Storytelling as an Instructional Technique

Recommendations for Military Instructors

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Abstract

Military educators intuitively use storytelling in their classes to illustrate key instructional points, demonstrate practical application, and maintain student interest. Shared experiences among students and the instructor are often central to the methodology used to train soldiers and officers on critical skills and knowledge. The purpose of this study was to generate principles for preparing and delivering stories in a military training context. The study explored the storytelling experiences of 15 military instructors and their students in officer education courses at three Army schoolhouses. Instructors reported telling stories from personal experiences to enhance student understanding and motivation, and students described instructors' storytelling as beneficial and, in some cases, essential to their success in the course. Instructor storytelling contributed to both instructor and subject matter credibility, encouraged application and synthesis of the material, and improved the instructor/student relationship overall. The study combined analysis of instructor and student experiences with previous research findings on adult learning, storytelling, and effective instruction to generate practical guidelines for the use of personal stories to enhance learning outcomes.

Background of the Study

The connection between stories and education is a natural one represented in the root of the word "story" itself. The word story is derived from the Greek word for "history," which means one who is "wise" and "learned" (Seidman, 2019). The origins of narrative traditions—oral histories that serve to preserve and pass down vital information through generations—were established even before humans began

recording history (Bowman, 2018). Educators often recognize the value of a good story in teaching and use narrative in ways that enhance learning, providing relevant illustrations that aid the recall of information.

Storytelling has been the subject of extensive research, with studies supporting storytelling to bolster positive relationships between instructors and students as well as between leaders and subordinates, and to enhance student engagement in a variety of educational settings (Adams et al., 2007; Auvinen et al., 2013; Sabio & Petges, 2019). Stories "have the potential to influence culture and to help people connect, develop genuine understanding, and unite around common purposes" (Aidman & Long, 2017, p. 106). An effective story can "encapsulate, contextualize, and emotionalize a message" (Pink, 2005, p. 104). Perhaps an even more powerful outcome of the use of stories in an educational context is the connection between the instructor and student and how that connection impacts the outcomes of the training or educational program.

The purpose of this study was to generate recommendations for using storytelling as an instructional technique in military training and education programs. Through a review of the literature on effective storytelling and the investigation of experienced instructors' use of storytelling in military education courses, this study was designed to generate knowledge that may apply to effective instructor training and education on the topic of storytelling as an instructional technique in military training and education.

Relevance of the Study

This study aimed to contribute to the literature on storytelling in adult education learning environments and explore the impact of instructor storytelling in military training courses. While a significant body of literature exists connecting storytelling to positive outcomes in management and leadership and in college classrooms, a search of existing studies finds no specific research on connections between storytelling and outcomes in a military setting. In addition to gaps in the literature on storytelling, findings on instructor credibility and self-disclosure have primarily been presented in the context of undergraduate college courses. This study sought to explore the perceived impact of those instructor behaviors in a military context as well. By informing the literature and providing practical recommendations, the research-

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er's primary goal was to offer simple and achievable ways to improve instruction in military training and education.

Review of the Literature: Instructional Effectiveness and the Neuroscience of Storytelling and Adult Learning

The scholarly literature on adult learning and instructional effectiveness provides foundational background for this study. Specific areas of relevance include the study of instructor credibility and self-disclosure, narrative instructional techniques, and the neurocognitive link between stories and learning. Prior research in these areas informed the research questions in the study and provided insight when exploring the findings and implications of this effort.

Instructional Effectiveness: Credibility

A significant body of literature on instructional effectiveness has focused on the issue of instructor credibility, with consistent findings that correlate instructor credibility with student outcomes, motivation, and cognitive learning. Stoltz et al. (2014), for example, propose that "teacher credibility may be the most important factor in the instruction process" (p. 167). In a study on verbal aggression in the college classroom, Myers (2001) asserts that instructor credibility is one of the most important variables in the relationship between instructors and students. Myers (2001) maintains that if a student does not perceive that the instructor is credible, the pair is unlikely to develop a positive or meaningful relationship, which can inhibit the student's ability to learn.

Contributing to the research on instructor effectiveness and building credibility, researchers have explored the impact of instructor self-disclosure on student impressions of the instructor. For example, uncertainty reduction theory maintains the notion that in order to develop a relationship with someone, a person must gain information about another person, develop trust, and thereby reduce both cognitive and behavioral uncertainty between the two parties. According to the tenets of uncertainty reduction theory, appropriate self-disclosure can decrease uncertainty and increase communication and positive affect (Aidman & Long, 2017). In instructional settings, instructors who disclose relevant and appropriate personal information increase perceptions of caring and affinity with students' experience (Myers & Bryant, 2004). This was demonstrated in a study of college students' perceptions of their instructors, effectively self-disclosing information relevant to the students or the course material. It resulted in a positive impact on perceptions of the instructors' character, caring, and competence, which are the three components of credibility (Myers et al., 2009).

