

How Are Disaster Studies, Climate Change Communication, and K-12 Teaching Connected in the U.S.? Mapping Interdisciplinary Literature

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Abstract: The climate change crisis is rapidly intensifying, leading to an increase in natural disasters devastating neighborhoods and communities around the world. Current research explores disaster studies, climate change communication, and K-12 teaching experiences, but fails to connect the three. Using the Social Identity Model of Post-Disaster Action (SIMPDA), mapping of literature from Disaster Studies, Climate Change Communication, and K-12 Teacher Education identifies key themes and categorizes findings into a disaster duration timeline: the pre-disaster context, the critical period immediately following a disaster, and the post-disaster context. Findings indicate that as the climate crisis deepens, the need for a plan of action in the face of disaster and a solution for support of teacher resilience post-climate disasters increases. We suggest new research questions for addressing the absence of disaster preparedness from Teacher Education research.

Missing from much educational emergency preparedness plans is discussion of what it means to teach in the U.S. before, during, and after climate disasters. In line with this year's NYSFEA conference theme, our paper positions teachers' experiences before, during, and after climate disasters as a "something else" to recommit to in the beautiful struggle of education. We connect Disaster Studies to Climate Change Communication to K-12 Teacher Education to see how those three areas of study can inform one another to produce a plan of action for teaching about, during, and after climate disaster. We used Jetten et al.'s (2021) *Social Identity Model of Post-Disaster Action* (SIMPDA) to address the question: How are disaster studies, climate change, and K-12 teaching connected in the U.S.? Jetten et al. developed the SIMPDA model to describe Australia's response to the catastrophic 2019/2020 bushfires. According to SIMPDA, "There are three key phases...: (a) the pre-disaster context, (b) the critical period immediately following an environmental disaster, and (c) the post-disaster context" (Jetten et al., 2021, p. 163). The pre-disaster context describes the location's preparedness for a climate disaster and the likelihood that a disaster will occur in that region. The critical period immediately following a disaster focuses on the "window of time when the status quo might be changed" (Jetten et al., 2021, p. 164). Response in the immediate aftermath of a disaster is critical because typical systems and policies lose relevance in the disaster context, so there is opportunity to create new systems. The post-disaster context provides data to reflect on policy adjustments after climate disasters. Preparedness for disaster and resiliency in the face of disaster are pressing issues as ecosystem-level changes will continue to worsen climate disasters, causing major disruption to life on Earth — including K-12 education (IPCC, 2023; Knutson et al., 2020).

Each segment of climate disaster is relevant for our mapping review as we aim to draw connections across all three phases of climate disaster duration. Mapping reviews are used in fields like environmental science to explore broad questions about a topic (Campbell et al., 2023; James et al., 2016; Khalil et al., 2023). Mapping review provides a comprehensive, synthesizing overview of studies in specific areas as an efficient way to identify key findings, patterns, trends, and knowledge gaps that chart existing evidence and identify evidentiary needs on a topic or

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question (Khalil, et. al, 2025). We are most interested in mapping teachers' experiences and preparedness before, immediately after, and following a climate disaster; and how the educational context connects to Disaster Studies and Climate Change Communication. Because there are few studies specifically dealing with teacher preparedness for climate disaster, mapping connections across Disaster Studies, Climate Crisis Communication, and K-12 schooling lays ground for development of a new body of literature that allows us to understand the expectations of teachers surrounding climate-related disasters and to explore ways to better support them before and after disasters occur. The SIMPDA model helped us draw clearer connections among the three disparate fields we mapped by placing literature from each field along the climate disaster timeline to better identify what is present in and what missing from literature on each of the three phases (pre-, critical, post-) of a disaster.

