation, and problem-solving. This chapter provides a research report on the challenges experienced, strategies used, and lessons learned from 41 graduate education teacher-researchers who designed and implemented their own educational research during the COVID-19 crisis as part of their Action Research Capstone course before graduation. Graduate students were enrolled in three sections of the Action Research course in a Midwestern university. Methodology included a qualitative approach to data collection and analysis. Findings from discussion board posts, reflections, and research papers captured challenges in facing COVID-19, yet participants' engagement in the community of learners within the course ameliorated and buffered stress, trauma, and compassion fatigue felt due to the pandemic's impact on these frontline workers.*

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## INTRODUCTION

Teachers, parents, administrators, and children in schools were caught off-guard and were unprepared for the immediate transitions required during the 2020 COVID-19 pandemic (Duncan, 2020). Challenges included a lack of resources such as professional development, technology, connectivity, and "digital skills training" for the families and educators working to ensure engaging online learning opportunities for all (Duncan, 2020, p. A11). As a result of these and other severe adjustments required during the crisis, "the level of stress for educators rose exponentially" (Fasanella, 2020, p. 191). The impacts of the pandemic occurred in schools from the United States to China (Wong & Moorhouse, 2020; Yang, et al., 2020), where teachers and students experienced physical and mental stress together and researchers worked to examine the phenomena. Resources then quickly emerged to help the over 90 percent of educators reporting high levels of stress and sacrifice during the crisis (Carello, 2019; Fasanella, 2020).

Four instructors, who taught an online graduate action research course during the pandemic, where most of the graduate students were classroom teachers by day and were also working toward their Master's in Education, decided to study their graduate teacher-researchers' daily challenges caused by the pandemic, the ways that they overcame those challenges, and what they took away from this unique experience as teacher action researchers. The focus of this study centers on the challenges faced by the graduate researchers in their classroom settings while accomplishing the required action research projects.

For over 20 years, the master's degree program in this midwestern university's College of Education has promoted action research as a strategy to reflectively improve teaching practice while enacting innovations (Herr & Anderson, 2014; Slapac & Navarro, 2011; Zeni, 2001). The program's focus on teachers as agents of change has resulted in an accumulation of reports documenting the power of action research to build confidence and competence for both new and experienced teachers in order to meet the daily rigor of the profession. Recently, the topics upon which some teachers focused began to shift from issues around traditional pedagogical practices to the mental health of students and, subsequently, to their own personal struggles and challenges. In one author's courses, from 2016-2018, for example, 35 percent of the report topics were focused on how to improve responses to student behavior caused by histories of trauma. During these same years there was only one study that addressed a teacher's socio-emotional health. During 2019, three of 30 teachers addressed the topic of what they called, 'teacher burn-out' and 'socio-emotional health of teachers. As with all other stressors on our institutions, the pandemic amplified this parallel dilemma of the teachers' experiences of secondary trauma and their capacity to meet increasing challenges to students' emotional health. During 2020 and under the influence of the pandemic, the number of teachers who identified their personal mental health as a priority tripled.

Building on the tradition of encouraging the study of issues present and important to our graduate students, we intentionally designed and taught our courses to provide a situated, supportive environment where they could inquire, reflect, learn, and adopt action research projects to benefit their learners and themselves during one of the most challenging times in global history. While we made some assumptions about the power of inquiry to solve problems, the evidence in this study illuminates concrete affordances and challenges faced by these practitioners in their own unique settings as they engaged in action research projects to improve their practice. To focus our inquiry, we collaboratively developed the following research questions:

1. What were the main challenges teachers/educators encountered while doing action research during the COVID-19 pandemic?

2. What were the strategies used by teachers/educators to overcome those challenges?
3. How have the pandemic times influenced teachers/educators' resilience and growth?
4. What were the most relevant lessons teachers/educators learned from the action research experience for their professional career?

Evidence collected from teacher participants situated within an action research course shed light on how teachers navigated service to their students while providing insights into their own self-resiliency.

To avoid confusion on the meaning of the word 'students', we use the terms "graduate students", "teacher-researchers", "course or class members", or "participants" when referring to our students who participated in the study and reserve the term "students" to refer to our teacher-researchers' K-12 students. Additionally, the word "resilience" in this study refers to our definition, as the ability to devise creative strategies for moving forward in adverse circumstances.

## LITERATURE REVIEW

In the decade prior to the pandemic, research on teaching and learning processes revealed emerging challenges to educators, beginning and experienced alike. Action Research provides a powerful tool to address embedded problems, especially those without traditional solutions found in the teacher education literature (Herr & Anderson, 2014; Slapac & Navarro, 2011). One of the most challenging of these emerging issues was the impact of socio-emotional distress brought by students into classrooms in increasing numbers (Spinazzola et. al., 2005). At the onset of the pandemic, teachers who were managing these novel problems were confronted with the need to deliver lessons on a remote, digital platform. The need for supports became evident, such as the ones suggested in the framework on trauma-informed teaching with online learning adapted from Carello (2019). This framework names ways to help "acknowledge, normalize and discuss difficult topics"; gives suggestions for strategies such as the following: "create routines/rituals"; "conduct check-ins"; work for "collaboration and mutuality"; give "empowerment, voice and choice"; respect "experiences and identities"; and recognize "our individual and collective strength and resilience" (Carello, 2019, n.p.). The tools made available including such trauma-informed approaches, ("A Trauma-Informed Approach", 2020, n.p.) brought awareness to teachers about how to overcome the ever-insidious compassion fatigue (Teater & Ludgate, 2014).

However helpful such strategies were in engaging students in online learning, they could not remedy the fundamental feature that distanced educators from their students' emotional needs, engendering feelings of helplessness and inadequacy in otherwise highly competent teachers. The gap between a caregiver's awareness of clients' needs and her ability to make a difference is one of the main causes of secondary trauma (Ludick & Figley, 2017), a phenomenon identified in front-line health-care workers and service providers who work with trauma-impacted individuals (Sprang et. al., 2019). The tendency for teachers to feel overwhelmed were amplified by the pandemic and challenged their typical coping strategies, often called self-care (Skovholt & Trotter-Mathison, 2014), which were not able to keep pace with the stressors. In light of this, leaders and advocates suggested taking a realistic examination of the risks and impacts of the caring profession on educators, such as burnout, exhaustion, and potential mental health issues during the crisis (Carello, 2019; Teater & Ludgate, 2014).

While educators were considered front-line workers and schools were often in the news media, questions developed on whether and how schools, teachers, and students were adjusting and surviving in

the worsening crisis. Schools closed, re-opened, went online, or were hybrid in efforts to serve diverse student learners with and without the means to achieve (Duncan, 2020). Educators urgently needed to find ways to adopt for all to stay safe, to keep communicating and connecting, while simultaneously predicting 'potential trauma' such as helping students self-regulate ("A Trauma-Informed Approach", 2020, n.p.), yet questions remained on whether the resources were utilized, how teachers adapted, at what cost, and what new supports may be needed going forward. Brown, Freedle, Hurless, Miller, Martin, and Paul (2020) studied the effects of trauma training for teacher candidates. Their findings "suggest positive changes in teacher candidates' attitudes, knowledge, and skills following trauma training" (Brown, et al., 2020, p. 16). A key finding of this work was related to the degree of support from district leadership, which provided a foundation that increased teachers' confidence in implementing trauma-informed practices (Brown, et al., 2020).

