

20th Anniversary

Higher Education Symposium

Honoring Our History and Future June 4–7, 2018

PROCEEDINGS

FEMA Higher Education Program National Emergency Training Center 16825 South Seton Avenue Emmitsburg, MD 21727 (301) 447-1452 <u>EMI Higher Education Program</u> (https://training.fema.gov/hiedu/)





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MESSAGE FROM PROGRAM MANAGER

June 4–7, 2018, the FEMA Higher Education Program hosted its twentieth annual emergency management and homeland security symposium! It was a milestone to celebrate the outstanding accomplishments of the academic community! Our theme, "Honoring our Past & Future," provided us with an opportunity to reflect on the foundation that has been laid for the community to grow and thrive, as well as to look forward toward our responsibility to continue to sustain progress. A total of 254 participants registered and attended with about a dozen more attendees from various FEMA offices who joined in workshops, sessions, and events.

The symposium featured one full day of workshop, three half-days of plenary sessions and 48 breakout sessions over three afternoons. We engaged in various networking opportunities, from the share fair and poster competition to an evening in the library sharing our community's recent publications. Many of the special interest groups convened meetings and we had wonderful representation from the international emergency management scholar and practice community. The twentieth anniversary marks our first symposium proceedings document. Every presenter was offered the opportunity to provide a write-up of the content and outcome of their session to share and memorialize in the proceedings. I am grateful we received a total of 17 submissions to the inaugural proceedings, representing all three session track areas: program policy and administration, research methodology and integration, and the scholarship of teaching and learning.

Thank you to each of you for your time, commitment, and energy to grow the emergency management profession to help people before, during, and after disasters. Together, we share a vision of a prepared and resilient Nation!

With Kindest Regards,

Wendry Walsh

A special thanks to Dr. Goulda Downer, Mike McCabe, Danielle Green, and Dr. Gerry White for their efforts in editing and formatting this inaugural proceedings.

2+2 ARTICULATION AGREEMENTS: AN OPEN DISCUSSION

Patricia McIntosh, Ph.D., CEM of College of the Mainland (COM) Michael O. Adams, Ph.D. of Texas Southern University (TSU) Antoinette Christophe, Ph.D. of Texas Southern University (TSU)

This session sought to:

- Evaluate the concerns and priorities of stakeholders in 2 yr. and 4 yr. emergency management degrees pertaining to articulation agreements.
- Share strategies for negotiating 2+2 agreements that honor the priorities and needs of students, junior colleges, 4 year institutions, and future employers.
- Connect with potential partner institutions for future articulation partnerships.

The TSU program offers a Bachelor of Science in Emergency Management and Homeland Security. TSU is a historically black university in Houston, TX. The first classes were offered during fall 2013, with first graduates in spring of 2017. This program is housed in School of Public Affairs. The emphasis is on creating graduates with extensive theoretical and applied knowledge in Emergency Management and Disaster Research. Courses are designed for online delivery. This program is proud to announce that it now has a 4+1, wherein students can complete a master's degree with the addition of a single year of coursework. TSU's EM instructors include three fulltime faculty members and one practitioner that works for the City of Houston.

College of the Mainland is a 2-year community college in Texas City, halfway between Galveston and Houston. The COM Program offers an Associate of Applied Sciences in Emergency Management. The first classes were offered during fall of 2016. This program is housed with Public Service Careers (Police, Fire, EMS) and has an emphasis on applied EM. Courses are offered using a condensed hybrid delivery, wherein each class meets live in person once per week with an equal amount of content and contact online during an 8-week period. All instructors are practicing emergency management professionals with a minimum of a master's degree. COM anticipates its first AAS graduates in the fall of 2018. The COM program is exploring ways to expand online offerings while maintaining the benefits of face to face delivery.

2+2 Agreements are articulation or transfer agreements that define what and how classes transfer between institutions. This protects the interests of students, who can save time and money; the junior college, who ensures their students have a path forward; and the universities, who benefit from feeder programs with some negotiated quality control of the curriculum.

Junior College concerns related to 2+2 agreements include ensuring that the programs: allow students to get credit for all hours completed by students, do not require duplicate content, make efficient progress towards meaningful achievement, and adhere to accreditation standards for associate's degree. University concerns related to 2+2 agreements include ensuring they are only

awarding credit for reasonable facsimile courses, that students complete of all program content, that students fulfill the residency requirements of the college, that junior colleges maintain the rigor of course content and the standards for faculty credentials required of higher education, that students make efficient progress towards meaningful achievement, and that there is adherence to all accreditation standards for bachelor's degree.

TSU and COM worked together through a series of meetings and work products to facilitate a clear presentation of needs and resources. A detailed proposal included a crosswalk of how classes at both institutions mirrored one another for seamless transfer. A detailed proposal included course descriptions, curriculum guidance, a folio of faculty credentials, and a flexible approach toward academic requirements. Several revisions were made while the document traveled through a series of reviews, approvals, and signatures.

The final 2+2 documents included clear details on the purpose, mapped equivalent courses, addressed issues related to residency, GPA requirements, early transfer, reverse articulation, the terms of the agreement, terms of agreement, and modification process.

After the main presentation, the participating schools were able to present information about their own programs, best practices, and opportunities for partnerships. The participants in the session concluded that a consortium of schools affiliated through the FEMA Higher Education Symposium could serve as a catalyst for expanding 2+2 development, curriculum, and potentially expanding and exploring FEMA grant funding.

INCORPORATING FLOODPLAIN MANAGEMENT INTO HIGHER EDUCATION CURRICULA AND PRACTICAL INTERDISCIPLINARY "STUDIO" COURSEWORK

Jerry Murphy, J.D., AICP, CFM University Of Florida Resilient Communities Initiative (UFRCI)

At the onset, I would like to express my appreciation to the Association of State Floodplain Managers (ASFPM) Administration and their Certification Board of Regents (CBOR) for suggesting I attend FEMA's Emergency Management Higher Education Symposium (EMHES) at the National Training and Education Center (NTEC) in Emmitsburg, MD. Special thanks to Robert Perry for facilitating communications with FEMA, shepherding me through the application process, and introducing me to the campus and the many NTEC staff I had the pleasure of meeting during my stay.

Given the nature and theme of the 20th Annual EMHES, this presentation, on behalf of ASFPM, focused on *Incorporating Floodplain Management into Higher Education*. The history of emergency management higher education demonstrates knowledge preparing for and responding to the aftermath of *flooding and flood-related disasters*. There appears, however, to be room to improve the weaving of *floodplain management* into a broader, future-looking approach to predisaster mitigation and policy in emergency management education. This is one extremely important opportunity to incorporate the floodplain management body of knowledge into higher education curricula for students who will be challenged with the response to sea-level rise (SLR) and other extreme climatic weather events in the future.

Our conversation began with an overview of the discipline of floodplain management. This was followed by a short review of the history of flooding and floodplain management. Moving into the 20th Century, we discussed the focus of U.S. engineering activities in the floodplain, transitioning from wetlands drainage to structural flood control, in response to increased riverine and coastal flooding due to storms. Then, beginning in the 1950s, the insurance industry increasingly excluded flooding from the perils covered by private home and property owners' standard insurance policies. This, in turn, resulted in the rapid advent of *Disaster Assistance* being the only form of relief for victims of damage from extreme flooding events.

