**Intentional Improvising: An Extreme Pacific Region School-University
Self-Study in Response to the COVID-19 Crisis**

Acts of improvisation mark the highest levels of performance, demanding great creativity and concentration (Ashley, 2009). Without a doubt, the COVID-19 crisis forced educators into improvisation mode. The rapid and unprecedented transition to online learning in the spring and fall of 2020 not only necessitated creativity from educators, but also magnified digital disparities in communities across the U.S. Students, teachers, and teacher candidates in the U.S. Territory of American Samoa, in particular, were disproportionately impacted by the shift to online learning and the closing of borders that left them economically and geographically isolated.

Research conducted in the early months of the pandemic suggested that it would exacerbate such disparities and gaps in opportunity (Dorn et al., 2020; Kuhfeld & Tarasawa, 2020). Preliminary estimates of learning loss due to school closures in the spring of 2020 predicted that students would return to school in the fall of 2020 with learning gains of 70% relative to the normal gains made during a school year (Kuhfeld & Tarasawa, 2020). For underserved students, these effects were predicted to be even more profound. Although educators may not yet know the full impact of the pandemic on educational communities, this moʻolelo [narrative] begins to weave together lessons learned during this time of challenge and improvisation.

This paper presents a qualitative autoethnographic self-study (Seawright & Gerring, 2008) of the how an established partnership between the University of Hawaiʻi (UH) at Mānoa and American Samoa enabled a rapid launch to online learning within a unique Pacific context of distinct language, culture, and pedagogy. Our self-study notes both strengths and weaknesses revealed by this transition and how the COVID-19 pandemic exacerbated inequities for indigenous learners, many of them already underserved as English Learners (ELs) on the short side of the digital divide. Our moʻolelo notes that, among the many benefits of a strong school-university partnership, awareness of the challenges that may arise, particularly during times of crisis, is instrumental in the success of these collaborations (Gómez & Wepner, 2018).

**Context**

**American Samoa**

American Samoa, consisting of islands located in the South Pacific, is a U.S. Territory with a population of about 55,000 people who, on the whole, have embraced Western values while maintaining a deeply rooted culture grounded in the Fa'a Samoa, the Samoan way of life (Yeung, 2016). As a territory, American Samoa has a unique political status in which American Samoans are considered U.S. nationals but are not permitted to vote in U.S. elections and have no representation in legislation passed by Congress. American Samoans can, however, participate in unrestricted travel to and from the U.S. and receive protections from the government of American Samoa that may include "legislation to protect the lands, customs, culture, and traditional Samoan family organization of persons of Samoan ancestry" (American Samoa Code Annotated 1960, Article 1, Section 3).

Although American Samoa has its own unique language, culture, and political organization, its history of public education is intertwined with a history of American

colonization and intervention. The missionary and military American influence on their system of public education has, at many junctures, neglected to recognize fundamental elements of Samoan culture and social structure such as Samoan language, aiga [family], and the collective governance that family and village provide over community problem solving and resolution (Serna & Zuercher, 2019). In response, the partnership between UH Mānoa and American Samoa has been one of intentional collaboration that honors the cultural practices and expertise of educators across participating institutions.

American Samoa's territorial status provides the governor with relative autonomy. During the COVID-19 pandemic, American Samoa remained mostly free of the COVID-19 virus, mainly due to Governor Lolo Moliga's executive order to close borders from any travel. This proactive protective shut-down resulted in extraordinary isolation for educators, which highlighted a need for intentional improvisation to build and sustain community and connection (Croft et al., 2010).

**Partnership with UH Mānoa**

Presently, UH Mānoa and American Samoa have a multicultural teacher education partnership, the Pacific MEd Program (PACMED) that was initiated in 1979 through a Teacher Corps Program grant that provided funds for American Samoa Community College (ASCC) to offer four-year education degrees. Although the grant allowed the American Samoan government freedom to choose its partner institution, for over 40 years they have elected to partner with UH Mānoa. One reason for this sustained partnership is UH Mānoa's familiarity with Pacific island contexts and issues. Founded in 1907 as a land-grant college, UH Mānoa is one of 10 campuses in a UH system operated across four islands. Though the professional development school (PDS) partnership between UH, ASCC, and the Department of Education in American Samoa has shifted over time, its foundation is one of cultural responsiveness grounded in a collaborative non-hegemonic approach (Serna & Zuercher, 2019) and a cohort model that reflects the Fa'a Samoa.

The partnership has benefited from the experience of faculty in UH Mānoa's College of Education (COE) in operating educational degree programs using hybrid and online formats to provide equitable access for teachers across islands. Within this partnership that has successfully expanded classrooms past borders (Zuercher & Yoshioka, 2012), our teacher candidates come from multicultural and multilingual backgrounds and a range of professional experience as educators, administrators, government officials, and national park rangers. These teacher candidates, many of whom became leaders in their schools post-graduation, come together with shared curiosity and the desire to not only learn, but to engage with one another in creating place-based and culturally responsive experiences that positively impact their Pacific communities.

## Literature Review

We situate our mo'olelo of lessons learned during the COVID-19 pandemic first within a frame of culturally responsive and placed-based approaches to teaching and learning and then, more specifically, within the literature on the art of improvisation, both musical and organizational. Foundational to the 40-year partnership between UH Mānoa, the ASCC, and the Department of Education in American Samoa has been the collaborative and culturally responsive nature of the program (Serna & Zuercher, 2019) and the ability to shift and improvise in response to changing pedagogical, cultural, and social contexts. The call for responsive,

inclusive, and flexible approaches to teaching and learning (Darling-Hammond, 2006) resounds in the Pacific context, a region inclusive of myriad languages, cultures, and practices.

