

The Impressions of Emergency Services Students in a Homeland Security Course: The Benefits of Reflective Thinking and Journaling

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ABSTRACT

This case study explored the impressions a homeland security course had on the emergency service student. The setting for the study was a state-sponsored university in the western United States. The 17 participants were declared, undergraduate emergency services majors that underwent a 7.5-week distance learning homeland security course. Grounded theory was used to analyze and develop themes from student reflections from the class. The findings of the study suggested that the most important impressions students took from the class were about global awareness, an understanding of the vulnerabilities of terrorism to the nation and the importance of a homeland security education. This study's findings add to the existing body of knowledge associated with homeland security academia, suggesting that reflective thinking and journaling are well-suited for homeland security education where many of the learners are practitioners and non-traditional students.

OVERVIEW

Homeland security education is a new field of study, emerging over the last decade as a serious area of study for students interested in homeland security, emergency management, and disaster relief. Many of the students are currently practitioners, often in the law enforcement and emergency response fields. As non-traditional students, they bring experience and a desire to learn, but also demand that instruction follow andragogical assumptions (or adult-learning methodologies). Course content and assessment associated with non-traditional learning needs to bridge academics with the practitioner experiences (Goldberg, 2012). Reflection and journaling are key learning approaches that fit the non-traditional student style, allowing the practitioner to reflect upon coursework as it relates to their career (Maxfield & Fisher, 2012). The central question that guided this study asked, what impressions a homeland security course had on emergency services students. To answer the question, researchers explored the students'

journal reflections in the homeland security classroom to identify the most important impressions that students reported from their educational experience.

REVIEW OF THE LITERATURE

Homeland security and emergency management practitioners, who return to school, have different expectations than traditional students. They learn differently and expect coursework to take into account the difference in learning. Adult learning methodologies include consideration of the learner's experiences, the importance of the learning environment, the learner's readiness to learn and the teacher as facilitator (Brown, 2001). Maxfield and Fisher (2012) found that traditional students apply their learning to work experiences while non-traditional students apply their experiences to learning. Metacognitive processes encourage students to use reflection to think about what they are learning and apply experiences to learning and vice versa.

Maxfield and Fisher (2012) link reflection to affective learning. Affective learning, according to Bloom's taxonomy (Krathwohl, Bloom & Masia, 1964), identifies objectives as interests, attitudes, appreciations, values, and emotional sets or biases. Reflective learning and thinking provide a means for measuring affective learning.

Kolb (1984) proposed a four-stage cycle for adult learners: (a) concrete experience, (b) reflective observation, (c) abstract conceptualization (theory building), and (d) active experimentation or application. Critical reflection has been used successfully to encourage students to apply course concepts to present and future life experiences. Critical reflection aids in the development of higher-order thinking and critical thinking skills (Ash & Clayton, 2009).

Donald Schön expounded on the theory and practice of reflective professional learning in his book, *The Reflective Practitioner* (1983). His notions of reflection-in-action and reflection-on-action are central to this effort. Boud, Keough, and Walker (1985) indicate reflection is an intellectual and affective activity where individuals explore experiences leading to new understanding. Through reflection the learner takes a new experience and interacts with it in a way that makes sense of what has occurred (Boud, 2001). Peter Jarvis' model of learning (2001), based on social experience, suggests that through practice and experiment followed by thought, reflection, and then evaluation, a person leaves the learning experience more developed and experienced.

Goldberg (2012) suggests that reflection can be a "valuable teaching practice" in homeland security and emergency management programs. Learning occurs through reflection and feedback as theories are compared to practice. Argyris (1991) described experiential learning as a series of loops that involve reflecting on experiences. Single-loop learning reflects on existing experiences without questioning basic processes. Double-loop learning reflects on underlying beliefs