But our process was complicated by the fact that while The Intergovernmental Panel on Climate Change's (IPCC) 2023 report points to how sea level rise and other *irreversible* changes to Earth's systems and climate will have impacts on the planet for thousands of years, teacher education literature does not link natural disasters with climate change. Further, the field of Disaster Studies does not have a shared definition of a disaster, let alone a climate-related disaster (Aronsson-Storrier & Dahlberg, 2022). Finally, climate change communication (CCC) refers to any effort "that aims to raise public awareness, understanding, and/or active engagement with the issue" (Markowitz & Guckian, 2017). Broad definition is necessary because of the different ways that climate change communication is taken up, such as through policy, scientific research, preparedness, and communicating risks to the general public (Corner et al., 2015). Thus, we had to construct some definitions of key terms to provide focus for our study. Most understand disasters are temporary and disrupt social systems and cause significant damage in an area (Perry, 2017; Wirasinghe et al., 2013). Climate-related disasters are the result of climate hazards due to location, vulnerability to climate change, and preparedness to mitigate the risks of the hazards (Hore et al., 2017). For the purposes of our study, therefore, we describe climate disasters as temporary but severely destructive climate-related events — including but not limited to hurricanes, extreme flash flooding, extreme heatwaves, droughts, and wildfires — the destructiveness of which may be mitigated to some degree by effective climate change communication, especially teaching. We focus our work on climate disasters that have affected the United States and its territories in the past ten years (2015-2025). We chose to draw connections among CCC, Disaster Studies, and teachers' experiences after climate disasters because of the interdisciplinary and far-reaching nature of CCC, given that it can inform state, district, and school-level policies as well as teachers' perceptions of natural disasters (Moser, 2016). We specifically look at how CCC is used for preparedness and policies that may affect teachers' experiences before, during, and after a climate disaster.

Mapping New Research Terrain

We share our mapping review of literature about the U.S. from 2015-2025 that connects Disaster Studies, Climate Change Communication, and teachers' experiences after natural disasters related to climate change. We used Google Scholar to identify the literature for our mapping review. We did not employ databases given the fact that we are looking at literature across three tangentially related fields — Disaster Studies, Climate Change Communication, and teachers' experiences after disasters. In Google Scholar, we used related search terms such as: "climate disaster," "disaster studies in the U.S.," "education after disasters," "teachers experiences after natural disasters," and "climate change communication." We identified

literature based on title, years (2015-2025), location in the U.S. and its territories, and a screening of abstracts to ensure relevance. When possible, we tried to use literature reviews to orient us in Disaster Studies and Climate Change Communication because we are less familiar with the scholars and literature base in those fields. We enter this project informed by our experiences with climate disasters directly impacting our education and lives. Laura (she/they) is an Assistant Professor of STEM Education at Marist University. Dr. Shelton has firsthand experience with climate disasters from living in Houston, TX and being from Burnsville, NC, which was decimated by Hurricane Helene in September of 2024. First-hand experiences have made Laura committed to understanding the experiences of teachers during and after climate disasters. Mikayla (she/her) is a junior at Marist University, majoring in Psychology, with a dual certification in Elementary and Special Education, working towards her M.S. Ed. in Contemporary Curriculum & Instruction. Growing up on the south shore of Long Island, hurricanes and climate disasters are familiar to Mikayla, informing her about the importance of teacher preparation surrounding climate disasters.

We took a two-stage approach to analysis. Phase One included placing identified literature into the SIMPDA framework to identify whether it focused on pre-disaster context, critical period immediately following disasters, or post-disaster contexts. In Phase Two, we read the literature to determine if it focused on Disaster Studies, Climate Change Communication, or teachers' experiences. We coded the data into these three areas. Then, we looked across the SIMDPA disaster timeline and our literature contexts to identify themes spanning the three fields and gaps in the literature to address our research question: How are disaster studies, climate change, and K-12 teaching connected in the U.S.? Image 1 depicts mapped findings grouped into themes across contexts (Campbell et al., 2023) using Jetten et al.'s (2021) SIMPDA model.

