

Online Teaching during the Pandemic: Educational Psychology Faculty's Perspectives

Karen Krier

Boise State University, USA
karenkrier@u.boisestate.edu

Yu-Hui Ching

Boise State University, USA
yu-huiching@boisestate.edu

Through a grounded theory study, we uncovered instructional challenges and opportunities during the pandemic from 15 educational psychology faculty members who serve at land-grant institutions. We conducted one-on-one semi-structured interviews via Zoom or in-person with the faculty members. We learned their strategies to address learner needs and challenges throughout their narratives. Upon reflection, participants revealed and emphasized the significance of humanizing teaching and being flexible and adaptive. These strategies enabled them to address learners' needs and engage learners during pandemic teaching. This study offers a deeper understanding of how faculty experienced the pandemic teaching. The findings help shed light on a topic that needs more exploration and reflection—humanizing teaching.

Keywords: Higher Education, Humanizing Teaching, Instructional Approaches, Learner Engagement, Online Teaching

Introduction

The outbreak of COVID-19 unsettled the norm of instruction in higher education as it forced many faculty to abruptly transition from their traditional face-to-face instruction to remote, hybrid, or online teaching (Olsen et al., 2020; Fujita, 2020; Karakaya, 2020; Herald & Chen, 2021). Such transitions presented major barriers for instructors and learners (Trust & Whalen, 2021; Scherer et al., 2021; Herold & Chen, 2021; Yuan & Kim, 2014; Shih et al., 2021; Fathema et al., 2015; Vaughan et al., 2013). Learners were experiencing accessibility obstacles, and instructors were facing unfamiliar practices of instruction given the sudden adjustment of course delivery formats (Carrillo & Flores, 2020). Instructors likely lacked pedagogical and technological knowledge and preparation necessary for the specific delivery format.

Through a grounded theory study, this research uncovers the challenges and opportunities faced by educational psychology faculty members at land-grant institutions resulting from the transition of instructional delivery formats during the pandemic. Educational psychology plays an essential role in teacher education. As a professional outcome, educational psychology intends to enhance future educators' "practice of teaching" (Verdi & Johnson, 2005) through research-validated pedagogies that broaden their perspectives of teaching and content knowledge (Lohse-Bossenz et al., 2013). While many faculty members in educational psychology are experts in learning theories or pedagogies, some are research methodologists or statisticians who may or may not have prior training in teaching, education, or online teaching. Examining educational psychology faculty members' perspectives on online teaching during the pandemic is expected to generate a wide range of insights into the challenges and adaptations of these instructors. The following research questions guided this study:

1. How do educational psychology faculty describe the transition process they faced in their teaching during the height of the pandemic between Spring 2020 to Summer 2021?
2. How has the teaching transition process affected educational psychology faculty's current or future teaching practices?
3. What might be educational psychology faculty's advice or reflections having gone through this process?

Literature Review

Challenges of Distance Education

According to the National Center for Education Statistics, distance education is defined as the utilization of various types of technology “to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously” (National Center for Education Statistics, n.d.). In this paper, distance education mainly focuses on the online aspect, particularly during the pandemic.

Distance education could increase educational access for students, but it needs to be aligned with faculty’s personal teaching value as well as the value of their institutions in order for faculty to accept it (Shreaves et al., 2020). In addition, teaching distance courses require a toolkit that faculty accustomed to face-to-face teaching might not possess. Literature suggests that faculty lack training, support, and self-efficacy in distance learning settings (Fathema et al., 2015; Lowenthal et al., 2019). According to Baldwin (2017), in-person courses cannot simply be transitioned to an online format without revising the instructional structure; thus, training is needed for faculty to succeed in undertaking these transitions themselves (p. 22). The effectiveness of online learning will be diminished if in-person courses are transitioned online without adaptation (Chiero & Beare, 2010). Faculty in higher education were found to receive “limited support to design, implement, and sustain online teaching programs” (Scherer et al., 2021). The pandemic abruptness exacerbated this issue.