By 1968, the use of disaster assistance funds as the only economic relief for flooding disasters which average over 80 percent of the economic costs of disasters over time—among other causes, motivated Congress to establish the National Flood Insurance Program (NFIP) to provide a publicly underwritten form of "private" insurance as an alternative to disaster assistance. After a slow start, the program "took off" and showed good initial success in achieving its goals.

The presentation then covered the advent of the ASFPM in the context of the nation's bicentennial (1976), and the development of the Certified Floodplain Manager (CFM) program

under ASFPM in 1999. Additional discussion concerned the ASFPM Certification Board of Regents (CBOR), who develop, maintain, and proctor the CFM exam, and the support for the NFIP from Federal partners who include, FEMA, the United States Department of Agriculture (USDA)'s National Resources Conservation Service (NRCS), The Army Corps of Engineers, and the National Oceanic and Atmospheric Administration (NOAA)'s Coastal Services Center.

I discussed my educational and professional background, prior educational and professional experience in emergency management before becoming involved with regulatory floodplain management: Hurricane Charley—two (2) weeks after becoming the first Community Development for the Town of Fort Myers Beach. Charley was quickly followed in 2014 by Hurricanes Francis, Ivan, and Jeanne, and then Katrina in 2015. This segued to a brief discussion of the Substantial Damage/Substantial Improvement (SD/SI) provisions of the NFIP. This section of the presentation concluded with a fast forward through my professional experience post-Katrina to the establishment of the University of Florida Resilient Communities Initiative (UFRCI).

The mission of University of Florida's Resilient Communities Initiative (UFRCI) is to assist Florida governments at all levels with best practices for anticipating and responding to the challenges posed by the natural and built environments. UFRCI furthers this mission through a multi-disciplinary approach toward basic and applied research, utilization of the vast array of resources available to the University of Florida regarding community resilience, a network of public/private partnerships, and student involvement. The session then provided a brief overview of the efforts of UFRCI in Florida and in Indonesia—through academic partnerships with two Indonesian Universities—to raise the academic consciousness of the importance of managing development in the floodplain to protect the resource and the people who rely on it and are vulnerable to the effects that SLR and extreme climatic weather events have on the floodplain and its environs.

The session closed with a description of the efforts of UFRCI to introduce the discipline of Floodplain Management to higher education at University of Florida. These efforts include a Practicum in Sustainability and the Built Environment, discussing *sustainability and resiliency*—their differences and similarities—the NIFP, and how important local land development regulations are to the implementation of robust floodplain management in the U.S.

Though the session was lightly attended the afternoon of the closing day of the EMHES, I am hopeful that this brief session was a reasonable introduction to our efforts at UF, the importance of the body of knowledge of floodplain management to students in higher education, the collaborative opportunity for emergency management curriculum to include floodplain management, and the potential such inclusion suggests for synergies with other professions— particularly, architecture, building construction management, design, historic preservation, and urban/regional planning.

INTERNSHIPS FOR NONTRADITIONAL STUDENTS: BLENDED HOMELAND SECURITY AND EMERGENCY MANAGEMENT PROGRAMS

Kenneth Christopher, D.P.A., C.P.P. National University

This presentation proposed a model for an elective, credit-bearing internship for nontraditional students enrolled in a blended undergraduate homeland security and emergency management program. The model offers a curricular enhancement enabling students with existing full-time careers to apply their learning and network professionally in an internship environment.

Nontraditional students can be defined as those age 24 and over with family and work responsibilities and/or life circumstances that can interfere with successful completion of educational objectives. This group includes active-duty military and veterans. Challenges of deploying an internship for nontraditional college students include balancing full-time employment, study and an internship commitment; Internship placement in a similar or different occupational environment; required vs. elective credit; and course scheduling variations, e.g., four-week courses/one course per month modality.

A blended homeland security and emergency management program combines elements of both disciplines in a broad-spectrum program including: domestic security management, information security, crisis management, border and transportation security, disaster management, interviewing and interrogation, legal issues of security, and terrorism. There may be variants of program delivery modalities: traditional in-class, online, hybrid and asynchronous.

Internships provide stable academic benefits for students who may be more likely to find employment upon graduation and help students shift career directions by changing the focus of classes or majors. Employment opportunities may evolve directly from internship sites upon graduation. Traditional internship models include both paid and unpaid; credit and non-credit; a catalog course framework; a time commitment; assessments; supervision and evaluation; and faculty facilitation.

Alternatives to traditional internships include virtual or e-internships, virtual coaching, and a senior writing project.

A Senior Writing Project model is proposed for nontraditional students enrolled in a blended undergraduate homeland security and emergency management program. It is designed for students, currently employed in a homeland security and emergency management field. There is no need to find and complete an internship with another agency or organization. Internship activities comprise a student's current, full-time, paid service to a public or private sector organization engaged in homeland security and emergency management activities, e.g. disaster response planning, crisis management, border and transportation security, etc. The course is offered and facilitated in an on online modality. In the Senior Writing Project, the student uses an existing project from the work environment or creates a project as part of his/her work and evaluation by a supervisor. The student's academic advisor, or the program administrator approves a student's request to use this model vs. a traditional internship. The model identifies an effective field placement evaluation rubric for nontraditional student internships. The model includes recruiting intern partner agencies and providing interdisciplinary opportunities for students. Program administrators must be cognizant of special needs of distance students engaging in an internship and consider organizational constraints such as course scheduling, cluster sites and remote campus centers, flexibility of internship structure, student access to career and support services, accreditation, and quality control.

QUESTIONS

- 1. What data points would support internships in blended homeland security and emergency management programs?
- 2. What are the challenges of deploying internships for nontraditional college students?
- 3. What subject areas in emergency management and homeland security are relevant to student internships?
- 4. What program staffing, or other resources are needed to support an internship option for students?
- 5. Selection procedures for interested students? What factors may influence successful internships for nontraditional students?

OUTCOMES

- 1. Articulation of a methodology for developing internship options for nontraditional students in a blended undergraduate homeland security and emergency management program.
- 2. Development of a process for engaging public and private sector employers to collaborate with academic program administrators in providing internship options for nontraditional students.

APPRENTICESHIP: A LINK IN THE EDUCATION AND TRAINING CHAIN

Kathy Francis, Mid-Atlantic Center for Emergency Management, Frederick Community College Susan Blankenship, University of Maryland, University College Donald "Doc" Lumpkins, Maryland Emergency Management Agency Jeffrey Smith, Maryland Department of Labor, Licensing & Regulation

There are many positions in the discipline of emergency management and related areas. Career pathways include experience, training, and higher education. The mix of these three critical factors varies in every position and in the individual who occupies the position.

The U.S. Department of Labor defines an apprenticeship as a combination of on-the-job training and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. While traditionally most apprentice programs focus on positions in the trades, there is an increasing number of programs that focus on non-traditional positions that require specialist knowledge and training.

The Mid-Atlantic Center for Emergency Management at Frederick Community College (FCC) sponsors a Registered Apprenticeship Program for Emergency Management Specialist, which was approved by the Maryland Department of Labor, Licensing & Regulation in January 2018. The program complements both the Maryland State Department of Education Career and Technology Homeland Security and Emergency Preparedness program and the FCC multiple track Associate of Applied Science Emergency Management program. The apprenticeship opportunity offers students from both programs the opportunity to gain experience in the field as well as training and academic credit.