### Culturally Responsive Approaches to Online Teaching and Learning

Gay (2002) defines culturally responsive teaching as "using characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively" (p. 106). Culturally relevant pedagogy (Ladson-Billings, 1995), equity pedagogy (Banks, C., & Banks, J., 1995), culturally responsive teaching (Gay 2002; Rhodes 2013), culturally revitalizing pedagogy (McCarty & Lee, 2014), and culturally sustaining pedagogy (Ladson-Billings, 2014; Paris, 2012; Paris & Alim, 2017) comprise a dynamic and evolving field of scholarship that seeks to address societal inequities and meet the needs of all students (Ladson-Billings, 2014).

These theories extend an ongoing conversation around asset-based approaches for building continuity between students' experiences in home, community, and school settings (Banks, 1993; Jordan, 1985; Ladson-Billings, 1992; Trueba et al., 1981). Research conducted within the PACMED partnership has highlighted how culturally responsive approaches to teacher candidates and their communities are necessary to the success of partnership programs (Serna & Zuercher, 2019).

Studies have also considered culturally responsive approaches within online settings (Henderson, 1996; Lawrence, 2020; McLoughlin, 1999; 2000; Smith & Ayers, 2006; Zuercher & Yoshioka; 2012). Henderson (1996) recognized that web-based instructional design lacked the ability to fully contextualize learning experiences and address the needs, learning styles, and preferences of learners representing diverse cultures. Building from this work, McLoughlin (2000) incorporated a community of practice model (Lave, 1991) to develop a culturally responsive web-based unit for Indigenous Australian students. Scholars (Henderson, 1996; McLoughlin, 2000; Smith & Ayers, 2006) have also developed a model for culturally responsive online pedagogy (CROP) — also known as "teaching as dialog" (Lawrence, 2020) — that centers the importance of communication and relationship building amongst teachers and students.

The literature on culturally responsive online teaching and learning suggests that while multiple learning theories and instructional tools can be employed in the design of online instruction, pedagogical considerations such as students' interests, practices, and cultural contexts must be considered (Smith & Ayers, 2006). While the literature sheds light on design models and methods for communication in online settings, specifics into *how* educators cultivate indigenous place-based relations and facilitate experiential learning in the virtual setting have not been fully explored. This study seeks to contribute to that conversation.

### Cultural Perspectives of Place and Place-based Education

The partnership between UH Mānoa and American Samoa is one that strives for culturally responsive and place-based learning. American Samoa's status as a U.S. Territory and the history of American influence on the education system warrants a critical exploration not just of culturally responsive approaches, but also understanding of place-based teaching, learning, and partnership grounded in the contexts of the partner institutions. Lilomaiava-Doktor (2020) describes the Samoan epistemology of fanua (place):

> The land we walk on and the tulagavae/footprints we leave in the soil of our birth link us to the tupu'aga/ancestors whose bones are interred in there, just as their spirits remain grounded in the place-names and proverbs of our tala le vavau. (p. 122)

Like other Pacific and Indigenous communities, Samoan people connect with their environment in ways that are contextual, familial, spiritual, and therefore sacred (Kealiikanakaoleohaililani & Giardina; 2016; Oliveira, 2014). Samoan scholars articulate being connected with place as dwelling in faʻa Samoa, a "worldview that privileges not just the perspective of humans, but of other living beings: of trees, animals, birds, oceans, and stars [and] demands humility, sacrifice and respect for our sacred origins" (Tuiatua Tupua Tamasese Ta'isi Efi in Lilomaiava-Doktor, 2020, p. 139).

Scholars describe place-based education as a long-standing educational tradition embedded in indigenous epistemologies and models of education (Penetito, 2009; Seawright, 2014). Gruenewald and Smith (2014) add that understanding of place-based education presents a process of decolonization or "coming to understand and resist the ideas and forces that allow for the privileging of some people and the oppression of others, human and other-than-human and rehabilitation, the "relearning how to inhabit places in more sustainable and just ways" (p. viii). In this way, place-based education can work to centralize indigenous education sovereignty and the importance of reclaiming and restoring the languages and cultures of indigenous students in the learning process (McCarty & Lee, 2014).

**Improvisation: Definitions and Background**

Culturally responsive and place-based educational approaches frame the partnership between educators in Hawaiʻi and American Samoa. Perspectives on improvisation, however, provided a more specific lens through which we viewed the institutions' responses to the shifts brought on by the COVID-19 pandemic. Our exploration of improvisation literature begins with definitions and then focuses on improvisation in organizations and educational institutions.

Improvisation is commonly understood as acting extemporaneously, without plan or structure. It is an adaptive behavior/process and although it is usually associated with artistic performance, it can be applied to multiple facets of human activity. Higgins and Mantie (2013) argued that "the act of living is largely improvisatory" (p. 38). They included under the umbrella of improvisation domain-specific manifestations like creative musical abilities or cultural forms (i.e., jazz) that involved "qualities such as risk-taking, reflexivity, spontaneity, exploration, participation, and play" (p.39).

Improvisation has been most closely examined in relation to the performative disciplines, especially theatre (Magerko et al., 2009; Nisula & Kianto, 2018) and music (Bailey, 1982; Berliner, 2009). The cultivation of improvisational skill has been associated with desirable qualities such as divergent thinking, self-efficacy, collaboration, uncertainty tolerance, and affective well-being (Felsman et al., 2020; Mourey, 2019). Improvisation is also a core feature in the study and practice of oratory in multiple ancient and contemporary cultures (Cross & Fujioka, 2019; Hamlet, 1998; Obadare, 2010; Rumsey, 2006).

