Utilization of Service Learning in Emergency Management Programs in the United States

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ABSTRACT

Emergency management academic programs continue to strive toward linking students' theoretical and practical knowledge before they enter the evolving and challenging field of emergency management. This article recommends including service-learning pedagogy in the development of emergency management programs and curriculum to help meet this educational challenge. Results from a national survey of emergency management and homeland security academic programs indicate that many programs are incorporating service-learning projects in some courses. This article concludes by discussing the benefits and challenges associated with using service learning in emergency management programs and by presenting advice for program directors and faculty considering implementing this pedagogy.

Emergency management academic programs have significantly increased in the last decade, from approximately 75 programs in 2001 to over 150 programs at colleges and universities throughout the United States in 2011 (Kapucu, 2011). Yet, there remains an educational challenge: linking students' theoretical and practical knowledge before they enter the evolving and challenging field of emergency management (McCreight, 2009). Emergency management certificate, degree programs, and curricula were created rapidly and resulted in discrepancies in the quality and rigor of the programs. Without a professional accreditation body for these academic programs, the debate continues on how best to prepare future emergency managers (Clement, 2011). This article recommends including service-learning pedagogy in the development of emergency management programs and curriculum.

Keywords: experiential learning, service learning, emergency management

Service learning, one type of experiential learning, engages students in "activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development" (Jacoby, 1996, p. 5). Service learning allows students to integrate theory (academic perspectives) and emergency management practice through a facilitated individual or group project that takes them out of the classroom and into a community setting and enables them to comprehend the course material better (Bringle & Hatcher, 1996; Bryer, 2011; Bushhouse & Morrison, 2001; Jelier & Clarke, 1999; Kapucu, 2011; Lambright & Lu, 2009; McEntire, 2002; Ostrander, 2004). At its core, service learning includes a "theoretical foundation with clear learning objectives, activities, and reflective components" (Kenworthy-U'Ren & Peterson, 2005, p. 272). Well-designed service-learning projects identify community needs, as well as student needs, before the project starts (Kenworthy-U'Ren & Peterson, 2005). Additionally, these projects require a strong, committed facilitator throughout the four cycles: experience, reflect, think, and act (Bringle & Hatcher, 1996). One distinguishing aspect of service learning is the reflective nature of the experience, in which students "gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility" (Bringle & Hatcher, 1996, p. 222).

Although previous research highlights the effectiveness of service-learning pedagogy in graduate public administration programs (Bryer, 2011; Campbell & Tatro, 1998; Cunningham, 1997; Jelier & Clarke, 1999), this article narrows the focus to service learning implemented in emergency management certificate and degree programs in the United States. This article provides a brief literature review of service learning as experiential learning and looks at current trends in emergency management curriculum and program design. Using results from a national survey, this article aims to promote a greater understanding of how service learning is used in emergency management programs. More specifically, the article examines (a) how service learning is being defined by emergency management faculty, (b) how service learning is being integrated into emergency management programs, and (c) how service learning can better the emergency management discipline. This information adds to the ongoing discussion about creating standards, best teaching practices, and rigorous programs and courses in the emergency management discipline (Clement, 2011; Donahue, Cunnion, Balaban, & Sochats, 2010; Kapucu, 2011; McCreight, 2009; McEntire, 2002).

LITERATURE REVIEW

In recent years, the mode of teaching and the ways of learning in higher education settings can be summarized as a shift from theory-based education to experience-supported theoretical education. The trend toward such an approach, known also as experiential learning, is explained by several sociocultural factors ranging from changing workforce and nontraditional learners in academic settings to increased understanding of learning theories and the need to be closer

and more responsive to business and community (Cantor, 1997). Dewey (1938), considered the father of experiential learning, is one of the most important scholars of the 20th century. He focused on education and praised experiential education, especially with the purpose of reaching community partners related to the academic subject matter. Cunningham (1997) argues that experiential learning is an empower-ment tool for creativity that brings motivation into the learning process.

