



Mentorship reconsidered: A case study of K-12 teachers' mentor-mentee relationships during the COVID-19 pandemic

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Abstract

This study critically examined the impact of a crisis context (COVID-19 pandemic) on K-12 teachers by placing emphasis on the mentor-mentee dyad through the perspective of the mentee in a large United States public school system. A phenomenological case study was undertaken that used semi-structured interviews to examine 14 early career teachers (mentees) participating in a formal mentoring program during the 2020–2021 school year. The study focused on mentor-mentee relationships by accounting for the single most traumatic and transformative event of the modern era of K-12 public education. The analysis yielded three findings highlighting the impact of COVID-19 on the mentor-mentee dyadic experiences of first- and second-year teachers engaged in a mentoring relationship. The findings indicate that (a) e-mentoring allowed for avoidant behaviors from mentors (b) successful mentoring involves the development of personal relationships between a mentor and mentee, and (c) peer and reverse mentoring became commonplace during the COVID-19 pandemic. Public school systems can use these findings to help develop positive mentor and mentee relationships that go beyond the traditional dyadic roles and help reduce stress in a crisis context, while developing a culture where superiority bias is improved. Research implications offer mentoring literature a view to pay more attention to temporal influences during environments of high stress, which may provide more explanatory power on mentorship roles, cultural influences, and social interactions in the course of mentor-mentee practices.

Keywords Avoidant behaviors · Public education · e-mentoring · Peer mentoring · Reverse mentoring

1 Introduction

Mentoring is a dyadic relationship in which a senior employee (mentor) encourages and supports a junior employee (protégé/mentee) (Kram, 1983, 1988). Mentorship is a concept that can be found across various disciplines and contexts, including within communities of practice. Communities of practice (CoP) are groups that share a common identity or interest and support each other through a learning process through collaboration, knowledge sharing, and activities (Wenger, 1998). An example of a community of practice is educators. In the United States (US), mentorship is at the core of many teacher reward programs and university-based training programs, which support new teachers (Little, 1990). Both mentoring and communities of practice contribute to the professional development of K-12 teachers in the United States.

Evidence suggests that mentoring is linked to improvements in teachers' professional accomplishments and improvements in schools and school systems (Bowman, 2014; Feiman-Nemser, 1996). Mentorship programs have been increasingly formalized in education to aid in teacher retention (Little, 1990). The National Schools and Staffing Survey for Public Teachers highlights this trend of increased mentorship programs, which indicates that 84% of first-year teachers participate in a formal induction program, such as mentoring (U.S. Department of Education, 2017). Correspondingly, policymakers in the United States have embraced mentoring as a tool to affect education (DeAngelis et al., 2013; Hobson et al., 2009; Ingersoll & Strong, 2012). For instance, in 2013, the Texas legislature passed House Bill (HB) 2012, creating the Texas Teacher Mentoring Advisory Committee (MAC) to review mentorship programs in Texas school systems. Following an extensive evaluation period, MAC recommended that Texas devise a comprehensive teacher mentorship program for its K-12 system (Texas Teacher Mentoring Advisory Committee, 2015). In 2019, the Texas legislature adopted the majority of MAC's recommendations and established a voluntary grant program called the Mentoring Program Allotment (Texas Education Agency, 2020b). For the 2020–2021 school year, 159 Texas school districts applied for the first round of funding from the Mentoring Program Allotment, suggesting that mentorship programs were strong (Texas Education Agency, 2020a). While 63 approved districts throughout Texas sought to implement their mentorship programs (Texas Education Agency, 2020a), the COVID-19 pandemic significantly impacted the execution of the programs, as it also did throughout much of the US (VanLone et al., 2022).

The COVID-19 pandemic is the single most traumatic and transformative event of the modern era of K-12 public education (Kaden, 2020). While public schools worldwide were forced to close as a precaution during the COVID-19 pandemic (Bozkurt & Sharma, 2020), rapid measures were taken in the Spring of 2020 in various parts of the US to sustain education programs (Yawson, 2020). Educators were tasked with facilitating online lessons, albeit from their homes. Challenges emerged as emotionally charged experiences disrupted learning opportunities (Carpenter, 2022). Teachers reported severe difficulty engaging students, while managing professional and personal responsibilities (Kraft et al., 2020). For many teachers, this new way of teaching was stressful, and further complicated fears for their personal health and safety (Haidusek-Niazay & Carpenter, 2023; Obrad, 2020; Pressley, 2021).

As COVID-19 infection rates delayed plans to return to face-to-face instruction for the 2020–2021 academic year, many school systems offered blended learning options, such as synchronized in-person and virtual teaching (Singh et al., 2021). Synchronous instruction required novice and experienced teachers alike to master new teaching techniques. Many school systems also had to re-evaluate the resources required to meet the demands of the new instruction methodology (Kraft et al., 2020). In turn, mentorship programs and teacher induction initiatives across the US suffered. COVID-19 diverted emphasis away from mentoring programs, and many mentor-mentee relationships quickly deteriorated or ceased (Annenburg Institute at Brown University, 2020). However, the effects of deteriorated relationships on mentorship programs, like the Texas K-12 school systems, are confounded, as there is a need for more information on the consequences of dysfunctional mentoring relationships (Banerjee-Batist et al., 2019).

Early research on the K-12 teacher experience during COVID-19, such as Trust and Whalen (2020), reveals that teachers used a variety of alternate ways to replace broken mentoring relationships. For instance, newer teachers struggled with inadequate preparation and expertise in instructional techniques, classroom management, and alternative teaching modalities (VanLone et al., 2022). Meanwhile, older educators who had traditionally served as mentors to new teachers were overwhelmed by teaching using new technology (Kraft et al., 2020). As a real-life representation of communities of practice, newer and veteran teachers often reciprocated support where the others struggled.

Nevertheless, information on teachers' adaptation, growth, and development during COVID-19 is scarce, and additional research in this area is necessary (Valle et al., 2022). Accordingly, the purpose of this case study was to examine K-12 teachers' mentor-mentee relationships during the COVID-19 pandemic. As of this writing, empirical studies about the impact of the COVID-19 pandemic on mentoring are scarce. However, mentoring relationships due to the pandemic must be reconsidered (Cameron et al., 2020). This study was guided by the following question: How did the COVID-19 pandemic affect mentees' experiences in Texas K-12 teachers' mentor-mentee dyads? The remainder of this article provides an overview of mentorship a framework for the investigation, the research design, findings, discussion, and implications for research and practice.

2 Conceptual framework: mentoring and its role in K-12 education

In the U.S. K-12 school systems, mentoring focuses on new teachers' induction, career growth, and retention (Searby & Brondyk, 2016). Mentorship programs for new teachers aimed to introduce them to a school district's or campus' norms and expectations (Ingersoll & Strong, 2011). As teacher quality, retention, and shortages became concerns in the 1980s, induction programs emphasized structured mentoring (Searby & Brondyk, 2016).

