Emergency Management/ Homeland Security Education Regional Academic Collaborative Region IX

After Action Review/Improvement Plan

September 28, 2017

The After-Action Report/Improvement Plan (AAR/IP) aligns the collaborative engagement objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance.

This report was prepared by: Gregory Vigneaux for the FEMA Higher Education Program.

Rev. 2017 508
HSEEP-DD06

TABLE OF CONTENTS

Table of Contents iv
Engagement Overview 1
Executive Summary 2
Engagement Presentations 3
Engagement Discussion 7
Moving Forward 12
Successes and areas for improvement 14
Appendix A: Engagement Participants 16
Appendix B: Engagement Brochure 17

ENGAGEMENT OVERVIEW

Exercise Name	Emergency Management/Homeland Security Higher Education Regional Academic Collaborative Region IX
Exercise Dates	Wednesday, August 23, 2017
Scope	The collaborative engagement was a one-day, four-hour long event for academics and practitioners from FEMA Region IX held at BMNT's headquarters in Palo Alto, California. The engagement consisted of presentations sharing examples of successful and forthcoming efforts to move academic and research outputs to emergency management practice followed by open discussion engaging all participants.
Engagement Theme	Practices of collaboration among faculty, researchers, students, and emergency management practitioners within Region IX.
Purpose	To build awareness, capture successful regional practices of collaboration with faculty, students, and research working with emergency management practitioners as well as identify untapped opportunities.
Objectives	1. To bring together emergency management and homeland security academics and practitioners to share efforts and discuss opportunities. 2. To capture the proceedings of the workshop in a shareable document to promote on-going collaboration.
Sponsor	FEMA Emergency Management Higher Education Program
Participating Organizations	24 participants attended the engagement representing the American Samoa, a variety of public and private academic institutions, federal agencies, and religious, governmental, and non-governmental organizations. A comprehensive list of participants is available in Appendix A.
Point of Contact	Wendy Walsh, Higher Education Program Manager Wendy.walsh@fema.dhs.gov, 301-447-1262

EXECUTIVE SUMMARY

On Wednesday, August 23rd a group of practitioners, academics, and intersections of the two from FEMA's Region IX converged in Palo Alto, California, to discuss collaboration between faculty, students, researchers, and emergency management organizations. The engagement provided opportunity for members of the regional emergency management community to form new relationships, share successful and emerging collaborative practices, and engage in discussion. Sponsored by FEMA's Emergency Management Higher Education Program, the Region IX meeting marked the beginning of an effort to hold conferences with the same purpose in the remaining regions.

The engagement commenced with a series of presentations sharing examples of successful and developing efforts to connect academic and research institutions to practice. Presenters representing the United States Geographic Survey, American Samoa Community College, The Center for Homeland Defense and Security's University and Agency Partnership Initiative, Coconino County, and a Stanford affiliated private sector company, BMNT, shared collaborative practices and strategies used within their organizations. Methodologies for collaboration between the academy and practice included program development, leveraging entrepreneurial methods to solve problems, structured internships, unique approaches to acting as a broker between the two groups, the use of media, and designing academic programs intended to decrease the diversity of the emergency management community.

Following the presentations, the group engaged in open discussion. The discourse was centered on processes of creating bridges between the academic and practical spheres and unencumbered by structure allowing for the emergence of connected areas of interest. From the discussion, several themes and reoccurring opportunities for further collaboration and exploration emerged along with potential corresponding guiding strategies. Key themes discussed were the increasing complexity of the practitioner's working environment and the ability of academic programs to keep pace, the creation of internships, actualizing community networks, the value of practical experience, academic program structure and pedagogy, inclusion and support of diversity, the integration of technology, and the characteristics of knowledge necessary for effective practitioners. Additional areas that surfaced in the dialogue highlighted the benefit of ongoing regional collaboration in the design and implementation of internships, forming and maintaining relationships, and academic program design. In each area where collaboration had the potential to be of value, it was discovered that at least one group member was already connected to the knowledge and experience needed to begin to actualize the collaboration needed.

ENGAGEMENT PRESENTATIONS

Following self-introductions by the in-person and virtual attendees, the engagement segued into a series of presentations that shared collaborative practices within the region. Of the presentations, five were delivered by on-site attendees while the remainder was delivered by a virtual participant through the webinar. Key areas addressed by the presenters included enhancing the diversity of the emergency management community, problem-solving, forming lasting relationships between academically focused institutions and emergency management organizations, and designing internships.