Service Learning as Experiential Learning Pedagogy

Kolb (1984), a follower of Dewey's ideas, also worked on the theory of experiential learning. In light of Dewey's work, Kolb defined *learning* as "the process whereby knowledge is created through the transformation of experience" (p. 38). Kolb (1984) argues that learners get experience either through *concrete experience* or *abstract conceptualization*, and transform experience either through *reflective observation* or *active experimentation*. These approaches produce four different styles of learning (Table 1), namely, *divergers*, who are imaginative and can reflect on issues from different perspectives; *accommodators*, who are hands-on and experience oriented; *assimilators*, who are theory oriented and can build theories through inductive reasoning; and *convergers*, who tend to understand theories through application and focus on deductive reasoning to solve problems.

Table 1.
Learning Styles

	Reflective Observation	**Active Experimentation**
Concrete Experience	Divergers	Accommodators
Abstract Conceptualization	Assimilators	Convergers

Source. From Kolb (1984).

The different cognitive, behavioral, and affective learning styles, in turn, result in different forms of experiential learning. Some commonly used experiential learning approaches are practicum experiences, internships, service learning (or community service programs), cooperative education, undergraduate research, fieldwork, or study abroad. As regards range of applicability, on the other hand, practica, internships, and service learning stand out as the most effective tools. Renger, Wood, and Granillo (2011) identify three key components of experiential learning:

1. The learner must be an active participant in the learning process and have control over the direction of the learning.

2. The learning experience must be based on direct confrontation with practical, social, personal, or research problems.

3. The learner must be able to evaluate his or her own progress. (p. 58)

Although Renger and colleagues identify these principles as important components in designing training for disaster preparedness and response, these principles are also applicable to designing emergency management programs with experiential learning components.

Although practicum experience involves a focused and supervised application of theory in a laboratory or field setting, an internship is a structured and supervised learning experience in an agency relevant to a student's field. Yet service learning involves organized, structured, and supervised participation in a service that meets a community need. Practica and internships are generally skill based within the context of a specific profession, but service learning is an experience-based activity not limited by skill requirements (Bringle & Hatcher, 1996). Generally speaking, students earn academic credit for such experiential learning activities in academic settings.

Service learning has been considered one of the most influential, effective ways of integrating theory and practice in higher education (Bringle & Hatcher, 2000). Bringle and Hatcher (1996) define *service learning* as an educational experience through "an organized service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility" (p. 222). Ash, Clayton, and Moses (2009), on the other hand, state that service learning mainly contributes to personal development and growth, civic learning, and academic enhancement. McCrea (2004) summarizes common definitions of service learning and provides a guide: "The service must meet an actual community need; the learning from service must be clearly integrated with course objectives; reflection about the service experience is essential; and the relationship between service recipients and learners must be reciprocal" (p. 5).

Seigel and Rockwood (1993) also point to the importance of reflection as a tool for learning from experience. Eyler, Giles, and Schmeide (1996) state that reflection is a "transformative link between the action of serving and the ideas and understanding of learning" (p. 14). According to Jacoby (1996), reflection and reciprocity are two key elements of service learning.

Astin, Vogelgesang, Ikeda, and Yee (2000) conducted a longitudinal study analyzing how service learning affects students in regard to such variables as academic outcomes, values, self-efficacy, leadership, career plans, and future service plans. The authors found a positive relationship between those variables: Specifically, their findings stress the importance of reflection in making sense of theory; show that theory and practice are mutually reinforcing; identify a shift from teaching to learning; show the complex nature of learning interwoven with personal experiences; and advise including service learning in the curriculum. Lambright and Lu (2009) have analyzed factors positively affecting learning in service-learning projects and found that it is mainly (a) the extent to which class materials are integrated into the project; (b) whether the service-learning project is conducted

through a group or individually; and (c) whether students are full-time or part-time, which would influence the effectiveness of the service-learning projects.

Aside from its benefits in the learning process, service learning is about community impact. Although studies analyzing the community impact of service-learning research are rare, due to disagreements on the definition of community and related variables as well as methodological problems (Cruz & Giles, 2000), some research has been done on this subject. Service-learning projects conducted by higher education programs do make a difference and contribute to the overall well-being of the community, democratic citizenship, and organizations involved in the projects (Bacon, 2002; Bushouse, 2005; Saltmarsh & Hartley, 2011; Sandy & Holland, 2006; Waldner & Hunter, 2008). D'Agostino (2006), in turn, argues that service learning is a tool for building social capital because of its inherent focus on collaboration and partnerships, which also would foster development of citizenship. In addition, service learning can contribute to community capacity building (Kapucu & Petrescu, 2006).