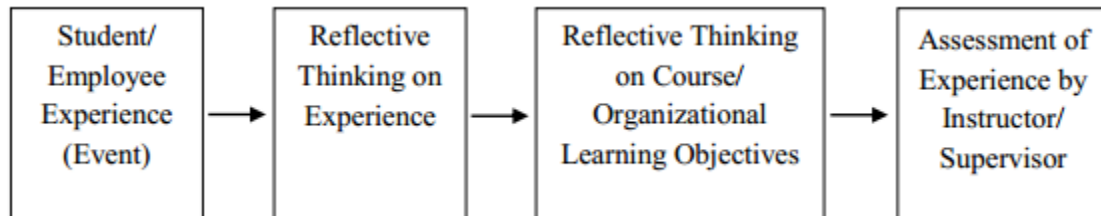
and how things can be done differently. Through reflection in triple-loop learning, underlying views and perspectives of experiences are examined and change.

“In experiential learning, the processing of experiences leads to reflection and integration of new concepts into existing learning,” claims Goldberg (2012, p. 64). Kolb (1984) describes experiential learning as a four-stage learning model based on reflection. The student experiences an event, reflects on it, and draws conclusions. Based on the conclusions, the student develops outcomes that can be applied to other experiences.

Goldberg (2012) distinguishes between reflective learning and reflective thinking, while affirming that both serve an integral part of experiential learning. Reflective learning serves as a tool in assessing planned learning based on course objectives. The problem, however, is assessing the unplanned learning experiences of the student. Goldberg (2012) claims that reflective thinking using journaling can be used to assess unplanned learning.

Based on Bourner (2003), Goldberg (2012) proposes a model where students use reflective thinking to examine student experiences. As shown in Figure 1 students reflect experiences and then consider these in light of course learning objectives. Finally, the instructor assesses the experiences by reviewing student reflections.

Figure 1. Reflective Thinking Assessment Model



As a means of comparison, Goldberg (2012) developed questions to stimulate reflective learning and reflective thinking. To encourage reflective learning, students respond to the following questions:

1. What does the experience suggest to you about your strengths?
2. What does the experience suggest to you about your opportunities for improvement?
3. How else could you view the experience from the course perspective?
4. What did you learn from the experience?
5. What might you do differently when faced with a similar experience?

To evaluate reflective thinking on the course objectives the students respond to the following questions:

1. What course learning objective(s) did you recognize from the experience?
2. How did you apply the learning objective(s) to the experience?
3. What did you learn about the learning objective(s) from the experience?

By responding to the reflective thinking questions, the student develops reflective journaling entries. Through journaling, students successfully reflect on their experiences and on course learning outcomes. Journaling formalizes the reflection process in learning (Goldberg, 2012). However, this process must be meaningful, warns Hubbs and Brand, (2010); otherwise, students view it as busy work. The meaningfulness of the reflection appears in the work of the student, specifically in the richness of their writing.

The literature suggests the value of using reflective strategies in developing curriculum and delivering courses in the emergency management and homeland security disciplines. Reflective practices can be presented in many forums or methodologies. In this study of students in a homeland security class, students were asked to use journaling to reflect upon what they learned about homeland security. Instructors used the journal entries to assess success in achieving course objectives.

The homeland security course used in this study had three primary course objectives:

1. To introduce students to global and intercultural issues regarding homeland security at the national, regional, state and local levels.
2. To examine the history of homeland security, including its political history, and evolution, particularly as it relates to terrorism.
3. To address demands state and local authorities must meet when dealing with national programs and requirements which affect funding and operations on the state and local level during natural or man-made disasters and emergencies.

METHODOLOGY

This research study took place at a state university located in Utah. To determine the sample size and avoid saturation (Ritchie, Lewis, & Elam, 2003) the researchers' utilized purposeful sampling to choose the 17 participants for the study, one-third of the overall population of the 54 students that successfully completed the homeland security course. To protect the participants, the researchers received permission to conduct the study from the University's Institutional Review Board, and ensured the participants' anonymity by removing any personal identifiers. To ensure validity, the researchers' used data sources from multiple participants to establish a converging line of inquiry in order to answer the study's central research question (Yin, 2009). In addition, the researchers' had another researcher perform an analysis for comparison and presented the data as in-depth descriptions (Yin, 2009). To ensure data reliability, the researchers followed systematic case study protocols and established a secured database (Yin, 2009).