Kevin Schaller: ARKStorm

Kevin Schaller shared his experience with "moving scientific information to practice" pursuant of ARKStorm, a historically-based storm scenario with potential to cause widespread flooding and destruction in California's Central Valley. The development of the ArkStorm scenario was led by the United States Geological Survey (USGS) and is the second scenario in a series of scenarios that the agency is working on. Kevin described his process, explaining that he first determined the needs of practitioners before engaging with the scientific community. By first communicating with practitioners, Kevin noted he was able to help meet their needs through then sharing them with the scientific community. He explained we need to "ask people what they need, not tell them," seemingly in reference to research performed without consulting the practitioners that would benefit from it. While engaged with researchers, Kevin was focused on ensuring the information they produced would be accessible and therefore easily useable at the practitioner level. By working between the two groups, researchers and practitioners, he was instrumental in the creation of a comprehensive GIS map that met the needs of practitioners. However, the lack of a GIS specialist has caused the resulting map to lie temporarily dormant.

Anne Wein: HayWired

Anne Wein presented HayWired, the fourth scenario in a series being led by the USGS that includes ARKStorm presented in the above. In the HayWired scenario, a rupture occurs on the Hayward fault impacting the San Francisco Bay Area. The "Hay" in the HayWired project title is derived from the Hayward fault. As an earthquake has not occurred along the Hayward fault since 1868, the project is concerned with the effects of such an event within the present "digital age" context. Thus, the "Wired" in HayWired refers to the present wired and wirelessly interconnected world, reliance on the internet, and the layers of interdependencies between elements of critical infrastructure. Beyond the interconnectedness in the human environment, HayWired is also concerned with the interconnections within the earth that can produce aftershocks leading to further emotional and physical damage. Overall, the objectives of the project are to improve communication and use of earthquake science, help understand and inform decisions about reducing earthquake risk, and help build community capacity to respond and recover.

Peter Newell: H4X

Peter Newell presented "Hacking for X," a course offered at Stanford University and other universities centered on problem-solving. The course utilizes the LeanStartup methodology and problem-solving processes Peter developed while serving in the military to address problems facing the defense and intelligence community. As Peter stated, the problems facing the homeland security and emergency management community "are like DoD (Department of Defense) problems, it's just a different manifestation of them," suggesting the methodology would be applicable to emergency management and homeland security as well. Peter then explained how the methodology used in the course was developed and how it functions. Through an application process, problems are brought to the course and introduced to students who then converge on the issue and approach solving it as if they were developing a startup with attention to the "sociology of problems." Peter explained the methodology's intention toward identifying and correctly understanding the right problem noting that of 172 problems brought to the course, only 2 remained in the original form they were presented in. Gaining a correct understanding of problems is facilitated through the methodology by differentiating between problem symptoms and sources, the collection and analysis of data, and the creation of Minimum Viable Products.

Tafa Tua-Tupuola: Increasing Diversity

Tafa's presentation focused on increasing diversity within emergency management and shared multiple strategies including the establishment of an Emergency Management with an emphasis in Disability and Public Health program under the University Center for Excellence in Developmental Disabilities at the America Samoa Community College. The new program incorporated the Association for University Center on Disabilities Diversity Toolkit and Human Security Framework of the Pacific and connected Emergency Management Program and Leadership Opportunities for Youth project (Project EMPLOY). Within the context of curriculum development, the Human Security framework and Diversity Toolkit (http://www.implementdiversity.tools/) is intended to "Enhance diversity, inclusion, and cultural and linguistic competence; cultivate partnerships and leadership, respond to increasingly diverse communities; and develop strategies for continuing efforts to better serve diverse populations." Project EMPLOY is housed by the American Samoa Community college and provides a career pathway from education into gainful employment within emergency management. The educational program lasts two years and then offers students the opportunity to gain practical experience through serving with the FEMA Corp. In addition to preparing individuals for

employment, the program also has the potential to create emergency management professionals already familiar with the unique needs of American Samoa.