Service Learning in Emergency Management

Scholars have rigorously worked on professionalization of the emergency management discipline (Britton & Lindsay, 2005; McCreight, 2009; Wilson & Oyola-Yemaiel, 2002). Despite these initiatives, there are no general standards, no widely accepted body of knowledge, no appropriate research methodologies, no set of standards and ethical norms, and no academic program accreditation agency that represents the emergency management and homeland security disciplines (Clement, 2011). These related efforts also have been reflected in attempts to develop appropriate emergency management curriculum and related higher education programs (Darlington, n.d.; Kiltz, 2009).

The higher education programs, in turn, are developed and evaluated today based on three general principles: teaching, scholarship, and service. Clement (2011) argues that the three principles are essential for developing and refining the discipline, and stresses that teaching and scholarship are of little value unless they are applied in the real world through community and public service. Darlington's (n.d.) study points to this already existing problem and argues that there is a lack of linkage between theory and practice in higher education programs:

> What the nation currently has is not a vision of needs, but rather a reactionary mix of courses that have been assembled to respond to specific laws aimed at specific hazards and specific responses. Curriculums are not holistic, but an accumulation of topics related to hazards and disasters. We need to harness this misdirected energy in a new direction. Leadership is needed with a vision of how to link theory and performance based training within a core curriculum of emergency management education. (p. 11)

Thomas and Mileti (2003) also argue that practical, hands-on learning should be incorporated into emergency management higher education curricula. Kiltz (2009) similarly points to the importance of learning by doing in emergency management and homeland security programs, and states that such an approach fosters and enhances critical thinking.

With these calls to integrate theory with practice, experiential learning in general—and service learning in particular—plays a vital role in designing higher education curricula for the emergency management discipline. Because service learning envisions a broader appreciation and apprehension of the related discipline (Bringle & Hatcher, 1996), service learning in the emergency management field offers a tool for gaining a better understanding of the field, one that is sensitive to and based on practice and experience (Kapucu, 2011). Kushma (n.d.) is a supporter of incorporating service learning into higher education curriculum because it

> combines educational objectives with practice environments in such a way that students, academic institutions, and communities profit from their experiences. The emphasis on the "real world" provides students an opportunity to immediately use and apply their classroom knowledge and skills, and to gain valuable feedback through assessment and reflection. Service-learning also allows students to "try on" a number of emergency management roles and functions, and thus contributes to a successful transition from school to professional setting. (pp. 3–4)

Renger, Wood, and Granillo (2011) likewise emphasize the application of knowledge in real-world settings to prepare future emergency managers. McEntire (2002) states that such preparation would be beneficial both in the short and long run: In the short run, service learning helps reinforce theory and demonstrates how it is applied in real world; in the long run, service learning helps students gain skills and abilities that would improve the profession of emergency management.

Emergency management academic programs are expected to cover the following core competencies in core curriculum: comprehensive emergency management framework or philosophy (all-hazards); leadership and team building; critical decision making; organizational management; networking and coordination; integrated emergency management; emergency management functions; political, bureaucratic, social contexts; technical systems and standards; social vulnerability reduction approach; interdisciplinary perspectives; ethics and professionalism; and analytical and research skills (Blanchard, 2005; Cwiak, 2008; Kapucu, 2011).

The core courses addressing these competencies are as follows:

- Introduction to Emergency Management
- Building Disaster-Resilient Communities
- Homeland Security and Emergency Management
- Disaster Response Operations and Management
- Terrorism and Emergency Management
- Political and Policy Basis of Emergency Management
- Social Dimensions of Disaster
- Principles and Practice of Hazard Mitigation
- Planning Principles
- Information Systems for Emergency Management
- Public Administration and Emergency Management
- Technology and Emergency Management
- Crisis Management; Sociology of Disaster
- Disaster Recovery
- Research and Analysis Methods in Emergency Management
- Social Vulnerability Approach to Disasters

We expect service-learning projects in emergency management programs to help address some of the core competencies mentioned earlier with partnering emergency managers. Overall, experiential learning in emergency management is a relatively new phenomenon, so a gap exists regarding the need to link theory and practice before the graduates obtain a job in the real-world setting. Despite the lack of agreed-upon body of knowledge, standards, research methodology, and academic program accreditation and evaluation agencies, the need for hands-on experience and reflection about what is being learned is apparent. Service learning presents an opportunity to fill that gap by having students engage in interdisciplinary and collaborative projects that are beneficial to students and the community (Kapucu, 2011).