Psychological research has presented basic indicators of secondary trauma stress effects (Ludick & Figley, 2017) and document support structures that contradict the stress effects. According to Kapoulitsas and Corcoran (2015), social support, promotion of well-being and self-care represent appreciation that resilience building is a complex process that happens within its own systemic context. The context that will promote and cultivate 'compassion fatigue' resilience is largely dependent upon optimization and nurturance of the positive pathways of self-care, detachment, sense of satisfaction, and social support. Research has shown that the context and environment in which educators work often has more influence on their resilience than teachers' personal attributes (Ainsworth & Oldfield, 2019). Action research is conducted in relevant situated contexts with social supports and stressors within and outside of the researchers' classrooms, and, therefore, can offer supports for resilience and a potential remedy to the forced isolation and social distancing of the pandemic. The university online classroom became a place to find community with other struggling teachers and a place that could model effective online learning pedagogy.

In a longitudinal study examining whether teacher education can make a difference, researchers (Brouwer & Korthagen, 2005) explored educator competence as it evolved from university teacher training to school environments. The authors were interested in influences that changed or eradicated practitioners' prior university learning of best practices and teaching competence. Teachers' "discrepancy experiences" (Brouwer & Korthagen, 2005, p. 213) refers to the disconnect between course learned best teaching practices and the contextual school culture that often contradicts best practice research. The authors indicate that teachers may indeed take up best-practices later on as they adapt to "occupational socialization" (p. 213). Teachers traditionally experience discrepancies between theory and practice, from university to classroom settings, which led to our questions on how teachers adopted strategies while practicing action research in the demanding timeframe of the COVID-19 pandemic. However, this study addresses a gap in research on teacher action research during times of crisis by providing data situated both within the university and the classroom setting.

For this study, the participants were enrolled in a graduate education program studying and utilizing action research, moving from theory to practice in a supportive, situated learning community. Slapac and Navarro (2011) promoted connecting "educational research with teachers' workplace reality" (p. 408) while examining a graduate action research program, thus showing the importance of this close association. While much has been written about teacher induction (Algozzine, et. al, 2007; Hudson, 2012; Killeavy, 2006), it is important to consider the situated nature of learning established within socio-cultural processes (Korthagen, 2010) where "critical understanding can only develop through active dialogue within a community" (Freire, 1972; as cited in Korthagen, 2010, p. 104). Action research by nature is

"collaborative research" (Stringer, 1999, p. 145), where ideas and actions can develop and grow via group inquiry processes. Strengths of the action research approach include formulating problems and actions within the community (Stringer, 1999), working from inquiry toward social change (Masters, 1995), and working together to refine each researcher-practitioner's reflective strategies. This community of learners' perspective, based on a "theory of participation," is where adults "came to understand it [a phenomenon] through their transforming participation as they engage/d in shared endeavors with other people" (Rogoff et al., 1998, p. 411). When doing action research, it is "essential to have the perspectives of others", as the action research journey "has to do with listening to those around you in seeking different perspectives and kinds of information (data) and supports (collaboration)" (Holly et al., 2009, p. 43). Figuratively, action research has been portrayed as a series of cycles consisting of delineating the problem, observing, planning, reflecting, acting, and then acting again to repeat the cycles to solve problem/s (Hendricks, 2017; Piggot-Irvine, 2002; Wadsworth, 1998). This was made evident in this study as participants worked through changing cycles as they addressed demanding professional transitions together in a community of learners.

## MAIN FOCUS OF THE CHAPTER

### Research Context and Participants

This study was conducted at a Midwestern university where three sections of a Capstone Action Research course were taught online by three different instructors (also, the researchers) in the M.Ed. program in the fall 2020 during the COVID-19 pandemic. The fourth researcher is also a regular instructor of this course but was teaching a sixteen-week prerequisite course that semester and was not part of the data collection. Each section of the Action Research Capstone course lasted eight weeks, to be taken after eight weeks of a prerequisite course on action research where the graduate students practiced research skills, decided on their research topics, started implementation of interventions and data collection. These two courses are the last required courses in the M.Ed. program, and most students graduate at the end of this Capstone course.

Since all of the graduate students started data collection in the prerequisite course, the Capstone course focused on having them demonstrate their knowledge and ability to use the action research process through implementation of interventions, data gathering and analysis, and continuous reflection on their practice. Our graduate students were encouraged to continue being reflective practitioners and use critical thinking and logical argumentation. A main focus of the course was to create a community of learners through constant collaboration. For example, graduate students and instructors were actively engaged in peer/instructor feedback in different stages of their studies, including instructor and peer feedback on the final PowerPoint or on the online video presentations. Three of the main final assignments of the course were: the final paper of the individual action research studies, the ePortfolio of documentation supporting each participant's research process from start to finish, and the final PowerPoint/video presentation of the study reviewed by external evaluators (faculty, doctoral candidates, former students and other practitioners in different school districts). The final paper had to include the following sections: Introduction, Literature Review, Purpose of the Study, Context and Participants, Interventions (if any), Data Sources, Findings, Implications and Recommendations, References and Appendices. The graduate students' online ePortfolios represented their work as researchers, including their audit trail, articles read

and reviewed, samples of materials for their interventions, instruments of data collection, raw data, coding book, and their journals and student work samples/artifacts. While most graduate students worked with the entire class, some chose to use case-study approaches, with only a few students as participants in their study (in particular, with students who were qualified for special services and/or who needed additional supports in social skills and/or in content-knowledge).

The variety and depth of participants' ideas were exemplified in their action research project plans and final Capstone papers and presentations. Evidence from their work revealed the significance of their learning, from initial research inquiries, concerns for their own students' learning, to their growth as teacher researchers and reflective practitioners. The graduate students chose either "What is?" or "What works?" -type of projects, depending on their goals, context and their roles within that context. "What is?"- type of research studies focused on attitudes, perceptions, and/or perspectives, with no interventions used, and with data sources gathered mainly from interviews, surveys or questionnaires, artifacts and observations. For example, some topics focused on teacher collaborations, the importance of culturally responsive advising for minority students, understanding colleagues' stress and trauma related to the pandemic and racial tensions during 2020, and increased access to library books for inmates in a maximum-security prison.

In "What works?" -type of studies the graduate students developed and implemented interventions evaluated for effectiveness to meet their study goals (Hendricks, 2017). Examples of participants' inquiries ranged from interventions in early childhood special education classrooms, math proficiency supports for at-risk youth or students with disabilities, effects of the American Sign Language and translanguaging, cooperative learning or vocabulary instruction on reading comprehension and confidence, comic book writing as a tool of learning English to the power of peer feedback on the quality of writing, impact of positive behavior supports on social skills to the impact of distance learning, digital tools or trauma-informed learning on engagement and/or achievement.

The College of Education offers these action research courses in the M.Ed. program via in-person and online formats. Fortunately, the online versions were developed and taught several times before the pandemic. When the COVID-19 pandemic started, it was decided by the university officials that most courses should be taught online for safety precautions. One section of the course was listed as meeting in a "hybrid" format once per month in person, but the final consensus was to meet online virtually through the semester. Data were collected from three sections of the Capstone course. Most graduate students enrolled in the action research sequence of two eight-week classes so that they remained with the same instructor for the introduction and capstone sections. This meant that each instructor could facilitate development of a robust community of learners across the entire 16 weeks, and also gain a clear understanding of needs, skills and study processes of each graduate student in each course section.