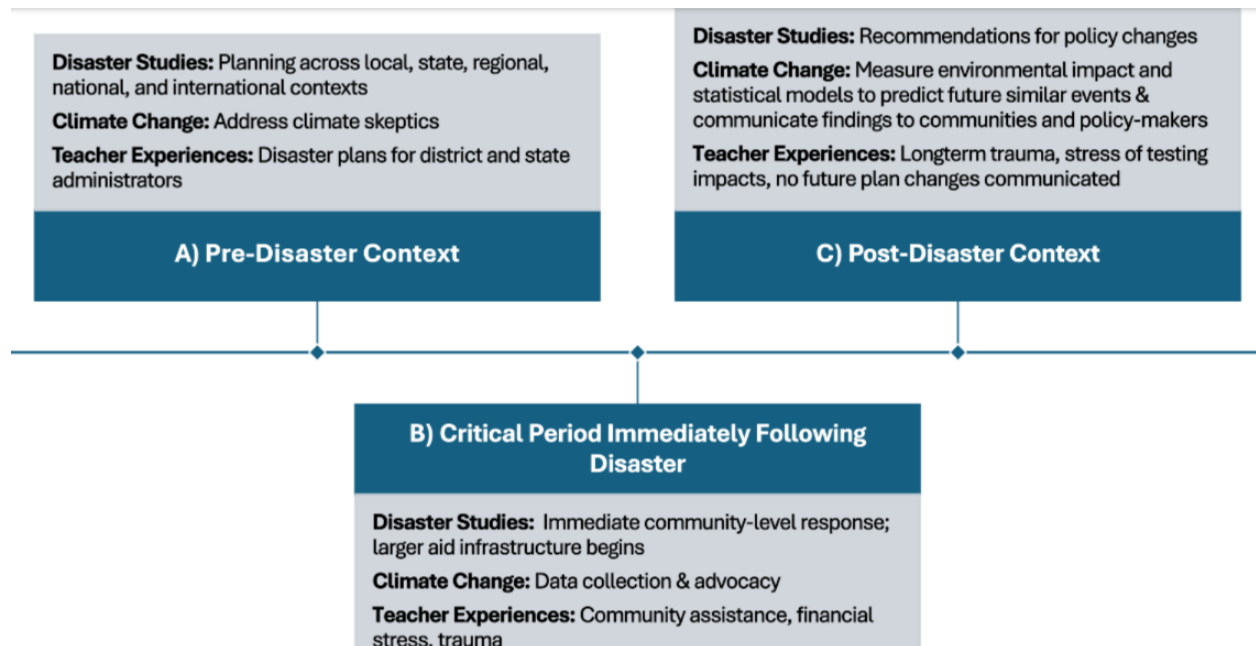


Image 1: Map of Results

Pre-Disaster Contexts: Disaster Studies scholars understand countries with the most “human development” like the U.S. and Western European countries to be less vulnerable to nationally devastating climate disasters (Tschumi & Zscheischler, 2020). However, the east coast of the

U.S. regularly has disasters (such as hurricanes) that range from *medium impact on people* to *very high impact on people* (Donatti et al., 2024). Therefore, vulnerability to disaster must be understood as a function of both preparedness for disasters and frequency of disasters. Still, the Global South and poorer nations are at a much higher risk for climate disasters, and for that reason, much of the pre-disaster context for Disaster Studies happens on a global scale urging national governments to collaborate to mitigate risks and distribute aid (Wen et al., 2023). Disaster Studies also focuses on mitigating risks in the pre-disaster context. Since 1988, the International Disaster Database known as EM-DAT has been documenting large-scale disasters across the globe (Tschumi & Zscheischler, 2020; Wen et al., 2023). However, EM-DAT does not record repeated small-scale disasters, often experienced in the U.S., that pose greater risks to communities over time (Wen et al., 2023). The IPCC regularly releases reports and projects for the global climate with breakdowns at the regional and some national levels (IPCC, 2023). The EM-DAT and IPCC reports are used to measure impact of disasters and to predict future climate-related disasters.

Climate adaptation is underfunded, even though the U.S. experienced roughly \$1 billion in climate-related disaster damages in 2023 (Donatti et al., 2024). Therefore, some disaster researchers work to identify risks related to climate change. For example, Wen et al.'s (2023, p. 2) literature review of disaster risk reduction and climate change adaptation identified "a lack of scientific and technological capabilities (including risk monitoring, risk assessment, early warning, and so on) and risk-governance mechanisms to reduce the loss of life and property caused by very largescale disasters." Wen et al. recommend that disaster risk reduction and climate change adaptation be intertwined at the governmental and policy level so that communities can become more resilient. Wen et al. also identifies three stages in Disaster Studies' development: 1) *disaster management* from the 1990s, 2) *disaster risk management* in the early 2000s, and 3) *resilience management and development* in the 2010s. The field of Disaster Studies has evolved from being reactionary after a disaster takes place to identifying and managing risks from climate change in order to support communities in becoming sustainable in a world where disasters are more commonplace.