Instructor credibility can be positively influenced by the instructor's self-disclosure. Meluch and Starcher (2019) study instructor disclosure of communication apprehension and its impact on public speaking and student perceptions of instructor credibility. The study found that students rate instructors who disclose personal experiences of communication apprehension as more competent than instructors who do not disclose this type of information. Further, Meluch and Starcher's results indicate that students perceive instructors who share personal experiences with their students as important resources to overcome their own apprehension. Instructors who use self-disclosure are perceived as supportive and competent. These results echo previous research by Downs et al. (1988), who found that instructors who used self-disclosure and personal narratives at a higher rate to clarify course content were rated more highly when compared to their counterparts who did not use these techniques as often.

Instructor self-disclosure not only impacts the student's perception of the instructor but also has a positive connection to cognitive learning. In a study investigating whether teacher self-disclosure increases student cognitive learning, Stoltz et al. (2014) found that self-disclosure is a significant predictor for test scores on definitions. They also found that self-disclosure marginally predicts perceptions of relevancy in a sample of 102 university students when Stoltz et al. (2014) compared lecture and self-disclosure to an otherwise identical lecture without self-disclosure. In a study of large class sizes in a university environment, Solis and Turner (2016) found that instructor self-disclosure "expressed to students a likeness between the instructor and students" (p. 37) and promoted positive student-instructor interactions. Students indicate that instructor self-disclosure and caring leadership makes the class feel smaller. Students report that when the instructor shares personal experiences and stories related to course material, student motivation to learn and attend class increases as a result. Appropriate situational self-disclosure by instructors is one way instructors can bolster their relationship with students and enhance learning outcomes.

The Neuroscience of Narrative

Consideration of cognitive facets of neuroscience further illustrates a narrative's potential power in education and training. In their study exploring how aspects of successful psychotherapy might be used to enhance learning, Cozolino and Sprokay (2006) suggest principles that link storytelling to learning through prior findings in neuroscience that explore the social and emotional aspects of the brain. They find that the experience of listening to a story activates multiple parts of the brain simultaneously, combining sensory images, logic, and words, resulting in an emotional response that strengthens connections in the listener's memory (Cozolino & Sprokay, 2006).

In 2010, Princeton University neuroscientists Stephens et al. (2010) examined brain function and storytelling, with findings that underscored the social aspects

of the brain. In their research on verbal communication and neural coupling, they paired speakers and listeners whose brain activities were monitored through MRI scans. One person in each pair told a story from his or her own experience while the other listened. The brain scans reflected "mirrored" activity; the brain scans were synchronized in activity in the same areas of the brain, with a slight delay on the listener's part. In other words, the functioning of these "mirror neurons" indicate that the listener has similar brain activity as if he or she experiences the story in the same way as the speaker. This synchronized, empathetic perception has the potential to support positive outcomes in educational settings.

Storytelling as an Instructional Technique

In educational contexts, narratives provide a form of experiential learning in which the learner encounters experience through stories, forming new neural connections to solidify knowledge gained (Clark & Rossiter, 2008). In classrooms, the use of case studies, instructor stories, or students' sharing of personal stories often serves as the shared concrete experience that initiates the cycle of learning that Kolb's (1984) experiential learning model prescribes. Forrest and Peterson (2006) maintain that when adults share their own experiences, they are sharing their stories, naturally linking experiential learning and storytelling as instructional methodology. Similarly, Clark and Rossiter (2008) emphasize the linkage between experiential and narrative learning, arguing that learning through experience is, at its foundation, a narrative construction of knowledge. Sometimes referred to as narrative pedagogy, storytelling in education is effective for teaching complex thinking skills because "it encourages students to challenge their assumptions and think through and interpret situations they encounter from multiple perspectives" (Grendell, 2011, p. 65).

McNett (2016) suggests that stories provide a type of virtual practice for the brain, stating that stories work our "mental muscles" in the same way that physical play sharpens motor functions. In discussing this phenomenon, McNett cites Gottschall's suggestion that "stories act as cognitive flight simulators that help us practice without consequence navigating human and social life" (Gottschall, 2012, as cited in McNett, 2016, p. 185).