2.1 Definition, theory, and historical context

Levinson's 1978 study on human development is a seminal piece that stresses mentorship as a crucial necessity for providing direction, counseling, and skill development throughout one's lifetime (Eby et al., 2007). In the subsequent decades, research primarily focused on three mentoring relationships: youth mentoring, student-faculty relations, and workplace mentorship (Allen & Eby, 2007). Inspired by Levinson (1978), Kram (1988) described mentoring as a developmental relationship in the workplace, offering one of the first academic theoretical foundations for the concept (Ragins & Kram, 2007). The mentoring relationship proposed by these two early works is dyadic, meaning the mentor is more senior or experienced than the protégé and seeks to help the protégé's career (Kram, 1988; Levinson, 1978).

Evident by Crisp and Cruz's (2009) review that cited over 50 mentoring definitions, mentoring is a topic that has been studied extensively. Still, there is no consensus on what it entails, and no unifying mentoring theory exists (Bozeman & Feeney, 2007; Dawson, 2014). The lack of a universal definition or progress in the theoretical development of mentorship can be attributed to scholarly discourse that is divided into research focused on mentoring program content or efficacy and research focused on the roles and functions of mentors and mentees in mentorship interactions (Bozeman & Feeney, 2007; Crisp & Cruz, 2009). Furthermore, the many variations in how mentorship is understood can be linked to the term's historical usage to understand its roots.

The concept of mentorship was influenced by Greek mythology and Homer's *Odyssey* depiction of Athena (as cited by Clutterbuck et al., 2017). As the concept of mentoring grew in the 1980s, one interpretation of Athena's function as Odysseus' defender and advocate led to the adoption of the term protégé to describe someone guided by a mentor (Clutterbuck et al., 2017). Another conception of mentorship was inspired by Odysseus' reliance on a dedicated friend named Mentor to watch for his son Telemachus while he was away at war (as cited by Ragins & Kram 2007). Subsequently, *Mentor* has referred to an advisor.

2.2 Mentoring models

Historically, the traditional model of mentorship was the dyadic approach. However, recent variations include new mentorship models, including peer, reverse, and e-mentoring. While traditional mentoring is a dyadic, hierarchical interaction between a senior and junior mentee (Ragins & Cotton, 1999), peer mentoring involves two peers of similar hierarchical positions sharing information, career strategies, and job-related feedback (McManus & Russell, 2007). Peer mentoring has psychological, emotional, and career benefits similar to traditional mentoring. However, peers may lack the connections and status of a traditional mentor (Ensher & Murphy, 2007; Kram & Isabella 1985).

2.2.1 Reverse mentorship

Reverse mentorship began in large organizations to exchange technology-related knowledge between younger and older personnel (Clutterbuck et al., 2017). Reverse mentorship has also been used to bridge generational barriers, enhancing senior employees' knowledge of diversity concerns and global perspectives and giving younger employees a chance to network and contribute to an organization (Chaudhuri & Ghosh, 2012).

2.2.2 E-mentoring

E-mentoring has been the newest and most popular mentoring model since COVID-19. E-mentorship uses workplace technology to facilitate mentoring (Ensher & Murphy, 2007). E-mentoring serves the same functions as traditional mentoring, developmental partnerships, and relational mentoring interactions between mentors and mentees (Ensher & Murphy, 2007). E-mentoring, however, is facilitated via email, video conferencing, chatrooms, message boards, and other social networking platforms (Bierema, 2017). Electronic communication can overcome traditional face-to-face mentoring's organizational, demographic, and time zone limits and promote peer and reverse mentoring (Ensher & Murphy, 2007). E-mentoring, however, also has several drawbacks, including misinterpretation due to non-synchronous facilitation, delayed trust and rapport building, and varied technical skills among mentors and mentees (Ensher & Murphy, 2007).

2.3 Mentorship phases

Although not without critique, Kram (1988) posits that mentorship cycles go through four phases: initiation, cultivation, separation, and redefinition. According to Kram (1988), the first phase of mentorship is initiation. This six-month-to-year-long phase begins with idealized expectations and ends with more tangible, practical interactions (Dougherty et al., 2007). Next, interpersonal relationships are strengthened during the cultivation phase, and mutual exchange and reciprocity are emphasized (Ragins & Kram, 2007). The cultivation phase is the critical mentorship relationships phase, whereby the mentee receives career and psychosocial support (Dougherty et al., 2007; Kram, 1988). The third phase is separation, where the mentor-mentee relationship is ended due to psychological or physical separation, such as one or both parties leaving an organization (Ragins & Kram, 2007). After separation, the relationship may transition to a fourth phase resembling friendship, where career benefits are less likely, but psychological functions through counseling and coaching may still occur (Ragins & Kram, 2007; Kram, 1988) primarily focuses on formal mentorship programs and helping proteges overcome early career issues. Mentoring, however, can be informal, whereby the exchanges between a mentor and mentee are due to a casual association (Baugh & Fagenson-Eland, 2007).

For this study, formal workplace mentoring will be conceptualized as organized forms of interpersonal interactions between more experienced and less experienced

employees, with the more experienced expected to support, counsel, and guide the less experienced (Eby et al., 2007; Eby et al., 2013).

3 Methodology

The research design adopted two qualitative approaches: a case study and a phenomenological approach. Before outlining the data-gathering methods, this section discusses the key features and uses of the two qualitative approaches.

A case study approach allowed a unique and detailed analysis of K-12 public school teachers in mentorship programs affected by the COVID-19 pandemic. The case study approach used could be classified as instrumental (Stake, 2013), as the study sought insight into the impact of COVID-19 on the experiences of first- and second-year teachers in a mentoring relationship. Case studies are sometimes criticized for lacking “generalizability” (Creswell, 2007, p. 76), and this study is limited to the Texas K-12 school system. However, case studies offer transferrable insights, where others can adapt relevant parts of the case to another scenario (Schoch, 2019).

A phenomenological approach allowed the exploration of phenomena through the participants’ experiences. In a phenomenological approach, the researcher interprets the phenomenon based on participant synthesis to determine meaning (McGill, 2018). This phenomenological case study allowed early career teachers (mentees) to share experiences of their lived events that led to the essence of their perspectives for study.

3.1 Case selection

This study was approved by the Institutional Review Board at The University of Texas at Tyler as well as the Research Initiative Committee of the public school system prior to the start of the study. Finding an exemplar was crucial to identifying a viable case for exploration (Merriam & Tisdell, 2015.). The case was a major urban public K-12 school district located in Texas, USA. For 20 years, the public school district under investigation ran a formal mentoring program for first and second-year teachers. The first author was affiliated with the Texas K-12 school district and had access to individuals who directly oversaw mentorship programs. Historically, the mentoring program had been facilitated by a district administrator, while veteran educators with full-time classroom responsibilities served as the primary mentoring source. Most students attending the 2020–2021 school year chose a virtual option for instruction. Yet the school district did not modify the resources or revise the mentoring program for the 2020–2021 school year to account for pandemic implications. Therefore, little regard was given to the possible impact of the new teaching process on mentor-mentee relationships.