Climate Change Communication's (CCC) role in the pre-disaster context is to identify skeptics and address climate change deniers. Some studies focus on identifying who is skeptical about climate change across identity groups, including race, gender, education, and ideological beliefs. Studies conclude that climate skeptics are more likely to be white, male, Republican, Christian, and less educated (Sarathchandra & Haltinner, 2021; Van der Linden et al., 2017). Climate change skeptics are also more likely to support the use of fossil fuels and other forms of industrial capitalism. Thus, doubts about climate change also fuel the economic system climate change skeptics support (McRight, 2016). Many Climate Change Communication scholars in the pre-disaster context study ways climate change is covered in the media. Chin et al. (2020) found that climate change's coverage in the media became more politicized from 1985-2017 and that the politicization has become a common part of how climate change is discussed in the news. Presenting climate skepticism in the media, prevents meaningful mitigation efforts from gaining public popularity (Schmid-Petri et al., 2017).

While Teacher Education literature in the U.S. has explored teacher experience in the critical period of disaster and in disaster's aftermath, there is a dearth of literature on preparing teachers for climate disasters in the pre-disaster context (Alzahrani, 2018; Davis et al., 2021). Absence of disaster training and preparedness research from Teacher Education presents an opportunity for

administrators, policy makers, and teacher educators to create disaster plans at the state, district, and school level and to develop curriculum relating climate disaster to climate change

Critical Period Immediately Following Disasters: In the period immediately following disasters, Disaster Studies focuses on understanding how to organize and support volunteers. Ordinary citizens are usually the first people able to respond immediately following a disaster, and they can inform formal coordinated response organizations like FEMA and the Red Cross once they arrive (Whittaker et al., 2015). While the general public is the first to respond to climate disasters, local residents are rarely included in government-developed policies and plans for response (Pyles et al., 2018). People immediately affected by disasters tend to become more cohesive and able to participate in local community-led recovery efforts (Hamideh, 2020; Whittaker et al., 2015). Further, public volunteers' social capital, their social networks, and understanding of the local "norms of reciprocity and trustworthiness," is said to have positive impact on response (Pyles et al., 2018, p. 501).

In their "Review of Informal Volunteerism in Emergencies and Disasters," Whittaker et al. (2015) reference the Disaster Research Centre's (DRC) typology for understanding disaster response to frame volunteers' roles in disasters (Dynes, 1970; Quarantelli, 1966). The DRC's response typology, which can be used to describe local volunteer involvement in disaster response, includes: 1) Established organizations, 2) Expanding organizations that have been known to help with disaster recovery when needed, 3) Extending organizations which existed prior to the disaster but take on a new role due to community need, and 4) Emerging organizations that are newly developed as a response to the disaster. As organizations engage in recovery from disaster, emergent volunteers become spontaneously involved and develop innovative solutions immediately following the disaster, but they are rarely utilized by formal organizations. Community members who are already involved in active local organizations such as the "chamber of commerce, sporting group, religious organization, or service organization" use local knowledge of their community to have their organization get involved in recovery efforts or create a new group, known as *extending volunteers*, to support the disaster response. Whittaker et al. posits that because the general public will inevitably get involved with disaster response, local stakeholders will likely meet needs that formal responders cannot. Disaster managers and policy makers must devise plans for how to manage local volunteers' roles.

Volunteers after disasters are sometimes remote. Remote volunteers *self-organize* using technology to crowdsource donations and financial support. In their literature review of volunteer crowd sourcing, Kankanamge et al. (2019) categorize online volunteer efforts as grassroots because of its individual level response, and they note that online support can help victims spread the word about the disaster across the world through social media. Additionally, social media posts created by isolated victims can help communicate their whereabouts to disaster response personnel. Sometimes volunteers are recruited to support disaster recovery efforts immediately following disasters (Twigg & Mosel, 2017). However, not all community members plan to get involved in disaster response. Folks from systemically marginalized communities are more likely to be involved out of necessity because they are the most vulnerable and need aid (Hamideh, 2020; Pyles et al., 2018; Whittaker et al., 2015). In their study comparing community disaster responses after Hurricane Katrina and the Haiti Earthquake, Pyles et al. (2018) found that home ownership and income informed participation in disaster response. Pyles et al. posit that folks who owned their own home and had higher incomes were better positioned to suffer less impact, were more focused on recovering their own property damage,

and less likely to need community disaster assistance. Participants who were civically engaged prior to the disaster were also more likely to help with community disaster response. In their study of community participation in the disaster response in Galveston, TX after Hurricane Ike, Hamideh (2020) found that community involvement in recovery after the population's basic needs are met boosts morale, however, Hamidah cautions that pre-disaster planning for community involvement is key (Hamideh, 2020).