METHODS

The data source for this study is a questionnaire of emergency management programs in the United States. The Emergency Management Institute (EMI) at the Federal Emergency Management Agency (FEMA) provided a list of program coordinators and directors from 245 Emergency Management academic programs. The questionnaire consisted of a mix of Likert Scale questions and open-ended questions (see Appendix A).

Of the 245 contacts provided, 5 (2%) had missing contact information and 23 (9.4%) had incorrect contact information (error message received when survey

request was sent electronically). Of those 28 incomplete contacts, correct contact information was found for seven program coordinators, and the contact list was finalized. Before distributing the survey, we obtained approval from the institutional review board (IRB).

Based on Dillman's Tailored Design Methodology (2007), the electronic questionnaire using Survey Monkey was sent to 227 participants in early December 2012. After the initial mailing, nonresponsive participants were sent two reminder e-mails, two weeks apart, to encourage participation. After three rounds of encouragement, 70 (30.8%) responded. Of those responses, 50 (22%) were usable replies. The large majority of respondents (94.3%) were the addressee (i.e., the director of the Emergency Management academic program). Most of the respondents (55.9%) incorporate service learning as part of the curriculum.

Most of the respondents are male (66%) and have a master's degree (48%). 43% of the respondents have PhDs, and 9% have a bachelor's degree. These degrees are primarily in Public Management/Administration, Public Policy/Political Science, Criminal Justice, Emergency Management, Education, and Engineering. The respondents represent Emergency Management and Homeland Security academic programs in 25 of the 46 states surveyed. Most respondents represent universities programs (70%); a smaller portion represent community or technical colleges (30%).

On average, the emergency management academic programs have been operating for 8 years and are housed in a variety of departments and schools. The most reported departments are Public Administration/Affairs/Management (26%), Emergency Services/Disaster Management (15%), Public Health/Health Services (13%), Environmental/Earth Sciences (9%), Engineering (9%), Criminal Justice (9%), Public Safety (7%), and Business Management (7%). The least reported departments are Social/Behavior Sciences (4%), Political Science (2%), Urban Planning (2%), and Protective Services (2%).

FINDINGS

Emergency Management academic programs are taught in a variety of ways. Respondents for this study indicated their three dominant modes of teaching are online (38%), face-to-face (36%), and mixed mode (26%). The size of these programs varies at the undergraduate and graduate level. Most of the undergraduate programs have 20 or fewer students (34.1%), but 31.7% have 21 to 30 students, 2.4% have 31 to 40 students, 2.4% have 41 to 50 students, and 29.3% have 51 or more students. Most of the graduate programs have 10 or fewer students (61.9%); only 11.9 % have 11 to 20 students, 2.4% have 21 to 30 students, 2.4% have 31 to 40 students, and 21.4% have 41 or more students. Table 2 is an overview of the multiple certificates, minors, and degree emergency management programs offered by the respondents.

Table 2.
Type of Emergency Management Program Offered

Type of emergency management program offered (*Check all that apply.*)		
Answer Options	**Response (%)**	**Response Count**
Certificate (undergraduate level)	35.4	17
Certificate (graduate level)	18.8	9
Concentration within an undergraduate major	8.3	4
Minor	18.8	9
Associate Degree	33.3	16
Bachelor's Degree	31.3	15
Master's Degree	10.4	5
Master's Level Concentrations	12.5	6
Doctoral Degree	0.0	0
Doctoral Level Concentrations	10.4	5
Other		5
N		48

For 65.1% of respondents, the primary purpose of the Emergency Management program was pre-employment (e.g., preparation for entry into emergency management, homeland security, or related field); for 34.9% of respondents, the primary purpose was advancement in a current emergency management, homeland security, or related position.

Most of the programs (53%) had 25% or fewer full-time faculty members, therefore relying heavily on part-time instructors and adjunct faculty. Part-time faculty members usually are affiliated with emergency management agencies and have significant planning, management, and training experience (e.g., emergency management operation centers). A quarter of the emergency management and homeland security programs had between 75% and 100% full-time faculty members teaching the courses. The remaining 22% of the programs ranged between 26% and 67% of full-time faculty.