The case study utilized a pattern matching analytic technique based upon the post-hoc writings of the study's participants (Yin, 2009). To analyze the data, the researchers developed case descriptions utilizing a systematic, hierarchical approach (Stake,

1995). The data analysis began with the researchers organizing and preparing the data for analysis, removing any personal identifiers of each of the participants, and then reading the student's reflections to become familiar with the data. Next, the researchers used a modified grounded theory approach for sorting and analysis of student responses (Glasser & Strauss, 1967). Themes and student comments were summarized in the findings. These resulted in the development of propositions for further study and to provide greater understanding of the use of reflection in the education process. Students were asked to reflect and write about "the most important things" they learned from the homeland security course. Using inductive reasoning, propositions were generated from the findings and reported in the conclusions. To present the findings, the researchers developed narrative case descriptions based upon the three themes in order to present and interpret the findings (Yin, 2009).

RESULTS

The results of the data analysis are presented as case descriptions, which contains the three individual themes that emerged from the data analysis (see Table 1). Of the 17 participants, 11 were male, and 6 were female. The ages of the participants ranged from 21 to 43. The educational level of the participants was 13 college juniors and 4 college seniors. The case description contains rich, detailed narratives to each emergent theme derived from the data analysis. The coding process revealed three emergent themes, Global Awareness, Importance of a Homeland Security Education and Vulnerabilities to the Nation Participant comments are marked P1, P2, P3, etc.

Table 1. Case Description Themes and Theme Description

Theme	Theme Description
Global Awareness	This theme focuses on the global community and the need for an awareness of global occurrences.
Vulnerabilities to the Nation	This theme focuses on the awareness of threats to the nation and the difficulty of protecting a nation.
Importance of a Homeland Security Education	This theme focuses on the need to understand homeland security and the desire for continuous learning.

Global Awareness. Students in the course reflected on the idea that the world is a global community in which many cultures exist, and, therefore, a need existed to understand such cultures. P1 stated, "I was caught up in a small insignificant part of the world, not realizing or caring about the other billions of people around me." P1 then asked two questions: "How do my actions affect other actions? How do my thoughts affect others thoughts?" P1 went on to state that he "took away from studying homeland security a decrease in cultural bias." Moreover, that the course

“allowed me to have an open mind.” This sentiment was realized in other students who also reflected on the idea of openness. For example, P3 stated, “This class has opened my eyes to a global community that is threatened by a small group of people who make themselves seem like they are everywhere and are imbedded with all that we do.” P2 added to this stating, “It really opened my eyes to how people think differently and how cultures shape people and their ways of thought. I have a different perspective when it comes to cultures and people different from me.”

Students realized that there needs to be an awareness of global occurrences. P5 stated, “I have changed in so many ways throughout the duration of this course. Specifically in my caring about foreign affairs and how they either directly or indirectly affect my day-to-day tasks and duties, thinking how that relates to me.”

P10 reflected on this idea, writing:

I think I am different after taking this class because I have learned that I was not as aware of what was happening in the world and around me as I thought I was. First responders need to have a more detailed eye to be able to see the bigger picture of an event they are responding to.

P6 added to this by writing:

It is what helps us to remain aware of the surrounding world and how it just might affect us. I do tend to consider more of the worldly effect of the actions of the people around me or myself, or equally importantly how the world is affecting the actions of everyone around.

Other students reflected on a need to be aware. P11 wrote, “I now understand that knowing issues abroad is just as important as knowing them nationally.” P10, while reflecting on the role of the emergency services responder, wrote that such awareness meant “staying informed on national and international events.” P16 added to this by writing, “I am able to understand what I can do to be a part of the solution to a better world and to better defend the nation, including awareness of current events, both within the country and around the world.” P13 also discussed global awareness at the local level writing:

This class has raised my awareness to a completely new level, not just the situational awareness that I need day-to-day or for my job but a global awareness. What happens on the other side of the world will have an impact on me and my family’s safety and well-being.