CCC's role in the critical period immediately following disasters focuses on social media and news coverage of the event. Social media has been proven to play an important role in how the general public communicates about a climate disaster as victims can post about their circumstances and viewers can share posts to spread awareness (Kryvasheyev et al., 2016; Pourebrahim et al., 2019; Xu, 2020). Social media posts created by disaster victims can also help emergency responders locate persons in need. However, it is important to note that social media studies included here do not link climate change and natural disasters; instead, they focus on *natural disasters* or simply refer to the event by its name.

Hurricanes Irma and Sandy have served as particular points of interest for CCC studies that analyze communication immediately after the event (Jin, 2020; Xu, 2020). In their study of tweets after Hurricane Sandy, Kryvasheyev et al. (2016) found that there was an increase in activity on Twitter in the area impacted by the hurricane, and that tweets from the disaster generated more interest across the world. Social media can be used to rapidly assess damage after a disaster. After both Irma and Sandy, Twitter became a primary source of information about the disaster and influencers served as key informants about the event for the general public (Hu et al., 2024). Additionally, influencers engaged in discussions with viewers whereas emergency management accounts only posted announcements about the event (Pourebrahim et al., 2019). Spence et al. (2015) found that accounts for emergency responder organizations can serve as important sources of information immediately following disasters as long as the region still has cellular service ().

While social media plays an important role in CCC in the critical period immediately following a disaster, news coverage of climate events also influences how climate change and natural disasters are linked in media (Church et al., 2020; Rauscher, 2025). For example, studies of media coverage after Hurricanes Harvey and Irma (Battistoli et al., 2017); the 2017 hurricane season (Weiner et al., 2021), and the 2012 Midwestern drought (Church et al., 2020) note that climate change is not consistently linked in how the media describes the events. In their study of media coverage during the 2017 hurricane season, news outlets that lean more conservative tended to not link climate change to natural disasters (Weiner et al., 2021). Inconsistent mention of climate change in news coverage of the period immediately following climate disasters indicates that the U.S. does not have consensus on how climate change contributes to disasters.

Teachers' experiences in the critical period immediately following climate disasters position them as community resource hubs. They face a sudden increase in responsibility while trying to support students who are under significant emotional, physical, and financial stress, all the while managing their own disrupted lives: "Educators were fully aware that they had to go beyond their formal roles (dictated by standard curricula and textbooks) to assume informal roles that drew on their lived experiences, in order to better help youth in distress" (Edmeade & Buzinde, 2022, p. 10). Being a resource hub for students and school community while being pushed to return back to "normal" after a catastrophic event has occurred creates a major challenge for teachers. According to the Teacher Education literature, many teachers recognize the importance

of both commiserating with students and returning to normal classroom life, but feel uncertain about how to effectively move forward, highlighting a clear gap in training and support for teachers during and after climate disasters (Cannon et al., 2023; Davis et al., 2021).

The literature surrounding teacher experiences immediately after disasters primarily focuses on responses to major hurricanes like Ike, Matthew, Katrina, and Sandy, and describes teachers needing consistent financial support after disasters. Financial support and flexibility with working hours during the immediate recovery phase played significant roles in teachers' wellbeing. In some contexts, teachers continued to be paid as they worked in their communities and schools to help with the recovery process, and teachers were allowed to take time to deal with personal recovery needs. However, others were not paid and some were required to maintain regular working hours without flexibility (Alzahrani, 2018; Cannon et al., 2021; Cannon et al., 2023; Eargle & Esmail, 2015; Guth et al., 2021).

Post-Disaster Context: Disaster Studies in the post-disaster context emphasizes understanding the impact of disasters on victims. Lower income and systemically marginalized individuals are more likely to experience inequities in climate disaster recovery, including being last to receive resources and most likely to experience long term health disparities (Benevolenza & DeRigne, 2019; Berberian et al., 2022; Lewis et al., 2023). Studies in post-disaster context mostly use larger data sets like census tracts to gauge impact (Lee et al., 2023; Smiley et al., 2022). By understanding impacts that disasters have on certain communities, Disaster Studies scholars identify risks and make recommendations for future mitigation and adaptation strategies (Smith et al., 2022).