The student benefits from the program from gaining experience to qualify for emergency positions, from having the opportunity to earn a living wage while learning, and from being introduced to the emergency management higher education opportunities. The potential earning capacity of the individual increases with increasing experience, training, and higher education.

Employers gain individuals who have partially subsidized positions, have the opportunity to train employees in the specific skill areas, and develop an employee who is more likely to remain with the organization.

The emergency management community gains the development of professionals with experience, training, and higher education. The process also increases the recognition of emergency management personnel as professionals.

The Maryland Registered Emergency Management Specialist Apprenticeship program is a structured, three-year program with annual competencies related to emergency management skills, academic knowledge, and specific organization skills. The program uses multiple academic institutions within Maryland that offer emergency management related degrees. Individuals successfully completing the program receive a certificate indicating the completion

of the Emergency Management Specialist Registered Apprenticeship Program, 27 credit hours in emergency management, and permanent employment in addition to the three years of experience.

The apprenticeship opportunity offers another link in the chain of developing an emergency management professional. It fits in the development of individuals with new interest in the field, graduating high school students who have completed the high school related programs, and individuals with higher education degrees who need experience to be employable.

Additional information is available through Kathy Francis (kfrancis@frederick.edu).

EMERGENCY MANAGEMENT & HOMELAND SECURITY PROGRAMS: COVERAGE OF CORE COMPETENCIES

Thomas W. Haase Sam Houston State University

The emergence of homeland security (HS) as a policy priority has given rise to discussions about the relationship between the professional fields of emergency management (EM) and homeland security (HS). In terms of graduate education, some discussions have focused on the relationship between EM and HS programs in institutions of higher education. One line of thinking is that institutional arrangements, and the need for collaboration between the Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA), create overlaps that necessitate the inclusion of EM topics into HS programs (Waugh and Sadiq 2011). An alternative perspective suggests that EM topics cannot be successfully integrated into HS programs because of differences in organizational cultures, tensions over policy priorities, and disagreements about management strategies (command and control vs. collaboration and cooperation). Although the HS and EM literatures stress the commonalities and differences between the fields of EM and HS, little attention has been paid to understanding whether, and the extent to which, the courses offered by HS and EM graduate programs address core EM topics. Thus, this study will address three questions. To what extent are the topics in FEMA's (2015) recommended emergency management program accreditation standards covered by: 1) emergency management graduate programs; 2) homeland security graduate programs; and 3) hybrid (HS/EM) graduate programs?

To address these questions, we analyzed the substantive content of the EM courses offered by EM and HS graduate programs in the United States. First, we collected data from the HS and EM graduate programs listed on FEMA's Emergency Management Institute website (FEMA 2016a; 2016b). At that time, the website listed 88 graduate programs, 44 in HS and 44 in EM. We then visited each program's website and collected its graduation requirements and course catalogue. We then created an *Excel* spreadsheet, where we stored the number, name, and description of each identified course. We then reviewed and coded each course description using a coding schema extracted from FEMA's (2015) recommended emergency management program accreditation standards. After coding was complete, we reviewed the data to confirm accuracy and to address data issues. Analysis began with the creation of frequency tables on the nature of the programs under analysis (age, size, location, number of credit hours, etc.). We then generated frequency tables on the substantive content covered in the courses under analysis.

The findings indicate that HS and EM graduate programs cover many of the same topics and skill areas, including hazard and hazard mapping, analytical thinking and problem solving, and various forms of communication. The findings also indicate, however, that HS and EM programs have differentiated areas of emphasis. For example, HS programs tend to stress issues related to politics and law. In contrast, EM programs tend to stress the functional tasks that must be undertaken across jurisdictional levels and sectors of society (public, private, and non-profit). The findings also reveal that there are topics that do not receive much attention in either HS or EM programs, namely comparative and international disaster management, the social and

cultural aspects of disaster management, and stakeholder and stakeholder analysis. These findings add to contemporary understandings of HS and EM graduate education. They not only suggest that HS and EM graduate programs share common topics and skills areas, but also that EM and HS graduate curricula could be further strengthened. Future research will explore the coverage of EM competencies in HS and EM graduate and undergraduate programs.

EMERGENCY PREPAREDNESS - MEASURING ORGANIZATIONAL RESILIENCE - THEORIES & TOOLS

Bernard A. Jones, Ph.D., CBCP St. John's University

This session's objective was to answer the following question: "How resilient is your organization?" When exploring ways to build better emergency preparedness, it is important to work toward enhanced organizational resilience. The session provided valuable information on how organizations can begin to measure their own organizational resilience score/posture. Organizational resilience strengths and weaknesses are identified allowing to make a business case for additional investment in resilience and ultimately emergency preparedness.

During the session, participants explored the underlying factors or indicators which contribute to organizational resilience. Participants were exposed to the rich research history on the subject or organizational resilience, which is global in scope. Participants were introduced to a survey instrument which has been developed and updated to capture organizational resilience data. Participants learned about an opportunity to take part in a large research study on organizational resilience. Participants learned how they could uncover organizational resilience data for their organization(s).

Participants took part in an informal and fun exercise during the presentation/workshop. Participants left the session with:

- 1. a new understanding of the indicators that contribute to organizational resilience,
- 2. access to a survey instrument to facilitate the capturing of organizational resilience data
- 3. an opportunity to either be a part of a large organizational research study or an opportunity to explore their own organization's resilience posture/score

The session was a success as participants were fully engaged and worked within small teams, each addressing helping to define the newly discovered organizational resilience indicators.

I sincerely hope to present again at the FEMA Higher Education, on this subject, in the future.

REIMAGINING PLACE: TOWARD AND UNDERSTANDING OF PLACE ATTACHMENT IN THE CONTEXT OF DISASTERS

Alexis Thiel, Brokopp Binder Research & Consulting Alex Greer, Ph.D., Oklahoma State University Sherri Brokopp Binder, Ph.D., Brokopp Binder Research & Consulting Ali Nejat, Ph.D., Texas Tech University Mehdi Jamali, M.S., Texas Tech University

Place attachment plays a central role in disaster recovery, influencing return and relocation decisions, community cohesion, and community recovery efforts. However, place attachment remains an understudied construct in disaster contexts, and few studies have explored the impact of disasters - and the toll they often inflict on the built environment - on place attachment. Further, disaster research currently lacks established measures of place attachment, as existing place attachment scales have their conceptual roots in tourism studies and their applicability in other contexts is unknown. Without a clear understanding of the role of place attachment in disaster contexts, disaster researchers are left to use a range of scales and proxies that fail to adequately capture this construct.

This presentation addressed these issues by examining place attachment in Moore, Oklahoma. Moore was impacted by and EF5 tornado in 2013, which destroyed more than 2400 homes and was the third major tornado to impact the town in 20 years. Approximately 5,000 homes located in the tornado damage path were asked to complete a mailed, self-administered questionnaire related to the impact of the tornado on their perceptions of home and community approximately three years after the event. The survey included several standard measures of place attachment. A total of 772 completed surveys were returned, representing a 17% response rate.