**Improvisation in Organizations**

Research has focused on improvisation in organizations precisely because of their complexity and "limitations on flexibility and speed of response" (Hannan & Freeman, 1989, p. xii). Organizations are often not rational and speedy adapters in the face of changing environmental circumstances (Hannan & Freeman, 1989), and instead often rely on "routine, reliability, repetition, automatic processing, and memory" to hold their structure in place (Weick, 1998). As a result, organizational theorists have spent the last few decades exploring

improvisation. These studies draw heavily from metaphors of improvisation as it occurs in creative disciplines, particularly jazz improvisation, for their theoretical insights (Weick, 1998).

Improvisation has been seen as the last stage along a continuum of increased demands on imagination and concentration, which starts with "interpretation," progresses through "embellishment," and "variation," and ends at "improvisation" (Weick, 2007). Applying this continuum to organizational dynamics, scholars associate activities at the interpretation end of the spectrum with rigid organizational dynamics with structured, predefined, and linear communication and dependence on established models and routines (Weick, 1998; Zack, 2000). At the other end of this spectrum, maximal improvisation allows for mutually constructed communication that is emergent, spontaneous, and interactive.

Some of the literature on organizations focuses specifically on improvisation during disasters (eCunha et al., 2003), such as forest fires (Weick, 1993), nuclear accidents (Malešič et al., 2014), or the current COVID-19 pandemic (Janssen & van der Voort, 2020; Lee & Trimi, 2021; Paganini et al., 2020) as such scenarios require people to quickly apply knowledge and skills they may not normally use, to situations with which they are unfamiliar (Tint et al., 2015).

Borrowing from jazz improvisation, Mendonça and Wallace (2007) proposed a model for organizations' improvisational response to situations that prohibit the execution of planned procedure. They argued that decision logic can be applied to an emergency response context in which organization members create a strategic plan of actions and goals, consider alternatives to the strategic plan, then engage in improvisation to monitor and adjust the implementation of the strategic plan.

**Improvisation in Education**

Like other types of organizations, educational institutions are challenged by an adherence to routine that restricts the reflection and reflexivity required in unexpected circumstances. Accountability policies that demand that certain student outcomes be achieved through business model approaches present a particular challenge to organizational improvisation in education (Berliner, 2011). As a result, some education researchers are now focusing on understanding improvisation and action research to study its effects as beneficial and necessary professional skills for teachers (Holdhus et al., 2016).

School-university partnerships are a particular type of educational organization designed on the assumption that better student outcomes come from better teachers, better teachers come from better teacher preparation, and better teacher preparation comes from better university-school collaboration (Darling-Hammond, 2006; Burton &. Greher, 2007). The pursuit of these outcomes has been examined in school-university partnerships and professional development schools nationally and internationally (Bates, 2008; Kiliçkaya & Krajka, 2013; Ralaingita, 2008), in urban (Bazemore-Bertrand et al., 2019; Dahir, 2020; Parker et al., 2020; Stone & Eggleston, 2020), rural (Bargerhuff et al., 2007; Hoppey, 2016; Schultz et al., 2020; Warren & Peel, 2005) and oceanic (Fa'avae, 2018; Sewell et al., 2018; Thaman, 2009) contexts, each contributing to a broader understanding of what encourages or prohibits successful university-school collaboration and ultimately impacts teacher recruitment, performance, and retention, and (most importantly) student outcomes.

The major challenge to successful university partnerships is that there are different cultures, experiences, and knowledge systems that impact how each participating party

strategizes and acts, formulates and prioritizes goals, and allocates resources and evaluates progress towards the accomplishment of those goals (Knight et al., 1992). Balancing the values of university culture, professional school culture, and school culture relies on a reflexivity that might be better informed by attending and adhering to principles of quality improvisation. According to Klein and Dunlap (1993), successful partnerships have four main characteristics: a) mutuality of concern; b) reciprocity of services; c) an ongoingness; and d) a belief in partnership parity. Essentially, partners must be engaged in ongoing "nonhierarchical interplay" (Zeichner, 2010) in which there is stability of resources, commitment, and joint decision-making with regards to goals, implementation and evaluation. Such characteristics are compatible with the five components of improvisation proposed by Magerko et al. (2009) and, arguably, can only be achieved via non-linear organizational dynamics with mutually constructed communication that
is emergent, spontaneous, and interactive (Zack, 2000).

Clifford and Miller (2007) described a school-university partnership as "intended to accomplish mutual benefits that the partners, alone, could not accomplish" (p. 11). Indeed, a diverse Pacfic university and school system such as that in American Samoa, geographically isolated by closed borders to protect a vulnerable population, benefited from an intentional exchange of online instructional pedagogy that was perceived by participants to be relevant to place and culturally-engaging. "The purpose of a PDS is to facilitate exemplary teacher education by serving as a space in which theory and practice not only meet, but where each way of knowing and understanding the world enriches the other" (Dresden et al., 2016, p. 68). In addition to sharing concrete instructional strategies, participants in this site-based and culturally-responsive Pacific partnership were challenged to adopt a reflective and reflexive inquiry approach to teaching and learning in response to being thrust into a new and challenging online teaching environment.