Todd Whitney: Internships Collaboration

Todd Whitney's presentation focused on the internship program in Arizona's Coconino County Emergency Management Department. Reporting that every single intern has been placed somewhere within the county in an emergency management position, Todd described the nature of the intern's roles. Within the program, interns assist with Continuity of Operations (COOP) maintenance and the review of Emergency Operations Plan (EOP) annexes such as Mass Care and Access and Functional Needs. As an aside, Todd mentioned interns belonging to the Millennial generation come with valuable skills such as social media and web design that can be of benefit to the departments they are working within. During the presentation, Todd introduced his program's forthcoming Internship Task Books that are structured to prepare interns for an entry level job. Eliciting interest from participants, Todd described the task books as being similar to those used by the National Wildfire Coordinating Group's qualification system. The task books provide structure to the internship by requiring students to perform certain tasks while part of the program. It was also mentioned that the Arizona Emergency Services Association (ASEA) serves as a primary point of contact for government and private organizations searching for emergency management interns and can be instrumental in their placement.

Rich Suttie: City of San Diego CHDS UAPI Collaboration

Centered on building lasting relationships, Rich shared insights gained while working in San Diego as part of The Naval Postgraduate School's Center for Homeland Defense and Security's (CHDS) University and Agency Partnership Initiative (UAPI) funded by FEMA. Foundational to Rich's presentation was the idea that long-term engagements are essential to building FEMA core capabilities of Risk and Disaster Resilience Assessment, Planning, Community Resilience, and Long-Term Vulnerability Reduction[1]. Rich shared that many agency-academic partnerships grow dormant over time, and during his assessment of why, he found several causal factors.

Agency-academic partnerships tend to be created over single topical issues, often related to a recent event. As such, Rich reported the energy for sustaining such a partnership wanes when a

[1] Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept (https://www.fema.gov/community-resilience-indicators)

new event occurs and the emphasis shifts to another area of academic expertise. Further, many agency-academic partnerships are limited and therefore vulnerable to the passion and interests of a single person – either an agency representative with a short-fused operational agenda or an academic with a focused research area. Partnerships founded on a single point of contact are usually accompanied by a lack of broader institutional commitment which undermines the forming of a long-term relationship.

From his experience, Rich was also able to share elements of successful collaborative practices such as institutionalizing relationships from the top-down. By gaining 'top-down' organizational commitment from each institution, the relationships tend to be more long lasting. Top-down commitment can be achieved through several mechanisms – crafting the partnership as a supporting pillar of the published institutional strategic plan, forging a formal memorandum of agreement signed by agency and department heads, and formally committing budgetary resources from both partners to invest in outcomes that help achieve community resiliency and long-term vulnerability reduction.

Rich suggested that one way to put in place top-down supporting mechanisms was through FEMA's efforts to support the CHDS UAPI partnership initiative that he co-directs[2]. The UAPI provides the means for collaboration between agencies and universities, can socialize collaborative benefits among stakeholders, and can act to facilitate the ongoing regional partnership, much like a broker. Further, UAPI through the CHDS digital library, can host partnership products easily accessible over time regardless of individual turn-over within the institutions The UAPI effort for homeland security academic programs is completed by the FEMA Higher Education Program's efforts to support emergency management academic programs.

[2] UAPI The Center for Homeland Defense and Security's University and Agency Partnership Initiative (www.uapi.us)

ENGAGEMENT DISCUSSION

Following the presentations, the group moved collectively into open discussion. During the discourse, the presentations were referenced providing presenters with opportunity to further share their strategies, and offer additional insights to the group. In addition to extracting further value from the presentations, the discourse provided space for participants to ask questions, voice concerns, and highlight issues. From the perspective of the rapporteur, the unstructured dialogue encouraged the forming of relationships by affording participants the opportunity to connect a specific need with an individual or individuals who possessed corresponding knowledge or resources that could fulfill it. Within the dialogue, several recurrent and interrelated areas emerged where leveraging the knowledge found within the group through collaboration had considerable potential to be of benefit to participants and are presented below in Figure 1.