Methods

The study was conducted at the Maneuver Support Center of Excellence at Fort Leonard Wood, Missouri, a training institution that houses three Army branch proponent schools and provides training from entry-level basic training through professional military education courses for both enlisted soldiers and officers. The popu-

lation of the study was comprised of experienced instructors and students in three Captains Career Courses. Respondents consisted of 15 of the 32 current instructor/small group leaders from the instructor faculty in the three courses and their students. Instructor volunteers were recruited through email requests with permission of the course managers and directors of training at each school. After discussion with the course managers, the pool of participant candidates was narrowed to those with at least six months of experience as a small group leader. This generally equated to an instructor having taught the full 20-to-24-week course at least once. The courses in this study are taught in small groups of 12 to 16 students per small group leader. Nine students participated from the current courses in session, with students recruited from classes that had been in session for longer than one month, to provide an adequate base of experience with the small group instructor.

Sampling

When the goal of the research is to understand a concept or theory, Creswell (2012) recommended the use of theory or concept sampling. This purposeful sampling strategy samples individuals or sites because they can "help the researcher generate or discover a theory or specific concepts within the theory" (p. 208). In this case, a comparison of instructor impressions, student reactions, and findings from the literature intended to explore the concept of effective storytelling as an instructional technique. The sample was derived based on the availability and willingness of the current population of experienced small group leaders and students from three schools to participate in the study. Once data collection had begun, the researcher encountered some reluctance in volunteer availability and willingness to participate. At that time, additional snowball sampling (Creswell, 2012) was used to generate additional participation, with volunteers providing an endorsement to a second solicitation for respondents.

Research Questions

Data collected in the study focused on the following research questions:

- RQ1: What are the experiences of military instructors in using storytelling as an instructional delivery technique?
- RQ2: How do students perceive the role of storytelling in their learning experience?
- RQ3: What characteristics of effective storytelling are reflected in incidents that experienced instructors described in a military training and education context?
- RQ4: How well does current instructor training for new military instructors provide preparation for the use of stories as an instructional technique?

Data Collection Methods

Data collection for the study consisted of semistructured interviews and the critical incident technique (CIT), along with a review of the current instructor training curriculum for military instructors. In this study, interviews focused on instructor and student experiences with storytelling in their classes to explore instructors' perceptions about how stories affect student motivation and learning outcomes.

Questions used in instructor interviews included general inquiry about whether they use stories in their classes and how they deliver the story (e.g., planned or spontaneous; personal or third person).

As a starting point for the interviews, instructors were asked to describe their intent when using stories and their perceptions of how students react to their stories. They were asked about whether there were types of stories that they perceived were more effective or had greater impact. Finally, they were asked whether they felt their storytelling had an impact on their relationship with their students, and if so, in what way.

Students were asked about whether their instructor shares personal or other kinds of stories with them in class. They were asked to recall a specific story that they remember and how they felt about the story and the instructor's use of it. Students were asked what kinds of appealing stories instructors might use, and to describe any types or characteristics of stories they felt might have a negative impact.

The CIT has been described as a set of procedures used to collect observations of human behavior (Byrne, 2001). The technique was first used during World War II to collect information about the training needs of pilots. It takes its name from the process of "collecting information about critically important (critical) performance in special situations (incidents)" (Rothwell & Kazanas, 2004, p. 70). According to Jacobs (2019), it is based on the idea that "gathering actual stories about a certain activity that have led to both effective and ineffective outcomes can provide unique insights about that activity in general" (p. 133). All interviews and CIT sessions were recorded and transcribed to text following the session.

Each instructor was given the opportunity to share critical incidents following the initial interview. The CIT used the following prompt to elicit stories from instructors: *Can you think of a time when you've used a personal story during instruction with either positive or negative results? Please tell me about that experience. What was the story? What did you intend students to get from the story? Why do you think it was effective or ineffective?*

Data Analysis

The process of analyzing data from interviews and CIT sessions followed the recommended process presented by Creswell (2012). This process involved the re-

searcher (a) organizing and preparing the data for analysis, (b) exploring and coding the data, (c) building descriptions and themes, (d) representing the description and themes, (e) interpreting the findings, and (f) validating the accuracy of the findings (Creswell, 2012, pp. 261–262).