## Methods

### Qualitative Team Self-Study of Extreme Phenomena

The National Association of Professional Development School (NAPDS) Essential Five states, "A PDS is a community that engages in collaborative research and participates in the public sharing of results in a variety of outlets" (National Association of Professional Development Schools [NAPDS], 2021). This study was a collaborative self-study between university and K-12 educators. As a team of university researchers, it was our experience that self-study methodology, within a unique cultural case, emerged like jazz improvisation in that active and continuous "listening and adjusting" guided our actions and thus, the composition of our work. An autoethnographic self-study employs intentional self-reflection to deepen personal perspective on a shared cultural experience (Ellis, 2004). Further, self-study uses personal conflicts and perceptual turning points experienced in the researcher's life to address issues of larger social consequence (Jones et al., 2016), by "research[ing] themselves in relation to others" (Boylorn & Orbe, 2014, p. 17). In this self-study, an interdisciplinary research team of five UH Department of Curriculum Studies teacher educators engaged in intentional reflection to inform their instructional decisions with inservice graduate teacher candidates concurrently teaching in online K-12 classrooms in American Samoa. In order to better understand the immediate needs and experiences of graduate candidates and their

students, the graduate candidates were asked to respond to feedback surveys during their semester rather than at the end via traditional course evaluations.

## Academic Setting

UH Mānoa offers a 30-credit Master of Education Program (PACMED) with Pacific Science, Technology, Engineering, and Mathematics (STEM) Problem-Based Focus. Graduate candidates from across the Hawaiian Islands, American Samoa, and the Republic of Marshall Islands enrolled in the PACMED program as place-based Pacific cohorts of 15-30 members. The research team, composed of PACMED faculty, facilitated research courses, place-based curriculum development courses, and STEM elective courses to address unique Pacific problems such as climate change, sea-level rising, coral reef bleaching, indigenous/invasive plants, food security, diabetes, obesity, and culturally responsive sustainability.

Due to the COVID-19 pandemic, the PACMED program (generally delivered as a hybrid online program with both online and face-to-face instruction where instructors travel to the Pacific region) pivoted to online graduate course delivery only during the Fall 2020 semester. The American Samoa University of Hawaii graduate candidates, who were working as full-time teachers in K-12 classrooms, also pivoted their instruction online. This was an extreme shift for these K-12 teachers and students located on a Pacific Island nation with limited technology access or experience.

Members of the research team began the Fall 2020 research course as is customary with a preset standards-based syllabus of objectives and assignments and an established protocol of delivering university courses to inservice K-12 teachers in American Samoa. However, the university course content shifted to more research-oriented assignments that provided graduate candidates a chance to practice qualitative research skills while deepening their understanding of their own students' perceived needs during the sudden shift to online learning. As graduate candidates gathered and shared data regarding their K-12 students' online learning needs via research assignments, the research team adjusted the graduate course syllabus and pivoted their online pedagogy to model and support these candidates' online teaching needs.

## Context

American Samoa graduate candidates began the PACMED Master of Education degree program in the Spring 2020 semester. Given the hybrid online course delivery of the program, they had already gained remote teaching and learning skills using online tools such as Zoom, Google Classroom, Flipgrid, Mural, Polleverywhere, and Kahoot to navigate their graduate university courses prior to the COVID-19 pandemic online instructional shift. These candidates enrolled in the required qualitative research methods course during the Fall 2020 semester. This study took place during that semester as both the graduate candidates' UH graduate courses and their classroom instruction of their K-12 American Samoa Department of Education students moved to complete online instruction.

## Participants

The researchers and participants in this self-study (referred to as the research team) were the interdisciplinary team of five UH graduate course instructors in the PACMED program. One member of this PACMED university interdisciplinary team served as the qualitative research methods instructor and the primary autoethnographic participant during the Fall 2020 semester. The other four members served as critical colleagues in self-study to deepen their understanding

of the PACMED graduate candidates' K-12 teaching context. Since self-study evaluates personal experiences within the context of social phenomenon (Ellis, 2004; Boylorn & Orbe, 2014; Jones et al., 2016), the research team critically reflected on their online PACMED course instruction with fifteen American Samoa K-12 graduate candidates concurrently teaching approximately 450 K-12 students in online classrooms in American Samoa.

## Data Instruments and Collection

As standard protocol, university educators facilitate course evaluations at the end of each semester as a means of collecting data on PDS candidates' perceptions of the course instruction and content. Unfortunately, this type of summative data collection only informs future instruction and does not support real time adaptation of course instruction or content for currently enrolled course participants. Our research team collected self-study data as a means of formative K-12 graduate candidate assessment *during* the Fall 2020 graduate qualitative research methods course to inform and adapt instruction during the pivot to online instruction in geographically isolated Pacific regions.

The university team self-study was informed by data collected through a) artifact analysis of a graduate qualitative research course *Data Triangle Assignment* (Appendix A); b) PACMED Google Form Questionnaire (Appendix B); c) PACMED Zoom whole class and breakout room discussions; and, d) analysis of PACMED graduate candidates' perceptions of sudden online instruction. The university course assignments - artifact analysis, survey, discussion and self-reflection - were intended to build bridges of empathy between the university team, the PACMED graduate candidates, and K-12 students who were all challenged by a shift to sudden online instruction. In this PDS partnership, all levels of teaching and learning were being impacted and these qualitative research assignments enabled participants to intentionally deepen understanding of learner's experiences and acknowledge that accommodations to instruction needed to be made at both the K-12 and university levels. For example, The *Data Triangle Assignment* (Appendix A) enabled PACMED graduate candidates to explore the following research question using triangulated data collection methods of survey (Google Form Questionnaire), interview (Zoom) and observation/self-reflection journals with their K-12 students: "What are participants' perspectives on online teaching and learning during the COVID-19 pandemic in your unique Pacific context?".