Pandemic abruptness

The COVID-19 outbreak forced faculty to hastily transition from face-to-face teaching to distance teaching that requires “new technologies, teaching approaches, and communication strategies”; the sudden instructional transition has caused faculty to be in an “ill-prepared” position (Trust & Whalen, 2021, p. 145). However, only a limited “body of knowledge” has so far been documenting the “emergency transitions” (Lemay et al., 2021, pp. 1-2). Thus, this grounded theory study intends to provide empirical evidence of educational psychology faculty’s challenges and opportunities resulting from the transition of instructional delivery formats during the height of the pandemic. Their insight serves as a basis for identifying adaptive and evolving strategies faculty used during the transition process. The educational psychology faculty’s pandemic teaching experiences can also offer valuable and practical perspectives for future faculty development endeavors in higher education.

Method

Research Design

This study employs a grounded theory research method to understand how faculty transitioned into distance teaching during the pandemic, a process “where little is known about a phenomenon of interest” (Creswell & Poth, 2018, p. 87; Mills et al., 2014, p. 112). Because the transition to distance teaching necessitated by the COVID-19 pandemic is a recent phenomenon, a deeper understanding of faculty’s instructional challenges, adaptation, and practices is needed. The grounded theory approach is applicable for this study because it focuses on generating a theory from “participants who have experienced the process” (Creswell & Poth, 2018, p. 82).

Sampling and Participants

Faculty in the educational psychology field possess skill sets “in learning, development, motivation, classroom management, and assessment”, which are instrumental for teacher education (Patrick et al., 2011, p. 71). Fifteen participants served as faculty in the field of educational psychology at eight land-grant institutions across the United States; they were selected for this study to share insights of teaching during the height of the pandemic. Nine of the participants taught courses that included teacher education learners.

Our sampling method is grounded in the theoretical sampling method. We initially used convenience sampling to interview six educational psychology faculty in a land-grant institution, then employed random purposeful sampling with the goal of reaching educational psychology faculty at different land-grant institutions (Creswell & Poth, 2018, pp. 85, 159). This approach expanded the sample size and helped reach the status of data saturation (Creswell & Poth,

2018, p. 85). During the random purposeful sampling phase, we first randomly selected 25 land-grant universities and sent recruitment emails to 161 randomly selected faculty in these institutions. Among them, nine participants agreed to be interviewed. According to Patton (1990), a purposeful random sample could broaden the case selection and avoid the “suspicion” that might arise through convenience sampling; therefore, using two layers of random sampling (university and individual faculty members) could enhance the “credibility” of the research (p. 180). Additional nine interviews were completed through this approach, and at that point, the data reached saturation.

Data Collection & Analysis

We conducted one-on-one interviews via Zoom or in-person with the 15 participants. Interviews were in a semi-structured format that allowed “openness” to both “sequence[s] and forms of questions” that enabled us to “follow up on the specific answers given and the stories told by the subjects” (Brinkmann & Kvale, 2015, p. 150). The goal was to gather abundant information “to fully develop (or saturate)” the study (Creswell & Poth, 2018, p. 87). The interviews were recorded and transcribed through Otter.ai while the transcriptions were verified by the researchers for accuracy. We adopted the three-step coding method of grounded theory to analyze the interview data (Creswell & Poth, 2018): open coding, axial coding, and selective coding. The first author analyzed and coded the transcripts with the help of the second author in reviewing and verifying emergent categories and themes. Multiple rounds of editing and abstracting data were conducted to ensure accuracy and validity.

Results

Participant background

Before the pandemic, a majority of the participants taught their courses in the traditional face-to-face format, with some exceptions of broadcasting the courses synchronously through hybrid or online formats. During the height of the pandemic, from March 2020 to July 2021, participants shared that they taught online through video conferencing platforms. A few participants revealed that they taught hybrid courses. Between Fall 2021 and Spring 2022, some participants shifted the instructional delivery formats to in-person, but learners could choose to stay online, while others still taught their courses entirely online via Zoom. Participants did not fully use the unanimous term of online teaching; they used terms such as “moved to Zoom”, “moved to online”, and “remote”. In this section, we use the term “pandemic teaching” to represent the various ways of instruction delivery formats described by the participants for convenience.

Instructional challenges

Instructional challenges arose during the transition process. The traditional instructional norm was disrupted. Participants struggled to adapt from in-person to online instruction during the pandemic outbreak. Participant 2 recalled that “faculty were scrambling; they were trying to tape the semester together so that it would not fall apart”. Participants were rushed to transition their in-person courses to online formats. In addition, participants were facing difficulty in balancing between synchronous and asynchronous instruction. Participants further elucidated that they experienced a lack of training in online teaching, including how to establish an instructor-learner relationship in an online setting. In addition, the process of adopting a technology tool or looking for an ideal technology tool was very challenging for some of the participants. They were struggling to find something that served what students needed.