Most of the programs reported that none of their faculty had a university degree in emergency management (51%). Some programs (40.8%) indicated that between 25% and 50% of its faculty had a degree. Few programs (8.2%) reported that the entire faculty had a university degree in emergency management. However, when asked about the faculty's work experience in emergency

management, the percentages are different. Of the programs, 34% required their entire faculty to have emergency management work experience. Only 4.3% of the programs reported that their faculty had no related work experience. For 25.5% of questionnaire respondents, 25% of the faculty had work experience. For 12.8% of respondents, 50% of the faculty had work experience. For 23.4% of respondents, 75% of the faculty had work experience.

A little over half of the respondents (55.9%) indicated that their program incorporates service learning as part of the curriculum. Service learning has been included in the program for an average of 4.5 years. Yet, 65% of the respondents reported that only 10% to 30% of emergency management courses include a service-learning component. Twelve percent of the respondents indicated that half of their courses have service-learning projects, and a few respondents (6%) said that 75% of their courses include service learning. Eighteen percent of the respondents indicated that all of their emergency management courses incorporate service-learning projects. Most respondents (82%) have interdisciplinary service-learning programs. Service learning is viewed as promoting university-community collaboration (85%) and contributing to faculty learning about the local community (75%).

As highlighted in Table 3, for 48% of the respondents service-learning projects are mandatory; for 47% of the respondents, the projects are voluntary. Respondents preferred individual service-learning projects (64%) over group projects (43%). Nearly all respondents (89%) indicated that they integrate course materials into the projects, and the same percentage believed that student reflection is an essential part of the service-learning process. For 79% of respondents, civic engagement is viewed as part of their service-learning program.

Students are active throughout the service-learning process. For 82% of respondents, students evaluate their progress throughout the service-learning project, and 72% of students actively design and execute the project. Most respondents perceive service-learning projects as positively affecting students' intellectual growth (96%) as well as their research skills (79%). Three fourths of respondents include an evaluation strategy to assess the impact of service-learning projects on student's learning.

Although faculty make a large time commitment in designing, implementing, and evaluating service-learning projects, the questionnaire results also indicated that many programs use students as active participants in the project. It is recommended that the service-learning process increasingly incorporate students in the design, execution, and evaluation phases to help them become active participants as well as reduce some of the faculty time commitment (Ash et al., 2009; Bushouse, 2005). (See Table 3 for the entire evaluation of service-learning pedagogy in emergency management programs by respondents.)

Based on the literature and feedback from respondents, institutional support is necessary. As highlighted in Table 3, although most respondents felt supported by their department (86%) and university (79%), yet 28% of the respondents did not have a service-learning office that provides assistance for faculty planning, implementing, and monitoring service-learning projects.

Table 3.
Implementation of Service Learning in Emergency Management Programs

Answer Options	Strongly Disagree	Dis-agree	Neither Agree/ Disagree	Agree	Strongly Agree	N
The main goal of service learning in our program is to link theory with practice.	1	0	0	11	18	30
Service-learning projects in our curriculum are mandatory for our emergency management students.	3	6	6	4	10	29
Service-learning projects in our curriculum are voluntary for our emergency management students.	7	6	3	10	4	30
Students completing service-learning projects are active participants in design and execution of the projects.	1	0	7	12	9	29
Students evaluate their progress throughout the service-learning project.	0	3	2	20	3	28
Course materials are integrated into the service-learning project.	1	0	2	20	5	28
Service-learning projects are completed mainly as a group project.	2	10	4	10	2	28
Service-learning projects are completed mainly as an individual project.	1	6	3	14	4	28
Civic engagement is part of service learning in our program.	0	2	4	14	8	28
Reflection is an essential part of service learning in our program.	1	1	1	16	9	28
Our program has an evaluation strategy to assess the impact of service-learning projects on students' learning.	1	5	1	17	4	28
Service learning in our program better prepares future emergency managers.	1	0	0	14	13	28
Service learning in our program contributes to students' intellectual growth.	1	0	0	15	12	28
Service learning in our program improves students' research skills.	1	1	4	15	7	28
Service learning in our program is interdisciplinary.	1	2	2	15	8	28
Service learning in our program promotes university-community collaboration.	1	0	3	11	12	27
Service learning in our program contributes to faculty learning about our communities.	1	0	6	15	6	28
Service learning in our program is supported by the department.	1	1	2	15	9	28
Service learning in our program is supported by the institution.	1	0	5	11	11	28
Our institution has an office of service learning to assist faculty in designing and implementing service-learning projects.	1	7	5	8	7	28