3.2 Participants

Participants in this study were first- or second-year teachers enrolled in the district’s formal mentorship program from March 2020 through March 2021. The chosen time-

frame includes the pandemic's critical convergence of the employment of participants as first- or second-year teachers for the 2020–2021 academic school year and the occurrence of the mentoring program. This purposeful sampling and time frame ensured that participants were mentored early career instructors with real-time experience during the pandemic.

A list of 172 potentially eligible participants and their email addresses was provided to the authors by the school district. Eligible participants were emailed a recruitment invitation outlining the scope and purpose of the study. Emailed invites included eligibility conditions, and all participants were allowed to schedule and meet with the first author via Calendly or email. A total of 20 participants expressed an interest in the study. In addition, the district's mentoring facilitator informed new teachers and campus administrators about the study through internal communications prior to all potentially eligible participants receiving a second invitational email from the authors. Twelve additional individuals expressed interest in participating.

A predetermined sample size was not used; instead, the ultimate number of participants was established when the point of data saturation was reached (Lincoln & Guba, 1985; Yin, 2009). Prior to obtaining the participant's written agreement to participate in the study, the first author met with interested participants to review the study, IRB protocols and disclose the author's affiliation with the district. The IRB-approved consent form was emailed to each study participant, and electronic signatures were collected using DocuSign. Interviews were conducted with 14 participants and ended after the fourteenth participant when data saturation was reached. See Table 1 for additional details on participants.

3.3 Data collection and analysis

The study was conducted between March 2020 through March 2021. Due to state-ordered social distancing requirements, virtual interviews ranging from 40 to 120 min were digitally recorded. A semi-structured interview format with a question

Table 1 Individual and Teaching Characteristics of the Mentee Research Participants ($N=14$)

Pseudonym	Teaching Years	Teaching Level	Teaching Assignment
Dina	2	Elementary	Prekindergarten
Dionne	2	High School	Journalism
Eadlynn	2	Elementary	Kindergarten
Guinevere	1	Middle School	History
Hena	2	High School	Foreign Language
Jade	2	High School	English
Katy	1	High School	Elective
Ledger	2	High School	English
Malcom	1	Elementary	English/Social Studies
Melissa	2	Elementary	Special Education
Piper	1	Elementary	English/Social Studies
Saul	2	Middle School	English
Sienna	2	Elementary	Music
Van	2	Middle School	English

guide allowed for a conversational interview style to collect data until saturation was reached (Creswell & Creswell, 2017). The question guide was designed to address the research question and to gain insight into each participant's path to the teaching profession and their current year's assignment. The guide also sought to expunge details about the mentor-mentee relationship and interactions, as well as the mentoring processes and outcomes during the pandemic. As the semi-structured interview uses a conversational style of data collection (Yin, 2009), the interviewer used probes and follow-up on questions to generate a deeper understanding of each participant's experiences. The interviewer exercised extra effort to encourage open-ended conversation and ensure participants felt their contributions were valued and important to gaining new knowledge and understanding.

The software Sonix.ai was used to transcribe the resulting audio transcripts. Additionally, the first author reviewed transcripts as each audio recording was replayed. The transcripts of the recorded interviews were also sent to the participants after the author reviewed them to ensure the accuracy of the interviews. After verifying each interview transcript as accurate, the first author performed an initial multi-step thematic analysis (Patton, 2002; Yin, 2009).

Data were inductively analyzed (Patton, 2002; Yin, 2009). All authors carefully read the interviews to identify common themes and patterns and to gain shared understanding (Patton, 2002). The first author took the lead in developing codes, which was a repetitive procedure that included reviewing relevant literature and evaluating interview data. Codes were created to reflect the issues and to refer to concepts in the conceptual framework.

Codes were created with the assistance of the MAXQDA Pro software to identify text and words relevant to answering the research question. After no additional codes emerged, the coded data were exported to Microsoft Excel and examined for similarities and overlaps. Reductions and consolidations were completed, and the final codes were group into major thematic categories. Consensus on findings were reached by the authors following the examination of additional documentation regarding the mentoring program, ensuring all authors understood the program's design, implementation processes, and possible implications of the study's findings. The additional documentation included mentor and mentee training materials, program expectations, timelines, mentor-mentee monthly meeting agendas, observation forms, and tours of Google classrooms used to store and create accessibility for program participants. For triangulation, interviews with the mentoring program facilitator and two mentors occurred to verify the mentoring processes and experiences as reported by the mentees.

4 Findings

The following findings illustrate the essence of the mentor-mentee dyad through the perspective of mentees in a formal mentoring induction program in a U.S. K-12 school district during COVID-19. Interviewees are referred to using pseudonyms to obscure identifying information. The analysis yielded three findings highlighting the impact of COVID-19 on the mentor-mentee dyadic experiences of first- and

second-year teachers engaged in a mentoring relationship. The findings indicate that (a) e-mentoring allowed for avoidant behaviors from mentors (b) successful mentoring involves the development of personal relationships between a mentor and mentee, and (c) peer and reverse mentoring became commonplace during the COVID-19 pandemic.

4.1 E-mentoring and avoidant behaviors

A mentor has a significant amount of control in shaping their mentee's experiences. When mentors engage in avoidant behaviors, however, they risk alienating mentees. When asked about their mentor, several participants stated (a) that they did not know who the individual was, (b) that the individual avoided them, or (c) that they met with their mentor online for check-ins, but that e-mentoring did not provide them with the support they sought. Katy, for example, stated that based on an initial introduction, she "thinks" her Assistant Principal was her mentor. She found, however, that "there's no sit-down conversation really," and that most of her encounters with the mentor take place "in passing in between classes and stuff, but [there's] no actual one on one meeting or anything like that." Ledger acknowledged having a mentor for some time, but when asked who her formal mentor was, she said it might "be between two ladies." After some deliberation, Ledger assured herself, "I know I have one for sure," eventually identifying the person who had given her the most support as the person most likely to be her mentor.

Jade described her mentor as being avoidant. Her mentor's avoidant behavior, however, she attributed to the mentor being "a teacher as well" who was doing the best possible considering that "her focus shifted in so many directions." Although some participants, such as Jade, indicated that their mentor avoided them, they spoke kindly of the mentor's efforts, noting the mentor's attempt to communicate information and conduct brief check-ins via Google Classroom and other technologies. Every participant who mentioned their mentor's over-reliance on digital tools and lack of personal encounters reported a sense of being left to "figure it out," as Dionne described. Still, Dionne observed that her interactions with her mentor were "more natural" in her first year due to the mentor's tendency for "coming and stopping by," as compared to her current situation, where the mentor generally engages with her via "emailing." Avoidant behaviors of the mentors proved difficult for the mentees. Nonetheless, mentees concluded that the avoidant behaviors were the product of their mentor doing his or her best to manage the pandemic's uncertainty.