Participants shared that during the transition process, it was difficult to construct a community in their courses; differentiation was hard to conduct; learner engagement was challenging. Participants indicated they were losing the essential piece of getting to know learners as a whole because they were missing out on relationship building and casual conversations in online environments. Participants struggled with the virtual classrooms because learners could turn off the cameras easily, and it was much harder to identify when learners were struggling.

Instructional approaches and designs to combat challenges

Participants discussed various instructional approaches and designs they utilized to transition their courses online and alleviate the instructional challenges and enhance learner experiences. Some participants formed professional learning communities through a community-cultivating approach to establish an anchor point among the learners. Participants encouraged collaborative learning among learners to share their ideas and be individually accountable. Participants adopted a discussion-based approach to involve and engage learners further. For example, they would randomly assign

learners to various Zoom breakout rooms to diminish the distance between all learners. Participants used different strategies to enhance community; for instance, they would use check-ins, asking learners what to celebrate or how to face their failures together. Having purposeful check-ins and normalizing failures was essential to foster care and nurture community among learners.

Participants emphasized the significance of understanding their learners; it was crucial to recognize learners' knowledge levels, individual challenges, and needs; building a meaningful relationship mattered. Participants also mentioned the importance of humanizing teaching—an emergent concept we uncovered, which was to strengthen and enhance an instructor-learner relationship and to show that learning is an interpersonal endeavor. Participant 1 explained, “[Learners] needed to see me as a human as someone who is struggling with them, missing deadlines; I’m going to model how to get it done, rather than model perfection”. Participant 12 added, “to build a touch point with me, it was another way of me being human versus just someone on the screen”. Participants expressed that balancing teacher-centered and student-centered activities was the key to scaffolding and facilitating learning. Participant 14 utilized the Center for Research in Education, Diversity & Excellence (CREDE) standards to accentuate education equity and accessibility among learners. CREDE standards are developed as “an example of culturally responsive education” (Wyatt et al., 2012, as cited in Dyar, 2018, p. 125). Participants offered choices and incorporated evidence-based learning in their instruction to allow learners to explore course content, form an opinion based on evidence, and challenge those ideas through group activities.

Several participants applied the flipped learning model in their teaching. Flipped learning model redirects traditional lectures to active learning activities, where learners watch lecture videos before classes and utilize classroom periods to collaborate with peers and instructors to solve problems or conduct practical tasks. This model enables learners to be in charge of their studying time and be accountable for the learning materials (González-Gómez et al., 2016). Participants discussed that their courses became more learner-centered when they reduced lecture time and increased discussion and question time.

Participants also tried to create the same type of interaction environment as they had in a face-to-face setting through Zoom breakout rooms. Participants mixed discussion groups with learners from various majors to foster a sense of community. Participants incorporated peer review activities in their classes that allowed learners to build a deeper reflection of the learning materials while offering meaningful feedback to each other. Some participants integrated video feedback in their instruction to enhance interaction and provide detailed guidance for learners' assignments.

Learner challenges and needs

Participants also shared their observations of learner challenges and needs during their pandemic teaching. When the transition to online teaching took place, learners were forced to receive instruction remotely, losing daily in-person communication with their peers and instructors. Participants indicated that learners were facing isolation because they lost their community and network. It was difficult to build relationships because hallway conversations were not possible. Participant 1 noted, “isolation, family obligation, we cannot rank which person encountered harder than other people”. Participants revealed that learners were struggling with engagement. Several participants shared that internet connectivity appeared to be an issue for learners during the transition process. In addition, multiple participants said that the time zone difference was a vast challenge for international learners. Due to the pandemic travel restrictions, international learners were restricted to stay in their home countries in different time zones. Some learners had to get up at three o'clock in the morning to attend classes. Moreover, participants were concerned that some learners might not have developed self-regulatory skills before the pandemic to help them adapt to online learning environments.

Addressing learner challenges and needs

Participants developed and employed various strategies to address learner needs. Participants stated that they established professional communities where learners had meetings without instructors to support each other on assignments and engage together. Participants underscored the importance of being humanizing in their own narratives and approaches—caring and building a personal relationship with learners. Participants further elaborated that the role of the instructor should not only focus on learning but to be supportive of learners and focus on learners' holistic development.