Beyond the interconnected themes in the above, several other areas were addressed during the discussion. Among them were the necessity to select problems that can be solved and working to understand them before devoting time to problem-solving processes, difficulties to maintain relationships posed by changing personnel within academic institutions and emergency management programs, and the importance of cross-sectoral meetings. Steven Jensen from California State University, Long Beach, provided valuable context for the engagement through sharing a brief history of emergency management practice in California. His account mentioned the presence of community-based programs in the 1990s that were made possible by strong leadership and driven out of necessity created by limited funds. Following 9/11, Steven offered that the availability of funding led to the entrance of consultants working to create plans that displaced existing community ones. However, the consultants moved on and in the present much of the money associated with the post-9/11 period has receded. Steven suggested present conditions may be calling for us to “think in more disruptive ways and act at scale throughout the region.” During the creation of this report, Steven’s previous statement was perceived as a call to members of the regional emergency management community to act in innovative ways that drive change throughout the region.

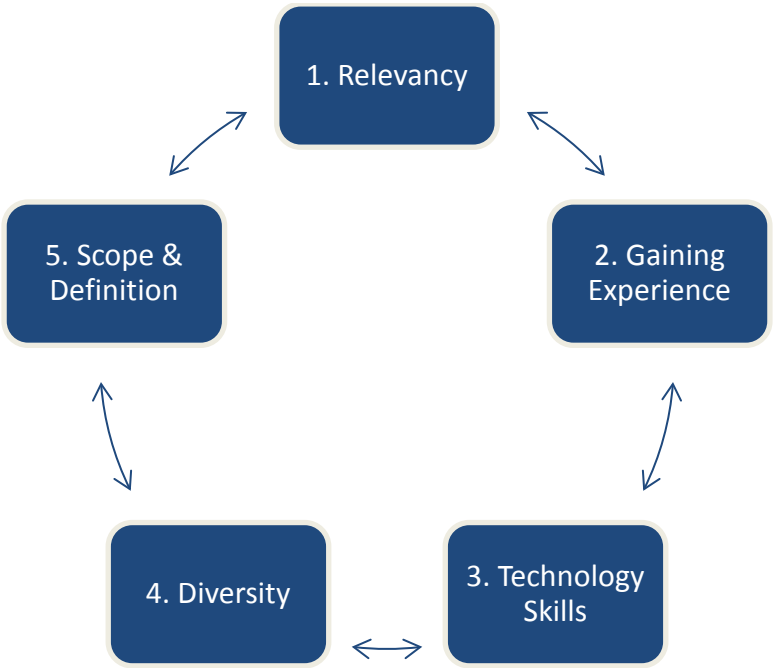


Figure 1. Central Themes from Discussion

1. Relevancy of Academic Programs to Practice

The discussion opened by bringing into question if emergency management programs can meet the needs of the present and the emerging future. Kenneth Goldberg from National University brought into question the ability of emergency management educational programs to keep pace with the demands of an ever-evolving and increasingly complex environment by asking, "Is what we are doing sustainable?" He expanded on the question of sustainability further by asking how academic programs can position and structure themselves to address the complex problems of the present and future and attract students to the programs. Kenneth also questioned if emergency management academic institutions are "looking at our issues as complex or otherwise? Are we concentrated on one topic and one issue or many issues?" During the analysis, insights related to the questions posed by Kenneth at the beginning of the discussion were apparent throughout the discourse.

Kenneth Golberg's questions pertaining to the ability of emergency management programs to meet the needs of the practitioner's working environment were followed by a similar concern expressed by Jim Uhey, Northern California and Nevada District Assemblies of God. Jim's line of inquiry began by asking where students can gain practical experience. Practical experience was framed as "…the experience that gives meaning to the degree…that prepare[s] people to manage what they are seeing during a disaster…I understand the need for academics, but where do you get the experience?" Jim's question was echoed later by Nathan Rainy, Emergency Manager for the City of Palo Alto, who offered that, "The abilities come after graduation when people come into their job." Within the same period of dialogue, it was also brought into question as to whether emergency management belongs in an academic model due to the sometimes-prohibitive associated costs and focus on knowledge rather than skill building. Steven

Jensen suggested the perception of a misalignment between emergency management educational programs and the demands of practice may be caused by the absence of a curriculum that corresponds positively to the practitioner's environment: "We need a relevant curriculum. We need to develop a curriculum that prepares students for the needs of the environment as it is now and in the future." Steven offered academic programs are still working toward the development of a relevant curriculum that produces graduates with the knowledge necessary to function effectively as practitioners. Echoing Kenneth Goldberg's questions in the opening and addressing present curricula, Steven asked: "Are we really on target to meet the needs of the future?" Expanding upon the relevancy of curriculum, Nancy Suski, Georgetown University and Lawrence Livermore National Labs, questioned if the pedagogy of programs was appropriate for the content and students and added that differences between emergency management and homeland security require different pedagogies.