Defining Service Learning

Respondents provided varying definitions of service learning as it applies to their program. However, a few common themes emerged. The main theme was applying theory or academic learning to real-world experience or practice (24%) for a community-based need (38%). As one respondent put it: "Putting hands and feet to brainwork. Bringing the curriculum to life." Another respondent stressed the mixing of academic learning with community needs: "Service learning is the application of concepts, principles, and activities to enhance learning and support the emergency management programs in our community."

Another theme was enhancing the learning and growth of the organization and community as well as that of the students. One respondent defined service learning as "Active involvement in a project or position that contributes to the interdisciplinary growth of our student and to the communities and organizations they are involved with." Another respondent stated that it also includes "learning to empower others outside the university."

Some respondents defined service learning by listing some projects completed by students, including "co-ops and internships" as well as "participation in community based projects including training exercises, functional drills, and special community outreach projects. Interacting with professionals in the discipline and assisting with special projects." Lastly, one respondent directly quoted Bringle and Hatcher's (2000, p. 222) definition of service learning:

> Service-Learning is a "credit-bearing, educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility."

Benefits of Incorporating Service Learning

Respondents who are implementing service-learning programs see many benefits. In the Likert Scale questions, 97% agreed or strongly agreed that the main goal of service learning within their program is to link theory with practice, and 96% agreed and strongly agreed that service learning better prepares future emergency managers. This consensus was reflected in the open-ended questions, in which the two benefits most discussed were applying theory to practice (41%) and "real-world"/"hands-on" experience for the students (36%). As one respondent elaborated:

> Students get true "hands-on" experience, working with real deadlines, in true pressure situations, and sometimes experiencing first-hand the outside influence of politics in Emergency Management. (This experience is quite valuable as compared to academic theory, where the student more or less has control over their grades and deadlines.)

Additional benefits stated by a few respondents were that the service-learning experience leads to an increase in students' "civic engagement and responsibility"; increase of "institutional visibility"; development of a student's research and leadership skills; and the "professional contacts" students make while completing the project.

Challenges of Incorporating Service Learning

The biggest challenge in implementing service learning in emergency management programs is the amount of time required for the student and faculty member (43%). Many students in these programs are employed full-time (sometimes in a field related to emergency management) or are distance learners (this case is especially critical for online programs, because students are not co-located with the educational institution). Therefore, finding time to complete service-learning projects can be problematic. One respondent elaborated, "Most of our student body are older students who have fulltime jobs and families to support. Other than scheduled class times, they have little 'spare time' to devote to service learning."

Time for faculty to develop, implement, monitor, and evaluate these projects is seen as a challenge by some of the respondents. As one respondent stated, "It takes a significant commitment of staff resources to identify opportunities, work with organizations/agencies, support, monitor, and evaluate student and organizational outcomes. We have a small part-time staff and are recruiting volunteers to help develop our program." A few respondents elaborated about needing enough faculty to mentor a large number of students, "more than 200 declared majors," completing service-learning projects, as well as having "faculty with enough EM [emergency management] background to evaluate the project."

Scheduling service-learning projects within the limitation of one semester and having to include other assessments for the students is another challenge provided by respondents. For example, a respondent described "trying to fit this [service learning project] in when you are lecturing, giving quizzes or tests, assigning papers, watching videos, having guest speakers, etc."

Other challenges mentioned by a few respondents include having "institutional and administrative buy-in"; "balancing between a safety and applicable activities"; "balancing between theoretical instruction and practical application"; and providing a "realistic expectation of student capabilities to organizational personnel."

Successful Service-Learning Projects

Most of the successful service-learning projects (45%) involved students developing emergency management plans, manuals, or guidelines for local organizations, including nonprofit organizations, senior citizens, local government, local businesses, faith-based organizations, and the university. As one respondent explains, "Students in my Developing Community Resources course are required to work closely with a county department or agency, creating a resource manual for that agency/department. This endeavor has been well-received in our community, with agencies calling to request a student's assistance."