Following each interview, the recording was transcribed using transcription software to create a text file for review. Once transcripts were reviewed for accuracy, the researcher used hand coding to organize information. This coding process involved segmenting and labeling text to form descriptions and identify broad themes in the data (Creswell, 2012, p. 243). All themes derived from the coded data were used to develop the final set of guidelines for recommended inclusion in instructor professional development programs. Data collected from the CIT sessions were analyzed after the interview data, using similar coding techniques to identify common themes among stories used by the instructors.

To ensure reliability in the coding process, Creswell and Creswell (2018) recommend cross-checking codes for intercoder agreement. This process involved comparison of independently coded analysis between the primary researcher and another coder to demonstrate consistency in the coding process. Miles and Huberman (1994) recommended that coding be at least 80% in agreement for good qualitative reliability (as cited in Creswell & Creswell, 2018). In this case the cross-check indicated agreement above the 80% threshold.

Findings & Recommendations

This section presents findings from data analysis and is organized around the research questions (RQ) at the center of the study.

RQ 1: What are the experiences of military instructors in using storytelling as an instructional delivery technique?

The first research question addresses the experiences of instructors using storytelling as an instructional technique. The perceptions of their use of stories and the role stories play in their classrooms was documented. Semistructured interviews verified that all instructors have used stories in their classes in either deliberate (planned) or spontaneous situations, or both. Themes emerging from interviews that illustrate the ways instructors use stories centered on three thematic categories-- the instructor's intent in using the story, the types of stories told, and the method used when employing storytelling.

Instructors were readily able to describe their own intent associated with their own use of stories in their classes, and generally listed similar intentions when in-

cluding stories in their instruction. They describe incorporating stories to add creative interest to a dry topic or presentation, to emphasize or demonstrate the importance of the topic or learning objective, and to provide a concrete example relevant to the topic for illustrative purposes. Several instructors cited the way a story serves to illustrate their own firsthand knowledge of the topic. One of the most often cited uses of stories among these instructors was the intent for students to learn from someone else's mistake or failure; 13 of the 15 instructors use stories with that intent.

All instructors indicated their primary source of storytelling is personal experience. The two most often cited types of stories were those that described their own mistakes or some failure from their own experience and those that described interpersonal relationships or conflicts from their leadership experience.

RQ2: How do students perceive the role of storytelling in their learning experience?

The second research question explores student perceptions of their instructors' use of stories in the Captains Career Course. Interviews with nine students assigned to different small group leader respondents revealed several themes. Students spoke about the appeal of stories as an instructional technique and offered some insight as to aspects of storytelling that can have negative impacts as well.

The student respondents in the study were generally positive in their opinions about instructors using stories as part of their lessons. All respondents saw stories as a helpful and essential tool for instructors to use in their courses. In general, students expressed appreciation for instructors' personal experience stories, in most cases rating those stories as more valuable than secondhand stories, examples from movies, or historical vignettes. Students described the appeal of realism and credibility provided by instructor stories and the ways a story can elevate their learning from simple knowledge to higher levels of analysis, application, and synthesis. Students described how a story ties the present learning objectives to previous learning, which synthesizes specific learning objectives with other aspects of the curriculum. Several students indicated that the stories instructors tell increase the students' confidence in the instructor's ability to teach on the topic, but more importantly how personal stories help the students connect with the instructor. One student described it this way: "It feels like they're more invested in the instruction and in you as a person. And then you start to look at them not just as a teacher, but as a mentor as well."

While student respondents generally provided strong support for storytelling as an instructional technique, those interviewed in this study provided some insight as to what types of stories or characteristics of storytelling may have negative results with students. Among student respondents, there was a general sense that stories should relate to the topic of instruction, or to leadership lessons in general.

When describing storytelling behaviors that have a negative impact, students mentioned stories that seemed to be the instructor "gloating," and the stories on sensitive topics might alienate students. They also described how an instructor may tell a story with too rigid of a perspective, presenting the story as "this is the only way" and having fewer positive impacts on their learning. Finally, they warned of instructor self-deprecation as a potential negative as well, requiring a balance to maintain instructor credibility.

RQ3: What characteristics of effective storytelling are reflected in incidents described by experienced instructors in a military training and education context?

When exploring the personal experiences of instructors and students participating in this study, both groups of respondents provided insight into how instructors can tell great stories and use them effectively to achieve educational outcomes. Instructor descriptions of critical incidents in which they have used storytelling in their courses with positive outcomes provided illustration of those insights in practical application.