Section 001 of the Capstone course had 16 graduate students at the outset, but one individual withdrew from active class participation for personal reasons. This left 15 students, 10 female-identified and 5 male-identified, as determined by students' designation of preferred personal pronouns at the start of the course. Of the 15, 14 were continuing on immediately after the eight-week prerequisite course and one student was new to the group. Ten students pursued the Masters in Secondary Education, three earned a Masters in Elementary Education, and three focused on a Master's in Special Education. Ten students worked full-time in school settings as teachers, nine in the US, and one in Asia. One student was unemployed, one worked in a maximum-security prison setting, one worked as a supervisor of teachers in a school for children with language-based learning disabilities, and one worked for an education non-profit supporting first-generation college students.

Section 002 started with 17 female-identified graduate students, with 16 students continuing from the previous prerequisite section and one student, new to the group. Another student from this section was not able to finish the final paper and did not present her study so she was not counted as a participant. Twelve students were in the Secondary Education program, with four of them with concentration in TESOL (Teaching English to Speakers of other Languages) and one with concentration in Social Justice, three students were in the Elementary Education program and two in the Special Education Program. Of all seventeen students, 13 were employed as full-time teachers, one as a paraprofessional, two were finishing their student teaching in schools, and one had a staff position in a non-profit organization. Data were collected only from 16 students in this section.

Section 003 had 10 graduate students, with two male-identified and eight female-identified participants. Three were in the Secondary Education program, two were in the Special Education concentration, and five were in the Elementary Education program. One graduate student in Section 003 dropped the course due to an emergency, leaving nine. These elementary, secondary, and elementary educators served in schools as teachers, one participant served in a mental healthcare special education setting, and all were in the prior research 1 class together with this same instructor.

## Data Sources and Analysis

A passive consent approach was used with participants and none of the potential participants declined, so 41 graduate students were included in the study. While taking our course, some participants taught entirely virtually, while others taught in-person, hybrid or what we refer to as "in/out," whereby they taught in classrooms when no quarantine was in effect and virtually during quarantine. The main data sources collected from all three sections were: the graduate students' action plans, discussion board postings, and their final action research papers, in particular the Implications and Recommendations section. In addition, data from VoiceThread and Zoom virtual comments were included.

Each of the three researchers initially analyzed their own data sets from their sections using open and axial-coding for pattern finding through connections of developed categories and subcategories (Charmaz, 2006). We coded the discussion board postings that were the most relevant to our research questions (see Table 1):

Table 1 shows initial coding from the instructor of section 001. Discussion Board 7 (DB#7) is the document, followed by the page number, salient text from a participant, an initial note about the topic, a preliminary category, and a final category. (Note: these "final" categories were later merged into broader, overarching categories across data from all sections, as explained below.) Next, we coded additional work, including participants' final action research papers. The action plans allowed for a quick reminder of the individual action research studies.

A constant-comparative approach among all three sections of data sets was then used to refine final themes, while continuing to add evidence for our claims through data triangulation. As the data analysis process evolved, the themes were then compared, contrasted, and correlated systematically, and evidence from the three sessions began to coalesce around concepts which directly related to the research questions.

*Table 1. Example of one instructor's initial discussion board coding*

| Document | Page | Text | Note/Topic | Preliminary Category | Final Category (Sec. 001) |
|---|---|---|---|---|---|
| DB#7 | 18 | Sometimes I can make plans but things happen | Planning | Adaptability | Life strategies |
| DB#7 | 17 | Find focus on your motivation ...If you can find what drives you, adapt and overcome | Adaptability | Motivation | Life strategies |
| DB#7 | 22 | Most important lesson I learned is accountability and planning. With the pandemic, working as a teacher, dealing with my daughter and unfortunately sick family members made it very difficult but I feel I gave my very best effort even in a pandemic and my daughter being home with me 24/7. | Accountability and planning | Organization | Life strategies |
| DB#7 | 17 | Take time to celebrate the things that bring you joy; you will be able to handle any situation that life throws at you. | Celebration | Resilience | Life strategies |
| DB#7 | 18 | I cannot control everything | Locus of control | Self compassion | Life strategies |

## Main Themes

The research analysis initially proceeded where themes from each section were identified through the data, and then connected directly to the research questions through a structural coding approach (Saldaña, 2012). Structural coding (Saldaña, 2012) allows a way to "categorize the data corpus into segments by similarities, differences, relationships, by using conceptual phrases" (Onwuegbuzie, et al., 2016, p. 135). The conceptual phrases were categorized into these main themes related to the research questions:

- Challenges (Challenges with implementing interventions and data gathering challenges and struggles with participation and engagement; challenges with teaching limitations; and stress and socio-emotional impacts)
- Lessons Learned: Resilience, Personal and Professional Growth, and the Power of Community as an Action Researcher (resilience and personal growth; resilience and professional growth; resilience and growth as an action researcher; *constant support, collaboration and the power of communit*y.).
- The theme of "strategies" was common, thus is found within each section, including in relation to "growth and lessons learned".

In the same vein, many lessons learned were about resilience, personal and professional growth, support, collaboration and the power of community as an action researcher. These themes revealed the dynamic nature of learning and practicing action research during the global pandemic. Thus, some themes are connected and may overlap in each subsequent section of the findings.

## Findings

### Challenges

Our teacher-researchers shared common challenges during their teaching while the entire world was devastated by the pandemic. Sub-themes of challenges were related in particular to the implementation of interventions and data gathering, poor student participation and engagement, teaching limitations, such as time and technology issues; and stress, struggles and socio-emotional impacts.

### Challenges with Implementing Interventions and Data Gathering

One of the most common challenges encountered by our graduate students during their action research was the difficulty in being consistent with the implementation of interventions or with data collection, which, in turn, led to having to use multiple strategies to increase the validity of the study and trustworthiness of the data sources. For example, one graduate student stated:

*My initial plan was to conduct regular conferences with each student, which would have been in person, but became really unmanageable during distance learning. I was still able to hold conferences, but they were not as regular as I had planned. (DB#6_ 002)*

Interventions implemented via Zoom conferences or those that required the use of technology, brought challenges. Another teacher recalls: "I've encountered some frustrations implementing my interventions because I had to keep switching breakout rooms and reminding students to stay on task." (DB#6, _002)

Action research processes included data, design, scaling back on projects, and time issues. Data concerns related to wondering about whether data collected during the COVID-19 pandemic might have produced different outcomes than if comparable data were obtained under more normal circumstances. Design had to do with restrictions due to the pandemic that caused one participant, for example, to consider selecting a different problem of practice, or for others, different set of interventions. "The pandemic…completely shaped the way I created my intervention. I wanted to be able to create something that I could continue in the event of my school closing" (DB#7_001). Missing information was a consequence of weeks that schools closed, and one student commented about missing questions and data points that would have been valuable.