Following the same thread of individual's moving from academic programs to practice, important changes associated with the rise of academic programs were cited. Nancy Suski explained through using fire departments as an example how promotion within emergency management has historically followed a "trade model." Within fire departments, individuals start at the firefighter level and progress through the firehouse to become fire chiefs and then move into emergency management positions. However, the advent of academic programs has added a new method of promotion that deviates from the historical "trade model" norm. Adding greater depth, Nathan Rainy mentioned how emergency management graduates searching for emergency management jobs will still compete with individuals with practical experience. Nathan explained that a hiring locality or organization may be filling their one and only emergency management position. With "only one shot to get this right" as Nathan phrased it, hiring officials may feel added pressure and elect to hire someone with practical experience.

2. Gaining Experience in Academic Programs

The conversation surrounding the value of practical experience and the relevancy of academic programs continued to unfold. Bridging both subjects, Kenneth Christopher, National University, asked how students are "expected to know what to do without knowing how to do it? From a program development perspective, how do you structure a program to get students ready to go out?" Following Kenneth's question, strategies for designing structures within educational programs that afford students the opportunity to gain practical experience were provided by participants. Approaches discussed included internships, applied theses, and experiential learning. From the vantage point of the rapporteur, providing student's the opportunity to gain practical experience was framed as a strategy with the potential to address issues of misalignment between educational programs and emergency management practice. To determine the effectiveness of including internships or other similar structures, Nancy Suski suggested a study of educational programs with and without internships to determine the effectiveness of each. Nancy offered the results of the study could then be utilized to direct the design of new programs and the redesign of current ones.

Discussion pertaining to internships referred to Todd Whitney's, Coconino County Arizona, earlier presentation with interest expressed toward the task books. Regarding the establishment of internships, Erika Schumacher from the University of Las Vegas, mentioned leveraging the relationships of deans and provosts can be instrumental. In addition to internship programs, other methods of allowing students to gain practical experience were shared. Nancy Suski described Georgetown's experiential learning approach where students went into the "real world" to observe how emergency management is practiced. During the experiential learning experience, students were described as having various realizations described as "light bulb moments" through the hands-on experience that connected education with practice. Similarly, Shirley Feldmann-Jensen, California State University, Long Beach, shared the applied thesis track in the University's emergency management graduate program with the group. The applied thesis allows students to gain practical experience through affording them the opportunity to develop a research project focused on their community that moves research to practice.

3. Technology Skills

Beyond providing opportunities for students to gain practical experience, technological literacy and integration were suggested as components capable of increasing the relevancy of education to practice. Citing a personal experience working in law enforcement and security post-9/11, Kenneth Christopher conveyed the value of practitioners having the ability to "talk intelligibly with technology salesman…to ensure correct investments are made." He added that "today I am teaching students and reaching back on this experience, but I keep telling them they need to develop technical skills…this information is overwhelming to organizations." In addition to technological literacy, Kenneth also discussed the importance of practitioners possessing the capability to integrating new technology into the organizations once it is acquired.

4. Diversity in the Emergency Management Community

The topic of diversity introduced earlier in the engagement by Tafa Tua-Tupuola's presentation was revisited during the discussion. Discourse pertaining to diversity was similar in sentiment to the earlier dialogue regarding the ability of emergency management educational programs to produce graduates capable of being effective practitioners. In the context of diversity, the discussion focused on the need for an emergency management community as diverse as the population the community serves. A present lack of requisite diversity between the environment and the emergency management community was presented as a factor impeding the ability of an emergency management community to recognize and address unique needs within the population it serves. To address the issue, the creation of enabling and supporting structures within educational programs were identified as pathways capable of increasing the accessibility and inclusivity of education. With enabling mechanisms in place, individuals with disabilities and those from underserved and minority populations would have additional avenues to move to practice.

