

Reorienting Co-Design toward Care during a Pandemic

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Abstract: Care is an essential, but under-conceptualized aspect of successful educational co-design. We reflect on our experiences as researchers co-designing with teachers during the COVID-19 disruption. As researchers, we reframed our goals around an ethics of care to support teachers as they strove, and at times struggled to enact care for their students. We illustrate how co-design might be more dynamically responsive to partners' needs in times of crisis, and potentially lead to more effective outcomes.

Expanding co-design through an ethics of care

Care and kindness are foundations of any relationship, and should ground and propel all education research endeavors. Whereas most research has only focused on care in teacher-students' face-to-face relationships, care should also be embedded in the educational co-design process between teachers and researchers, which in turn can also support care between teachers and students. Crises offer unique opportunities to enact care. Building on related work (Kara & Khoo, 2020), we reflect on how our research team renegotiated our co-design process within an ethics of care amid our early experiences with the COVID-19 pandemic.

Co-design is a partnership between teachers and researchers to develop educational materials that can ensure usability and effectiveness and can lead to increased teachers' increased agency and reflection on their practice, and ownership over the resulting design (Penuel, Roschelle & Shechtman, 2007). Typically, co-designers contend with tensions that arise from differences in values and workplace norms. In times of crisis, these tensions are exacerbated and new ones can arise, such that there is a greater need to be caring and responsive toward teachers', students', and researchers' needs.

Care is expressing concern for others that is manifested in behaviors, emotions, and bonds between individuals). An ethics of care calls for relationships to be constantly negotiated in terms of the roles of "carer" and "cared for" in order to prioritize the needs of others (Bergmark, 2020). Research finds that care in teacher-student relationships positively impacts students' academic engagement, well-being, and self-esteem; as well the meaning that teachers draw from their work (Lavy & Naama-Ghanayim, 2020). However, nurturing caring relationships assumes that teachers and learners are co-located, and can rely on routines to enact care. For example, when students attend in-person class, teachers can notice whether they are academically disengaged. Teachers can also use formal and informal opportunities for dialog to enact care (e.g., in the school hallways, during class discussion). Crises introduce uncertainty in the conditions of learning, but they also introduce new opportunities for enacting care. We extend the notion of *knowing* and *responding* in education from what has traditionally focused on domain understanding and professional routines, to also focus on personal experiences. We examine how we, as researchers partnering with teachers, re-oriented our co-design process during the pandemic, and with the goal of enabling teachers to better respond to, and care for their students.

Participants and context: A co-design process disrupted

This work emerges from the Data Literacy through Art project, an effort to design and explore the value of an arts-based curriculum for supporting data literacy. Our co-design team comprised 7 cross-institution researchers, a middle school art teacher, and a middle school math teacher from the same school. During the previous and first year of the project, we spent a day in in-person art-making and data exploration to identify disciplinary synergies, and to generate initial ideas for an interdisciplinary classroom unit. Throughout the following academic year, our team of teachers and researchers held regular meetings to co-develop those units in preparation for a Spring 2020 classroom implementation. By March 2020, New York City schools had closed due to the pandemic, and classroom activities shifted to be asynchronous and online; university IRBs suspended in-person research; and several team members struggled to balance their home and work routines. Despite these challenges, our teacher partners felt that continuing with the curriculum implementation would be worth the effort

to engage students with the content. Thus, our research team strategized how to adapt our project given new restrictions in what we could observe and learn from the students for whom we designed.

Methods and findings: Re-orienting co-design toward care and compassion

We video recorded eight 1-hour long co-design sessions leading up to, and during the unit's teachers' implementation, and an individual 1-hour post-implementation interview with each teacher. Our research team read through these transcripts, and through an inductive process (Strauss & Corbin, 1998), we identified how we adapted our activities to align with the ethics of care. In the moment, these adaptations felt to be instinctive reactions to new constraints. In identifying our process and design decisions, what spurred those decisions, and our intentions behind them, we came to view them to be aligned with an ethics of care. We outline them below.

Find alternative ways to connect to students. Without in-person interaction, we came to lean on teachers' contact with students to inform potentially compelling activities, and to address students' emerging needs. Our co-design meetings furthermore became essential for us to reflect together on student work, and to notice aspects of learning that we could not observe ourselves.

Use circumstances as learning opportunities. At the time of implementation, the city was under lockdown and students were learning from home. According to the teachers, students struggled to focus, and some who were typically engaged had begun to miss assignments. We thus abandoned our attempts to align the unit to standards, and turned to allowing students to reflect on their current circumstances. We created a series of activities in which students collected data to describe their lock-down experiences (e.g. 'How many times you hear the word "pandemic"?' and 'With whom, when, and how do you have conversations?'), and then communicate their findings through individual artworks. To account for home distractions and uncertain technology and materials access, we extended the unit from 5 days to 3 weeks, and had students use household items to create a data sculpture that represents their perspectives and the data that they explored.

Create social connections for learning. The school's mandated asynchronous format, designed to accommodate families' home-bound schedules, meant there were fewer opportunities for peer and teacher feedback and for teachers to engage students in the dialogue that is central to care. We thus created a digital bulletin board in Padlet for students to share their artwork. One of our team members joined to support the teachers in commenting on students' work, which created chances for students to share ideas with an external audience. While this promoted some students' participation, the teachers noted that it was still not a substitute for in-person peer and teacher interaction. This highlights the difficulties of a remote format for enacting certain forms of care, and the need to consider further solutions.

Significance

We argue that researchers and teachers must show mutual care for themselves and students in any design process for learning, and particularly so in times of crisis. Given similar circumstances in which personal contact is limited, future work might explore how, through co-design, we can make students' needs more visible to teachers (e.g., opportunities to share impacts of their personal situations). In revealing our process of adapting to our project's changing circumstances, we highlight how care, as a guiding principle, can create new opportunities for teaching, learning, and research.

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