4.2 Interpersonal relationships between a mentor and mentee

The mentor-mentee bond is a type of interpersonal relationship that occurs in the context of a professional setting. Some participants believed they lacked an interpersonal relationship with a mentor, whereas others believed one was essential to their success.

The mentor-mentee relationship, according to Katy, is critical. However, Katy's experience was marred by a mentor who could not dedicate the time required to create a meaningful interpersonal relationship. "It's kind of like, OK, we're forgot-

ten about because there's a thousand different things coming in on their plates at the same time," Katy explained. For Jade, the lack of an interpersonal relationship meant a "less personal" and "so downgraded" experience compared to her expectations. Dionne observed that most of the conversational and communicative exchanges with her mentor were driven by her. Dionne's mentor primarily communicated via email, and the connection appeared task-oriented, depriving her of any perceived value from the experience. In the end, she couldn't decide whether it was a box for her mentor to check or if her mentor was trying to figure out how to adjust to the COVID-19 pandemic.

Hena, like Dionne, wondered if the pandemic had anything to do with her mentor's lack of interpersonal relationship with her. Hena, who had two distinct mentoring experiences, noticed that she developed a personal connection with one mentor because of the mentor's frequent professional and personal check-ins with her. However, her second and present mentor at the time of the interview, initially approached her "by email, like, hey, I'm here, I'm going to be your [mentor]." For Hena, the mentor's approach, in which he mostly corresponded via email, was disappointing because she, too, found the year difficult and thought she needed support to which she did not receive. Eadlynn is in her second year of teaching. Similarly, she stated that she did not have an interpersonal relationship with her mentor because her mentor was "not very aggressive." However, Eadlynn ascribed the pandemic to the lack of an interpersonal relationship stating that "if [she] needs the support," she would "reach out" to her mentor. Guinevere took the same stance as Eadlynn, claiming that while it may "sound bad or mean," she lacked an interpersonal bond with her mentor but believed it was primarily due to the pandemic.

In contrast to many who had poor experiences, Saul was able to have lunch and spend time with his mentor during onboarding. For him, having the ability to create rapport with his mentor from the start of his experience meant that he felt a connection to someone who he honestly saw as a resource and champion for his success. Saul's mentor, according to him, checks on him weekly, both in terms of work performance and his well-being. As a result, Saul attributed his *Rookie of the Year* win to his mentor's encouragement. Similarly, Dina describes a particularly traumatic experience during the COVID-19 pandemic and how her mentor kept her motivated. Dina observed that her relationship with her mentor has progressed beyond job concerns, as she frequently tells her mentor, "I'm just calling to check in, and nothing went wrong." Several others, like Sienna and Malcomm, emphasized the value of having a mentor with experience or knowledge in one's field.

Sienna credited her achievements to her mentor's ability to connect with her one-on-one. Sienna's mentor has been a rock for her development, whether it's through work or simply expressing what she's going through. Malcomm discussed the importance of a mentor and expressed gratitude that his grade-level partner functioned as a mentor. Close communication with his mentor and getting to know her before their formalized agreement helped Malcom feel more confident in teaching the course material and dealing with challenges when they arose. As self-reported, Malcomm's interpersonal relationship with his mentor reduces anxiety, making him more responsive to feedback, and helps him feel less judged. "She comes in and tells me, OK, this didn't work for you. I don't think you should try this... And what I've noticed is

that when I get those feedbacks and I implement them and the kids respond better," Malcom explained.

4.3 Peer and reverse mentoring

It was difficult to provide effective instruction during the COVID-19 pandemic. Teaching was "stressful and overwhelming for a new teacher," according to Eadlynn. Teachers sought help, ideas, and resources from other teachers as they adjusted to remote learning and integrated tools such as social media into their classroom instruction. As Katy pointed out, colleagues emerged as "lifesavers" for one another, in some circumstances more than mentors, even though they were not "assigned" to support one another in any way. Ledger echoes this sentiment, emphasizing the benefits to a teacher's mental health that a community of peers with whom one can freely communicate feelings and thoughts can provide. "Everyone's just kind of like, we're going to go through it together," Jade mused about teachers banding together. "We actually have a shirt." Jade's experience of both supporting and being helped by other teachers encouraged her to propose that her school district adopt a buddy system in addition to a mentoring program. According to Jade, peer and reverse mentoring are essential when an individual needs an idea, strategy, or words of encouragement from a "like-minded person" who can work alongside you. Having a positive experience with peer or reverse mentoring was a unanimous consensus among participants. In addition to a formal mentor, Hena for example, highlighted the value of receiving and providing support to others beyond a mentor-mentee dyad. Hena believes that finding peers who can honestly say, "I know how it feels. I'm here to help. If you need anything, just text" was vital for survival and thriving through the pandemic.

Hena supported peers and acted as a reverse mentor to "older people ... [because she had] more knowledge in technology." When asked, "How did you do that, how to connect another TV and another monitor. You think you can help me?" Hena helped older teachers set up equipment and use technology tools. Dionne, whose grandmother is a teacher nearing retirement, shared Hena's experience. Dionne recalls having to "go over to her house over the summer and just teach her everything about" online teaching. Smiling, Saul noted,

The reason I am smiling is because I have a teacher who's been teaching for over 20 years. And when we first came to campus, she was like ... I don't know what I am doing, this is all new technology. You know I don't do technology. I am the chalkboard teacher, get your pencil and paper, that is me. And so those first few weeks, I was in her classroom trying to tell her from the door, this is what you do. This is how you do this. Now to the point where she's getting more savvy than me.

Eadlynn recalls demonstrating to older teachers how "they can make adjustments for their [online] class." While many mentee participants expressed a lack of confidence and direction from mentors on properly communicating subject matters to their students during the COVID-19 pandemic, peer and reverse mentoring filled the void. Guinevere expressed that she was "working with teachers with through collabora-

tion, knowledge sharing and activities decades of experience” but sought advice on accomplishing things “virtually.” In turn, she felt supported as they suggested, “ok, I’ve been teaching this content for a while, this is the best way I’ve seen how to teach it.” Like every other participant, Guinevere noted that peer and reverse mentoring was a collaborative process that helped experienced teachers cope with the pandemic and new teachers acquire “confidence.” While mentoring is and has always been beneficial to new teachers, peer and reverse mentoring produced a “team” dynamic in which all teachers who made connections “share resources.” And, while teaching has typically rewarded those with seniority, Dina captured many of the mentees’ sentiments when she stated that “veteran teachers and new teachers [came] together to make [teaching during the COVID-19 pandemic] even better than it used to be.”