In addition to increasing the diversity of the emergency management community to better meet the needs of the population, the creation of enabling and supportive structures within educational programs appeared to have another benefit. Inferred from the conversation was a connection between concerns and issues associated with rural and tribal areas, such as those voiced by Erika

Schumacher and Joel Palmer, Federal Emergency Management Agency, and the presence of enabling structures within educational programs. By improving the accessibility of emergency management education, opportunities for individuals from rural and tribal areas to enter the field may also increase and in turn create avenues that bolster local capacities. Beyond improving the accessibility of programs, the diversity of emergency management curriculum was also brought into question. Tafa Tua-Tupuola asked, "How diverse are the case studies we use within our programs?" followed by stating that "Region 9 stretches across the pacific basin…You cannot get as diverse as Region 9." Curriculum diversity emerged as another component relevant to improving the degree of correspondence among curriculum, pedagogy, and the emergency management environment.

Project EMPLOY presented earlier in the engagement was an example of an enabling structure with the capacity to increase the diversity of the emergency management community. As the dialogue relating to diversity progressed, Shirley Feldmann-Jensen and Steven Jensen shared their experience with working with a student who had a disability. Described as a difficult process taking over a year to resolve, Steven explained that although colleges "will say they have programs for [assisting students with disabilities], they are reluctant to widely use them." A lack of enabling structures was cited by Shirley as an impediment to "integrating students from under-served populations."

5. Scope and Definition of Emergency Management

As the discussion progressed the topic of the sometimes-variable meaning of "emergency management" arose. Kevin Schaller suggested there is a tendency for administrators to approach emergency management from a "lights and sirens perspective." Kevin associated the operational, incident response and management perspective of emergency management with an administrator propensity toward valuing and seeking practical experience over education. Nancy Suski elaborated on Kevin's point by expressing how budget constraints (e.g., a fire chief doubling as emergency manager) can further the perception of emergency management as a purely operational task. Following the same thread, Nathan Rainy mentioned the role of an emergency manager can differ among localities. During the above exchange, Shirley Feldmann-Jensen referred to the "Next Generation Core Competencies for Emergency Management Professionals" and expressed their relevancy to clarifying the qualities that are of value within the emergency management profession. The inconstant meaning of emergency management and its relation to the value placed on education and practical experience was perceived during analysis as another element adding complexity to the task of aligning programs with practice. As the meaning of emergency management practice changes with location, the relevancy of programs will also vary resulting in the creation an unstable target for program development.

MOVING FORWARD

Educational programs were central to the dialogue. In particular, their capacity to prepare students to function as practitioners in an increasingly complex environment and produce graduates as diverse as they communities they will serve. The focus on educational programs highlighted their importance while subsequently illuminating potential pathways toward enhancing programs. As graduates of emergency management educational programs begin or continue working within the emergency management professional practice, steps to improve educational programs will have a direct impact on improving practice. Discussion surrounding academic programs served as the basis for the development of the pathways expressed below.

Diversity and Inclusivity

- Increase accessibility of program
- Provide enabling and supportive structures
- Diversity case studies and material

Bridge Academic and Practical Experience (Improved Educational Programs and Improved Practice)

- Design opportunities for students to gain practical experience as part of program
- Connect the program with the community
- Determine value of internships etc. to learning experience

Increase Relevancy of Programs to Practice (Improved Educational Programs and Improved Practice)

- Correspond curriculum with present & anticipating environmental complexity
- Include technology studies
- Connect pedagogy with subject matter
- Study curriculum and pedagogy efficacy

An hour of presentations and a little more than three hours of dialogue provided participants with a forum to share, interact, and begin connecting the required variety of perspective to reveal opportunities that were previously unknown. Also inferred from the discussion were several opportunities for continued collaboration, some of which were linked to the discussion's central themes displayed in Figure 1 and pathways expressed by Figure 2. In addition to the opportunities for continued collaboration, corresponding methods and sources of knowledge with the potential to guide further collaborative efforts were also offered by participants. Both the opportunities for continued collaboration and connecting strategies are displayed in Table 1.

