Exploring the Current and Future Uses of Storytelling in Emergency Management Education

Prepared by Dr. Alessandra Jerolleman

<u>Executive Summary</u>

This white paper summarizes the results of research regarding the current, and potential uses, of storytelling as a strategy by some Emergency Management educators. This paper consists of two parts: first, an introduction to storytelling in both emergency management education and practice; followed by a summary of the findings of a qualitative study of emergency management educators and practitioners. Storytelling occurs in many forms, including the purposeful use of a technique called narrative pedagogy, in which storytelling is used to teach complex topics through the sharing of narratives. It is also used much more informally, as a strategy employed by some Emergency Management educators and trainers, who rely heavily on storytelling and narratives in both teaching and practice. This white paper provides a brief overview of narrative pedagogy, but focuses primarily on the application in the field.

> "…narrative is an inherently human way of constructing and communicating meaning and expressing human horizons of experience and aspiration…"[1]

---

[1] Goodson, Ivor & Gill, Sherton. (2011). *Narrative Pedagogy*. Peter Lang. p. 93

Glossary of Terms
(As defined by the author for this white paper)

Andragogy: The methods and practices of teaching adult learners.

After Action Reports: After Action Reports are retrospective analyses following a disaster response, exercise, or other event.

Case Studies: Case studies are both a research method and a type of narrative in which a particular situation is described in context.

Experience Stories: Experience stories are stories that arise the lived experiences of the teller, although the story may be embellished and some facts may be changed or forgotten.

Folklore: Stories, beliefs and customs of a community passed on by oral traditions.

Narrative: A spoken or written account.

Narrative Pedagogy: A type of interpretive pedagogy in which students and teachers deconstruct, critique and examine experiences.

Oral History: Oral history is the study and collection of historical narratives using planned interviews.

Pedagogy: The method and practice of teaching.

Real-world Scenarios: A scenario based upon an actual, or potential situation, which relies upon detailed factual information and asks participants to imagine what they might do.

Role Play: The practice of acting out a role in a real-world scenario.

Stories: A story is a type of narrative that contains a clear chronology, characters, a setting, some conflict or tension, a point of view, a clear beginning, and presents a normative or generalizable view of events.

Overview

Educators, trainers, and practitioners within Emergency Management often use stories. Stories, and other narratives, are used in many forms, but are particularly useful for discussing and teaching complex topics. A more formal technique, narrative pedagogy, is utilized in some fields, such as in nursing education, and is briefly explored within this white paper. However, stories are typically used in more informal ways within Emergency Management, which is the primary focus of this research. As a result this white paper focuses primarily on the broader use of storytelling in the field. There is some ambiguity in the use of terms like 'story' and 'narrative' across the various sources cited and from the statements made by interviewees. The glossary provides the definitions utilized by this white paper.

The use of storytelling within a classroom environment can take the form of individual or experience stories, shared by the instructor or students, as well as the use of existing narratives found within literature, film, or elsewhere. These stories serve to highlight human behavior through the use of real-world scenarios and case studies, including the decisions and actions of professionals within the field, as well as the instructor's own experiences. They allow students to follow, or participate in, the decision-making processes of professionals in the field, or of those persons with whom Emergency Managers interact. Reflective analysis of these stories allows students to improve their own future actions.

Although this white paper is primarily focused on the classroom environment, storytelling in Emergency Management can take many forms, and is used within the field as well as in the classroom. Stories can be used in planning, policy-making, research, education and training. The research conducted in support of this white paper focused on Emergency Management educators, both within higher education and in a professional training environment. However, research also included some of the literature in planning as well as some of the ways in which stories are utilized within the profession more broadly. This white paper does not look at research methods that rely on narratives, such as narrative analysis, the collection of oral histories, or case study research, all of which have a long history of use within the study of emergencies and disasters, but are largely outside the scope of this white paper. Several methodological treatises have discussed the use of these qualitative analysis techniques in depth.