Participants used check-ins to understand learners' energy levels and where they were in dealing with different things. Two participants emphasized flexibility as an approach to addressing learner needs. Participant 1 discussed flexibility

in terms of individualized learning: “flexibility, tried to think about individualization. Providing choices, aid students to develop their research that pertains to their experiences and identities”. Participant 7 addressed flexibility in terms of assignment deadline extension: “providing those allowances tells them, you know, it is important for you to take care of yourself and your family members now. Come back to the class or worry about the deadline later”.

Participants also turned captions on during advising meetings to accommodate diverse learners. This method worked well for learners who were not native English speakers. Participants offered strategies to build community among diverse learners; one unique example was to play music from learners' countries or communities of origin before Zoom classes started; this gesture energized learners and established engagement. One participant provided alternative course materials for learners who had difficulty with visual accessibility, for instance, offering all handouts in two versions, one was black and white, and the other was white and black.

Instructional adaptation after experiencing the pandemic teaching

After experiencing the transition process of pandemic teaching, participants shared adaptations they would like to implement in their courses after the pandemic. One of the instructional adaptations is being more flexible. Participants shared the significance of being adaptive to the transition process and flexible to learners. For instance, participants mentioned that instructors needed to be adaptive to online teaching and not be afraid of technology but focus on using technology to benefit learners. Some participants believed that offering flexibility was the key to learners' health and learning. Additionally, participants set up flexible office hours and formats to help meet learners' needs.

Another notable adaptation is offering empathy and care to learners. Participant 5 noted that empathy and care became more present versus it was not present two or three years ago. Participant 5 further pointed out that it was critical to “pay attention to each other and make sure we are doing well”. Participant 15 reiterated the importance and benefits of using check-ins to gain a “slightly deeper level of understanding of who [one's learners] are” and how they are doing in their life.

Participants also adapted their instructional approaches to increase learner engagement and utilize tools to continue supporting learner engagement. Regarding learner engagement, participants acknowledged that conversation-based instruction was essential to create more time for questions and discussions among learners. Participants suggested that video feedback helped foster learner interaction and engagement. The instructional tools employed during the pandemic teaching to engage learners would continue playing active roles in educational settings, such as Zoom Breakout rooms for small group discussion and Zoom's annotation features.

Advice for other faculty

To conclude our interviews with the participants, participants offered invaluable instructional advice to fellow instructors, particularly when abrupt changes occur. Flexibility is a frequently mentioned advice by participants. First, participants emphasized the importance of being flexible, in the area of not being afraid to change, to constantly modifying how courses evolve for different cohorts. Second, flexibility has been addressed to adopt various ways to engage with learners. For instance, some participants shared their perspectives of being open to learners' suggestions and thinking about ways to improve the course. This approach resonates with the change that Participant 12 suggested implementing—developing a mid-term evaluation to help instructors identify best practices.

In addition, participants stressed the criticality of not attempting to replicate in-person classes to remote learning. The instruction should be designed to accommodate learner needs that arise in various course formats. Participant 2 further reflected,

“Step back and think, what are the important things about my course? What are the essential experiences that people need? Evaluate if you need to do it remotely. Take advantage of things that might be there remotely, such as chats, links, etc.”

Participant 3 further suggested that faculty needs “to plan ahead; the pandemic came on us suddenly”. Using technology to support learning is often mentioned among participants. Participants validated that teaching could not solely rely on technology but on how to utilize the tools to benefit learners. Participants additionally stated that faculty

should not only be aware of different technology tools but focus on how these tools could cater to the different needs of learners. Furthermore, participants accentuated the importance of seeking campus resources.

One of the critical pieces of advice is encouraging faculty to be exposed to professional development opportunities that target instructional practices and technology. Some participants shared the significance of having faculty exposed to learning and motivational theories. Other participants shared a desire to have more training for both faculty and graduate students on how to use technology. Participants noted that professional development was a key to embracing and preparing faculty to be able to face the challenges of teaching online, as well as developing practices of teaching online. Participant 3 detailed, "I think there has to be robust professional development programming for faculty that will teach them how to promote engagement online". Most of the participants are content experts in educational measurement, assessment, statistics, data analysis, and research methods with less training in teaching. For example, participant 15 unearthed the concern of needing support and resources, "I'm a statistician, so my training is statistics, metrics. I would like to see more. I don't know, more professional development, more resources, where it's like, okay, like, show me how I can be better at [teaching]". Other participants added that more professional development and resources on teaching would be better, especially for faculty who did not come from a teacher education background.