Opportunities	Knowledge
Regularly changing membership within emergency management organizations and academic institutions serves as an impediment to lasting relationships	Work from the top-down to create lasting commitment with administrative support, Socialize the goals of the relationship within each sphere, Establish brokers to work between both spheres
Uncertainty exists regarding the ability of academic programs to meet the needs of the present and emerging future	Structure academic programs to provide students opportunities to gain practical experience, Study the effectiveness of programs with and without opportunity of practical experience, Include the study of technological literacy and integration into curriculums, Integrate forthcoming "Next Generation Core Competencies" into programs
The process of designing emergency management internships lacks supporting resources	Community resource sharing of Coconino County Internship Program material, experiential learning at Georgetown, and applied theses track at California State University, Long beach
Due to the diversity of the population, a greater focus is needed on creating emergency managers of requisite diversity	Design programs intended to move minority populations through education and into practice, design systems for supporting the academic success of members of underserved and minority populations, Use of Association for University Center on Disabilities Diversity Toolkit, and sharing of project EMPLOY
The process of moving scientific information to emergency management practice is fraught with difficulty and lacks a substantive evidence base	Community resource sharing of UAPI/San Diego and ARKStorm experiences, Form lasting relationships through the socialization of goals, Work backward from the needs of practitioners, Intending research toward distillation from the beginning

Table 1. Opportunities and Strategies

SUCCESSES AND AREAS FOR IMPROVEMENT

Planning, Logistics, and Technology

Strengths: The engagement was well-attended by a diverse array of participants from American Samoa, California, Nevada, and Arizona, representing faith-based, government, and private organizations as well as academic and research institutions. Of the 30 invitees, 18 attended in person, 6 participated virtually, 2 sent regrets, and 6 did not attend. Out of the 24 participants, one experienced travel difficulties but was able to attend virtually. Invitations for the engagement were successfully distributed by email on time and exclusively through email to individuals. The invitations included the engagement brochure and a corresponding Eventbrite link for zero-cost registration that allowed the engagement facilitator to track the number of attendees.

Area for Improvement 1: Setting up the webinar technology for the virtual participants took an additional twenty minutes.

Action: We must conduct a technology check with all meeting spaces at least one-two weeks prior to the event.

Area for Improvement 2: One of the presentations featured a video that was being accessed from the same file location simultaneously by the in-person and virtual attendees causing video play to be interrupted by buffering. While we had sent the video to the meeting site prior, it had not been loaded to the on-site computer.

Action: Media files uploaded into the webinar software for virtual participants should also be copied to the computer linked to the projector to allow for independent play prior to the event and tested at the scheduled technology check.

Area for Improvement 3: The meeting area at BMNT headquarters was planned to be available an hour ahead of the 1'oclok start time. However, the group was not able to gain access until immediately before the engagement was scheduled to begin due to a meeting held in the space prior. As a result, setting up the webinar and arranging the room began later than planned causing the engagement to start late.

Action: Crystalize expectations with the hosting party to ensure ample time will be provided for set up.

Symposium Content

Strengths: The engagement was characterized by a running dialogue beginning with the presentations. Each presentation shared topical information and were in reason with the five to seven-minute time limit stated in the brochure. Moving into the open discussion, the facilitator posed the question of "what's on your mind?" leading to a lively discussion until the scheduled end of the engagement. On two occasions, the facilitator provided soft direction to the discourse to ensure it stayed on topic. The open discussion was productive, allowing for the sharing and addressing of concerns and needs.

Area for Improvement 4: A transcriber had been allocated to the engagement, but made contact through the webinar only briefly and the note taker ran into scheduling problems due to a breakdown in communication on the specific time zone for the event.

Action: The time zone for each event should be made clear in all scheduling.

Area for Improvement 5: There was no representation from State Level practitioners. They may have had a valuable perspective and should be included in future events.

Action: A concerted effort should be made to ensure that State emergency management offices are aware of events and invited to participate. We will ensure the report of each regional event is shared with State emergency management office.

Area for Improvement 6: During the review process one participant drew attention to the engagement objective, noting that it is not easily measurable.

Action: Create a more readily measurable objective for future scenarios.