Other successful projects include having students develop and offer trainings for senior citizens, immigrant populations, local businesses, elementary school-children, and other community members; hazardous materials flow studies; and emergency exercise design, execution, and participation.

Respondents provided advice for those emergency management programs considering implementing service-learning projects. Having "sufficient administrative and faculty support" was provided as both advice and a challenge among respondents implementing service-learning projects. Service-learning projects can take a significant amount of time required for planning, including finding the "best location for service learning" as well as "finding an appropriate organization that serves the general public." Other planning aspects include providing "back-up support for students who get caught in community rows and political dynamics," helping students choose their project, clearly outlining the "goals and objectives in their projects," and monitoring the "experiences to be certain that learning outcomes are supported."

Although service-learning projects require significant time commitment by faculty members, respondents provided advice on how to overcome this challenge:

- "Go for the obvious community needs to help fill and don't be afraid to let the students take on responsibilities that at first glance may seem 'beyond' their training. Practical experience combined with reading materials and writing assignments catapults students to a level of expertise that takes four times as long (at least) in the classroom."

- "Work closely with an Emergency Management Advisory Committee to develop and create opportunities for service learning outside the classroom." (Advisory committee members can be helpful in designing service-learning projects and finding an appropriate partner in the community.)

- "Be very clear to organizational personnel about what types of questions will be asked or the work to be done, and also share what products or outcomes can be expected by the organization as a result of their sponsorship."

- Extensive preplanning with the agencies so that they thoroughly understand what the student's role is and that they are clear on their responsibilities."

- "Collaborate with local and state professional organizations. Utilize local professional Emergency Managers as part of instructional staff or at least as guest lecturers."

- "Have very willing partners willing to mentor students."

- "Start small…build trust…community-based not community-placed."

CONCLUSION

Service learning as a pedagogical tool has gained significant attention at U.S. colleges and universities. Of course, more research is needed in analyzing the impacts of service-learning projects on student learning and on the community. Service learning can be an important pedagogical tool, especially in professional disciplines such as emergency management. The article focused on using service learning as one experiential learning strategy in emergency management programs in the United States. As indicated by study respondents, a significant portion of the emergency management higher education programs in the United States incorporate service learning in their curriculum to link theoretical perspective with practice as well as provide students with real-world experience in local communities.

Based on feedback from respondents, regardless of their definition of service learning, they face challenges in implementing these projects. The article highlights successful emergency management service-learning projects in which most of the deliverables are tangible products for community agencies. We find that service-learning projects should start with smaller projects. For successful completion of a service-learning project, it is also critical to provide clear guidelines to students and community partners. The absence of institutional support is a challenge to successful service-learning projects, and we advise program directors to secure sufficient administrative and faculty support before pre-planning.

Based on the literature and responses from the survey, a successful emergency management service-learning program will have institutional support from multiple levels (i.e., department, college, and university support). An office or center for experiential learning can support faculty and community members across multiple disciplines. The program will start with smaller projects that address a specific community need in which students are capable of completing either individually or in a small group within the semester time frame. For example, a course that requires one student to complete a county's continuity of operations plan within 2 months is not ideal. However, the plan's numerous sections could be divided among small groups of students to be completed within the semester term. Before starting the service-learning project, the faculty member, students, and partnering organization should agree upon all expected outcomes and goals. The project should always align with the course materials, so the newly acquired practical knowledge coincides with the theory or academic perspective. Lastly, time needs to be allotted before, during, and after the project for student input and reflection. It is vital for students to play an active role throughout the process.

Key skills and competencies highlighted in this article can be achieved with carefully designed service-learning projects. These projects help students as well as faculty to learn more about the community, and they are especially useful in fostering networking, team-building, and leadership skills. Through these projects, the university or community college can be established as a valuable resource and partner in the local community as well as with local emergency management professionals.

Future research can be conducted among students who completed service-learning projects to measure impact of service learning on student learning in emergency

management programs. Research is also needed to measure the impact of service-learning projects on recipient community organizations. Lastly, documenting service-learning projects that emergency management faculty could implement would be beneficial to the expanding knowledge of emergency management academic programs.