The graphic representation below outlines the primary findings in this study: the instructional challenges, instructional approaches and designs to combat the challenges. This graphic further depicts learner challenges and needs through the lenses of participants and shares faculty's strategies for addressing learner challenges and needs, along with instructional adaptations and advice from the participants' experiences and perspectives.

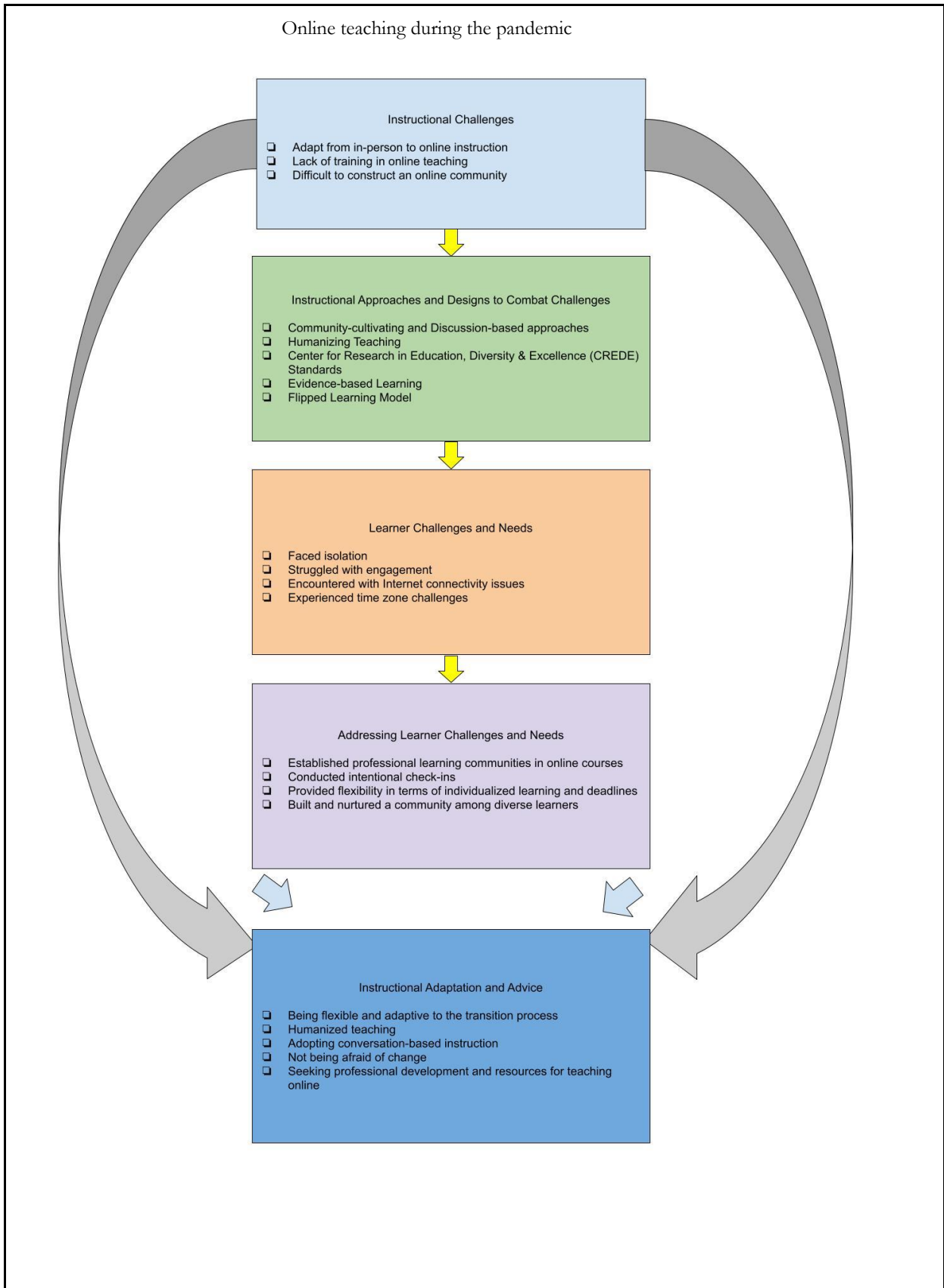


Figure 1. Overall results summary chart

Discussion

The theory that emerged from this study is that teaching during the pandemic time offered participants an opportunity to reflect deeply on their teaching philosophy and their relationship with their learners. Upon reflection, participants revealed and emphasized the significance of humanizing teaching and being flexible and adaptive, enabling them to address learners' needs and engage learners during pandemic teaching. According to humanized teaching literature, when the instructors' roles become humanized, instructors "foster a sense of care in [learners] and truly center human connection in [instructional] design" (Singleton & Pares, 2022, p. 34). The findings of this study have confirmed that humanizing teaching provides strategies "for online instruction that cultivate an inclusive online course climate" (Pacansky-Brock et al., 2020, p. 2). Participants also underscored that learning is an interpersonal endeavor. Getting to know one's learner was a sentiment that was shared across the board. Participants shared strategies such as checking in, conversation-based instruction, video feedback, and playing the music of learners' home communities to help establish "a culture of caring" (Singleton & Pares, 2022, p. 41). Participants also reflected on their relationships with the course designs and values. Participants shared various changes they would like to implement after undergoing the pandemic teaching. Such changes include offering flexibility to learners and focusing on care and empathy for learners. These changes echo the concept of designing for care, which offers learners flexibility (Quinn & Burtis, 2022). Participants acknowledged that the pandemic teaching had taught them to be adaptive to situations and learner needs. Inevitably, online education posits gaps that cannot incorporate all pedagogical criteria to satisfy diverse learner needs (Sonwalkar, 2008; Yang, 2017). Thus, online instruction and course designs need to be intentional, adaptable, and attentive to increase learning outcomes among learners.

The participants in our study affirmed the challenges of online learning and conveyed the obstacles associated with the sudden transition from face-to-face to online teaching. Through sharing the instructional transition process during the height of the pandemic, participants identified instructional approaches and designs that they implemented to facilitate learning. They have pinpointed strategies they have developed and utilized to address learner needs, such as building professional communities, conducting check-ins, and focusing on conversation-based instruction. These strategies enabled the promotion of teaching presence, social presence, and cognitive presence, as depicted in the Community of Inquiry framework (Garrison, 2017), a widely adopted framework for designing effective online courses and fostering collaborative online communities.