Storytelling and narratives are often utilized purposefully, such as in structured classroom activities or planning processes, but various types of narratives are present across organizations at all times. Stories told within organizations, such as Emergency Management agencies, are a means of transmitting both explicit and tacit knowledge. These stories are part of the organizational culture and are passed down to new employees and often re-told in order to perpetuate the culture of the organization. Case Studies and After-Action Reports are other common narratives that are utilized by Emergency Managers. These narratives are often written from within an organization and serve as a component of the institutional memory. Case Studies can also be hypothetical and are often used as training and educational tools. These are just a few examples of the frequent, but informal, use of stories within Emergency Management.

Brief Literature Review

There is a vast literature on storytelling and narratives, one that crosses across several fields, and which is relevant to an attempt to understand the role of storytelling in adult learning, particularly in Emergency Management. A smaller subset of literature exists that has focused on storytelling within planning, training, and education. This literature review provides a very brief overview of some of this literature, as a starting point for future more in-depth research into storytelling in Emergency Management.

Within the extensive literature on storytelling and narratives, there are several ways in which the concept of storytelling is defined (although it is often not defined explicitly), and much discussion around what constitutes a narrative versus a story. As used in this paper, a story is a type of narrative that contains a clear chronology, characters, a setting, some conflict or tension, a point of view, a clear beginning, and presents a normative or generalizable view of events. Under this definition, formal written narratives based on actual events, such as case studies, do not clearly fall within the parameters of a story, as they do not always contain all of the required components. Similarly, scenarios in which all participants are part of the creation of a narrative do not always fit this description, although they can certainly be designed to include all of these elements. It is worth noting, however, that within the literature, some of the definitions of narratives and storytelling are so expansive as to allow the majority of human communication to fall within the bounds of story.

There are many uses for stories such as: memorialization (a function often seen following disasters and emergencies), the creation of a professional identify (as described further below), promoting empathy and compassion (as several interviewees note), providing context (such as examples of theory in action), assisting with meaning-making, upsetting the status quo (such as when narratives are used to build empathy in protest movements) and transmitting information and emotion (Easton, 2016).

This literature review covers the many ways in which stories and narratives have been discussed within the literature, and does not engage in questioning the validity of the various definitions utilized. The working definitions that have been adopted for this study are provided in the glossary of terms presented at the beginning of this report, although some of the works referenced do include clear definitions of terms, others simply take for granted a basic understanding of the term story. While it may be a worthwhile endeavor to further clarify the definitions as they relate to the discipline and practice of emergency management, it is not within the scope of this paper. Instead, this paper provides an overview of the literature and presents the findings of a qualitative study of emergency management educators and practitioners. Quotations from study interviews are interspersed throughout the literature review when they illustrate a point referenced within the literature.

Humans and Stories

According to Caminotti and Gray, storytelling is a sense-making device that helps people to both define their own identity and to understand others, where the act of learning is actually a process of sense-making (Caminotti et. al, 2012). Human beings naturally use storytelling and narratives, both within and outside of institutional and educational contexts. In fact, people often understand their own experiences through the creation of personal narratives, something referred to as human mythopoesis (Willis, 2011), a key reason for the social sciences' interest in narratives. Goodson and Gill argue that narratives provide a means of structuring the chaos of life, and that in fact all of life is embedded within a series of narratives (Goodson & Gill, 2011).

Stories are particularly useful for the transmittal of tacit knowledge, that knowledge that comes from practice and is not easily written or transmitted (Polanyi, 1967). They serve multiple educational purposes when utilized in the context of training, according to Rae (2016) these can be thought of as: 1) context, stories provide useful background and context when concepts are being described; 2) interest, stories serve to engage, or at times, re-engage the listeners; 3) importance, stories make the consequences of ignoring a concept real and underscore what the training is attempting to convey; 4) authority, stories provide evidence that adds to the authority of the information being provided; and, 5) realism, stories allow the listener to feel as though they might themselves be in that situation one day and applying the same concepts.