Qualitative data may be gathered through a variety of methods such as in-depth individual interviewing, focus groups, indigenous story-telling (Mo`olelo), surveys, assessment artifact analysis, autoethnographic journaling, and field observation (Creswell, 2007; Hatch, 2002; Minthorn & Shotton, 2018; Tuhiwai-Smith, 2012). PACMED graduate candidates gained introductory education research experience in how to gather and analyze types of qualitative data while exhibiting care for their K-12 students by intentionally asking how they were doing and being responsive to the expressed needs of their students. Reciprocally, the university research team analyzed the PACMED graduate candidates' research assignments to deepen understanding of how the PACMED graduate candidates and their K-12 students were coping with online instruction and were responsive in making changes to the scope and sequence of the university course to meet the expressed needs of their PACMED graduate candidates and their K-12 students.

The NAPDS Essential Three: "A PDS makes a shared commitment to reflective practice, responsive innovation, and generative knowledge" (NAPDS, 2021) supported the need for reflective self-study methodology for responsive innovation. A noteworthy feature of

professional development school partnerships is the potential for reciprocal and respectful inquiry (Figure 1). As an example, our research team modeled a qualitative research method, like Google Forms exit slips to gauge K-12 teacher candidates' perceptions of online instruction, and then K-12 teacher candidates, in turn, used Google Forms exit slips to gauge their K-12 students' perceptions of online instruction.

**Figure 1**
*Tiered Professional Development School Partnership Self-Study*
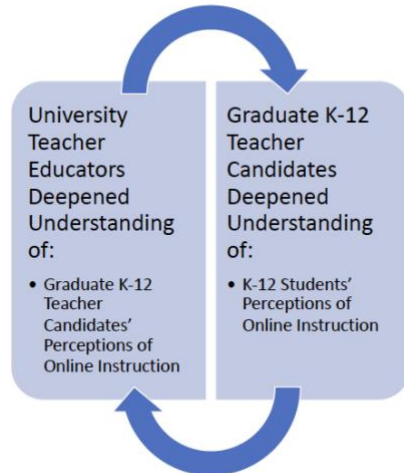


In this team self-study, the research team followed these steps to collect data, analyze data and make course adaptations. The research team utilized the "I do" (teacher model), "We do" (collaborative group practice) and "You do" (application in their K-12 settings) to guide instruction and collect qualitative data. First, graduate candidates were informally surveyed about their perceptions of the relevance of the qualitative research course syllabus and assignments during the shift to online teaching. Based on this initial response, the research team adjusted the qualitative research assignments so that all PACMED graduate candidates were exploring a common research question, instead of individual research questions: "What are participants' perspectives on online teaching and learning during the COVID-19 pandemic in your unique Pacific context?". Next, the research team modeled how PACMED graduate candidates might conduct qualitative research with their K-12 students by teaching how to use Google Form surveys, Zoom discussion breakout rooms, and observation/self-reflection to explore the PACMED graduate candidates' perceptions on online teaching and learning during the COVID-19 pandemic in their unique Pacific contexts. After participating in the university teaching models and collaborative group practice in university classes, PACMED graduate candidates completed the graduate research methods course Data Triangle Assignment (Appendix A) with their K-12 students. In this graduate research assignment, the graduate candidates followed the example of the PACMED Google Form (Appendix B) to create relevant Google Forms for their K-12 students to complete. Next, they facilitated Zoom whole class and breakout room discussions and observations to deepen their understanding of their K-12 students' perceptions of sudden online instruction. Last, graduate candidates completed reflective journal entries and shared the emerging themes from the Data Triangle Assignment (Appendix

A) about how their K-12 students perceived online instruction with the university educators. In turn and in "real time" (i.e., not the next semester to revise curriculum), the research team improvised and adapted their graduate course curriculum and instruction to be responsive to the emerging instructional needs of the K-12 teacher candidates. Each partner tried new online instructional interventions to keep step with the perceived needs of their participants, and adjusted instruction accordingly. Finally, the research team collaboratively processed the findings from this self-study through meetings and in writing to incorporate recommendations into future online courses. Specifically, data collected during the Fall 2020 university graduate course through online Google Forms, Zoom interviews/discussions, and university assignment artifact analysis were analyzed by the research team for emergent themes to deepen understanding of graduate candidates' perspectives following the imposition of remote teaching at the university level. Also, K-12 graduate candidates used typological data analysis to identify emergent themes in data collected with their K-12 students through online Google Forms, Zoom interviews/discussions, and assignment artifact analysis. This tiered research cycle (Figure 1) informed instructional decisions at both the university and K-12 levels.

### Findings: Emergent Themes

Typological data analysis of graduate candidates' Google Form responses, Zoom classroom discussions, and free write journal entries revealed emergent themes regarding their perceptions of place-based and culturally responsive instruction modeled in the university school partnership's research methods course and how this instruction shifted as a result of the transition to online learning during the Fall 2020 semester. Two themes emerged: strengths of the partnership between UH Mānoa and American Samoa revealed by the COVID-19 pandemic and lessons learned from the shift to online learning. Strengths of this long-standing partnership between the university and the professional development school included the ability to model instructional tools for online learning and engage in intentional listening to respond to the needs of educators across institutions. Lessons learned from examining shifts made during the COVID-19 pandemic included a stronger focus on students' Social Emotional Learning (SEL), coordination of assignments to ease the burden on teacher candidates and their students, and the challenge and possibility of enacting place-based online learning.