Factor analysis was used to examine the place attachment items included in the survey. An exploratory factor analysis revealed four distinct place-based factors: *place identity, place dependence, detachment*, and *neighborhood quality*, which were confirmed using confirmatory factor analysis. Regression analyses were then used to examine factors that predicted place attachment. Findings suggested that place attachment is predicted by the degree of damage experienced in the community, tenure, bridging social capital, and demographic factors, likely leading to differential decision-making processes in the wake of disaster. Future studies should explore additional factors that predict the four place attachment factors identified here and should apply these measures in new settings.

SIMILARITIES IN RESPONSES: TRADITIONAL DISASTERS AND PUBLIC HEALTH EMERGENCIES

Samantha Penta, Ph.D. University at Albany, State University of New York

Practitioners in emergency management and emergency public health have worked increasingly closely in crisis response over the past few years. However, these fields have unique and separate developmental histories. In research, publications from these fields typically occupy different literatures (Hannigan 2012; Robinson 2016), with much of the work on disaster response and emergency management located in the disaster literature, and research on epidemics emerging in the development, international relations, and public health literatures. This divide has potential implications for applying theories and practices used in one type of event to the other. This study examines the international crisis medical relief efforts of multiple organizations responding to at least one of two events: the April 25, 2015 Nepal earthquake and the 2014-2016 Ebola Epidemic. Through the use of interviews and document analysis for both cases, and observation data for the Nepal earthquake, this study examines areas of similarities in responding to traditional disasters and public health emergencies.

Many of the characteristics of the crisis environment were shared, including difficulties in the natural and built environments, the prolonged nature of the event and consequences, and the presence of an ongoing risk to response and relief workers. There was uncertainty around many aspects of both events, such as their scope, the number of affected people, and the location of the affected populations. Uncertainty also emerged throughout the relief efforts as needs evolved and the individual and organizational actors changed over time. Organizations responding to each of the two cases engaged in similar processes of developing situational awareness, though the specific issues individual participants focused on varied by their professional and experiential backgrounds and their organizational role(s). These differences were consistent across responses to both events. Participants and organizations tended to define the problem they were addressing as public health issues, and shifted their focus to addressing issues of broader wellbeing as time went on. This shift was reflected in the kinds of health issues on which they focused and the kinds of activities they took on.

Overall, the research demonstrates similarities in the demands public health emergencies (specifically epidemics) and traditional disasters present and in the processes used to organize relief efforts to them. These similarities indicate shared relevance and opportunities for lessons learned in research and practice across these event categories. That multiple organizations responding to each of these events consistently came to define their relief efforts in public health terms suggests that increased cooperation and collaboration between emergency management and emergency public health is likely, especially as response transitions to recovery. The presence of differences among professional lines highlights the strong benefit to interdisciplinary teams as well as active communication and training to help relief workers become aware of their own disciplinary limits and differences in operating in other fields. Scholars such as Hall (2005) have highlighted the role that interprofessional training can play in improving teamwork

primarily between physicians and nurses. The present study suggests that there would be benefit from expanding these principles from medical and nursing education to education and training programs in emergency management and emergency public health. Discussion with attendees at the FEMA Higher Education workshop indicated that others in research and practice in this area had similarly encountered the issues identified in this study and likewise saw the potential benefit to the integration of some aspects of emergency management and emergency public health education.

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SUCCESSFULLY WORKING WITH YOUR UNIVERSITY & COLLEGE ADMINISTRATION

David McEntire, Ph.D. Utah Valley University

INTRODUCTION

The purpose of my session was to discuss some ideas on how to successfully work with your administration in order to get what you want.

1.2 First, why is this topic important?

Let's face it, these are difficult times in higher education. Resources are very tight and universities are being questioned (if not under an outright attack). You need financial, political and other types of support to advance your emergency management program. Without winning the hearts and minds of administrators, your ability to reach your strategic goals will be compromised or even impossible. So, this session will explore ways to improve your chances that you will win the hearts and minds of the administration (chairs, deans, vice presidents and provosts).

1.3 Questions for Panellists

During the session, the panelists discussed the following questions:

- 1. Do you interact with chairs, deans, vice presidents and provosts on a regular basis? If so, under what conditions do you interact with them?
- 2. What do you think the role of administrative leaders is at your institution? Why do you think they have that perspective? Is it important to understand why administrators think the way they do? If so, why?
- 3. Have you had a negative interaction with chairs, deans, vice presidents or provosts? If so, what was the nature of those interactions? Why it was problematic from your perspective?
- 4. Have you proposed something to the administration, which was rejected as an idea? What was it and why do you think it was rejected?
- 5. Have you proposed something to the administration, which was accepted as an idea? What was it and why do you think it was accepted?
- 6. What communication, activities, actions or behavior will increase the likelihood of successful interactions with the administration?
- 7. What additional advice do you have for others about interacting with the administration or getting what you want?

1.4 Working Successfully with the Administration

During the discussion, the following points were brought up:

- 1. Do not treat the administration as an enemy. This is the fastest way to lose their support. They want you to succeed, but be aware that they have many demands/priorities and limited resources.
- 2. Get to know them on a personal and professional level. Make sure they know who you are. Talk to them frequently so they will listen when you need to ask for their assistance or when you need to have more difficult conversations.
- 3. Avoid any negative press associated with you and your unit. Make sure your students, faculty and staff are happy. Avoid pushback when they ask you to do things (they also need to fulfill obligations to their bosses). Make sure you meet their requests in a timely manner, and make sure your work is solid, complete, correct, etc. This is imperative if they do not have confidence in you on the day-to-day issues, why would they have confidence in a bigger initiative?
- 4. Share your successes, achievements and progress with them continually. Make sure they know the great things you are doing so trust can be established and even expected for the future.
- 5. Know when to ask for help. Never ask for something you can solve yourself or something you know they will reject.
 - If you are proposing a major initiative or funding, keep the following in mind:
 - Think out your proposal completely before you pitch it to your supervisor/administrator. Be sure to consider pros, cons, feasibility, implementation issues, etc.
 - Write up a short executive document that is clear, concise and backed up with facts about need and benefit. Remember the comment from Francis Bacon: "Reading maketh a full man (sic); conference a ready man (sic); and writing an exact man (sic)." In other words, a written proposal is more likely to be taken serious because it has been well-thought out. A document becomes a de facto contract on deliverables, which administrators prefer to have. If needed, have others make your argument for you (e.g., accrediting bodies, Department of Labor Projections, university mission, external advisory boards, etc.).
 - Consider putting together a very short PowerPoint presentation that hits the keys points. Spelling, visuals and presentation can make all the difference. Above all, keep it short and simple. Remember, you are dealing with individuals who have a lot on their plate. In addition, it is best to leave time for discussion so any concerns can be resolved.
 - Schedule a meeting well in advance. Try to avoid last minute surprises as administrators have very complicated schedules (e.g., taking a grant proposal to them 1 hour before it is due).
 - During the meeting, do not become defensive if difficult questions are asked.

- Administrators want to make good decisions so they will be both curious and cautious. If a critical comment is made, it is best to reply "We thought of that drawback or problem too, but we are confident we can overcome it because we will . . ."
- Be sure to share how you will contribute to the cause (e.g., cost sharing).
- Follow up with a thank you email after the meeting even if it is a negative decision. Remember, losing a battle does not mean you will automatically lose the war in the long-run.
- If you are given what you are seeking, be sure follow up on commitments. Keep the administrator informed, and highlight successes along the way. This is important if you are to seek further assistance in the future.