Due to the changes from in-person to virtual settings or due to the safety procedures put into place by school districts, collecting data accurately became a difficult task, as some recognized. For example, one teacher recalls having issues tracking the group-work time:

*One of the main challenges I had during the pandemic was the times that I was allowed to have groups of students. Our district placed the policy that students from different classes could only be around one another for a maximum of 15 minutes. It was difficult keeping track of how many minutes students were around one another. (DB#6_ 002)*

Another special education teacher shared her challenge in regards to being able to conduct regular observations of her colleague, a general education teacher:

*It was difficult to get in there to observe the other weeks because the building was closed or the students weren't there or the teacher wasn't there or the paperwork that was needed for virtual took up too much time to get in there. The flip flop back and forth was very difficult. We are 100% virtual until after the New Year right now, and we did come back for 3 days after Thanksgiving. (DB#6_ 002)*

Some teachers discussed *"time"* as being one of the encountered challenges, in the sense that they needed more time to be able to fully evaluate the effects of their interventions. While reflecting on the challenges of teaching through an action research lens, one participant noted: "I wanted to gather more types of data than I did, but it was not manageable to teach and also do the data collection that I had planned" (DB#5_003). Changes in scheduling and extra time required for everyone to gain competency in the virtual classroom "limited the time I had to dedicate towards my intervention which took place after a lesson" (DB#7_001). The switch to virtual teaching was completely new for some teachers as virtual lessons ended up lasting longer than expected.

## Challenges and Struggles with Participation and Engagement

Health and safety measures comprised school districts' implementation of the Center of Disease and Control (CDC) Guidelines and access to research participants. As school districts sought to implement protections for students and teachers, frequent change ensued. Social distancing, masking, and other means of limiting COVID-19 transmission meant that schools shut down, reopened, implemented virtual learning or hybrid approaches to onsite and/or virtual learning. The chaos experienced by teacher-researchers was evident in their comments. Access to research participants shifted almost daily, as participation throughout the semester waxed and waned due to increased absences, COVID-19 lockdowns and quarantines, student turnover, changes in onsite versus virtual learning, and technology.

For example, teachers dealt with students' lack of consistent attendance and participation. Class members also commented on the decreased parental engagement, which they thought contributed to diminished student engagement and motivation. The teacher-researchers' students were challenged in motivation, engagement, and resistance. Class members described student motivation as lower than expected in the virtual environment, while others complained about technology issues and "instability" that impeded the student learning experiences (see Table 2 below).

Another common challenge for some of our graduate students, especially for the ones who were conducting "What is"- type of studies, was finding enough adult participants to agree to be in their study due to the stress caused by the pandemic: "The pandemic has placed a great deal of extra work and stress on teachers on top of the basic fear and stress that comes with living in pandemic conditions" (DB#6_002). Thus, participants were faced with the dual challenges of teaching during the pandemic while accomplishing their action research goals:

*The main challenges I had during my action research study were getting individuals to participate in the survey. I sent my questionnaire out to 43 educators and received 0 responses over a one-week time span. I received many excuses, but the most common was 'I just don't have time to take the survey.' (DB#5_003)*

The Covid-19 pandemic also impacted the collaborative aspect of the research:

*Table 2. Examples of graduate students' comments regarding issues in virtual learning*

| |
|---|
| "The number of participants I was able to use shrank dramatically." (DB#7_001) |
| "Students were not consistent in coming to virtual school." (DB#7_001) |
| "I had to quarantine towards the end of my data collection period. This made my observations less frequent and meant I had less data to work with when drawing my conclusions." (DB#7_001) |
| "Since I work with EL students, it was very difficult to communicate and reach parents at the beginning of the school year and making sure that they are up to date with the constant changes that were being made to the schedule. My study started out virtual for the first two weeks and then switched to a blended model. I was very concerned if my kids were going to show up to class, so that I could implement the interventions and strategies I had planned. " (DB#5_002) |
| "We also had a huge issue with participation this year. This seemed to be true across all classrooms in the school. Some students felt overwhelmed and fell into a slump. Other students simply did not try from the beginning because they assumed this semester would run like the end of last year and they would not be penalized or held accountable. " (DB#6_ 002) |
| "decreased student engagement and participation, and decrease in on-time assignment submissions." (DB#7_001) |
| "I found the most focused and well-behaved students in person became nightmares online!" (DB#7_001) |
| "being aware of the social-emotional needs students may have been going through." (DB#7_001) |
| "Two other students were struggling with engagement because they are naturally shy and were not comfortable showing themselves on camera. Students also encountered internet connection or ZOOM problems." (DB#6_ 002) |
| "The main challenges I encountered due to the pandemic were the instability of the learning environment, the instability of students' form of participation, online engagement, and logistical issues with a hybrid model." (DB#5_003) |

*During this study one of the biggest limitations was COVID. COVID caused our building to be shut down for multiple weeks and had the general education teacher out. This caused a break in the interventions and data collection. (Final Paper=FP_002)*

## Challenges with Teaching Limitations

Inevitably, the teacher-researchers struggled with teaching limitations. Teaching limitations included shifting responsibilities and changing instructional requirements, access to research participants and or technology issues. One class member noted that responsibilities shifted as "day-to-day procedures and teaching were affected dramatically, bringing increased duties every day to keep cohorts separate and managing classes with teachers and students in and out of quarantine". (DB#7_001)

Another factor contributing to shifting responsibilities was classroom management with teachers and students in and out of quarantine. Teaching limitations resulted in access to research participants and ultimately, intervention redesign, because of the difficulty in implementing interventions in a way that permitted students to interact with one another. Low student engagement appeared in this category, along with technology issues. One participant wrote,

*Being a one-to-one school with laptops was brand new this year, and video cameras during Zoom calls did not have to be on at any time. As a result, it is insanely hard to judge when a group of students understood a concept since I could not read their body language or see what they were or were not writing. (FP_001)*

Furthermore,

*I did not get to walk around the room, answer questions in a more private setting (which caused many quieter students to not say anything about the confusion), or check work as we went. Basically, lessons were not as interactive. (FP_001)*

A significant challenge and limitation to this study involved knowing if students were truly engaged, and being able to quickly get them on track.

*I had utilized the breakout room with some students to check in with them, but a continuous problem that I would run into involved inviting a student to a breakout room and the student not accepting the invitation because they were presumably away from their computer or engaged in something else. I did attempt to call parents/guardians when this occurred, but did not always get an answer due to parents being at work. (FP_002)*

Luckily, for some, technology issues were eventually solved:

*After a couple of weeks students were more comfortable with being on camera and talking to their classmates. Internet problems were solved by the school district because they provided students with "hotspots." Implementing websites that allowed teachers to monitor student websites was a great help for staying on task because students were aware that their teachers could see what they were doing. (DB#6_ 002)*

*We tried to overcome these by staying present with our students. We sent out email reminders about homework assignment due dates and upcoming tests. We emailed their parents to keep them in the loop and hoped that they would help to motivate and remind their students about their schoolwork. We changed the way we handed out assignments. (DB#6_002)*

A significant challenge for participants involved knowing if their students were truly engaged and being able to quickly get them on track.