**Theme 1**
*K-12 graduate candidates perceived that the university-school partnership enabled UH Mānoa's teacher educators to provide valuable instructional tools as a model for online instruction.*

Given the geographic distribution of the Hawaiian Islands, UH Mānoa faculty have developed and tested versions of hybrid remote instruction over the years as a means of providing access to teachers seeking professional development and degree attainment. UH Mānoa faculty shared their expertise in online learning with graduate candidates who were moving their courses online in American Samoa. These candidates perceived that valuable instructional tools (e.g., Flipgrid) and instructional practices (e.g., Webquests, virtual haukaʻi) were modeled during their UH courses before and during the COVID-19 pandemic. Course evaluations showed 94.4 percent of teacher candidates were highly satisfied and 5.6 percent were satisfied with the UH PACMED program. In particular, the following online instructional tools were listed as beneficial for teachers to experience and then use with their students: Blackboard, Zoom, Google Classroom, Mural, Polleverywhere, Mentimeter, Kahoot, Socrative,

Breakout Room Literature Circle Roles, Jigsaw Learning Centers via Google Slides, Flipgrid, and Webquest for designing place-based curriculum units.

Graduate candidates expressed initial fear in learning new instructional technology tools but ultimately conveyed pride and confidence in successfully using the tools in their classrooms. Moreover, some teacher candidates who graduated from the UH American Samoa cohort were appointed as Technology Team Leaders by the American Samoa Department of Education and shared their skills with colleagues.

**Theme 2**

*Graduate candidates perceived that intentional listening to students through Google Form surveys, Zoom interviews and discussions, and journals or observations was especially valuable during the COVID-19 pandemic.*

Graduate candidates expressed a nagging insecurity about their effectiveness during the rapid transition from traditional classroom teaching to remote instruction. Listening to their K-12 students using qualitative methods such as surveys, interviews, focus group discussions and artifact analysis of journals and assignments provided missing pieces of information that enabled them to engage more responsively with their students. As graduate candidates reflected on their classrooms, they gathered data from students through listening, conversations, and observation. The following quotes are representative of theme 2:

- I had changed a lot with my curriculum and I wanted to make sure the work and my instructional choices were still meaningful for students. I thought I was doing a good job and mixing it up, but I wanted to stop making guesses. Students were, for the most part, completing homework and classwork on time. By my observation, there was just such a wide range of experiences that I was struggling with how to move forward with my curriculum planning. I have been second-guessing myself more this year than ever and trying to read up on what other teachers are doing and discussing with my coworkers. I admit that it took me a minute before I was like: ask your students!! And I am so, so glad I did. Students are also feeling the effects as there is a lack of interaction and communication with both teacher and peers as they navigate through lessons on their own.
- Not being there for a student in a physical manner has been difficult in the sense that all of the cues and insights we have learned to read over the years are not apparent and sometimes impossible to detect when students turn off their camera.
- One reason for the *Google Form* survey is that it is really, really hard to judge or observe how students are feeling online. I don't ask them to turn their cameras on out of respect for their privacy and Internet bandwidth. Even if I did ask them to keep the cameras on, reading body language is almost impossible and even at 11 and 12 years of age, students are good at "faking it" with their facial expressions and participation in the chat. I found it really hard to get a sense for how the kids were doing and what their true feelings about my class were using only teacher observation.

**Theme 3**

*Researchers and graduate candidates realized the value of Social Emotional Learning for online instruction.*

The move to online instruction required the research team and graduate candidates to focus on improvising how face-to-face, project-based learning could be reimagined in an online environment. Both the research team and the graduate teacher candidates learned to use online tools like Zoom, Google Classroom, Webquest, and Polleverywhere to simulate the engaging relational strategies they were accustomed to using in their classrooms. Graduate candidates quickly recognized the toll not being physically present in the classroom had on the students. They started to shift their focus from worries about the technology itself to more social emotional focused questions and concerns, especially regarding how students were perceiving their classroom communities. The following comments summarize graduate teacher candidates' perceptions:

- Through the *Google Form* survey, students expressed that they missed having the connection with other students, were concerned about friendships and relationships, and were negatively impacted by having to do school from home. Now that we know what students are wanting, we have started to discuss the implementation of online advisory, online clubs and lunch hours where the students get to socialize with their peers.
- I started asking students to share something good that happened to them in the past week.
- The pandemic is impacting students more than we know: Some students are *stressed*; others are having family members contract the disease. There is a lot going on for the students, and as hard as this change has been on teachers, it's been equally or harder for students and things have moved even faster from their point of view. This was really eye opening for me as a teacher to read their responses!
- Students are doing their best, but their best may not be "typical." I am dealing with issues involving my health and mental health that do affect my performance in school. It affects a lot of things that stop me from what I need to do and I do not know how long it is going to affect my performance.

Graduate candidates reported on these types of social emotional findings, which prompted UH educators to also adapt their online instructional strategies. It felt like jazz improvisation where performers took turns in the spotlight while the ensemble actively listened and maintained the rhythm and key of the music. The research team realized the need to model social emotional community-building strategies that K-12 teachers could replicate with their students. Successful strategies included the creation of feeling word clouds, Show and Tell Zoom, video brain breaks, *I Am From* poem creation, collaborative Google Slides, and Zoom breakout room advisory sessions.

**Theme 4**

*Participants perceived that the online workload was excessive and that faculty and graduate candidates needed to integrate and coordinate assignments.*

Listening to graduate candidates also revealed that everyone from K-12 students to university faculty felt overwhelmed with the new workload. Many graduate candidates experienced difficulty team teaching online. Moreover, they struggled to manage their own online teaching schedule and, in many cases, their children's different online learning schedules.