Hurricane Harvey's impact on Houston, TX was commonly covered in the Disaster Studies literature for the post-disaster context. For example, Chakraborty et al.'s (2019) study of the identities of Houstonians who were most effected by the Hurricane found that race, ethnicity, and socio-economic status played a role in the impacts. Black, Hispanic, and low-income individuals were most impacted by storm, and they experienced more adverse health outcomes from the event. As a result, Chakraborty et al., recommends using identity-based categories to understand impacts of disasters to make adequate plans for mitigation and recovery. Smiley et al.'s (2022) study of social inequities and climate change's impacts on Hurricane Harvey corroborates with similar results. Smiley et al. used census tract data to identify neighborhoods most ill-affected and found that people who are Latine and lower income were most likely to be in floodplains that would not have otherwise flooded without climate change (Smiley et al., 2022).

CCC's role in the post-disaster context is a retrospective exploration of how climate change-related disasters are communicated and used to prepare for the future. For example, Boussalis et al. (2019) analyzed press releases from U.S. cities to study how they communicated about climate change and found that cities that are vulnerable to climate change are more likely to discuss it. Similarly, Rice and Jahn (2019) looked at how a community prepared for disasters by implementing lessons from previous disasters and found that even though climate disasters have strong impacts on communities, these impacts do not lead to consistent informed policies or mitigation efforts across the institutions involved in disaster preparedness and response.

In the post-disaster context, CCC studies also explore how communities develop climate disaster resilience; but CCC studies appear to focus on one event at a time. For example, Zhang and Shay's (2019) study explores what contributed to perceived community resilience surrounding Hurricane Matthew, and they found that crisis efficacy, or the feeling that one can

do something to help, led to greater perceived community resilience. Participants reported using social media to take action and help victims. They also found that members of the general public who sought more information about the event online reported lower perceived community resilience, which the authors attribute to feelings of overwhelm. Along those same lines, Lee et al. (2020) studied communication and community resilience after Hurricane Sandy and found that community members affected by the disaster developed larger networks while in the recovery process, which ultimately contributed to victim's feelings of resilience. Conversely, bureaucracy and perceived poor leadership in government and non-profit agencies led to a negative impact on victims' perception of the community's resilience after Hurricane Sandy. Lee's line of inquiry is important because measuring perceived resiliency informs how victims of climate disasters feel about recovery and their ability to withstand future events.

For teachers, literature in the post-disaster context points to the trauma and mental health needs that arose afterwards (Lemke et al., 2024; Kuhfield et al., 2025). Several studies point to the need for teachers to receive trauma training to be able to support students in the long-term recovery process (Cannon et al., 2020). Further, teachers experienced pressure to return to normal during this period, despite being traumatized, their homes and neighborhoods still damaged, and students expressing concerns and grief from the event (Alzahrani, 2018). For example, in their study of teachers in the U.S. Virgin Islands, Edmeade et al. (2022) found that teachers took on the role of social worker and counselor to support their students. Teachers also took on roles to help with recovery efforts as they demonstrated an investment in their communities (Davis et al., 2021). Despite the increase in climate disasters, the field of Teacher Education does not use these instances to develop systematic planning and training to support teachers as they help their schools and communities recover (Guth et al., 2021).

A Shared Emphasis on Community

Community constitutes a major theme across all three stages (pre-, critical, and post-disaster) of the SIMPDA model (Jetten et al., 2021). The pre-disaster context describes community in data from EM-DAT and IPCC as these organizations identify climate risks for communities around the globe. Community is especially represented in the critical period immediately following disasters, and it shows up in two ways: 1) as Disaster Studies scholars explore community volunteer involvement in recovery efforts; and 2) as CCC looks into social media usage surrounding disaster. In the post-disaster context, community is utilized as CCC scholars work to understand communication's roles in community resilience. Additionally, teachers play an important role in community resilience as they become resources for recovery in the critical period after disasters and who become counselors supportive of traumatized students post-disaster. Emphasis on community across all three fields and all three areas of the SIMPDA framework indicates teachers could play an important role in disaster response. However, there is far less research on teachers' experiences surrounding climate disasters in the U.S. than the other two areas — Disaster Studies and Climate Change Communication — included in our mapping review. Given the dearth of literature surrounding teachers' experiences with climate disasters, education scholars need to play catch-up when it comes to understanding experiences of teachers before, during, and after climate disasters, especially as climate disasters become more commonplace (Knutson et al., 2020). Our mapping review positions Teacher Education scholars to explore roles teachers/schools could play across the SIMPDA framework and brings together scholars in all three fields to make recommendations for ways Disaster Studies, CCC, and Teacher Education researchers and policy makers can collaborate in the future (2021).