Applied fields, and those that deal with crisis situations have looked at the role of stories, perhaps in part due to the very nature of the education of practitioners within those fields: industrial safety, nursing education, management and emergency medicine. The field of planning has also looked to storytelling as a tool in public processes. For example, a planner might use storytelling techniques to paint a picture of the impacts of historical, or potential, flooding. Providing a story and visuals can help the public to more clearly visualize potential impacts and may also cultivate deeper understanding and confidence to ask questions and take action."

There have been several typologies created to describe the types of stories and narratives that people utilize, generally and within contexts such as the classroom. These typologies are somewhat similar to each other, but the three types of stories that Caminotti and Gray describe in terms of adult learning are the most relevant categorization for the purposes of this white paper. The three types of storytelling are: 1) stories based on experience, where teachers can connect the experiences that they share with the new information being presents; 2) role play, in which students are asked to take on roles in fictional scenarios; and 3) case studies, in which actual events are presented in a brief narrative and utilized as a learning tool.

Andragogy

The concept of andragogy, as distinct from pedagogy, was first introduced to Europe in the 19th century and was popularized by Knowles in the 1970s as both a philosophy and a set of guidelines. Under an andragogical approach, the instructor functions as both guide and mentor, not simply a conveyer of knowledge. Knowles, and others, argued that adult learners are not interested in the same things as younger learners, who have less experience, and that adults are not simply passive receptors. They bring their own experiences and understanding to the classroom with them.

> "Adults don't have to be in a classroom. You have no hold over them so you
> have to begin by realizing that you need their buy in for everything you want
> to teach them."

Knowles provides six core principles of andragogy: the learner's need for the knowledge; the learner's self-concept; their prior experiences; their readiness to learn; their orientation towards learning; and, their motivation to learn (Knowles et. al., 1998). All of these principles must be applied in the classroom, and also catered to the specific situation and learners. The model is one based on adapting to the learners, and being responsive to their needs and desires. The connection that is formed with the learner is vital to the transformation that occurs.

Andragogy is particularly well suited to an applied discipline like Emergency Management, because it focuses on the application of knowledge to real life situations (Forrest III et. al., 2006). In this model instructors are not simply conveying information, but are instead guides in a process, or as part of a transaction between the students and the instructor. The types of stories that might be used in the classroom are those that illustrate complex choices where there are no easy answers, and no one option is without pros and cons (Caminotti & Gray, 2012). In order to be effective, stories should also clearly relate to the goals of the classroom, something clearly articulated by several interviewees.

> "Using personal stories engages the students more deeply into the topic you
> are talking about, brings an emotional and human connection."

Given the fact that the learners are adults, it is worthwhile to look at some of the principles of andragogy, as described above; however, the field of education has long looked at the use of stories, even prior to the popularization of the term andragogy. Therefore much of the literature referenced in this white paper as pertaining to pedagogy, is in fact describing the teaching of adults without distinguishing between pedagogy and andragogy. Willis, for example, does not distinguish between pedagogy and andragogy but was writing specifically in an adult learning journal, describes three types of learning, all of which are facilitated by the use of stories (Willis, 2011). These are: propositional pedagogy, which passes on information; skilling pedagogy, which teaches how to do a thing; and, transformative pedagogy, which invites learners to change. In fact, Willis suggests that all three types of

elements are facilitated by most storytelling, but that storytelling supports transformative learning the most. It is easy to see how all three types of learning are vital to Emergency Management instruction.

Narrative Pedagogy

Narrative pedagogy is considered a type of interpretive pedagogy, as such the pedagogical approach is one in which students and teachers deconstruct, critique and examine experiences. Narrative pedagogy was developed as a formal pedagogy in nursing education by Diekelmann in 2001. The pedagogy consists of the communal development of narratives in order to facilitate joint meaning-making in the classroom. The approach treats teacher and students as part of a reciprocal relationship, in which converging conversations are utilized as experiences are shared Diekelmann (2001). This type of pedagogy is closely aligned with the principles of andragogy, and as such well suited to adults.