## Stress and Socio-Emotional Impacts

Teacher-researchers also spoke about personal experiences of the pandemic in terms of fear, guilt, personal loss, and stress. They feared a COVID-19 diagnosis and possible death. Knowing that their colleagues were as overwhelmed as they were, they felt guilty for asking others for help and for asking others to participate in their research. One class member, who was teaching in another country while taking the course experienced the personal loss of a dear colleague due to COVID-19. Participants described stress as "feeling like a caged-in chicken" (DB#7_001), and as "mental fatigue of being in lockdown for so long". (DB#7_001)

Implementing the interventions while some students were virtual_and others in-person added to teachers' stress:

*My co-teacher and I had originally planned to try a variety of different interventions for our students. However, when our time with them on a live meet was limited to 15 minutes, it had put a strain on interventions. Usually, we have our students for 30 minutes for math where we could spend 15 minutes introducing the chapter lessons and then the last 15 minutes would be split into small groups where we*

*can then focus either extending the strategies introduced from the lessons, work on individual student goals from their IEPs, or build foundation skills they struggle based on their monthly reports. However, with two of our students learning virtually, it was very difficult to build more foundational skills or extend the strategies introduced or even try a different strategy if the first one was not working. (DB#6_002)*

One of our findings was a consequence of the pandemic changes in routines, and in our graduate students' personal and professional lives. Although most of them were staying on track, some were dealing with obvious stress throughout the class, and their study: "It has been very difficult to focus and think clearly and while we carry on and adjust to the circumstances, I feel that was a significant challenge" (DB#5_ 002). One participant working in special education noted:

*The primary challenge I faced while doing research during the pandemic is that I am exhausted all of the time. There were many times when trying to find the energy to take one more step forward on this research seemed nearly impossible to do. (DB#5_003)*

From these comments to conversations during virtual synchronous meetings, where course participants proclaimed, "We are just numb", and we are "putting one foot in front of the other" to get through day by day, we saw and immediately felt the impacts on these front-line workers. (Conversations_ 003)

## Lessons Learned: Resilience, Personal and Professional Growth, and the Power of Community as an Action Researcher

Moving beyond the challenges, participants reflected on gains in their own learning, resilience, development of community, and success.

### Resilience and Personal Growth

*Personal growth* comprised accomplishment and a sense of new competence for a lot of our graduate students. Participants reported ways they addressed or overcame challenges, relating to the theme of resilience and growth. *Survival strategies* encompassed engagement with and deepening of personal strengths, new openness to support others, and tolerance of the unthinkable (See Table 3 below):

*Table 3. Graduate students' answers regarding their resilience*

| |
|---|
| "the ability to think and to adapt quickly". (DB#7_001) |
| "having the ability to see the challenge ahead and developing a way to overcome that challenge". (DB#7_001) |
| "I learned to be more strategic with my time". (DB#7_001) |
| "If we can make it through this, we can make it through anything". (DB#7_001) |
| [The pandemic is] "the biggest challenge I will likely face in my entire life, not just in my professional career". (DB#7_001) |
| "I had to breathe and understand I am only one person and am doing my all". (DB#7_001) |
| "I just had to keep reminding myself that this will pass and I will eventually be back in person with my students" (DB#7_001) |
| [I tried] "to survive one day to the next" (DB#7_001) |

The concept of 'control' and being 'perfect' were common in discussions, as noted here:

*I have definitely grown in my ability to accept that things do not always have to be perfect! I learned that I am more than capable of rolling with the punches, adjusting my methods, and accepting that I cannot have control over every little thing. The most important lesson that I've learned is that it is okay if things do not go as planned. One misstep will not ruin my research or the learning experiences of my students. I can be flexible, I can adapt, and I can, eventually, overcome. (DB#5_003)*

## Resilience and Professional Growth

*Professional growth* encompassed both the practical and the human. Practical aspects included "holes in programming" (DB#7_001) and students' losses due to the pandemic, creativity (learning to think outside the box), developing a focus that allows the teacher to identify the essentials of what students need to learn, putting students first, an increased proficiency with technology, learning to adapt. Human aspects were missing the presence of colleagues and support for students. See Table 4:

*Table 4. Examples of practical human aspects*

| |
|---|
| "The pandemic has taught me how to give grace during such tough times. We are all struggling and it is important to be human around the students". (DB#7_001) |
| "This pandemic has forced me … to think about what a student may be going through before I immediately think poorly of their effort or disdain for a…topic". (DB#7_001) |
| "More often than not, it just came down to putting one foot in front of the other and drinking too much caffeine." (DB#7_001) |
| "Perfect doesn't actually happen. You can try as hard as possible, and it is still not going to be perfect. This is even more true in a virtual setting, and during a pandemic." (DB#5_003) |
| "One of the most important lessons I learned throughout this semester is the idea that life is not always perfect. "It is what it is" and I truly live by this saying everyday now. I can't let things outside of my circle of control stress me out or affect my ability to teach my students. I have learned to focus on things that are in my control." (DB#5_003) |

Several teachers emphasized *being creative* with the way they approached the materials and interventions, the participants, the new technology, or the communication with students and parents. The creativity involved better organization, better communication with students, with families, with co-workers and/or administration, and providing better accommodations (either for content, grouping strategies or assessment). One kindergarten teacher recalls:

*We do a lot of hands-on activity learning in our class. For example, for our in-person kindergarten students, we recently made a little alphabet obstacle course. Using dry-erase markers on the floor, we create a course for our students. When they got to an obstacle, they had to tell us what letter was shown on the course if they got it right, they got to hop the course and go to the next one. However, with our virtual students, we could not do that, so we felt we were unable to be as creative as we could with our virtual students. However, this did help me grow in finding alternative ways to be creative using technology. My co-teacher and I tried to create virtual activities or engaging activities students could do at home, such as going on a scavenger hunt to find things in their house that started with the letter they were learned that day. (DB#6_002)*

Another teacher pointed out: “One big take away I had this year is that I allowed myself to look more in depth at my own teaching practice and how I needed to change in order to accommodate for my virtual learners.” (DB#5_002)

*Teaching strategies* involved the community of practice among teachers and working with students. One class member in a leadership position took on extra duties, such as lunchroom duty, in order to give back as teachers were giving to help her complete her action research project. Relationship-building with students held importance; also, keeping students engaged. Concern for students’ welfare and for learning appears to have been paramount for class members (see Table 5):

*Table 5. Practicing new and creative strategies*

| |
|---|
| “I felt like I was constantly bartering with colleagues to get things done more efficiently and to do the normal day-to-day tasks”. (DB#7_001) |
| “found engaging reading pieces and changed my strategies to better fit the online environment. I listened to my students the most I ever have, constantly doing wellness checks and asking what they needed from me”. (DB#7_001) |
| “I kept a close eye on students who rarely showed and I advocated for them. I called parents explaining the importance and let students know also how important it was. Students showed more participation when you show you care for them and their success in school”. (DB#7_001) |

Other graduate students commented on growing as professionals by learning how to be flexible and adapt to changing teaching conditions. See Table 6:

*Table 6. Examples of adaptability and flexibility*

| |
|---|
| “The loss of control that was so pervasive made it so that I had to be more flexible than I have ever been” (DB#5_003) |
| “It encouraged me to be more adaptable and understanding of factors that go into a student’s life...you always have to be willing and ready for things to not go as planned.” (DB#5_003) |
| “Flexibility was key this semester. I had to embrace the chaos. For most of these challenges I just had to accept that I had very little control of the situation and adjust my methods, analysis, etc.” (DB#5_003) |
| “The pandemic has also made me more flexible with my teaching plans. I have slowed the pace of the course and been flexible with deadlines. I’m trying to remove as much stress as possible from the learning environment. There’s enough stress in every other part of life.” (DB#6_002) |
| “We have to be extremely flexible due to student needs, schedule changes, ever changing curriculum, etc. Especially during a pandemic, I have found that it is/was necessarily to be flexible in every aspect of my day. I coach two sports during the school year and even then, I found myself having to change schedules and the way I hold practices due to the pandemic. Moving forward in this year and my career I will continue to remind myself that I need to stay flexible and go with the flow.” (DB#6_002) |

## Resilience and Growth as an Action Researcher

*The strength as a teacher-researcher* was about the action research process. Participants mentioned elements such as creativity, learning to be organized, and collecting data accurately, while being engaged in constant “what if” planning. See some examples in Table 7 below:

*Table 7. New identities as action researchers*

| |
|---|
| being "more precise and focused on data collection". (DB#7_001) |
| "As an action researcher I really got a close look at how different teaching methods impact student learning, with the most effective methods pushing students to engage in the actual [subject] instead of passively listening to me." (DB#7_001) |
| "As an action researcher, it has taught me that research is never ending. There was no research on how to adapt to a pandemic. Just like when the next new issue to affect education comes to light, there will be no research." (DB#7_001) |
| "These challenging times helped me lean on the data and keep researching. Although the pandemic was a factor, it did not stop the action." (DB#7_001) |
| "This paper really helped me understand how to gather and analyze data accurately". (DB#5_002) |
| "I am able to use these research methods I learned going forward to improve the quality of my teaching and share information with my peers." (DB#5_002) |

Challenged to reflect upon the takeaways from the unique experience of conducting action research during a pandemic, our graduate students realized that, even if some final results were not as positive as hoped for, the journey and the process of conducting action research seemed to have been more valuable. The chaos of the pandemic required **constant engagement with the action research cycle,** which was foregrounded through a graduate Capstone course, and was also necessary for grounding in everyday teaching (see Table 8 below):

*Table 8. Ongoing learning as an action researcher*

| |
|---|
| "The biggest thing I learned from action research is that I can try new interventions throughout my career as a teacher. I don't need a class or some professional development activity to tell me to do something. I can try new things and see what works best as I go." (DB#7_001) |
| "I learned the extreme importance of being in the work together…This focus helped us feel a sense of mutual accountability and helped me support my coaches in small moments." (DB#7_001) |
| "I could spend more time consistently reinforcing best practices and trying strategies along the way." (DB#7_001) |

Action research strategies included revision of strategies designed in class members' plans of action. One teacher, whose project focused on student participation in Individualized Educational Plan (IEP) meetings, learned that parents would not be allowed into the school building due to COVID-19 restrictions; meetings would have to be conducted telephonically. He revised his approach by using every opportunity to practice "telephone-style IEP meetings as often as possible" (DB#7_001). He also made his personal cell phone visible in the classroom so that students would begin to attach the object to him in their thinking. Another class member reduced the participant pool for the project. "I overcame these challenges by adapting my timeline. Instead of four observations of each intervention, I did three of each" (DB#7_001). Finally, "I had to turn off email and notifications". (DB#7_001)

Reaching out to participants and communicating often to ensure student success was another tool used by teachers, demonstrating again they were also addressing issues 'in action' as reflective practitioners. One teacher stated: "I overcame the challenges of student engagement by reaching out to students and parents. Student engagement was a difficulty all teachers were having, so their conversations with the students helped as well" (DB#6_ 002). Another teacher maintained students' engagement and participa-

tion in-class through social distancing by providing clear expectations and developing routines for her preschool children:

*I tried very hard to decrease stress among my students by establishing a clear routine in which they had some freedoms and choices without getting too close to one another. I also tried to establish social distancing as the "new normal." This is easier in preschool because my students are still learning about the world and do not have another school experience to compare this year. (DB#6_002)*

Growth as a teacher-researcher was also influenced by allowing students to have a voice and express themselves. This finding correlates with the previous findings in Slapac and Navarro (2011).

*One big take away that I had this year is allowing students to express their feelings and really diving deep into their emotions. I think it is so important for students to be able to recognize their emotions and be able to explain themselves. I was trying out different strategies for kids to use when they are frustrated [which] is so important because what works for one student might not work for another. Giving them options and time to try things allows them to be successful. (DB#5_002)*

The graduate students also experienced the strength of continuous reflection on teaching practices and what the never-ending cycle of action research meant (Hendricks, 2017). Several students emphasized the importance and impact of constant reflection per examples in Table 9:

*Table 9. Action research: Moving from reflecting to acting*

| |
|---|
| "I think one of the most important lessons that I can take away from these two classes is that the key to discovery and growth as a practitioner has nothing to do with 'being right' and everything to do with failing, reflection, gathering new information, and being open to discovery through purposeful, strategic framing, research, and experimentation. I think it was difficult for me to let go of eight students not having shown 100% growth. I was so determined to see growth from every student, but in not seeing growth from each student I can assess what practices should be tweaked based on feedback and reflection within my practitioner journal. It's exciting knowing that five students made growth based on my careful research and strategic implementation of lessons. This isn't an end but a beginning of a new phase to explore how those other three students can grow." (DB#6_002) |
| "I took away that regular reflection is a key path toward that goal. I continually have to discipline myself in order to practice that reflection but I feel like the only way to move forward in my practice is to be willing to let go of dominant cultural norms that have guided my thinking my entire life." (DB#6_002) |
| "I learned a lot about the way action research can be used to improve teaching practice and that is something I would like to continue to use. I also learned a lot about resources and ways to keep tracking and improving my global competence. I think the research and reflection will be very helpful in making sure that I am always improving and learning." (DB#5_002) |
| "I tried out different strategies before and was not very successful. I believe part of that was that I was not consistent and didn't reflect enough to make the necessary changes for improvement." (DB#5_002) |

Teaching and engagement with action research impacted members' decisions about their futures as well. One teacher commented, "I … learned a lot about doing research, how to create and complete an action research project, and the great impact this can have on my career." (DB#7_001). Another wrote, "Seeing the end result of this project has pushed me at least in the short-term to do more action research" (DB#7_001). Two class members indicated a strong inclination to continue applying action research in their work. One wrote:

*Surprisingly, despite my setbacks, the pandemic steeled my resolve to continue more in a research capacity, as it fascinated me to watch student progress as well as read up on what potential action research could be done to fix common problems in class. Now I seek to obtain a Ph.D. in Educational Psychology in order to do more substantial research in this area. This is to say that the biggest lesson that I learned from the pandemic was that I really enjoyed research and wanted to pursue this long-term. (DB#7_001)*

## Constant Support, Collaboration, and the Power of Community

The theme of *learning and being a teacher in a/the community* arose from participants with some poignant stories. Seeking support from others who are going through the same experience, also brought further introspections. The teacher-researchers consoled and supported one another as they developed a community of learners, finding support as they each adjusted to multiple stressors and changes. From each other, participants learned to examine and release tightly-held ideas and practices related to perfectionism and control, an apparent new coping mechanism. For example, when one stated, "Perfect doesn't actually happen", others began to agree and adjusted perceptions and practices by determining ways to move forward through a very dark time - together (DB & Virtual meeting; Section 003). Peer supports and constant collaboration with peers, parents and co-workers was noticed by most as being very meaningful per Table 10 below:

*Table 10. New awareness: Collaboration as support via action research*

| **Learning in Community** | *Seeking Support from /and Connecting with Others* |
|---|---|
| "I was able to overcome these challenges with the support of Dr. E, and my colleagues." (DB#5_002) | "The most important lesson I learned from the pandemic was that everyone was struggling and being conscious of this fact I feel like I have become a kinder teacher." (DB#7_001) |
| "teaching is a very collaborative and community-based career." (DB#5_002). | "Collaboration with your peers will help you view another perspective on a topic." (DB#5_002) |
| "The most important lesson in my career is that you cannot do this alone (and) I can do this when I'm in a healthy group setting; I didn't know this...until this class." (VoiceThread, Section 003). | "One of the most important aspects in successfully working with others to achieve a goal is focusing on the common ground that brings us all together in the first place. In a team environment, everyone's voice plays a part in the goal you wish to achieve, so listen well." (DB#5_002) |
| "Community is key. Without a strong classroom community, students are unwilling to take risks, which limits learning; more than anything, I learned to reach out to my peers and colleagues for support...this year has really taught me to go out of my way to strengthen my bonds with my peers. I have learned an incredible amount from my peers and colleagues this semester and I am excited to continue growing". (DB#5_003). | "With parental support, we felt more assured knowing that our students would not fall further behind than their in-person peers because they were there supporting the students from home making sure they attended our live meets and completed the work." (FP_ 002) |

Participants wrote about *learning in terms of life strategies, teaching practice, and constant support from school-peers, class instructors, and colleagues.* Life strategies included planning, flexibility, and acceptance, while overcoming challenges and celebrating every joyful moment as the examples in Table 11 below:

*Table 11. Action research as cradle for inquiry and collaboration*

| |
|---|
| "Sometimes I can make plans, but things happen." (DB#7_001) |
| "If you can find what drives you, adapt and overcome, and take time to celebrate the things that bring you joy, you will be able to handle any situation that life throws at you." (DB#7_001) |
| "Learning to accept the reality around you and changing to make it work for you is extremely important." (DB#7_001) |
| "If something is not working, I can make changes to the process or format to make it better for myself and my students." (DB#7_001) |
| "Inquiry is ever evolving, but it is important to record and celebrate the wisdom won while learning, and it is so important to have accountability in inquiry, some kind of contact or support, partners in goals." (DB#5_002) |
| "Some days will go great, and other days students may take two steps back in their ability to process their emotions, and that is okay." (DB#7_001) |

During virtual Zoom meetings, after getting to know the professors and other graduate students in the context of the course sections and feeling safe, some expressed extreme levels of stress. The instructors referred the course participants to the campus support, including online counseling sessions and community resources when needed. Those resources, and ongoing affirmation of the support to be found in the action research learning community itself, were a couple of ways participants reached out and found "some stability" as one colleague suggested for them during this time.

Another example of constant support is exemplified by participants from Section 003 who supported two class members having challenges with their respective topics and papers. Peers delved into their colleagues' research topics, from culturally responsive teaching related to African American teachers, to impacts of the pandemic and racial unrest for teachers of color. The class members dialoged, shared suggestions, and searched together for inquiry questions and ideas while cheering these teachers on who had difficulty engaging with their own students. The final papers showed that this ongoing support from the learning community, switching up research samples a few times, changing interview questions and processes, was just what was needed to help these two participants succeed at their action research capstone projects. (Zoom conversations, FP, Section 003)

*One of the most important lessons I've learned that are most relevant to the next level of my professional journey is the importance of professional relationships. Professional relationships are important because they provide support, encouragement, critical feedback and even job opportunities. (DB#5_003)*

That participant's classmate said, "Talking to the other researchers in this class that were as stressed due to COVID-19's impact on our daily lives also helped to alleviate some of the stress" (DB#5_ 003). These comments exemplify the *situated nature of learning within community* (Korthagen, 2010) during this action research process, where "critical understanding can only develop through active dialogue within a community" (Freire, 1972; as cited in Korthagen, 2010, p. 104). This community evolved as the graduate students communicated during and outside of class to complete assignments and make sense and meaning of their action research projects together.

However, one of the main lessons learned was the realization that *learning never stops;* that's when growth and impact happens, as this teacher writes:

*There are always things that can be improved within the education system, and a teacher should never stop learning and researching throughout their career. Although there have been improvements made in*

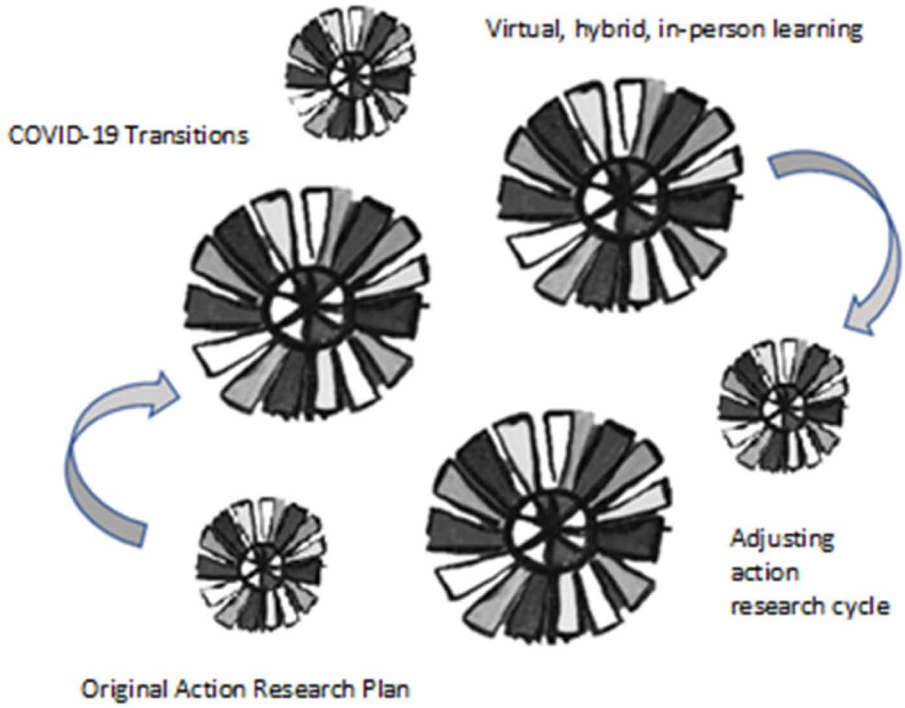
*the education world, there are still so many things that can be improved to reach every student where they are at, emotionally and academically. As a teacher, even though I may not continue on with my education by getting a doctorate, I can, and should, still do my own types of research within my classroom in order to learn more from my students. If at any point I find myself not trying new things, or just teaching the same lessons each year, I know I have stopped doing my job as a teacher. (DB#6_002)*

## SOLUTIONS AND RECOMMENDATIONS

### Adapting to New Teaching Challenges

In line with the idea of adapting to new teaching challenges while becoming an action researcher and tending to their action research which was progressing in cycles (Piggot-Irvine, 2002; Wadsworth, 1998), we saw the instantiation of this process during this study, where participants cycled through attempts to complete their action research plan, only to have to make adjustments all along the way due to the pandemic stressors experienced. The results of the pandemic stress experienced by participants - as they designed and conducted action research - continually emerged as an important condition during the study and became a salient construct as illustrated in Figure 1:

*Figure 1.*



A remarkable result from this study was the observed compassion fatigue resilience, strength, and courage exhibited by all participants as they continually worked to adjust and find solutions to achieve their action research goals within demanding structures of teaching during a pandemic. Thus, one recommendation from these results is for all to be aware that during times of global or national crisis, or disaster (Yang et al., 2020), steps should be taken to consider the impacts that the crisis can have on learners' and educators' mental and physical health, and to adjust expectations. Furthermore, steps should be taken to look for ways to quickly restructure learning environments to allow a learning community to develop in new ways through a trauma-informed approach.