1.5 What to Teach in Emergency Management Session Notes

On Monday, June 4, I taught a 4-hour workshop entitled "What to Teach in Emergency Management."

- 1. The session was initially created after noticing the participation of many new scholars and instructors in the Higher Education Community.
- 2. The session was well-attended again, and it typically draws between 35 and 65 participants each year.
- 3. During the session, several conceptual terms were discussed including hazards, vulnerability, and disasters and the phases of emergency management (mitigation, preparedness, response and recovery). The Principles of Emergency Management were discussed along with the mission and vision of this profession.
- 4. A short time later, material covered included the history of emergency management and the major schools of thought (e.g., hazards school, vulnerability school, resilience, resistance, sustainable development, Whole Community, etc.).
- 5. The workshop also identified the literature about many topics including: policy and politics, gender and race, preparedness, convergence, environment, social media, incident command, emergency operations centers, media, debris, damage assessment, mass fatality management, etc.
- 6. The workshop identified several important case studies for emergency management. It also discussed various disaster paradigms.
- 7. The workshop provided a lengthy Power Point slide deck with many references from books and journal articles.
- 8. It is hoped that this session helps new faculty transition into the important, dynamic and complex discipline of emergency management.

USING COMPETENCY-BASED LOGIC IN THE EVOLUTION OF AN EMERGENCY MANAGEMENT CURRICULUM

Joseph A. Barbera, MD George Washington University

This presentation, at the 20th Annual Emergency Management Higher Education Symposium, focused on the use of professional emergency management competencies to evaluate a long-established crisis and emergency management graduate curriculum. The initiative used a disciplined competency set, designed for use in the professional practice of emergency management in healthcare systems, to evaluate the curriculum as a whole, the individual courses, and the perspectives of faculty teaching the courses. The intent was to identify gaps and overlaps in the crisis and emergency management (C&EM) education, recognize major conceptual or terminology inconsistencies, and demonstrate the interface with homeland security.

The George Washington University (GWU) Department of Engineering Management and Systems Engineering initiated a Crisis, Emergency and Risk Management (CERM) academic program in 1998, comprised of a doctoral degree, a Master of Science degree and two graduate certificates.¹ The degrees are based upon an Engineering Management foundation, with Systems Engineering also incorporated. The foundational courses (Engineering Management), core/required courses (Crisis and Emergency Management) and CERM focus area elective courses are listed on-line with descriptive titles.² In 2015, the presenter for this session became the lead professor for the GWU CERM focus area curriculum.

From 2004-2010, CERM faculty and researchers worked with colleagues at the U.S. Department of Veterans Affairs, Veterans Health Administration³ to develop a detailed competency framework and a set of competencies for emergency manager positions in large healthcare systems. A five-volume educational manuscript, based upon these competencies, was then developed for use in education and training.⁴

The competency set specifically for the emergency manager position covered both "program" competencies (the emergency management program, including committee management, and mitigation ad preparedness activities) and "emergency response and recovery" competencies, addressing the knowledge and skills needed during these challenging emergency management phases.

The GWU foundational (engineering management) courses and the CERM core (i.e., required) courses) were reviewed/analyzed against the primary competencies in the EM competency set. The supporting competencies were then also applied to the analysis to assess for gaps and overlaps in the foundational and core CERM curriculum. The same process was then conducted

¹ Department of Engineering Management and Systems engineering Degree programs (https://www.emse.seas.gwu.edu/degree-programs)

² Crisis, Emergency and risk Management (https://www.emse.seas.gwu.edu/crisis-emergency-risk-management)

³ U.S. Department of Veterans Affairs, Veterans Health Administration (https://www.va.gov/health/)

⁴ Emergency Management Principles and Practices for Healthcare Systems, 2nd edition (https://www2.gwu.edu/~icdrm/)

with the CERM elective courses. The findings were presented in detail during the presentation.

A number of interesting findings were produced by this process, including:

- One current foundational course was recognized as providing narrow, relatively advanced competencies (quantitative assessment of uncertainties) but a program and project management course provides a more robust foundation and will be substituted in the foundational requirement during near future curriculum revisions.
- A current CERM focus area course (Information Technology), while important, will be moved to an elective status while making Disaster Recovery and Organizational (business) Continuity a required course, since it encompasses a larger set of important competencies.
- The competency analysis contributed to the selection of adjunct course faculty to supplement the existing faculty cadre to assure EM practice as well as policy is covered.
- Additional valuable insights were also noted.

The curriculum and specific course analyses will continue, with further revisions expected. In conclusion, a properly constructed professional EM competency set (distinguished from academic competencies), developed within a disciplined competency definition and framework, promotes application of competencies to both the workplace and the academic context. If developed in a relational manner to address the EM professional position in the context of the organization in which EM is practiced, it can be effectively used in evaluating/revising a crisis and emergency management graduate curriculum.

CREATING & MAINTAINING COMMUNITY PARTNERSHIPS IN UNDERGRADUATE EM EDUCATION

Tom Lennon Massachusetts Maritime Academy

Overview

I was part of a 4-person presentation group that was comprised of 3 instructors and one student presenter. There were approximately 40 people in attendance including both students and faculty. Our presentation was well organized and received. We received excellent advanced it support, and our presentations were pre-loaded and easily accessible to use. The other support equipment (remote, lighting etc.) Was fully functional and made transitioning between speakers simple and straightforward. Professor Stacy Lynn Willet did an excellent job facilitating the presentation and coordinating the session.

Introduction

I provided a twenty-minute presentation supported by power point slides. I focused on the interplay between Mass Maritime's curriculum, our pedagogical theory, and coordination/interface between students and field practitioners.

I provided an overview of the various programs we have in place to "push" students out of the classroom and into the field beginning in their first year, and carrying through their final semester. I provided examples of individual programs; how they were created, why they were created. I discussed the various issues/challenges/successes/failures we have had with each program, and I discussed several new initiatives that we are currently working to develop. Several faculty asked questions during my presentation. I was able to answer several of these, however, because of time constraint issues; Stacey made the decision to hold-off questions until after each person had completed their presentations.

QUESTIONS

I fielded a wide variety of questions both during and after my presentation. Most of these were focused on the nature of the field level programs we are running. The questions mainly came from faculty who wanted to know about successes and challenges, and about the level of administrative support needed to manage the individual programs. I was also able to discuss some of these issues "after class" with attendees who wanted more details.

OUTCOMES

Overall, I thought our panel met the outcomes for the presentation topic. I was happy with the level of interaction between the people in attendance and the panel, and I think Stacey did a good job of keeping the timing and coordination in balance.

I think the idea of putting a student presenter and a graduate program presenter on the same panel with two undergraduate program presenters made great sense, and, at least in theory it was great idea. If I was grading our panel, I would give us a B to B+.

RECOMMENDATIONS

The presentations themselves could have been better coordinated. In theory having a graduate level instructor, two undergraduate instructors, and a student presenter made sense. The goal I believe was to provide attendees with a broader overview of what was happening at different levels, and to provide a student perspective.