A study of nursing students' experience with courses that utilized narrative pedagogy, conducted in 2006, found that the students felt that they were able to apply multiple perspectives, pool their wisdom, and very often challenge their assumptions (Ironside, 2006). Interestingly, the same study found that teachers themselves had to go through a process of unlearning their prior methods of teaching, while students had to unlearn their prior ways of thinking.

Goodson and Gill (2011) describe the narrative encounter within this method as an opportunity for educators and listeners to use dialogue to create new understandings. This approach envisions the learner and educator as equal, alert participants, both of whom bring their assumptions and prior context. This approach to pedagogy requires a relationship of caring, respect and love, in which the teacher brings of themselves through their own personal narratives and what the authors describe as authentic engagement. This type of narrative pedagogy, which is less structured than what was described by Diekelmann, is far closer to what the interviewees described as their use of stories in the Emergency Management classroom.

Storytelling in Planning

In addition to the academic literature, there is also a body of practical guidance for practitioners. Some of the articles described above are efforts at taking academic findings and rendering them available to practitioners. However, there is also a body of literature written by practitioners and for practitioners, both advocating for the use of storytelling and also providing some parameters and definitions. Several recent articles provide practical advice, and also make the argument that storytelling should be utilized more frequently. Sandercock (2003), writes about the use of stories in planning, suggests that the role of storytelling in planning and in policy is not sufficiently understood. He suggests that story is a fundamental way in which to critique current practice and to serve as a catalyst for change.

He provides specific guidance regarding the necessary properties of stories if they are to be utilized successfully. These elements are: a clear explanation of the story, a measure of generalizability, the inclusion of a temporal sequence or sequential framework, adherence to storytelling conventions such as having a protagonist, and the inclusion of moral tension. Similarly, Walljasper (2018) argues that storytelling is overlooked as an effective tool, and suggests that effective storytelling by planners requires the use of vivid details; engagement through active verbs; success stories that can provide hope; the incorporation of community stories; highlighting every day people; and. using drama, humor and suspense.

Rojas (2018), writing in Planetizen, provides the following argument for why urban planners can benefit from the use of stories. He suggests that storytelling generates interest, empowers residents, increases understanding of the community, and also improves communications. This description of the value of stories is not dissimilar from the ways in which the value of stories in the classroom has been described.

Rojas describes the function of stories as one of both conveying information, preserving culture, promoting moral values, and increasing empathy. Sandercock adds to this an understanding that stories assist with multi-cultural understanding. An additional function has to do with memory, as described by Walljasper, stories are remembered best. As a result, storytelling can be a tremendous tool when planners are dealing with sensitive issues, such as highly contested and politicized questions around climate. The process of incorporating storytelling can be as simple as allowing space for the sharing of memories and experience. Some interviewees reported utilizing storytelling successfully in local planning efforts around emergency management, particularly hazard mitigation.

Storytelling in Training and Practice

Training for industrial safety has long relied on the use of real-world examples, or practice stories as defined within this white paper, and storytelling in which the more formal definition of a story might be utilized (Rae, 2016). Stories of prior accidents are a way to allow the learners to witness the uncertainty and subjectivity that permeates decision-making in high consequence environments. They also allow the listener to understand facts in context, such as when learning about hazardous chemicals and their properties.

Hayes and Master (2015), in writing about training for safety decision-making within high consequence / high risk environments, such as certain industrial or nuclear applications, observe that stories can be a great teaching tool when learning from mistakes is impossible due to the magnitude of the consequences. Stories can also be a means through which intuition can be drawn upon and can combat complacency. In these environments they suggest relying on a safety imagination, utilizing stories and potential case as learning tools.