In the Google Form responses and journal entries, graduate candidates expressed concerns about the workload and stress:

- It's just the fact that in the end everything adds up. Even just a little amount of work for every class can turn into something bigger, also the fact that we have to be staring at a computer screen for like 12-14 hours a day can really be a downer.
- Teachers need to be reflective and think about what is MOST essential right now and just focus on that. I love the fact that you said you could remind your teacher colleagues that work can add up quickly because it's very true!
- With online classes, students are struggling with certain soft skills, such as learning new technology, time management and organization. With this pandemic happening, the challenging part is adjusting my schedule to assist my daughter with her online learning.
- Empathy. PACMED instructors were so understanding with the complicated lives of teachers in this day and age.

**Theme 5**
*Graduate candidates perceived it was challenging, but not impossible, to simulate place-based and culturally responsive projects online.*

Traditionally, PACMED university course instructors would travel to American Samoa to facilitate place-based field trips and establish partnerships with local community organizations such as National Park Samoa, Fish and Wildlife, and the American Samoa Community College. The COVID-19 pandemic lockdown forced creative approaches to place-based education such as virtual field trips and online interviews with community kupuna/elders. An unexpected positive outcome was that family members enthusiastically participated in creating and filming K-12 STEM projects from home. The following comments about place-based education have been paraphrased from graduate candidates' Google Form responses, journal entries and Zoom discussions:

- In our university STEM course, we used "found" objects from our islands, instead of buying kits. This actually made it easier to replicate the STEM activities in our classrooms.
- We created and delivered design-thinking project kits for students to complete at home, which strengthened school to home communication.
- It was hard for students to see a cultural process that is holistic and not as a new series of checkboxes for them to demonstrate mastery. The paradigm shift was extreme. We are a long way from being able to live this system because we have spent so many years training kids to ignore reality and focus on a meaningless school grade game.
- Using cultural values and aspects to connect student's academic content to place improves student achievement. Placed-based learning is fun!
- The sustainability focus in the PACMED coursework has been extremely relevant and useful not only as a UH student, but also as a source of enrichment in the professional development school classes I teach.

## Recommendations

Although a strong and established partnership between UH-Mānoa and American Samoa enabled and facilitated the shift to online learning, we reflected on lessons learned through the moʻolelo of the educators who experienced it. As school-university partnerships across the United States struggled to respond responsibly to the COVID-19 pandemic education crisis, this

exploration of culturally diverse participant perspectives highlights the importance of diverse education partnerships. The expertise and experience of UH-Mānoa faculty in online teaching proved a beneficial support for teachers in American Samoa, but during a time of increased isolation and strain, the study highlighted a desire for increased attention to the social-emotional needs of educators and students and for creativity in delivering online learning through strategic use of technology.

**Intentional Listening and Increased Attention to Social Emotional Learning**

Listening was perhaps the most significant behavior that allowed partnership faculty to more holistically meet the needs of graduate candidates. The shutdown caused by the COVID-19 pandemic encouraged us to pause and remember the wisdom in *listening* as a critical part of teaching and learning. A Hawaiian ʻōlelo noʻeau (poetical saying) states, "Nānā ka maka, hoʻolohe ka pepeiao, paʻa ka waha." The saying advises us to look with the eyes, listen with the ears, and close the mouth (Pukui, 1983).

Participants involved in the study honed the ability to listen intently and carefully, whether through the collection of university graduate teacher candidates' Google Form surveys, Zoom discussions, artifact assignment analysis or the elicitation of student feedback in the partnership's K-12 classrooms. Data revealed a need for more social emotional learning due to the increased stress on educators and students dealing with the pandemic at work and at home. The focus on intentional listening also encouraged faculty within the partnership to streamline and coordinate facets of the program such as assignments and assessments across institutions to ease the burden on educators in American Samoa. Thus, we recommend intentional listening via dedicated time and space for dialogue, and suggest that the collection of input and feedback via surveys be an ongoing, essential component of partnership work beyond the COVID-19 crisis.

**Strategic Use of Technology and ePortfolios**

Findings also brought to the surface possibilities and needs inherent in cross-institutional collaboration through the strategic use of technology. Though the implementation of place-based and culturally responsive teaching entirely online was initially daunting, UH faculty and graduate candidates noted how technology facilitated ongoing connection to others and to place. As graduate candidates reflected on their experiences teaching across space and from very separate locations, they shared how online projects enabled interpersonal connection and continued engagement in responsive learning experiences. UH faculty employed place-based approaches such as moʻolelo (traditional story-telling), field experiences, cultural art projects, and meetings with community kūpuna (elders). These practices required intentional improvisation to work in an online environment. Moreover, technology tools like Flipgrid supported oral storytelling and Webquests supplemented traditional field experiences such as invasive/indigenous hikes, wayfinding and ocean navigation, and sustainable organic farming.

Graduate candidates also shared that ePortfolios effectively facilitated culturally responsive, place-based documentation of academic standards in an online format. Electronic portfolio assessment enabled Pacific candidates to showcase meaningful and relevant place-based instruction. Academic standards provided the outline for the ePortfolio, and candidates researched and cited literature, inserted hyperlinks to culturally responsive and place-based examples from their teaching practice, and reflected on the effects in their unique teaching and learning contexts. Assignments from graduate courses — including ethnomathematics, STEM

curriculum integration, cultural arts, sustainability, place-based science, educational technology and research methods — were also used as portfolio examples to document candidate proficiency in meeting professional teaching standards.

Graduate candidates shared these portfolios with their colleagues during online seminars. The portfolios were conducive to the online format required during the COVID-19 pandemic. More importantly however, the cross-pollination of place-based instruction within these portfolio sharing seminars inspired isolated Pacific educators to try out-of-the-textbook teaching to engage learners. Data from the study indicated that flexibility and creativity in online learning, as evidenced by the ePortfolio, can benefit educational partnerships during times of crisis and beyond.