I think the student perspective worked. Her presentation provided a "student's view" of her experiences; and, the impacts that her experiences had on learning and future opportunities etc....a home run.

I think we fell a bit flat because the other three presentations (mine included) were not well coordinated. The other two presenters provided overviews of single programs that their school had completed. For instance, the graduate speaker spoke for 25 minutes about a single program in New Orleans, and provided a day by day synopsis of everything they did, including identifying instructors, discussing their backgrounds etc. The other undergrad presenter provided a similar overview of a single program. My understanding of the topic and expectations was different than their understanding of the topic and expectations.

I am not trying to be critical of other panel members, or of Stacy. I think there was some confusion about expectations, and this led to a bit of confusion between presenters.

In the future, I think there needs to be some level of advance collaboration between panel members. I know Stacy was coordinating several panels and had other conference responsibilities. In the future, I think it would be helpful to designate one of the panel members as coordinator and require all presenters to participate in at least one pre-conference call.

Thank you for the opportunity to attend and to present. You are doing great things.

IMPORTANCE OF STUDENT INVOLVEMENT IN THE FIELD OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

Ashley Feldman University of Akron

Summary

An overall focus of the speaker, Ashley Feldman, led to the conclusion of importance of student volunteers in the means of Government held trainings and exercises. Feldman used her personal experience at the National Seminar and Tabletop Exercise for Institutions of Higher Education held in Salt Lake City, Utah back in the Fall of 2017; The exercise allowed for students to volunteer as student note takers/scribes for moderators whose notes would be used in much larger pieces of work later on, support staff to Department of Homeland Security Officials running the exercise, announcers, etc., Not only do student volunteers allow for a helpful hand to individuals running the exercises/training sessions of such, but it also allows as excellent learning and networking opportunities for that of the student volunteer to see how a Government held exercise runs from all angles. As the other speaking individuals within this session demonstrated what their University program has to offer in the means of student volunteerism, Feldman's background of her personal experience at such a training aided in linking that of her experience to her other speakers.

Questions

Questions that arose from the session included, but were not limited to, individuals wanting to know more in-depth detail of how students could be utilized in Government held trainings, as well as additional volunteer activities that related to that of Feldman's experience in volunteering, as well as the other presenters volunteer roles for their students. Additionally, attendees were interested in knowing if these volunteer activities helped spark any internship opportunities for students and what the hiring rate was upon completion of internship; although Feldman's volunteer experience did not lead to her internship opportunities, Feldman discussed what she looked for in an internship with the help of her Program Director, Dr. Willett.

Outcomes

Overall outcomes that concluded from this session gave individuals an idea of how students at accredited Universities could gain experience in Government trainings, as well as volunteer opportunities that relate to that of their major. By having students contribute in some form of volunteer opportunity related to that of their major in the means of Emergency Management, students can then gain more experience and network within the field to distinguish which direction they would like to tailor their interests towards such as the public sector, private sector, etc. In all, the session created a very informative conversation and the speakers were able to complement their presentations very well off of one another.

TEACHING ACROSS THE ACADEMIC/ PRACTITIONER DIVIDE

Laura Olson, Ph.D. Georgetown University

This panelist gave an overview of Georgetown University's Hybrid Executive Master's Program in Emergency and Disaster Management, which relies heavily on exposing students to real world practitioner experiences to create learning experiences that are far from ordinary. The model relies on a 10-week online classroom module, and then a one-week, in-person immersion experience for students, in which they get to personally experience, observe, and parse different practitioner and academic views of disaster management through a series of on-site visits.

If collaborative and participatory models are useful for interdisciplinary research and practice, they should also be seen as useful for the transfer of knowledge. This presentation reviewed the academic - practitioner divide in literature and how these understandings have been activated to create an interesting learning laboratory for students through field visits and academic – practitioner collaborations to bring cutting edge knowledge and practice to our students.

Literature on the academic / practitioner divide acknowledges that differing expectations from these communities create the divide, and questions what can be done to build the relationships and pathways necessary for successful knowledge transfer, or conditions in which "we" can engage in the Co-Production of Knowledge (Trainor & Subbio, 2014)?

Bartunek & Rynes (2014) suggest that knowledge transfer is hard because different stakeholders have differing logics, see time in different dimensions, have different communication styles, varying interests and incentive structures, and different notions of rigor and relevance.

Georgetown's Immersion Program attempts to bridge this divide by presenting students with a new learning model. The intent is to teach across this divide allowing students to go into practical settings and use them as a way to digest and absorb new knowledge.

- Louisiana Immersion: practitioner / academic collaboration to improve learning outcomes
 - Hurricane Katrina (federal, state, local govt., non-profit & community viewpoints)
 - Deepwater Horizon Gulf Oil Spill (local governments, fishermen)
 - Baton Rouge 2016 Floods (Joint Field Office and Incident Commanders)
 - Coastal land loss and climate change adaptation (Isle de Jean Charles resettlement project – Band of Biloxi Chitimacha Choctaw tribe being relocated)
 - Structural Mitigation Measures (USACE-led visits to flood diversion projects

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COLLABORATIVE EXAMS: WAIT, ISN'T THAT CHEATING?

Caroline Hackerott, Ph.D. Arkansas Tech University

Abstract

Collaborative exams offer a unique opportunity to model the collaboration required of Emergency Management professionals. This learning assessment technique provides additional benefits compared to the typical forms of quizzes and exams. While students develop collaborative skills, the exams and quizzes still provide substantial learning assessment. This session presented empirically supported advantages of collaborative exams and provided 4 different strategies to incorporate them into online or on-campus courses.

ADVANTAGES

The ability to work productively within a team and facilitate collaboration is a critical skill for professional emergency managers. The skills associated with collaboration are identified within the Next Generation Core Competencies and reflected in the Arkansas Tech University Department of Emergency Management Program Learning Objectives. At the same time, students are experiencing greater pressure to earn high scores in order to retain essential financial aid and to earn other honors and opportunities.

The pressure to perform well on exams often results in a higher likelihood of cheating. Environments that increase the likelihood of cheating include students who are extrinsically motivated and performance oriented, a course which offers only a few, high-stakes assessments, students who experience low levels of self-efficacy, and a culture in which peers approve of or accept cheating. Factors reducing the likelihood of cheating include students who are intrinsically motivated and display a growth mindset, instructor awareness of stereotype threat, flipped classroom learning activities, community-engaged learning (practical experiences), time to practice in the classroom and appropriate feedback, and frequent, low-stakes assessments. Dahlstrom (2012) found collaborative assessments supported greater levels of experimental learning, social interdependence, higher levels of student self-efficacy, an increase in intrinsic motivation, and substantial student engagement. These factors contributed to significantly higher test scores.

Weimer's (2013) work focused on the impact exam design had on student performance and attainment of learning outcomes. She found significant differences between the outcomes for standard exams compared to collaborative assessments. Standard exams were consistently content and instructor centered. Her study demonstrated collaborative exams and quizzes resulted in higher student scores, reduced levels of test anxiety, and increased student interaction resulting in improved communication and collaborative skills. She also provided key course components essential to successfully incorporating collaborative exams into a class. First, the collaborative exam must not be the only collaborative learning activity in the course. This is true online and face to face (F2F). Peers must be willing and empowered to hold each other

accountable for individual contribution in order to eliminate hitchhiking by non-contributors or hostage-taking by controlling students. Finally, feedback loops among students and those with the instructor must be intentional and continuous.