Another way in which Emergency Management has used storytelling, particularly in response, is as a tool for reconstituting past events fully in order to develop case studies. This use of stories relies upon the creation of a collective story, similar in some ways to the narrative pedagogy described previously. A group storytelling approach, as it is discussed within the literature, can be used to assist with the recollection of events and to foster reflection (Vivacqua & Borges, 2011). Organizational storytelling has been described as a form of institutional memory that both recreates the past and provides insight into the culture of the organization (Yiannis, 2011). These stories serve to justify and explain the actions of organizations, as well as to transmit values. Organizational narratives may be transmitted orally, but can also be captured in reports.

This brief literature review provides the background for the qualitative study which is described in the following sections.

Methodology

The methodology for this white paper consisted of a brief literature review, followed by the creation of a survey tool and qualitative interview guide (see Appendices). Prior to commencement of the research, the methodology and tools were submitted to Jacksonville State University's Institutional Review Board, which found the research to be exempt.

The survey was disseminated utilizing various networks within the field, including mailing lists, face book groups, the Higher Education newsletter, and other avenues. Survey respondents were queried regarding their willingness to also participate in an informal, 45 minute, phone interview. The interviews were all transcribed and coded as part of the analysis.

Overall, 22 individuals responded to the survey and 9 participated in phone-based qualitative interviews. Informal feedback was also gathered from an audience of around 20 persons at a presentation of preliminary findings given at FEMA's Higher Education Conference, held in June of 2019. This presentation provided an opportunity for participants to share their feedback on the preliminary findings and allowed the researcher to seek confirmation of what had been shown via the survey and interviews.

Limitations

It is important to note the limitations of this study. The convenience sample utilized is very small, and may be heavily weighted towards those individuals who self-selected to participate and have some interest in the use of storytelling and narratives. Further research would be necessary in order to understand just how widespread the use of storytelling actually is, across the breadth and depth of Emergency Management programs.

Summary of Findings

Although narrative pedagogy is not currently being expressed utilized, storytelling is. Stories are often utilized to illustrate theories, connect to student experiences, and to build understanding in those new to the field. According to the respondents, narratives draw students in and increase attentiveness and retention. The use of narratives often relies on learner participation, both as sharers of narratives but also as participants in role-playing exercises and other interactive activities.

A wide variety of narrative types are being used in the classroom, ranging from the recounting of war stories to the use of formal case studies, and even fiction. Instructors and professors may share deeply personal stories, utilize video interviews with community members, or attempt to use humor to engage students.

The findings from the survey and interviews aligned in many ways with the theories presented in the literature. Respondents described the use of storytelling to provide all of the functions described by Rae (2016) and Rojas (2018), such as context, interest, importance, empowerment, understanding, empathy, authority, and realism. The role of storytelling in assisting with multi-cultural understanding, as descried by Sandercock (2003), and memory, as described by Walljasper (2018), were also brought up several times. Respondents also reflected the use of all three types of storytelling as outlined by Caminotti and Gray (2012): stories based on experience, role play, and case studies.

Survey Findings

Ninety-one percent of respondents reported utilizing storytelling and narratives in the classroom. Of these, eight-six percent utilized personal anecdotes from the instructor, and fifty percent utilized anecdotes from their students. Respondents provided further information via detailed comments. The comments described the use of narratives for purposes such as: illustrating subjects, reinforcing factual information or theory, bringing humor, connecting to the learner's past experiences, highlighting topics that might be new to the students, and to help learners see how to apply concepts in the real world. Narratives were described as providing a source of both optimism and caution, as well as a compliment to dry textbooks. Respondents described successfully using narratives with a wide range of students: young and old, those with and without experience in the field, etc.

In addition to the use of personal and student anecdotes, eighty-six percent of respondents reported relying upon scenarios, eighty-six percent reported utilizing formal case studies, forty-six percent utilized After Action Reports, and eighteen percent have used oral history. Additional comments referenced the use of fiction, in particular dystopian fiction, a strategy which was not identified within the literature review. Participants also described having students role-play in debates, participate in a crisis simulation in an EOC environment, and leading fictional press conferences. The respondents described drawing upon their career experience where possible, as well as upon the assistance of colleagues, but also utilizing case studies that were in the public domain or contained within text books. Some respondents described the use of stories and narratives outside of the classroom environment, in

planning and in recovery work, as a tool to help participants see the value in the process and as a means of bringing local culture and history in to the planning effort. These approaches were consistent with the expectations established by the literature review.