P17 added to this stating, “I will be more prepared in the understanding of what has gone on and be able to put the puzzle pieces together when the time comes and be able to see the broader picture of what is going on around me.” P17 went on to say that the course “has made me aware of what is going on around the world with terrorism.” P7 reflected that the course “made me more studious of what is happening around the world.” P7 elaborated on this point stating:

Most of us are living in our own bubbles and do not concern ourselves with what our government is doing in terms of national security or the

world news happening every day. I really think that this needs to change and our awareness and involvement needs to be increased.

Vulnerabilities to the Nation. Within the theme of vulnerabilities to the nation, students reflected on the awareness of threats to the nation. P2 recognized the need to be aware of the threats as a professional responder, stating, “As a first responder it is important that I understand cultures and the root behind the thinking of terrorists.”

P4 reflected on how the course changed his awareness, writing:

After going through this class, I am much more aware of the threats to our nation and the need to protect our homeland. It has become important to me to be watchful and do my part in helping protect our nation.

P4 went on to reflect on how international threats are national threats, stating:

I had never paid attention when our government had talked about the risk of attack, because like most people I did not think that anybody would dare attack us on our home soil. I knew of the attacks on our embassies abroad and that if we were going to be attacked then it would be there, as it had happened in the past.

The understanding of threats included reflecting on a need to be individually prepared. P8 wrote, “Understanding the enemy and what they are capable of will help me to prepare my family for future events that involve homeland security.” Moreover, the understanding of threats left P12 feeling more secure, stating, “It makes me feel more secure knowing they are trying to defend against terrorist activities when it seems to be a main concern today.”

The other area of reflection within the theme of vulnerabilities to the nation was the difficulty of protecting a nation. P4 recognized the difficult task of protecting the United States, writing, “I really had no idea what goes into protecting us from these attacks. I know that we really only hear about the successful attacks because they hit us hard.” P4 went on to state, “I know that it is the job of homeland security to prevent attacks but I have started to understand why they push the way they do for more abilities to defend us.”

P11 reflected on the need to support homeland security agencies stating,

This class has taught me that I need to stand in support of the agencies that work to protect us, because at the end of the day, there are those who wish to harm us and they will do so if given the chance. Homeland security most likely serves the biggest role in making sure that does not happen.

P5 added to this, reflecting on the need to accept specific decisions stating, “I also feel that I am now somewhat more accepting of some governmental-required safety measures realizing the insurmountable task of protecting the general public.”

Reflecting on the specific structure of homeland security, P9 stated, “The most important thing I took away from studying homeland security is an understanding of its structure, purpose and ability to protect the nation as a whole.” P12 added to this by writing, “I learned what a great thing it is that we have homeland security. It makes me feel more secure about the actions they are taking to protect the country from outside threats, even domestic threats in different ways.”

P14 reflected on an evolving enemy — one that becomes more difficult to defend against — writing, “The enemy is adapting and finding new ways to not only attack us, but to recruit on our soil using modern technology and the internet.” When discussing this difficult task, P15 stated, “I have an understanding to what terrorists want and how they carry out attacks. I have a greater appreciation for the United States Government, the Department of Homeland Security, the CIA, and the FBI.”

Importance of a Homeland Security Education. Within the theme of the importance and need of a homeland security education, students reflected on the need to understand homeland security. P1 stated, “It has been eye opening and educational. The science of emergency response, as well as national security, never took up space in my mind; now it does. It needs to start somewhere; education seems to be a great place.” P1 went on to discuss how the coursework influenced his own understanding, “I thought about homeland security, but it was a passing thought. I’m embarrassed to think that I looked at such an important subject with such flippancy.”

P5 reflected in the need for the citizenry to be informed about homeland security stating, “I feel that the more public that is educated on homeland security, and the necessity of it, the better the understanding will be when necessary limitations on certain freedoms or security searches are required.” P7 added to this writing, “The craziest part to me is that most people that I talk to about these things have no clue that they are even happening. We need to increase our awareness and strive to improve.” P15 added, “The purpose of education is to keep us safe and informed about events that threaten America and innocent civilians.” P8 gave a reason for education, indicating, “Being educated is the first step in fighting the war on terrorism.”