STRATEGIES

Informed by Weimer's work, collaborative exams are a single component in collaborative course design. Students must learn to collaborate and have the opportunity to develop these skills continually. An instructor must build in activities that establish peer-to-peer relationships. Teambased learning activities support this goal. When establishing team strategies, instructors should consider the learning environment and the learning level of their students. For example, online and F2F introductory courses should be placed on a team that remains intact throughout the semester. Advanced F2F classes can be placed in work groups that are modified regularly. These "teams" could be partners, full teams, small groups, or include "traveling experts" in which some students "visit" other teams based on subject matter experience. It is essential that students practice collaboration when stakes are low first. Examples of low-stake collaborative activities include brainstorming, state and defend, and practicing peer evaluation in which peer evaluation results impact a student's earned score.

Next, collaborative activities should be "ramped up" and require interdependence in order to complete the activity. Examples of these activities include collaborative reading assignments (each person reads a different article and must teach the others the content) and team presentations in which the team may select a spokesperson or the instructor can randomly identify the spokesperson. Students should be given the opportunity to reflect on the contributions of themselves, their team members, and potentially other teams.

Once students are familiar with the expectations of collaborative work, collaborative exams and quizzes may be introduced. This presentation included four specific strategies integrated into an undergraduate Principles of Response course. These strategies are outlined below.

1. The "Impossible Quiz" to Collaborative Success

Students are given an individual pop quiz that requires too much detail and information to be completed successfully in 10 - 15 minutes. Following the "buzzer", each team is allowed to work collaboratively to complete the quiz. (Depending on the topic and level of question difficulty, the quiz can become open-book if appropriate.) The instructor collects all quizzes at the end of the allotted time and students earn an individual score.

2. Pop Quiz to Cheat Sheet

Similar to the first strategy, students are given an individual pop quiz that is too demanding or complex to be completed successfully in 10-15 minutes. The quiz should have as many questions as the class has teams. A class with 5 teams of 4 students each would be given a quiz with 5 complex questions. At the end of the quiz time allotment, each team is given one of the questions to answer in full with as much detail as possible in 20 - 30 minutes. Following completion of the team's single question, students are re-organized so that each team has a member from each of the original teams. In the previous example, the instructor would facilitate the formation of 4

teams of 5 students. Each member of the new team, shares and explains the answer their team formulated for their assigned question. Once this exchange is complete, the original teams are reformed and team members share the responses they gathered with each other. The instructor then tells the team they can construct a "cheat sheet" from the quiz information to use on the upcoming exam. Each student must make an individual cheat sheet, sign it, and turn it into the instructor before leaving class for the day. The instructor returns the cheat sheet to the student on the day of the exam. (For shorter classes, these steps may be divided between two class meetings.) This strategy has been successful online with a few modifications. The instructor is much more involved in the creation of the new teams...and each step has a unique deadline. The final "cheat sheet" is actually the assessment assignment.

3. Team Rescue—Exam

Following the completion of an individual exam, members of the team are allowed to share their answers with each other. The exams are handed back to the students with only their final scores...they do not know which questions they missed and which they got correct. They work together and "correct" the exam for themselves (each team member has their own exam). The instructor randomly draws a name for each team and that is the exam collected. The final score on the "team" exam is the score recorded for every member of the team.

4. Peer Rescue—Exam

Following the completion of an individual exam, graded exams with student names redacted are passed to another student to review. Each student is instructed to defend the answer on the exam they were given as if it was their own. This defense is treated as a new assignment. In order to get a perfect score on the new assignment, the student who took the redacted exam must earn the maximum number of points possible on that student's exam. (If a student left some answers blank, the maximum number of points available would be lower than that of a student who completed the exam.) If an incorrect answer is successfully defended, the exam score will be improved accordingly. Typically, the assignment grade is determined in terms of engagement not the ability to get really wrong answers accepted.

MAPPING, MODELING AND COMMUNICATING DISASTER INFORMATION USING GIS WORKSHOP

Kevin Mickey, GISP, CTT+, Indiana University Purdue University Indianapolis

Executive Summary

Several years ago, the FEMA Higher Education Program made a decision to offer workshops on how GIS can be leveraged to support emergency management. These workshops informed participants about the capabilities of GIS technologies through hands-on case studies. They also provided guidance on how GIS tools and methods could be incorporated into teaching, research and service offerings from higher education institutions.

For the past few conferences, The Polis Center at IUPUI has offered two different half-day GIS related workshops. One of these presented ArcGIS fundamentals and the other introduced the capabilities of Hazus-MH. While these workshops were consistently successful, advances in technology and availability of additional resources dictated that the timing was appropriate to revision these offerings.

The 2018 Higher Education Conference delivery was a full day offering that incorporated several new elements:

- Use of a new GIS product, ArcGIS Pro, as the primary teaching tool
- Less emphasis on Hazus-MH with a focus on capabilities of the technology vs processes associated with its use
- Incorporation of new as well as under development web-based GIS products

Workshop Abstract

This new, one-day workshop explores how Geographic Information Systems software and methods can and are being used to support disaster management. The first portion introduces tools for visualizing and exploring the population, infrastructure, buildings and other aspects of a community as well as the hazards that impact them. Participants then learn how GIS can be used by practitioners and researchers to model the economic and social impacts of disasters along with ways to mitigate, prepare for and respond to those impacts. Next, the capabilities of GIS for communicating risk as well as solutions to homeowners, businesses, elected officials and other stakeholders are explored. Finally, guidance is offered on where to find GIS teaching resources, additional instruction on GIS software and methods and opportunities for getting involved in the GIS community through professional and academic organizations.

The workshop provides multiple hands-on activities using a variety of GIS related technologies to include ArcGIS Pro, Hazus-MH and various web resources. While participants are not expected to develop significant expertise with these technologies during the workshop, they will gain an appreciation for their capabilities and guidance for how to expand their knowledge of them based on their service, teaching and research goals.

Conclusions and Recommendations

This workshop filled to capacity well in advance of the conference date thus suggesting a high level of interest. During the workshop, participants seemed fully engaged in the learning experience and grateful for the opportunity to be exposed to the content.

It can be reasonably recommended that this workshop should be offered again in future conferences with updates as appropriate to reflect current technology and resource changes.

SHAPING THE FUTURE OF INEROPERABILITY AND RESILIENCE EDUCATION

Bill DelGrosso, CEM, CBCP, Rabdan Academy Anthony McAleavy, Rabdan Academy Prepared by: Jennifer Van Wart, Master's Student, American Public University

Rabdan Academy located in Abu Dhabi established five years ago to develop a higher education institution dedicated to increasing the domestic resilience and policing/security knowledge base. It is supported by police, military, private sector, and other government agencies who sponsor their personnel to attend the academy. RA programs educate students in resilience (emergency management, business continuity, risk management) and policing and security (police leadership, homeland security and, security operations) and helps them to transition back to their study program to positions within government, and some private sector entities.