> "If you are teaching a course to students you aren't going to have a high degree
> of success. I teach to course participants, if they are sitting there like statues, I
> engage them and make them course participants."

Survey participants were asked when they found narratives to be the most useful. Responses included: as a starting point for discussion, as a means to make students participants, in order to show the value of the planning, to show the full complexity of an issue, to help those with little experience, and to build coalitions and identify mutual wins.

Finally, survey participants were asked about their familiarity with narrative pedagogies. Twenty-seven percent were not at all aware of the existence of narrative pedagogy, and the remainder were somewhat aware or familiar with narrative pedagogies.

Interview Findings

The semi-structured interviews were utilized as a means of diving a little further into the experiences of Emergency Management professors, trainers and planners with the use of storytelling. It is worth noting that although the primary target audience for this research was professors, many professors within the field come from practice, or continue to practice. As a result, an applied discipline such as Emergency Management, contains a lot of crossover, and it is impossible to fully designate individual respondents as either educators or practitioners. Regardless, certain strategies, such as the sharing of experience stories were more commonly described in relation to the classroom, while others, such as role-play, were brought up as both practitioner and educator tools.

Respondents shared information about their use of stories and narratives across a wide array of contexts, and across the spans of their careers. Generally speaking, the respondents were asked to provide more information about their use of stories and narratives, to share their thoughts on the strengths and weaknesses of this approach, and to elaborate on their understanding of, or reliance upon, pedagogy (or andragogy).

The Use of Narratives

Of the nine interviewees, eight described drawing upon their personal experiences heavily. Some described drawing upon a long career that predated their entrée into higher education, while others described the ongoing use of observations made through the course of their work. Of particular note is the fact that several observed the emotional toll of sharing very personal stories, which in some cases had involved trauma. However, they explicitly described a feeling that these stories served a critical purpose and made students pay attention in a way that less personal narratives would not. Interestingly, they also described utilizing these narratives only when necessary, such as when a class seemed

particularly disengaged. A similar increase in engagement was described in planning practice when stories were utilized.

All of the interviewees remarked upon the importance of understanding the audience, primarily by taking the time to hear from the students or community members. The descried the pitfalls of using stories that are not relatable, or that are culturally inappropriate. The majority of the interviewees were very conscious of the stories they selected, thinking not just about the interests of the audience, but also about the dynamics of the class itself, such as whether there might already have been something similar shared or whether the events described might not be remembered or understood by a particular demographic or age range. In some cases the interviewees talked about changing the stories to suit the audience.

Although the majority of the stories were told verbally, or presented in print, some interviewees utilized audio-visual storytelling. In some cases they relied upon documentary films, or interviews, to show the real impacts of hazards and disasters to actual communities. In other cases they asked students to create audio-visual stories.

Two interviewees talked primarily of their use of storytelling and narratives in training environments, particularly training environments where highly technical information is being shared. In those cases, storytelling was described as a means of showing how to apply the technical knowledge being conveyed, as well as a means of showing the seriousness of the subject matter. One interviewee focused primarily on the use of narratives in community planning efforts in which participants co-create stories about their community, an approach somewhat reminiscent of narrative pedagogy. Although this description of the use of storytelling does not take place within a classroom, students were involved in the facilitation in some cases, and may also have learned from the experience.

Strengths

The interviewees all felt very strongly that narratives are an important and useful tool in their work. They described a wide array of benefits from the use of narratives. A few of these are described below with illustrative quotes.

Stories allow the learners to put themselves in the place of a professional dealing with the dilemma being described:

> "They can all identify with my dilemma and with the worry about the vulnerable
> community. They can put themselves in my place when I'm telling the story."