5 Discussion

A mentor has a lot of latitude to shape the classroom experiences for their mentee (Kent et al., 2009). But they risk alienating mentees when they display avoidant behaviors and consequently mentees perceive themselves as alone. Mentees feel alienated when the relationship with their mentor is not what they expected or desired (Scott, 1992). An important issue develops when mentees perceived their mentor violated their expectations or concluded that their mentors behaved in ways that were not beneficial to them—causing negative emotions about the relationship. Instead of finding self-fulfillment in the mentor-mentee relationship, mentees, like the participants, are left to figure out how to effectively navigate concerns on their own in a state of negativity and loneliness (Dennis et al., 2009; Hökkä et al., 2017). Intriguingly, the participants described dysfunctional mentoring relationships as a problem but excused them as a side effect of the COVID-19 pandemic. It is unknown whether this is because the participants honestly believed that the stress of the pandemic was the sole reason of the dysfunctional relationships or because their perceptions were influenced by the author’s (interviewer) status in the district. Nonetheless, mentees must feel safe interacting with their mentors and peers for professional growth and development. Feeling safe necessitates rapport with others and spaces that cultivate a sense of professional belonging or connection (Jefford et al., 2021). This human need for safety through rapport building may help explain participants heightened negative sentiments.

MacIntyre et al. (2020) evaluated 600 language teachers to assess stressors and coping techniques in response to COVID-19. Their findings revealed a significant rise in teacher stress and anxiety as a result of the pandemic conditions. Importantly, their research found a link between avoidant coping strategies and efforts to limit or avoid dealing directly with stressful demands. Avoidant coping strategies are strongly associated with stress, anxiety, and loneliness (MacIntyre et al., 2020). This is an essential association to draw upon because some of the participants stated that their mentor’s avoidant behavior exacerbated their own stress and anxiety. Although mentor avoidant behavior may have been justified by safety and health protocols, the mentor’s behavior often harmed—rather than immediately improved—the stress level of newer teachers. Perhaps the participants’ experiences with peer and reverse

mentoring were a silver lining, especially for those who had dysfunctional mentoring relationships.

Many mentee participants admitted having doubts about their ability to successfully communicate subject matters to their students. During COVID-19, mentor help for new teachers was limited, which would have otherwise been routinely provided to newer teachers when planning and preparing their classes. One positive outcome was that “nobody really knew what we were doing during this time of just trying to stay above water,” as Sienna put it. The quick shift to virtual formats and the necessity of teaching remotely equalized both mentees’ and mentors’ experiences. All mentees reported increased opportunities to collaborate with mentors or older teachers on creating online lessons and curricular resources due to their enhanced technological proficiency. Before COVID-19, some mentors were hesitant to share content or lesson plans, according to participants. The role reversal that raised the social status of mentees in the mentor-mentee relationship increased the desire for collaboration among all teachers. Peer and reverse mentorship successfully enhanced communal norms. Communal norms in this context included the equitable sharing of resources and such norms are the foundation for effective mentoring relationships in the workplace (Ragins & Verbos, 2007).

The pandemic-induced reverse and peer mentoring does not necessarily invalidate Kram’s developmental theory of mentorship (Kram, 1988), which suggests that an effective mentor-mentee relationship exists one way between a senior and junior colleague. The study’s findings do, however, suggest that in a crisis situation, traditional mentorship should be considered as one of several instruments for induction and may be reinforced by a mixed model of peer or reverse mentoring. Knowledge that is created socially is typically created through a willingness to mutually exchange ideas, viewpoints, and beliefs (Chakravarthy & McEvily, 2007). Adapting knowledge sharing to the context and dynamics of a crisis emphasizes the social construction of knowledge (Al-Omouh et al., 2020; Fletcher & Mullen, 2012). In the traditional mentor-mentee relationship, the mentor and mentee face a power imbalance (Stang & Lyons, 2008). A power balance can be a naturally regenerative element to the traditional dyadic mentoring relationship.

6 Implications for practice

A brief example of recommendations is summarized in Table 2 based upon the themes identified in this study.

Because teaching is often considered an occupation with higher stress-induced mental health outcomes (Johnson et al., 2005; Lizana & Vega-Fernandez, 2021), several implications for practice on mentor-mentee programs emerged from this study. Public school systems can use these findings to develop positive relationships between mentors and mentees that go beyond the traditional dyad to help reduce stress. For example, access to content and the ability to successfully engage students are common triggers of stress for early career teachers. COVID-19 exasperated these concerns due to social distancing and the need to deliver instruction in blended formats. Public school systems can use these findings to prepare K-12 educators by ensuring

Table 2 Recommendations on the Mentor-Mentee Dyad for Public School Systems

Mentees Challenges	Illustration based on the study	Principle	Preemptive Tool Recommended
Magnified negative emotions	“It’s hard, it’s really hard, COVID has taken our normal to a different level. It’s really hard because I don’t, I don’t know how much I can take this.” (P5)	Heightened sense of fear, isolation, and loneliness during crisis.	Strategies and resources to increase social, emotional, and well-being support.
Difficult student engagement	“Right now, five kids are supposed to be virtual, but they don’t show up. One kid shows up at random times and decides he’s going to play with this fan on top of his bunk. He won’t respond to anything.” (P10)	Engaging students is harder in any formats.	Enhanced means to identify non-traditional teaching techniques that incorporate teacher skills to engage students.
Shifting technology skill	“I feel like it’s gotten better now because it’s kind of like, OK, I need this now. I need your (technology) help. I need this. It kinda made everybody vulnerable and I feel like it created even safer space to ask for help and to receive.” (P12)	Technology is an opportunity to transfer knowledge and reduce superiority bias.	Identify early career teacher skills to be utilized as explicit resources for influence on more experienced teachers.
Leveling of the hierarchy	“We’re all on the same page. it’s new to everybody...It’s broken down a stigma of having a mentor...So I think that’s what has given me the desire to reach out a lot more, because I know that we are going through the exact same things...I know that we are all in the same boat.” (P13)	Sense of equality and shared purpose when input and skills matter.	Consider alternatives to the traditional mentoring dyad. Focus on prosocial learning projects that decrease the gap in hierarchical mentorship programs.

instruction resources are readily available, including training in multimodal formats, prior to the beginning of the school year. There should be actionable solutions for all educators on how to transition content that engages students in various formats. School districts and organizations can better equip teachers and team members to assist one another in the face of rapid change by establishing mentor-mentee relationships in which each party can learn something from the other. Although preemptive organizing and training will be useful for this purpose, public school systems should also consider taking proactive measures to incorporate mental health and emotional wellness resources as a required component of any mentor-mentee program.

This study demonstrated the significance of organizations considering the benefits of peer and reverse mentoring programs as an induction strategy. As our study highlights, in unpredictably changing situations, the skills of younger professionals (mentees) can become crucial to more seasoned mentors, senior staff, and organizations. Organizational development specialists should note that hierarchical leveling facilitated by mutual information sharing led to a dynamic, vibrant public school system where mentors, mentees, and peers supported one another. This insight could provide public school systems, campuses, or organizational leaders steps to develop a culture where superiority bias (Kausel et al., 2015) of experienced teachers/staff is addressed at an organizational level. For example, mentoring programs could be designed to assess new teachers’ skills and expertise prior to their inaugural year. Then, public school systems could develop contexts where diverse skills between mentee and mentor can be matched, whereby engendering the mentor-mentee dyad towards cooperation and collaborative learning.