Participants recognized that the trend of online teaching is likely to stay, and some of the instructional tools associated with online teaching will continue benefiting learners. Such recognition resonates with the growth of using online instructional practices to deliver educational psychology content (Pena-Shaff & Altman, 2015). Through reflection, participants offered some instrumental advice to aid novice and experienced faculty. For instance, participants encouraged faculty not to be afraid of technology. Instructors need to constantly evaluate their courses to be adaptable for the current and future cohorts. Participants stressed not replicating in-person courses to online courses but evaluating what is essential. This advice is validated by Baldwin's (2017) study that in-person courses need to be revised to meet online course structures, formats, and learners' needs. In addition, participants' reflections resonated with Theodosiou and Corbin (2020)'s strategy to focus on the essentials when designing online courses (p. 12562). Participants emphasized the indispensability of expanding one's knowledge in learning and motivational theories and developing and attending professional development. While participants are all educational psychology faculty, most of them do not have professional training in teaching in general or, more specifically, in online teaching. According to Verdi and Johnson (2005), one of the urgent challenges for educational psychology instructors in online learning was a lack of direction and support from institutions (p. 236). As participants previously shared, they experienced a lack of training in online teaching; such experience was congruent with Eichelberger and Leong's (2019) depiction of faculty as "struggling with online teaching and lacking the skill and knowledge base to design effective courses" (p. 26). Thus, professional development is an area that needs more attention for augmenting online teaching practices for educational psychology faculty members.

Limitations

The application of grounded theory relies on researchers' analytical process of constructing concepts from the data. Therefore, the analytical lens could be instilled with discrepancy. However, as researchers, we steered ourselves away from our research interests for this study but focused objectively on the participants' narratives. This study focused on the faculty's perceptions of pandemic teaching and their transition processes from face-to-face to online teaching. Thus, we have only learned about learners' challenges through the faculty's perspectives. Future studies are encouraged to understand learners' challenges and needs from learners' voices. Perspectives from both instructors and learners

could generate a more comprehensive picture of pandemic teaching challenges. In addition, this study examined the perspectives and experiences of online teaching during the pandemic of educational psychology instructors in the land-grant universities; their insights might not be generalizable to instructors in other disciplines, instructional settings or situations.