**Conclusion**

This study highlighted the ways that the COVID-19 crisis required PDS educators to engage in extreme improvisation, a practice that Zack (2000) noted as perhaps the most demanding along the continuum of composition. The onset of the COVID-19 pandemic and the subsequent isolation and shift to online learning required university teacher educators in Hawaiʻi and K-12 graduate candidates in American Samoa to swiftly and intentionally improvise across islands in service of students and schools. Beyond simply shifting classes online, educators drew on an existing professional development school partnership to innovate in real time by learning new technology, implementing pedagogical interventions, reflecting on practice, and making collaborative shifts to sustain responsive learning in classrooms. NAPDS Essential Four: "A PDS makes a shared commitment to reflective practice, responsive innovation, and generative knowledge" (NAPDS, 2021) guided this collaborative self-study. This self-study of an extreme situation offered a unique opportunity to explore this shift and to note areas of strength and opportunities for further growth.

These themes and findings are just the beginning of our moʻolelo of improvisation and collaboration during the COVID-19 pandemic. As the partnership between UH-Mānoa and American Samoa continues, our aim is to build on these findings to strengthen the support we provide for educators during the pandemic and into the future. In doing so, we hope to use what we have learned to bolster our collaborative efforts of providing meaningful, culturally responsive learning experiences for educators across the Pacific.

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**Appendix A**

**University Qualitative Research Methods Course Data Triangle Assignment**

*Data Triangle Assignment (30 pts)* Candidates will gain experience in how to gather and analyze THREE types of qualitative data. This assignment may be completed in pairs of teachers from the same school or independently. Qualitative data may be gathered through a variety of methods such as in-depth individual interviewing, focus groups, indigenous story-telling (Mo`olelo), surveys, assessment artifact analysis, autoethnographic journaling, and field observation (Creswell, 2007; Hatch, 2002; Minthorn & Shotton, 2018; Tuhiwai-Smith, 2012). There are three (triangulation) parts to this assignment. Each data collection method allows the teacher/researcher to gain participants' perspectives on the research question, "What are participants' perspectives on online teaching and learning during the COVID-19 pandemic?". All participants will remain anonymous and no direct quotes will be used to protect the anonymity of participants.

*1) Survey/Formative Assessment (10 points):* Each candidate will select 10 or more participants to survey/formatively assess via Google Forms on the relevant place-based topic of online teaching and learning in your unique Pacific context. The primary goal is for candidates to typologically analyze the survey responses to describe 3 - 5 emergent themes to deepen understanding of participants' perspectives on online teaching and learning.

> -4 points: Google Form survey response sheet
> -6 points: 3-5 Emergent themes with supporting evidence from the Google Form response

2) *Interview or Focus Group (10 points):* Each candidate will then conduct a semi-formal 30-60 minute interview with two participants OR a focus group of 4-6 or more participants to confirm, clarify and deepen understanding of themes that emerged during the survey. Candidates will paraphrase quotes from the interview or focus group transcripts as evidence to support 3-5 emergent themes.

> -2 points: Report dates, times, locations, and number of participants in the interview or focus group
> -8 points: 3-5 Emergent themes with supporting evidence from the interviews or focus groups

3) *Teacher/Researcher Journal or Field Observation (10 points):* Each candidate will freewrite a 1-2 page autoethnographic journal reflection on 1) their experience or observation with online teaching and learning. Candidates will then typologically code their journal/field observation for emergent themes. Paraphrased statements will be added as evidence to support 3-5 emergent themes.

> -4 points: Teacher/researcher Free Write Journal/Field Observation
> -6 points: 3-5 Emergent themes with supporting evidence from the teacher/researcher journal.

**Appendix B**

**Google Form: Graduate Teacher Candidates' Perspectives of the Online PACMED**

**Program**

# ONLINE PACMED SURVEY

Participants' Perspectives on the online PACMED Place-based, Culturally Responsive Master of Education Degree Program

\* Required

1. I learned STEM academic content from the online PACMED courses. \*

*Mark only one oval.*

◯ Strongly disagree

◯ Disagree

◯ Neutral

◯ Agree

◯ Strongly agree

2. The PACMED Cohort Model helped me form professional relationships with my online colleagues. \*

*Mark only one oval.*

◯ Strongly disagree

◯ Disagree

◯ Neutral

◯ Agree

◯ Strongly agree

1/3

ONLINE PACMED SURVEY

3.  The online monthly seminars provided advisors and support for me to complete my PRECIS.

    *Mark only one oval.*

    ◯ Strongly disagree

    ◯ Disagree

    ◯ Neutral

    ◯ Agree

    ◯ Strongly Agree

4.  I learned place-based teaching strategies from the online PACMED courses.

    *Mark only one oval.*

    ◯ Strongly disagree

    ◯ Disagree

    ◯ Neutral

    ◯ Agree

    ◯ Strongly agree

5.  I learned about my teaching context through online courses and/or virtual field trips.

    *Mark only one oval.*

    ◯ Strongly disagree

    ◯ Disagree

    ◯ Neutral

    ◯ Agree

    ◯ Strongly agree

ONLINE PACMED SURVEY

6.  My overall satisfaction with this PACMED Master of Education Degree Program. *

    *Mark only one oval.*

    |  | 1 | 2 | 3 | 4 | 5 |  |
    |---|---|---|---|---|---|---|
    | Highly Dissatisfied | ◯ | ◯ | ◯ | ◯ | ◯ | Highly Satisfied |

7.  A positive aspect of the PACMED Program:

    _____

8.  One way to improve the PACMED Program: *

    _____

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