7 Implications for research

The study is one of the first to examine teacher mentoring during the COVID-19 pandemic. Areas of common concern in the mentoring research literature relate to the lack of theory development and the focus on dyadic relationships (Bozeman & Feeney, 2007; Crisp & Cruz, 2009; Mullen & Klimaitis, 2021). The current study expands the focus beyond the mentoring dyad and considered contextual influences (a stressful crisis environment) and the associated relational implications. This is important because it provided opportunity to recognize the value that early career teachers could generate in a heightened stressful context and may be useful for a better understanding of mentorship roles during a crisis (Mullen & Klimaitis, 2021). Expanding on this thought, the need to respond to the stressors created by the pandemic led to instances of informal reverse mentoring and the development of unique alliances with peers. It is significant to appreciate these interactions were not formally facilitated by the public school system but spontaneously developed out of the stressful environment. Mentees were more likely to report a significant reduction in stress as an outcome of these spontaneous informal alliances when their expertise was sought after and provided value to more experienced teachers. These collaborations were self-organized as a means of “surviving the chaos of the pandemic”. Thus, reducing teacher stress was influenced by informal mentoring (Bynum, 2015), not formal mentoring and offers a thread of future research on informal reverse mentoring in crises and teaching environments of heightened stress.

Another research implication to consider is that traditional mentoring literature has commonly focused on exchange theories to explain mentee benefits which occur because of mentoring (Dominguez & Hager, 2013; Ragins & Verbos, 2007, Yip & Kram, 2017). Meaning, much of mentoring research to date has applied a one-sided transactional view. Yet exchange theories may be insufficient to fully explain self-organizing informal (peer and reverse) mentoring in a crisis context. A related area for further development is that mentoring literature could pay more attention to temporal influences during environments of high stress, thus providing more explanatory power that informal self-organizing influences may have on the mentor-mentee dyad in stressful contexts. Peer and reverse mentoring are situated in mentoring literature as having qualities of relational mentoring (Marcinkus-Murphy, 2012). Relational mentoring, which is based on a communal approach where mentors and mentees experience mutual growth, learning, and development, provides a plausible framework for this temporal expansion during stressful environments. Relational mentoring theory applies tenets of social cognition theory to explain the complexities of mutual, reciprocal, and empathetic high-quality mentoring relationships (Gammel et al., 2017; Ragins, 2013). This study broadens this theoretical perspective by highlighting a social context where qualities of relational mentoring—or more specifically, informal peer and reverse mentoring—were self-organized and, in certain cases, reduced dyadic stress in a crisis environment.

Finally, our analysis also suggests that mentorship can be understood as a form of community of practice participation, wherein mentors and mentees engage in a learning process involving the transfer of knowledge and skills. We propose that research viewing mentorship as a form of CoP can contribute to a better understanding of how

mentors and mentees collaborate to create a shared identity and a unified purpose within the CoP. Further, research can also explicate how mentoring provides mentors with purpose and fulfillment and can benefit mentees regarding self-esteem and confidence. We propose that the challenges brought on by the COVID-19 pandemic emphasize the importance of deeper mutual respect between mentors and mentees within the framework of their relationship.

8 Limitations and recommendations

This research has the inherent case study limitation of generalizability. Further, limitations of this study included a small sample size—as are many qualitative studies—which may have narrowed the findings despite data saturation. Future research recommendations would be to replicate the current study at different public school systems in the U.S., and in different stressful circumstances to determine if similar findings are present. Because this study focused on mentees perspectives in a large public school system in the U.S., the findings likely have limited global generalizability on mentoring relationships. Although recent research showing negative impact on teacher well-being during the pandemic is seen in other countries (Edara et al., 2021; Lizana & Vega-Fernandez, 2021), the influence of pandemic teaching on mentorship roles is lacking and further research is merited prior to any definitive conclusions. Indeed, peer and reverse mentoring has the potential to have positive influence on the mentor-mentee dyad in other regions around the world, although cross-cultural influences may complicate these relationships. Thus, more empirical research on reverse mentoring in teaching environments in other cultures is needed to provide better insight on the implications and generalizability of reverse mentoring on teacher stress. Finally, future examinations of reverse mentoring that incorporated the perspectives of mentors would be beneficial to determine if the outcomes reported by the mentees were mutually experienced.

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References

- Al-Omouh, K. S., Simón-Moya, V., & Sendra-García, J. (2020). The impact of social capital and collaborative knowledge creation on e-business proactiveness and organizational agility in responding to the COVID-19 crisis. *Journal of Innovation & Knowledge*, 5(4), 279–288. <https://doi.org/10.1016/j.jik.2020.10.002>
- Allen, T. D., & Eby, L. T. (2007). Overview and introduction. In T. D. Allen & L. T. Eby (Eds.), *The blackwell handbook of mentoring: A multiple perspectives approach* (pp. 24–29). Blackwell Publishing Ltd.