Significance of the study

The findings of this study offer a deeper understanding of how educational technology faculty experienced the pandemic teaching. The participants shared their instructional challenges during the abrupt transition and identified approaches and tools to combat these challenges. The participants shared their personal observations of learner challenges and indicated strategies they utilized to address learner needs. At the same time, participants depicted sincere advice that fellow instructors can adopt.

The findings help shed light on a topic that needs more exploration and reflection—humanizing teaching, a concept “to humanize online learning” through “teach[ing] and design[ing] with compassion” (Singleton & Pares, 2022, p. 47). Humanizing teaching accentuates care and empathy to truly value learners for who they are. Participants shared this common goal and advised this goal to be continually sustained. Further research could examine how humanizing teaching can influence course design and instructional approach decisions.

References

- Baldwin, S. J. (2017). *Adaptation and acceptance in online course design from four-year college and university instructors: An analysis using grounded theory* [Unpublished doctoral dissertation]. Boise State University.
- Brinkmann, S., & Kvale, S. (2015). *Interviews: Learning the craft of qualitative research interviewing* (Vol. 3). SAGE.
- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(4), 466–487. <https://doi.org/10.1080/02619768.2020.1821184>
- Chiero, R., & Beare, P. (2010). An evaluation of online versus campus-based teacher preparation programs. *Journal of Online Learning and Teaching*, 6(4), 780-790. https://jolt.merlot.org/vol6no4/chiero_1210.pdf
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). SAGE.
- Dyar, A. (2018). Use of CREDE standards among career and technical education teachers with large percentages of Hispanic students. *Career and Technical Education Research*, 43(2), 123–148. <https://doi.org/10.5328/cter43.2.123>
- Eichelberger, A., & Leong, P. (2019). They think I should teach online! The influence of college faculty’s beliefs about colleagues and institution on online teaching. *International Journal for Educational Media and Technology*, 13(2), 17-33. <https://ijemt.org/index.php/journal/article/view/178>
- Fujita, N. (2020). Transforming online teaching and learning: Towards learning design informed by information science and learning sciences. *Information and Learning Sciences*, 121(7/8), 503–511. <https://doi.org/10.1108/ILS-04-2020-0124>
- Fathema, N., Shannon, D., & Ross, M. (2015). Expanding the technology acceptance model (TAM) to examine faculty use of learning management systems (LMSs) in higher education institutions. *Journal of Online Learning & Teaching*, 11(2), 210-232. https://jolt.merlot.org/Vol11no2/Fathema_0615.pdf
- Garrison, D. R. (2017). *E-learning in the 21st century: A framework for research and practice* (3rd ed.). Routledge.
- González-Gómez, D., Jeong, J. S., & Airado Rodríguez, D. (2016). Performance and perception in the flipped learning model: An initial approach to evaluate the effectiveness of a new teaching methodology in a general science classroom. *Journal of Science Education and Technology*, 25(3), 450-459. <https://doi.org/10.1007/s10956-016-9605-9>
- Herold, D. S., & Chen, T. (2021). Switching from face-to-face to online instruction midsemester: Implications for student learning. *Journal of Teaching and Learning with Technology*, 10, 321-336. <https://doi.org/10.14434/jolt.v10i1.30521>
- Karakaya, K. (2021). Design considerations in emergency remote teaching during the COVID 19 pandemic: A human-centered approach. *Educational Technology Research and Development*, 69(1), 295–299. <https://doi.org/10.1007/s11423-020-09884-0>
- Lemay, D., Bazalais, P., & Doleck, T. (2021). Transition to online learning during the COVID-19 pandemic. *Computers in Human Behavior Reports*, 4, 100130, 1-9. <https://doi.org/10.1016/j.chbr.2021.100130>
- Lohse-Bossenz, H., Kunina-Habenicht, O., & Kunter, M. (2013). The role of educational psychology in teacher education: Expert opinions on what teachers should know about learning, development, and assessment. *European Journal of Psychology of Education*, 28(4), 1543–1565. <https://doi.org/10.1007/s10212-013-0181-6>