Interoperability is always a key challenge for resilience programs including emergency management in all of the emergency management phases, a global limitation in combined operations is they do not always want to work together harmoniously. Their command structures are different, as well as how they speak to each other in technical language. What is interpreted to a person one way, may be understood differently to another. While people may speak the same technical language, how they work is often slightly different. The meanings of different elements are understood differently, thus being carried out differently. If you take the word "fine" for example, this word can mean "fine" as in okay, that is acceptable or "fine!" which may be a response for something that is not acceptable. Thus, bringing us to interoperability. Truly it is about the people and processes, as well as the technology that is being used. RA's educational and vocational programs were built to overcome interoperability challenges and bring people in an educational setting to increase their interoperability in real settings, RA's academic and vocational students will work together in the future given their sponsorship and despite their differences.

With United Arab Emirates being a small country, and Abu Dhabi even a smaller city, it still requires great security because of all the diversification. The UAE has leverages skills, education and labor from across the world to accomplish the goals their country are brought into the positions they must fill. Their education system s has been steadily growing over the last 40 years and continues to grow and evolve. They are diversifying their economy and even their energy systems including peaceful use of nuclear power. The power plant will once operating will provide 25% of the anticipated energy demand that grows every day. They innovate and explore including development of a space program that is to build and send a low Mars orbit in 2031. Abu Dhabi is a city that is built for sustainability. While this may be a small city, it has big visions.

This academy has great support from high level leadership, which supports the mission and the students to achieve more, which in turn drives a bigger vision. The top-level management commitment in place provides students with the mission of protecting the country. Within this mission there is a crossover mission, which includes business continuity being implemented and

worked into their EM program. They have recently added Intel Analysis and Homeland Security into their program as well. Some sponsored organizations have some students within the military. That support includes having stakeholder liaisons that reach back to the scope of the agencies that are supporting the academy. In terms of the fire this falls under civil defense and there is expansion with more managerial aspects and a broader BS program.

Homeland Security for the region is easily understood; regionally the Ministry of The Interior (MOI) has integrated the collection of security and resilience agencies that the US only accomplished recently with the creation of the Department of Homeland Security. The academy works with other universities to bring collaborative ideas with technical aspects. Students can travel to the United States and the reverse may also work with students traveling from the U.S. to Abu Dhabi as well. There is a strong international presence. There is also a strong innovation focus. The drive is a designed focus that schools must promote higher innovations with semester long innovation. They are trying to push community resilience with people supporting homeland security. They use practical applications and demonstrate how these applications have a creative influence.

Interoperability in the disaster management cycle and its related agencies or other combined response organizations require innovation. Innovation has become part of UAE National educational policy, and they have adopted the Stanford University design model as the standard for government and higher education. RA integrated this into its curriculum, and all students are trained in its use. Faculty apply it in classrooms as new ways to think about resolving issues in resilience and security concepts.

Interoperability was also the inspiration for a new capability being developed at Rabdan. The Interoperability Research Innovation Security (IRIS) Center. I. The IRIS is a simulation center concept focused on education and research not training. The IRIS's a simulation units will allow validation and testing for all types of incidents that can be applied to research as well as improve the processing being tested by the users of the center. The IRIS will bring being agencies together on domestic or international resilience missions and build unity of purpose among organizational, local, or national level teams. Using this IRIS simulation capability contributes to RA's research requirements and allows students to apply their education, and other users to create or validate their plans and procedures, this can give either audience confidence or belief in what they are doing. It takes it to a new level by empowering IRIS users to understand how they think about a given set of factors in the simulation. They can see the benefits of interoperability and unity of effort regardless of the type of incident.

Having connectivity of it all together brings interoperability to the forefront. It is not just about the technology but about the differences in processes as well as bringing a more thorough understanding of what is expected.

The IRIS Center will also attempt to overcome standard challenges at RA, as well as with the resilience and security program areas it is meant to service. Simulations will hopefully identify and bridge language challenges and de-conflict how agencies work together. IT will also provide an adaptable research space for faculty, which is currently very limited. The IRIS spaces are designed to be flexible and changeable for the simulations being developed. It is also meant to

link to the more field type training centers that exist in the UAE (fire college, disaster simulators).

THE BENEFITS AND CHALLENGES OF LIVING, TEACHING AND WORKING IN TODAY'S DIVERSE WORLD

Linda Martinez, Ph.D., California State University Norma Jones, Ph.D., LICSW, DHS/FEMA Henry O'Lawrence, MDP, Ph.D., California State University Dale Sanders, Ph.D., Alma College

Abstract

This presentation focused on the importance of being aware and respectful of the variety of cultures that exist in all communities. Additionally, instructors must be aware of the necessity of not only being respectful, but embracing the possibilities. Activities that simulate working in diverse cultures were included.

Presentation

This presentation focused on the importance being aware and respectful of the variety of cultures that exist in today's world. The presenters discussed ways to recognize the various cultures and define both their differences and their similarities. Teaching methods on how to embrace differences while identifying the similarities were shared. The idea of the stew pot, as opposed to the melting pot was explored. This presentation illustrated the benefits of retaining the differences while also highlighting and communicating the similarities. Educators and leaders in today's world must have strategies in their repertoire of methods and skills to incorporate diversity acknowledgement and diversity training into their daily activities.

The presenters are comprised of a group of individuals from varying backgrounds, who bring unique and very different perspectives to the presentation, with the end result being a very eclectic combination of ideas and strategies. The members of the group represent Professors from major universities and private colleges, as well as FEMA workers and a former vicepresident of an automotive engineering firm.

The presentation was a combination of speakers, interactive discussions and activities. The activities will include exercises that simulate working and teaching in diverse environments. There will also be activities that help the attendees identify their own biases and discussions about how to address one's own biases. The information will be approached from the perspective of the professors, lecturers, teachers and future academicians and FEMA workers, as well as supervisors and the possible perceptions of the students and community members.

One of the activities in the class involved showing the attendees how different even a small group of people can be. There were given a worksheet with a number of experiences listed, such as attending a Kwanza. They were directed to mingle in the room and find individuals who had experiences the various items listed. Another activity involved separating the attendees into

groups and giving each group bowls with specific beads in them that represented the various ethnicities. The presenter then read a list of people, such as your doctor, your co-workers, etc. and they were directed to put the bead that represented that ethnicity in a clear cup. After going through 16 questions, they looked at their glass and saw just how diverse or not diverse their world is. They were also given bead strings to put the beads on and create a bracelet to remind them of their diverse or not diverse world.

The speakers will addressed some of the issues faced in the past and the historical path of diversity in today's world, as well as proven strategies that address the difficulties and the successes of incorporating diversity into the individual's skills and teaching methods. Since all the speakers come from varying backgrounds, the perspectives were very different and informative. The audience was given the opportunity to add their perspectives and experiences. The audience remained excited and engaged throughout the interactive presentation.

This was a high energy, informative and fun presentation. This presentation was an extension of last year's well-received presentation. The presenters incorporated many of the suggestions and thoughts of the attendees from last year's presentation. In addition, a new member was added to bring another perspective to the topic.

OBJECTIVES/EXPECTED LEARNING OUTCOMES:

- 1. Recognize the diversity in all sectors of today's populations.
- 2. Employ strategies discussed in the workshop participant's classroom setting.
- 3. Formulate individual strategies to use in the classroom.
- 4. Identify own biases and formulate ways to control those biases when working in diverse settings.
- 5. Value the richness diversity brings to the classroom.