APPENDIX A: ENGAGEMENT PARTICIPANTS

Last Name	First Name	Email	Affiliation
Attended in Person			
Christopher	Kenneth	kchristopher@nu.edu	National University
Feldmann-Jensen	Shirley	Shirley.jensen@csulb.edu	California State University Long Beach (CSULB)
Goldberg	Kenneth	kgoldber@nu.edu	National University
Jensen	Steven	stevenjohnjensen@gmail.com	CSULB
Landon	Chase	clandon@mail.brandman.edu	BMNT
Newell	Pete	pnewell@bmntpartners.com	BMNT
Palmer	Joel	joel.palmer@fema.dhs.gov	FEMA- Region IX
Rainey	Nathaniel	nathaniel.rainey@cityofpaloalto.org	City of Palo Alto
Schaller	Kevin	deputykevin@gmail.com	Truckee Community College
Schumacher	Erika	erika.schumacher@unlv.edu	University of Las Vegas
Suski	Nancy	nancy.suski@georgetown.edu	Georgetown University/LLNL
Suttie	Richard	rdsuttie@nps.edu	NPS/UAPI
Tua-Tupuola	Tafaimamao	t.tupuola@amsamoa.edu	America Samoa
Uhey	Jim	jimuhey@tppusa.org	National Assemblies of God
Vigneaux	Gregory	gvigneaux@outlook.com	CSULB
Walsh	Wendy	Wendy.walsh@fema.dhs.gov	FEMA Higher Education Program
Wein	Anne	awein@usgs.gov	USGS
Wolfe	Chuck	cwolf@bmntpartners.com	BMNT
Attended Virtually			
Boe	Veronica	vboe@csum.edu	CA State Maritime
Delmotte	Marcie	marcie.delmotte@nau.edu	Northern Arizona University
Green	Danielle	danielle.green@associates.fema.dhs.gov	FEMA Higher Education Program
Holmes	Tim	Timothy.P.Holmes@uscg.mil	USGS
Johnson	Barbara	Barbara.Johnson3@fema.dhs.gov	FEMA Higher Education Program
Whitney	Todd	twhitney@coconino.az.gov	Coconino County Arizona
Sent Regrets			
Chakos	Arrietta	ArriettaC@abag.ca.gov	CA Association of Bay Area Governments
Cummings	Michael	michael.cummings@fema.dhs.gov	FEMA- Region IX
Did Not Attend			
Aszed	Shamoun	aszed2003@yahoo.com	unknown
Etelagi	Janelle	j.etelagi@asdhs.as.gov	America Samoa
Frost	Eric	eric.frost@mail.sdsu.edu	San Diego State University
Gopalan	Murali	murligopal@yahoo.com	unknown
Henderman	David	dhenderman@mail.sdsu.edu	San Diego State University
Springer	Christine	christine.springer@unlv.edu	University of Las Vegas

APPENDIX B: ENGAGEMENT BROCHURE

Emergency Management/Homeland Security Higher Education Regional Academic Collaborative Region IX

August 23, 2017
1:00 p.m. - 5:00 p.m.
410 Sherman Avenue, Palo Alto, CA 94306
Virtual Participant Information will be provided prior to the event

Purpose: *To build awareness, capture successful regional practices of collaboration with faculty, students and researchers working with emergency management practitioners as well as to identify untapped opportunities.*

Desired outcome: *To support regional community connection and collaboration as well as create a dynamic regional specific guidebook to identify academic and broader community resources, capabilities and expertise to support on-going regional academic and practitioner partnership.*

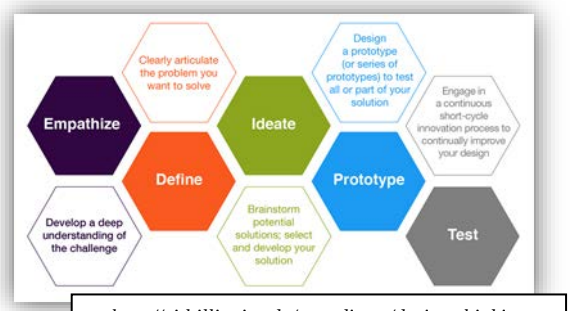
Agenda:

1:00–1:30- Welcome & Introductions

1:30–2:30- Successful regional practices to be briefed in 5-7 mins w
questions:

- ARk Storm- NV- Kevin Schaller
- HayWired- USGS- Annie Wein
- H4X- BMNT/Stanford- Peter Newell
- Increasing Diversity- American Samoa- Tafaimamao Tua-Tu
- San Diego Collaboration- UAPI- Rich Suttie
- Internships Collaboration- AZ- Todd Whitney

**image from-http://www.bethkanter.org*



http://citl.illinois.edu/paradigms/design-thinking

2:30–3:30- A discussion of stakeholders in the region. Who cares about academic and practitioner collaboration? Are there challenges that these group face? What is possible in this collaboration?

3:30–4:15- Small group dialogues to develop idea pathways to practice

4:15–5:00- Small group sharing with the whole group, next steps, wrap up & gratitude