Stories created empathy and allowed the learners to understand the human impacts of the policy questions being discussed:

> "…we're thinking about these events in terms of loss to life and property but
> there are real people living in these communities and it's really not as simply
> as saying hey were going to move'"

Stories, and role play, allow the learners to disagree about contentious issues without resorting to personal attacks:

> "They could talk about how they felt but they used the story instead of attacking each other. The story allowed them to disagree with the characters instead of disagreeing with one another in their positions."

Limitations

The interviewees did acknowledge certain limitation to the use of narratives. These included: the inability of stories to capture the range of necessary technical detail, the risk of the subject matter being taken lightly, too much attention to minute details, the time required, and the challenges in measuring learning outcomes. A few of these limitations are described below with illustrative quotes.

Stories can give the impression of frivolity, even when issues at hand are quite serious:

> "We have to make sure that people think this is an approach that is going to be seriously taken, it's going to be fun, but it's going to have direct implications."

The stories themselves can be more memorable than the lesson intended:

> "Sometimes they get so much into the story that they remember the details about the story, but forget how to move from the story to what it is that I am trying to teach them."

Learners may assume that the stories are directly replicable and fail to adjust to actual situations:

> "If you only rely on stories that you know, and they are very contextual, it locks you into not having an imagination."

Conclusion and Reflection

As both a practitioner and an academic, I had expected to find a wide ranging and diverse use of stories within both education and practice. My own personal experience using narratives, as well as decades of conversations with colleagues, made me very aware of the strengths of this technique and its widespread utilization. However, I was surprised at the wide range of ways in which stories are being used, and also surprised to find the amount of personal emotional investment in storytelling, with some respondents describing a great personal cost. Upon reflection, I see that reflected within my own experience.

Given the widespread, but still largely informal, use of storytelling within Emergency Management, further research and pedagogical development seems prudent. Developing tools and resources for Emergency Managers seeking to use stories will increase the effectiveness of the method. Opening a space for dialogue between practitioners and educators, regarding their experiences with this method will also be important.

References

Caminotti, Enzo. & Gray, Jeremy. (2012). The effectiveness of storytelling on adult learning. *Journal of Workplace Learning*, 24(6): 430-438.

Diekelmann, Nancy. (March 2001). Narrative Pedagogy: Heideggerian Hermeneutical Analysis of Lived Experiences of Students, Teachers, and Clinicians. *Advances in Nursing Science*: 53-71.

Easton, Graham. (2016). "How medical teachers use narratives in lectures: a qualitative study." *BMC Medical Education,* 16.

Forrest III, Stephen Paul & Peterson, Tim O. (2006). It's Called Andragogy. *Academy of Management Learning & Education*, 5(1): 113-122.

Gabriel, Yiannis. (2011). *Storytelling in Organizations: Facts, Fictions, and Fantasies.* Oxford University Press.

Goodson, Ivor & Gill, Sherton. (2011). *Narrative Pedagogy.* Peter Lang

Hayes, Jan and Master, Sarah. (2015). Knowing stories that matter: learning for effective safety decision-making. *Journal of Risk Research*, 18(6): 714-726

Ironside, Pamela M. (2006). "Using narrative pedagogy: learning and practicing interpretive thinking." *Issues and Innovations in Nursing Education*, p. 478-486

Knowles, Malcom S., Elwood F. Holton III, & Richard A. Swanson. (1998). *The Adult Learner*. Butterworth-Heinemann: USA.

Polleta, Francesca. (2006). *It was Like a Fever: Storytelling in Protest and Politics*. The University of Chicago Press: Chicago

Polanyi, Michael. (1967). *The Tacit Dimension*, New York: Anchor Books

Rae, Andrew. (2016). "Tales of disaster: the role of accident storytelling in safety teaching." Cogn Tech Work, 18:1-10.