P16 discussed the reasons for homeland security, writing: “Thanks to this class, my mind has opened to be more analytical and realize the complexity of the situation we currently find ourselves in as a country.” P16 added, “I choose not to be ignorant to the fact that we are not as safe as we used to be, but I’m also comforted to know that preparation will help us when these things do happen.” Moreover, as P3 wrote, “I am not afraid of terrorists anymore because of my education on what and who they are. Everyone needs to learn about homeland security to bring what is in the dark to light. That way they cannot hide.”

The second thing that students reflected on within the theme of the importance of a homeland security education was a desire for continuous learning. P3 stated I want to stay on top of the issues instead of reading about them years after the fact.” P7 added

to this, stating, “I believe that the one main thing that changed for me, personally, during this course is my eyes have been opened just a little bit more. It caused me to start taking initiative and learning things on my own. . . . It made me more eager to learn about what our government is doing to protect our national security.” P9 reflected on the need for continuous learning, writing, “Instead of having a distrusting attitude towards it, I have an inquisitive opinion that will drive me to gather more information regarding their programs so I can understand the why and how behind what they are trying to do.” P13 wrote, “I have also realized that this class is only the tip of the iceberg, the more I learn and share the better prepared we will all be.” P6 added, “I am walking away from this course with a fundamental understanding of homeland security, and a desire to learn more as well.”

DISCUSSION

While students did not discuss directly the objectives of the homeland security course, their comments suggested their actual learning met the main objectives for the course.

Table 2 summarizes the objectives and compares them to the themes developed from student journaling. Comments suggesting the theme of “global awareness” demonstrate that students were successfully introduced to “global and intercultural issues regarding homeland security” (Objective 1). Similarly, comments about “vulnerabilities to the nation” demonstrate student awareness of the impact of terrorism (Objective 2) and the demands placed on state and local authorities (Objective 3). Objective 3, which relates to the homeland security operations was alluded to in comments like “the most important things I took away from studying homeland security is an understanding its structure, purpose and ability to protect the national as a whole.”

Table 2. Comparison of Objectives to Themes

Objective	Theme
1. To introduce students to global and intercultural issues regarding homeland security at the national, regional, state and local levels.	Global Awareness
2. To examine the history of homeland security, including its political history, and evolution, particularly as it relates to terrorism.	Vulnerabilities to the Nation
3. To address demands state and local authorities must meet when dealing with national programs and requirements which affect funding and operations on the state and local level during natural or man-made disasters and emergencies.	Vulnerabilities to the Nation

The one theme students mentioned, which was not listed as a course objective, was the “importance of homeland security education.” Since this theme was important to students, it suggests that an objective “to increase student awareness of the importance of continually studying and being current in homeland security” might be added to the course when re-examining the course objectives. At the same time, the other objectives might also be revised to better reflect the student comments about their learning.

CONCLUSIONS

This case study utilized a modified grounded theory approach to analyze student comments and to identify and develop emergent themes. An examination of the themes and comparison to course objectives has led to the development of the following propositions, which further the study and provide greater understanding of the use of reflection in the education process, particularly as it relates to the study of homeland security.

- Reflective thinking and journaling not only serves as a means of assessing student achievement of objectives, but also provides a way of determining the unstated and unarticulated objectives. Reflective journaling provides a way of determining the unplanned learning of students.
- Reflective thinking and journaling are well-suited for emergency services and homeland security education where many of the learners are practitioners and non-traditional students.
- Reflective journaling is a good measure of the degree to which affective objectives such as “global awareness” and “awareness of vulnerabilities to the nation” are covered in a course.

This paper is limited to one case study of the use of reflection in homeland security education. Because a qualitative approach was used and results may be tentative, further study is needed to confirm the propositions and develop better understanding of critical thinking and reflection in the learning process. In addition, further study regarding non-affiliated traditional students is needed in order to understand the influence reflection and journaling has on students lacking emergency services experiences.

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