- Annenberg Institute at Brown University. (2020). *Sustaining teacher training in a shifting environment*. Retrieved September 27, 2020, from https://annenberg.brown.edu/sites/default/files/EdResearch_for_Recovery_Brief_7.pdf
- Banerjee-Batist, R., Reio, T. G., & Rocco, T. S. (2019). Mentoring functions and outcomes: An integrative literature review of sociocultural factors and individual differences. *Human Resource Development Review, 18*(1), 114–162. <https://doi.org/10.1177/1534484318810267>
- Baugh, S., & Fagenson-Eland, E. (2007). Formal mentoring programs. In B. Rugins & K. Kram (Eds.), *The handbook of mentoring at work: Theory, research, and practice* (pp. 249–298). SAGE.
- Bierema, L. (2017). eMentoring: Computer mediated career development for the future. In D. Clutterbuck, F. Kochan, L. Lunsford, N. Dominguez, & J. Haddock-Millar (Eds.), *The SAGE handbook of mentoring* (pp. 482–492). SAGE.
- Bowman, M. (2014). Teacher mentoring as a means to improve schools. *BU Journal of Graduate Studies in Education, 6*(1), 47–51.
- Bozeman, B., & Feeney, M. K. (2007). Toward a useful theory of mentoring. *Administration & Society, 39*(6), 719–739. <https://doi.org/10.1177/0095399707304119>
- Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to Coronavirus pandemic. *Asian Journal of Distance Education, 15*(1), 1–4. <https://doi.org/10.5281/zenodo.3778083>
- Bynum, Y. P. (2015). The power of informal mentoring. *Education, 136*(1), 69–73.
- Cameron, K. A., Daniels, L. A., Traw, E., & McGee, R. (2020). Mentoring in crisis does not need to put mentorship in crisis: Realigning expectations. *Journal of Clinical and Translational Science, 5*(1). <https://doi.org/10.1017/cts.2020.508>
- Carpenter, R. E. (2022). An autoethnographic reflection of adult learning and paternal grief. *Adult Learning, 33*(2), 71–81. <https://doi.org/10.1177/10451595221074>
- Chakravarthy, B., & McEvily, S. (2007). Knowledge management and corporate renewal. In K. Ichijo & I. Nonaka (Eds.), *Knowledge creation and management*, (pp. 254–274). Oxford University Press.
- Chaudhuri, S., & Ghosh, R. (2012). Reverse mentoring: A social exchange tool for keeping the boomers engaged and millennials committed. *Human Resource Development Review, 11*(1), 55–76. <https://doi.org/10.1177/1534484311417562>
- Clutterbuck, D., Kochan, F., Lunsford, L., Dominguez, N., & Haddock-Millar, J. (2017). *The SAGE handbook of mentoring*. Sage. <https://doi.org/10.4135/9781526402011>
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). SAGE.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE.
- Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education, 50*(6), 525–545. <https://doi.org/10.1007/s11162-009-9130-2>
- Dawson, P. (2014). Beyond a definition: Toward a framework for designing and specifying mentoring models. *Educational Researcher, 43*(3), 137–145. <https://doi.org/10.3102/0013189X14528751>
- DeAngelis, K. J., Wall, A. F., & Che, J. (2013). The impact of preservice preparation and early career support on novice teachers' career intentions and decisions. *Journal of Teacher Education, 64*(4), 338–355. <https://doi.org/10.1177/0022487113488945>
- Dennis, T. A., Cole, P. M., Wiggins, C. N., Cohen, L. H., & Zalewski, M. (2009). The functional organization of preschool-age children's emotion expressions and actions in challenging situations. *Emotion, 9*(4), 520–530. <https://doi.org/10.1037/a0016514>
- Dominguez, N., & Hager, M. (2013). Mentoring frameworks: Synthesis and critique. *International Journal of Mentoring and Coaching in Education, 2*(3), 171–188. <https://doi.org/10.1108/IJMCE-03-2013-0014>
- Dougherty, T., Turban, D., & Haggard, D. (2007). Naturally occurring mentoring relationships involving workplace employees. In T. D. Allen & L. T. Eby (Eds.), *The blackwell handbook of mentoring: A multiple perspectives approach* (pp. 162–181). Blackwell Publishing.
- Eby, L. T., Rhodes, J. E., & Allen, T. D. (2007). Definition and evolution of mentoring. In T. D. Allen & L. T. Eby (Eds.), *The blackwell handbook of mentoring: A multiple perspectives approach* (pp. 7–20). Blackwell Publishing. <https://doi.org/10.1002/9780470691960.ch2>
- Eby, L. T., Allen, T. D., Hoffman, B. J., Baranik, L. E., Sauer, J. B., Baldwin, S., Morrison, M. A., Kinkade, K. M., Maher, C. P., Curtis, S. L., & Evans, S. C. (2013). An interdisciplinary meta-analysis of the potential antecedents, correlates, and consequences of protégé perceptions of mentoring. *Psychological Bulletin, 139*(2), 441–476. <https://doi.org/10.1037/a0029279>

- Edara, I. R., Del Castillo, F., Ching, G. S., & Del Castillo, C. D. (2021). Religiosity, emotions, resilience, and wellness during the COVID-19 pandemic: A study of Taiwanese University students. *International Journal of Environmental Research and Public Health*, 18(12), 6381. <https://doi.org/10.3390/ijerph18147566>
- Ensher, E., & Murphy, S. (2007). E-mentoring: Next-generation research strategies. In B. Ragins & K. Kram (Eds.), *The handbook of mentoring at work* (pp. 299–322). Sage.
- Feiman-Nemser, S. (1996). Teacher mentoring: A critical review. *ERIC Digest*, 95(2).
- Fletcher, S., & Mullen, C. A. (Eds.). (2012). *Sage handbook of mentoring and coaching in education*. Sage.
- Gammel, J., Motulsky, S., & Rutstein-Riley, A. (2017). Relational mentoring: Connection, mutuality, and empowerment. In C.O. Conceicao, L.G. Martin, & A. B. Knox (Eds.), *Mapping the field of adult and continuing education: An international compendium*. (Volume 2, pp. 63–69). Stylus Publishing.
- Haidusek-Niazy, S., & Carpenter, R. E. (2023) Examining the mentor-mentee dyad to understand the role of early career teacher stress created by Covid-19. In C. J. McCarthy & R. G. Lanbert (Eds.), *Research on Teacher Stress: Implications for the COVID-19 Pandemic and Beyond*. Information Age Publishing. ISBN: 979-8-88730-214-0
- Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and Teacher Education*, 25(1), 207–216. <https://doi.org/10.1016/j.tate.2008.09.001>
- Hökkä P.K., Vähäsantanen K., Paloniemi S., Eteläpelto A. (2017) The reciprocal relationship between emotions and agency in the workplace. In M. Goller, S. Paloniemi (Eds.), *Agency at work. Professional and practice-based learning*, (pp. 161–181). Springer.
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers. *Review of Educational Research*, 81(2), 201–233. <https://doi.org/10.3102/0034654311403323>
- Ingersoll, R., & Strong, M. (2012). What the research tells us about the impact of induction and mentoring programs for beginning teachers. *Yearbook of the National Society for the Study of Education*, 111(2), 466–490. <https://doi.org/10.1177/016146811211401411>
- Jefford, E., Nolan, S., Munn, J., & Ebert, L. (2021). What matters, what is valued and what is important in mentorship through the appreciative inquiry process of co-created knowledge. *Nurse Education Today*, 99, 104791. <https://doi.org/10.1016/j.nedt.2021.104791>
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20(2), 178–187. <https://doi.org/10.1108/02683940510579803>
- Kaden, U. (2020). COVID-19 school closure-related changes to the professional life of a K–12 teacher. *Education Sciences*, 10(6), 1–13. <https://doi.org/10.3390/educsci10060165>
- Kausel, E. E., Culbertson, S. S., Leiva, P. I., Slaughter, J. E., & Jackson, A. T. (2015). Too arrogant for their own good? Why and when narcissists dismiss advice. *Organizational Behavior and Human Decision Processes*, 131, 33–50. <https://doi.org/10.1016/j.obhdp.2015.07.006>
- Kent, A. M., Feldman, P., & Hayes, R. L. (2009). Mentoring and inducting new teachers into the profession: An innovative approach. *International Journal of Applied Educational Studies*, 5(1), 73–95.
- Kraft, M., Simon, N., & Lyon, M. (2020). *Sustaining a sense of success: The importance of teacher working conditions during the COVID-19 pandemic*. Retrieved December 11, 2021, from <https://www.edworkingpapers.com/sites/default/files/ai20-279.pdf>
- Kram, K. E. (1983). Phases of the mentor relationship. *The Academy of Management Journal*, 26(4), 602–625. <https://doi.org/10.2307/255910>
- Kram, K. E. (1988). *Mentoring at work: Developmental relationships in organizational life*. University Press of America.
- Kram, K. E., & Isabella, L. A. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal*, 28(1), 110–132. <https://doi.org/10.5465/256064>
- Levinson, D. J. (1978). *The seasons of a man's life*. Random House Digital.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Little, J. W. (1990). Chapter 6: The mentor phenomenon and the social organization of teaching. *Review of Research in Education*, 16(1), 297–351. <https://doi.org/10.3102/0091732X016001297>
- Lizana, P. A., & Vega-Fernandez, G. (2021). Teacher teleworking during the Covid-19 pandemic: Association between work hours, work–family balance and quality of life. *International Journal of Environmental Research and Public Health*, 18(14), 7566. <https://doi.org/10.3390/ijerph18147566>

- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing, and negative emotions. *System*, *94*, 102352. <https://doi.org/10.1016/j.system.2020.102352>
- Marcinkus-Murphy, W. (2012). Reverse mentoring at work: Fostering cross-generational learning and developing millennial leaders. *Human Resource Management*, *51*(4), 549–573. <https://doi.org/10.1002/hrm.21489>
- McGill, C. (2018). Leaders' perceptions of the professionalization of academic advising: A phenomenography. *NACADA Journal*, *38*(1), 88–102. <https://doi.org/10.12930/NACADA-17-041>
- McManus, S., & Russell, J. (2007). Peer mentoring relationships. In B. Ragins & K. Kram (Eds.), *The handbook of mentoring at work: Theory, research, and practice* (pp. 279–197) Sage.
- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Mullen, C., & Klimaitis, C. (2021) Defining mentoring: A literature review of issues, types, and applications. *Annals of the New York Academy of Sciences*, *1483*(1), 19–35. <https://doi.org/10.1111/nyas.14176>
- Obrad, C. (2020). Constraints and consequences of online teaching. *Sustainability*, *12*(17), 1–23. <https://doi.org/10.3390/su12176982>
- Patton, M.Q. 2002. *Qualitative research and evaluation methods*. 3rd ed. Thousand Oaks, Sage.
- Pressley, T. (2021). Factors contributing to teacher burnout during COVID-19. *Educational Researcher*, *50*(5), 325–327. <https://doi.org/10.3102/0013189X211004138>
- Ragins, B. (2013). Relational mentoring: A positive approach to mentoring at work. In G. M. Spreitzer & K. S. Cameron (Eds.), *The oxford handbook of positive organizational scholarship* (pp. 519–534). Oxford University Press.
- Ragins, B., & Cotton, J. L. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology*, *84*(4), 529–550. <https://doi.org/10.1037/0021-9010.84.4.529>
- Ragins, B., & Kram, K. E. (2007). The roots and meaning of mentoring. In B. R. Ragins & K. E. Kram (Eds.), *The handbook of mentoring at work: Theory, research, and practice* (pp. 3–15). SAGE.
- Ragins, B., & Verbos, A. K. (2007). Positive relationships in action: Relational mentoring and mentoring schemas in the workplace. In J. E. Dutton & B. R. Ragins (Eds.), *LEA's organization and management series. Exploring positive relationships at work: Building a theoretical and research foundation* (pp. 91–116). Lawrence Erlbaum Associated Press.
- Schoch, K. (2019). Case Study Research. In G. Burkholder, K. Cox, L. Crawford, and J. Hitchcock (Eds), *Research design and methods: An applied guide for the scholar-practitioner* (pp. 245–258). SAGE.
- Scott, M. E. (1992). Designing effective mentoring programs: Historical perspectives and current issues. *The Journal of Humanistic Education and Development*, *30*(4), 167–177. <https://doi.org/10.1002/j.2164-4683.1992.tb00053.x>
- Searby, L. J., & Brondyk, S. K. (2016). *Best practices in mentoring for teacher and leader development*. Information Age Publishing.
- Singh, J., Steele, K., & Singh, L. (2021). Combining the best of online and face-to-face learning: Hybrid and blended learning approach for COVID-19, post vaccine, & post-pandemic world. *Journal of Educational Technology Systems*, *50*(2), 140–171. <https://doi.org/10.1177/004723952111047865>
- Stake, R. E. (2013). *Multiple case study analysis*. Guilford Press.
- Stang, K. K., & Lyons, B. M. (2008). Effects of modeling collaborative teaching for pre-service teachers. *Teacher Education and Special Education*, *31*(3), 182–194. <https://doi.org/10.1177/0888406408330632>
- Texas Legislature. (2015). *Texas teacher mentoring advisory committee. Report to the Texas Legislature*. Retrieved from <https://tea.texas.gov/sites/default/files/MAC%20Final%20Report.pdf>
- Texas Education Agency. (2020a). *Coronavirus (COVID-19) support and guidance | Texas Education Agency*. Retrieved September 28, 2020, from <https://tea.texas.gov/texas-schools/health-safety-discipline/COVID/coronavirus-COVID-19-support-and-guidance>
- Texas Education Agency. (2020b). *Mentor program allotment*. Retrieved July 11, 2020, from <https://tea.texas.gov/texas-educators/educator-initiatives-and-performance/mentor-program-allotment>
- Trust, T. & Whalen, J. (2020). Should Teachers be Trained in Emergency Remote Teaching? Lessons Learned from the COVID-19 Pandemic. *Journal of Technology and Teacher Education*, *28*(2), 189–199. Retrieved December 16, 2022 from <https://www.learnlib.org/primary/p/215995/>
- U.S. Department of Education. (2017). *Schools and staffing survey, public teachers: 2011-12*. Retrieved June 10, 2022 from <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016817>

- Valle, L., Lorduy-Arellano, D., & Porras-González, N. (2022). Using reverse mentoring to transform in-service teachers' beliefs about how to teach english. *PROFILE Issues in Teachers' Professional Development*, 24(1), 63–76. <https://doi.org/10.15446/profile.v24n1.93061>
- VanLone, J., Pansé-Barone, C., & Long, K. (2022). Teacher preparation and the COVID-19 disruption: Understanding the impact and implications for novice teachers. *International Journal of Educational Research Open*, 3, 100120. <https://doi.org/10.1016/j.ijedro.2021.100120>
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.
- Yawson, R. (2020). Strategic flexibility analysis of HRD research and practice post COVID-19 pandemic. *Human Resource Development International*, 23(4), 406–417. <https://doi.org/10.1080/13678868.2020.1779169>
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). SAGE.
- Yip, J., & Kram, K. (2017). Developmental networks: Enhancing the science and practice of mentoring. In D. Clutterbuck, F. Kochan, L. Lunsford, N. Dominguez, & J. Haddock-Millar (Eds.), *The SAGE handbook of mentoring* (pp. 88–104). SAGE.

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