- Lowenthal, P. R., Gooding, M., Shreaves, D., Kepka, J. (2019). Learning to teach online: An exploration of how universities with large online programs train and develop faculty to teach online. *Quarterly Review of Distance Education*, 20(3), 1-9.
- Mills, J., & Birks, M. (2014). *Qualitative methodology: A practical guide*. SAGE.
- National Center for Education Statistics. (nd.) *Distance education in IPEDS*. <https://nces.ed.gov/ipeds/use-the-data/distance-education-in-ipeds>
- Olsen, J. K., Faucon, L., & Dillenbourg, P. (2020). Transferring interactive activities in large lectures from face-to-face to online settings. *Information and Learning Sciences*, 121(7/8), 559–567. <https://doi.org/10.1108/ILS-04-2020-0109>
- Pacansky-Brock, M., Smedshammer, M., & Vincent-Layton, K. (2019). Humanizing online teaching to equitize higher education. *Current Issues in Education*, 21(2), 1-21. <https://cie.asu.edu/ojs/index.php/cieatasu/article/view/1905/870>
- Patrick, H., Anderman, L. H., Bruening, P. S., & Duffin, L. C. (2011). The role of educational psychology in teacher education: Three challenges for educational psychologists. *Educational Psychologist*, 46(2), 71–83. <https://doi.org/10.1080/00461520.2011.538648>
- Patton. (1990). *Qualitative evaluation and research methods* (2nd ed.). SAGE.
- Pena-Shaff, J., & Altman, W. (2015). Student interaction and knowledge construction in case-based learning in educational psychology using online discussions: The role of structure. *Journal of Interactive Learning Research*, 26(3), 307-329.
- Quinn, J., & Burtis, M. (2022). Introduction. In J. Quinn, M. Burtis, & S. Jhangiani (Eds.), *Designing for care*. Hybrid Pedagogy Inc.
- Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in Human Behavior*, 118, 106675. <https://doi.org/10.1016/j.chb.2020.106675>
- Shih, M., Li, G.-Y., & Chang, W.-S. (2021). Keeping things normal during an uncommon time: A lesson from National Taiwan University. *Journal of Teaching and Learning with Technology*, 10(1), 103-116. <https://scholarworks.iu.edu/journals/index.php/jotlt/article/view/31470>
- Shreaves, D. L., Ching, Y.-H., Uribe-Florez, L., & Trespalacios, J. (2020). Faculty perceptions of online teaching at a mid-sized liberal arts university. *Online Learning*, 24(3), 106-127. <https://doi.org/10.24059/olj.v24i3.2199>
- Singleton, M. & Pares, N. (2022). Humanizing online learning: Creating connection, designing for care. In J. Quinn, M. Burtis, & S. Jhangiani (Eds.), *Designing for care* (pp. 33-48). Hybrid Pedagogy Inc.
- Sonwalkar, N. (2008). Adaptive individualization: The next generation of online education. *On the Horizon*, 16(1), 44-47. <https://doi.org/10.1108/10748120810853345>
- Theodosiou, N. A., & Corbin, J. D. (2020). Redesign your in-person course for online: Creating connections and promoting engagement for better learning. *Ecology and Evolution*, 10(22), 12561-12572. <https://doi.org/10.1002/ece3.6844>
- Trust, T., & Whalen, J. (2021). Emergency remote teaching with technology during the COVID-19 pandemic: Using the whole teacher lens to examine educator's experiences and insights. *Educational Media International*, 58(2), 145–160. <https://doi.org/10.1080/09523987.2021.1930479>
- Vaughan, N. D., Cleveland-Innes, M., & Garrison, D. R. (2013). *Teaching in blended learning environments: Creating and sustaining communities of inquiry*. AU Press. <https://www.aupress.ca/books/120229-teaching-in-blended-learning-environments/>
- Verdi, M. P., & Johnson, J. T. (2005). Teaching educational psychology in an online environment. *The Clearing House*, 78(5) 235-238. <http://www.jstor.org/stable/30189915>
- Yang, D. (2017). Instructional strategies and course design for teaching statistics online: Perspectives from online students. *International Journal of STEM Education*, 4(34), 1-15. <https://doi.org/10.1186/s40594-017-0096-x>
- Yuan, J., & Kim, C. (2014). Guidelines for facilitating the development of learning communities in online courses. *Journal of Computer Assisted Learning*, 30(3), 220-232. <https://doi.org/10.1111/jcal.12042>