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Survey on Service Learning in Higher Education Emergency Management Programs
The following short survey collects information about service-learning utilization among emergency management academic programs in the United States. The survey takes about 10–15 minutes to complete. Your responses are confidential and will not be revealed without your consent; only aggregate results will be made available. We will be happy to provide you with the final results upon request.

Please answer the following questions:

1. Are you the addressee?
   ☐ Yes
   ☐ No→Please state your position/title here: _____
   ☐ Program representing (university and degree): _____

2. School/Department your program is housed in:_____

3. How long has your program been in operation?_____

4. Does your program incorporate service learning as part of the curriculum?
   ☐ Yes ☐ No
   If yes, please continue to Question 5. If no, please continue to Question 32.

Service Learning in Emergency Management

Please assess the following statements regarding the utilization of service learning in your degree programs. Please use the following scale:

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

5. The main goal of service learning in our program is to link theory with practice.
6. Service-learning projects in our curriculum are mandatory for our emergency management students.
7. Service-learning projects in our curriculum are voluntary for our emergency management students.
8. Students completing service-learning projects are active participants in design and execution of the projects.
9. Students evaluate their progress throughout the service-learning project.
10. Course materials are integrated into the service-learning project.
11. Service-learning projects are mainly completed as a group project.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

12. Service-learning projects are mainly completed as an individual project.

13. Civic engagement is part of service learning in our program.

14. Reflection is an essential part of service learning in our program.

15. Our program has an evaluation strategy to assess the impact of service-learning projects on students' learning.

16. Service learning in our program better prepares future emergency managers.

17. Service learning in our program contributes to students' intellectual growth.

18. Service learning in our program improves students' research skills.

19. Service learning in our program is interdisciplinary.

20. Service learning in our program promotes university-community collaboration.

21. Service learning in our program contributes to faculty learning about our communities.

22. Service learning in our program is supported by the department.

23. Service learning in our program is supported by the institution.

24. Our institution has an office of service learning to assist faculty in designing and implementing service learning projects.

Open-Ended Questions

25. How do you define service learning?

26. How long has your program incorporated service learning in the curriculum?

27. What percentage of your emergency management courses includes service-learning projects?

28. Can you give us some examples of successful and least successful student service-learning projects?

29. What are some challenges of incorporating service learning in the curriculum?

30. What are some benefits of incorporating service learning in the curriculum?

31. What advice would you provide to programs considering implementation of service learning as part of the curriculum?

Demographic Questions

32. Our emergency management program is:
    ☐ Face-to-face ☐ Online ☐ Mixed mode

33. Number of graduate students in the emergency management program:
    ☐ under 10   ☐ 11–20 ☐ 11–30   ☐ 31–40 ☐ over 41

34. Number of undergraduate students in the emergency management program:
    ☐ under 20   ☐ 21–30 ☐ 31–40   ☐ 41–50 ☐ over 51

35. Type of emergency management program offered (*Check all that apply.*)
    ☐ Certificate (undergraduate level) ☐ Certificate (graduate level)
    ☐ Concentration within an undergraduate major   ☐ Minor
    ☐ Associate Degree   ☐ Bachelor's Degree
    ☐ Master's Degree   ☐ Doctoral Degree
    ☐ Master's Level Concentrations   ☐ Doctoral Level Concentrations
    ☐ Other: *Please specify:* _____

36. What do you consider the primary purpose of your program(s)?
    (*Please select only one.*)
    ☐ Pre-employment (preparation for entry into EM, HS, or related field)
    ☐ Advancement (preparation of current EM, HS, etc. personnel
       for advancement)
    ☐ Other: *Please specify:* _____

37. What proportion of your program faculty has a university degree in
    emergency management? (*Please select only one.*)
    ☐ None   ☐ Some 25% ☐ Some 50% ☐ Some 75% ☐ All

38. What proportion of your program faculty has work experience in
    emergency management? (*Please select only one.*)
    ☐ None   ☐ Some 25% ☐ Some 50% ☐ Some 75% ☐ All

39. What is the percentage of full-time faculty in your emergency management
    program? (*Please provide percentage based on your knowledge.*)_____

40. What is your highest degree? _____ In what field? _____

41. What is your gender?
    ☐ Male   ☐ Female

Thank you very much for your cooperation.