Across the pre-disaster context, there is a need for more preparedness for climate disasters and funding to support these efforts. Disaster Studies indicates a lack of infrastructure and funding to support proper climate change preparedness and adaptation in the U.S. (Donatti et al., 2024). CCC demonstrates that pre-disaster skepticism in the media sways public opinion and selection of political candidates who do not prioritize climate change adaptation. Disaster Studies' findings about lack of infrastructure and funding and CCC's findings about lack of public and political support trickles down into the lack of preparedness for teachers and schools in the pre-disaster context. If Disaster Studies and Teacher Education scholars were able to partner for future research in the pre-disaster context, then the field might be able to incorporate teachers into community resilience networks and begin to construct schools in ways that will likely make them reliable community refuges during disaster and its aftermath (Wen et al., 2023). The critical period immediately following disasters is an area where educator involvement could be the most impactful. If disaster response policy makers were able to partner with school districts to give teachers a more formal role in immediate recovery efforts, teachers' connections with the community would strengthen to make a significant impact in how students, families, and other school community members receive aid in that critical period (Kankanamge et al., 2019). It would also be beneficial to study how teachers' involvement in disaster recovery impacts community resilience (Lee et al., 2020). Extended volunteering would boost morale for teachers because their role as community-based educators would adjust to support disaster recovery (Hamideh, 2020; Pyles et al., 2018; Whittaker et al., 2015).

Additionally, if districts could communicate with one another using crowdsourcing or other digital volunteer methods, teachers whose schools and community members experience damage from disasters could communicate with outside networks to coordinate recovery efforts for students, teachers, and other school community members (Kankanamge et al., 2019). In the post-disaster context, it would be beneficial for Disaster Studies and Teacher Education scholars to partner to investigate which identities of teachers are more impacted by climate disasters (Chakborty et al., 2019; Smiley, 2022). Involving teachers in the post-disaster CCC process could help students, families, schools, and school community members better prepare for future disasters (Rice and Jahn, 2019). Teachers could incorporate disaster preparedness into lessons on weather and current events. Schools could have a professional development on classroom preparedness and trauma-informed teaching after disasters. Regular science curriculum that connects climate change to climate disaster would provide students and teachers plenty of time to talk about facing and living through disaster.; and prevent climate change skepticism.

Our mapping review, although limited to examination of forty-five sources from general literature in three fields (Disaster Studies, Climate Change Communication, and Teacher Education).begins the work of filling significant gaps in Teacher Education literature. As educators, we do not have expertise in Disaster Studies or Climate Change Communication, but our interest in those areas is in what they can tell us about making schools ready for climate change and its related disasters. It is alarming that schools do not have systematic plans in place for climate disasters (Kano et al., 2007). Results of our mapping review indicate that Disaster Studies, CCC, and Teacher Education are three disparate fields with overlapping interests, indicating that the three should collaborate to more fully address the needs of communities in the U.S. disrupted by climate disasters. Our findings demonstrate a need for schools to train and support teachers throughout climate disasters, and it would practical to begin that work by partnering with Disaster Studies and CCC scholars. But that partnership should be guided by exploration of research questions of special interest to Education. Each question we recommend

here is derived from our mapping review and opens a new area of study for Education scholars:

How can we best build, operate, and fund schools so that schools become natural havens for communities experiencing climate disaster?

How can the regular curriculum be developed and deployed to help debunk climate change skepticism?

What ways can be found to support teacher extended volunteerism during disasters and recovery from disasters?

What does teachers' experience with disaster tell us about policy direction for improving crisis efficacy among community members?

How can we improve communications among schools, school districts, and school personnel to help coordinate disaster relief efforts?

As climate change continues to intensify and climate disasters occur with increasing regularity in more and more places, questions raised by our mapping review will *demand* answers. Beginning study of school adaptation to climate disaster *now* means we will have adequate answers to climate change questions when we need them most.

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