### The Power of Community of Practice

Another recommendation from the data is to intentionally design and allow a learner-centered environment to develop, where honest communication can support reflective practice in an action research learning community. This may mean 'over communicating' as one of the instructors learned, which involves ensuring that every single student understands assignments and is checking in, communicating, finding peer supports, and is sharing feedback with the class on a regular basis. Students reported being able to overcome challenges with the support of the instructor and classmates, thus, the recommendation involves being intentional and offering an explicitly-designed process for this communication, a critical component during times of crisis. This gives evidence to the community of learners via a "theory of participation" (Rogoff et al., 1998, p. 409) framework in this study.

### Flexibility

To achieve both their teaching and action research goals, the teacher-researchers used strategies like flexibility along with survival techniques such as openness. Equally important were support from others and tolerance of the unthinkable. Participants reported adapting by giving up control and perfection, for their own and for their students' learning, in order to put one foot in front of the other to keep going forward, even while numb from the relentless stressors. Flexibility included continually finding new ways to support their students in virtual, hybrid, and in-person learning settings. Thus, recommendations include the necessity of putting aside regular teaching modes and learning new strategies to connect everyone, and to "journey with students through hardship" as discovered also in China during this time (Wong & Moorhouse, 2020, p. 1).

## FUTURE RESEARCH DIRECTIONS

Action research is a powerful tool for connecting teacher education programs directly to school settings and is a proven way to address problems which seemingly have no solutions (Slapac & Navarro, 2011). For example, research on secondary trauma (Ludick & Figley, 2017) prioritizes the social connections of teachers along with collaborative problem-solving as healthy strategies for teachers who work in a trauma rich environment. The same literature specifically discourages go-it-alone strategies. Action research, in the context of this Capstone course provides both social connection and a focus on collaborative problem solving. This chapter highlighted our students' awareness of the positive impact the discussions played during the initial stages of pandemic teaching. In addition to framing the social

connections among teachers, the process of action research conveys a sense of professional agency to the individual teachers who use it. The increase in self-confidence that accompanies this increase in agency and the shared group experience about classroom problem-solving were key supports cited by teachers during the 2020 challenges and provides a convincing rationale to encourage the use of action research in teacher education courses.

Suggestions for future directions in research thus include further examining the strengths offered by designing action research programs within higher education as a tool to develop and build community, especially during challenging times such as disaster or global crisis. Further research into action research within an intentional trauma-informed framework in PreK-16 hybrid settings would extend this study to examine future potential for this important resource where community can develop and thrive to help ameliorate the extreme effects of stress on educators, our front-line workers worldwide.

## CONCLUSION

*Just because everyone else thinks that teachers are expendable, it doesn't mean that we are. We are important. We are frontline workers. Regardless of the outside perception of teachers, we basically allow society to function. (DB5_ 003)*

From the quote above, we are reminded of the courageous acts performed by educators worldwide during 2020-2021, and the importance of finding ways to support these everyday heroes. This study was fashioned in order to examine these phenomena at the end of 2020. Evidence from the study answered the research questions about the main challenges experienced by participants during the pandemic, strategies used, resilience and growth and lessons learned while learning and practicing action research.

The analyses and insights from this research offer us new ways to look at a few old issues in the teaching profession. Teaching is a high stress career, evident in the shortages that often emerge during times when alternative career opportunities are high. During the pandemic, this chronic stress became acute; the challenge to the socio-emotional health of teachers became visible while few mitigation mechanisms were in sight. For the teachers who were in these capstone sessions, the Action Research project became an important vehicle for maintaining connection to a collective reality that could ground them and offer guidance through the limitations of pandemic teaching.

Comparatively, it would be interesting to understand how other teachers coped with new expectations amid social isolation. As we track the impact of COVID-19 on education enterprise in a post pandemic time, this study amplifies the importance of including impacts on 1) teachers, 2) their expanded practices amid the rapid acquisition of new technologies, and 3) their choice to stay in the system of education. Will teachers sustain the positive teaching strategies, the flexibility, the attention to student engagement that distance learning necessitated? Will the teaching profession experience a COVID-19 increase in resignations and early retirement of experienced teachers due to the unmitigated stressors on their physical and mental health? Might Action Research be viewed as a support process for teachers in times of collective tragedy? These are questions for future studies, as researchers explore the short- and long-term changes of this time.

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## KEY TERMS AND DEFINITIONS

**Classroom Action Research:** Teachers inquire into their own practice, reflect on classroom challenges, and choose a structured course of action to solve a problem using a process of data collection, analysis, and action.

**Community of Learners:** Individuals working together toward similar goals, who collaboratively engage in mutual support, critique, problem posing, and solution finding.

**Digital Skills Training:** Organized instruction providing competency in digital literacy for communicating, interacting, teaching, and networking using a variety of devices and platforms in the classroom and online.

**Discussion Board:** Online learning management system platform allowing a framework for communication between class participants within a course.

**Hybrid Teaching:** Weekly classes in-person and online, state-wide and school-district-wide, for K-12 (kindergarten - Grade 12) grades. In the United States, hybrid teaching was introduced during the pandemic for safety purposes.

**IEP (Individualized Educational Plan):** The IEP is a written plan created by a school district and parents containing goals and services for individual students who receive special education in the United States.

**In/Out Teaching:** In person, classroom learning that alternates with virtual school during quarantine, a "one or the other" approach.

**Resilience:** The ability to devise creative strategies for moving forward in adverse circumstances.

**Resilient Teaching Techniques:** Adaptations applied to instructional processes, expectations, and learning environments including strategies to support learners at all levels during times of stress, crisis, or disruption.

**Situated Learning:** Learning that is positioned within a context featuring participation and interaction with others.

**Student Engagement:** The degree to which a student demonstrates interest, initiative, curiosity, and attention in a learning setting. This may be in a brick-and-mortar or virtual classroom, and may occur in a synchronous or asynchronous environment.

**Trauma-Informed Teaching Approach:** Awareness, knowledge, and skills for educators of the need for specific approaches to fostering safe, supportive learning environments for students who may have experienced prior trauma.

**VoiceThread:** Tool within an online course allowing video, audio, and text-based interactions as a platform for collaborative learning.

**ZOOM:** Online video conferencing tool supporting communication via virtual interactions.