Rojas, James. (February 14, 2018). "Let Me Tell You a Story! Storytelling to Enhance Urban Planning Engagement." *Planetizen*.

Sandercock, Leonie. (2003). Out of the closet: The importance of stories and storytelling in planning practice. *Planning Theory & Practice*, 4(1): 11-28.

Vivacqua, Adriana S. & Borges, Marco R.S. (2011). *Using Group Storytelling to Recall Information in Emergency Response.* Collaborate.com

Walljasper, Jay. (June 2018). Planning and the Art of Storytelling. *Planning*: 28-31.

Willis, Peter. (2011). Scherizade's secret: the power of stories and the desire to learn. *Australian Journal of Adult Learning*, 51: 110-122

Appendix A: Semi-Structured Interview Questions

1. Can you give me some examples of how you might use stories or narratives in your classroom?
2. Please tell me about a time when you felt that your use of stories or narratives worked really well.
3. Please tell me about a time when you did not feel that the use of stories or narratives worked as well as you had expected.
4. What do you see as the primary strengths of using narratives in the classroom?
5. What do you see as the limitations of using narratives in the classroom?
6. Do you feel that narratives are better suited to any particular subject matter?
7. Do you feel that narratives are better suited to any particular type of learners?
8. Are you familiar with any pedagogical literature on the use of narratives?

Appendix B: Survey Questions

Storytelling and Narratives in Emergency Management Education

This brief survey is part of a research project funded by the Federal Emergency Management Agency's Higher Education Program. The project seeks to understand the current, and potential uses, of narrative learning as a strategy within Emergency Management education.

1. **Do you currently use storytelling and narratives within your classroom, or in any training that you conduct?**
   Mark only one oval.

   ◯ Yes

   ◯ No

   ◯ Other: _____

2. **Please check the box next to any types of stories or narratives that you utilize in your classroom teaching or training.**
   Check all that apply.

   ☐ Personal Anecdotes (Instructor)

   ☐ Personal Anecdotes (Students)

   ☐ Scenarios

   ☐ Case Studies

   ☐ After Action Reports

   ☐ Oral History Narratives

   ☐ Fiction

   ☐ Other: _____

3. **Please describe your use of narratives in the classroom**

   _____

4. **Under what conditions do you find narratives to be most useful? Do you find them more useful with certain types of students, particular subject matter, etc?**

   _____

5. **Are you familiar with narrative pedagogy?**
   Mark only one oval.

   ( ) Yes

   ( ) No

   ( ) Other: _____

6. **Are you willing to participate in a brief phone interview for this research?**
   Mark only one oval.

   ( ) Yes

   ( ) No

   ( ) Other: _____

7. **Please provide your name and contact information in order to be contacted for a follow up interview.**

   _____

Appendix C: Alt Text

Survey Questions Image #1
Storytelling and Narratives in Emergency Management Education

This brief survey is part of a research project funded by the Federal Emergency Management Agency's Higher Education Program. The project seeks to understand the current, and potential uses, of narrative learning as a strategy within Emergency Management education.

1. Do you currently use storytelling and narratives within your classroom, or in any training that you conduct? Mark only one oval.
   - Yes
   - No
   - Other:
2. Please check the box next to any types of stories or narratives that you utilize in your classroom teaching or training. Check all that apply.
   - Personal Anecdotes (Instructor)
   - Personal Anecdotes (Student)
   - Scenarios
   - Case Studies
   - After Action Reports
   - Oral History Narratives
   - Fiction
   - Other:
3. Please describe your use of narratives in the classroom
4. Under what conditions do you find narratives to be most useful? Do you find them more useful with certain types of students, particular subject matter, etc.?

Survey Questions Image #2
5. Are you familiar with narrative pedagogy? Mark only one oval.
   - Yes
   - No
   - Other:
6. Are you willing to participate in a brief phone interview for this research? Mark only one oval.
   - Yes
   - No
   - Other:
7. Please provide your name and contact information in order to be contacted for a follow up interview.