These incidents underscore principles as described in the instructor and student interviews as well as principles supported by the literature on storytelling and effective instruction. All the instructor respondents in the study provided stories from their own personal experiences as illustrations of effective storytelling. Many used humor, often adding a humorous perspective to a significant failure in their past. Eight of 17 stories described decision-making processes and outcomes, with several instructors describing how they place the student "in" the story to make decisions and compare to the instructor's actual experienced results. A full 11 of 17 effective critical incident descriptions evidenced instructor self-disclosure, wherein the instructor's story described a mistake, shortcoming, or failure with lessons learned.

In considering the training needs of instructors, aspects of the critical incidents linked to narratology can provide insight into the instructors' skill in storytelling. For example, of the 17 incidents provided, most met the structural definitions of a story as defined in the study. To review, a story refers to narratively patterned information with a beginning, middle, and end in which there are events, challenges, or conflicts (plot) and a final resolution of the dramatic tension of the plot. Of note for this study, four of the 17 critical incidents instructors described were missing essential elements of narrative structure. While instructors related experience-based tips, tricks, and recommendations for how to handle a situation, there was often no chronological sequence of events, and no defined beginning and end. These experiential discussions provide insight without a series of events leading to a conclusion with a moral or lesson.

RQ4: How well does current instructor training for new military instructors provide preparation for the use of stories as an instructional technique?

Instructors who participated in this study showed evidence that suggests the existing training provided in the foundational instructor training course yields little in the "how-to" aspects of storytelling. A review of the curriculum in the Common Faculty Development Instructor Course, or CFDIC, supports that conclusion as well. Additionally, no respondent reported any other professional development program or other training on storytelling as an instructional technique.

All 15 instructors who participated in the study reported no specific training on how to use stories as an instructional technique. Yet without exception, these instructors shared personal experiences as a regular part of their interaction with students and have seen positive impacts from the technique. Many reported that their storytelling is planned and generally with an intended outcome, though nearly all respondents reported spontaneous storytelling that occurs because of a need to clarify an instructional point further or as the result of discussion with students or student questions.

Discussion and Recommendations

Based on instructors' own reporting and the feedback from student respondents, the successful storytelling incidents, and instructors' reported outcomes from them, there are several lessons focusing on three areas: depth and transfer of knowledge, student engagement and knowledge sharing, and the trusting relationship between instructor and student.

A primary goal of training and education programs in professional settings, including professional military education, is the transfer of knowledge gained from the classroom to on-the-job performance. In fact, Gagne (1977) described how "the change in performance is what leads to the conclusion that learning has occurred" (as cited in Devine et al., 2014, p. 5). Adult learning theory, including experiential learning theory (Kolb, 1984), recognizes the importance of experience as a teacher.

Because the role of leaders in the military often places the commander in a decision-making role, a significant portion of the curriculum in leader education involves decision-making. The literature supports stories as a means of presenting choices for the audience to consider. Decision stories in which the main character faces a choice with multiple practical courses of action for consideration represent a solid use of stories in adult learning (Caminotti & Gray, 2012). Findings in this study indicating students reject stories when the narrator's choices are seen as rigid or "the only way" support this aspect of good storytelling in the classroom. Instructors in the study who used their personal stories and allowed students to provide input at decisive

points, and those who used their own stories as the foundation for role play reported successful storytelling experiences. Decision-making stories, then, can support students' ability to practice making decisions and consider alternatives; as a result, they may be more likely to transfer competent decision-making skills from the experience to their next leadership position.

Additional evidence from the study and the literature supports the assertion that storytelling encourages transfer from the classroom to on-the-job performance. Both instructor and student respondents reported that when instructors use stories from their experiences, the level of learning is elevated from simple concept memorization or understanding processes and procedures to a greater ability to apply the learning to novel situations, and to synthesize the material with other topics and in other scenarios. The simple act of using a story to clarify a real-world application opens the scope of the learning objective beyond a list of bullet points or descriptive text from a doctrinal manual. The literature supports this clarity of communication on the part of the instructor to elevate the learning. The literature proposes that the "semantic structures and temporal ordering of information in a story act as an attention-focusing mechanism that aids in inquiry, decision-making, and learning" (Andrews et al., 2009, p. 7). Ensuring instructors are well trained on the presentation of stories with decision points, both in terms of the types of stories that are most effective and the method of telling the story to achieve maximum impact, would benefit training and educational outcomes in military professional education.

Findings from this study indicate that both instructors and students value storytelling for its ability to promote student engagement and knowledge sharing. The primary model for instruction in the Captains Career Course is an experiential learning class structure wherein the instructor acts as facilitator and students share experiences to achieve educational learning objectives. From the literature, Andrews et al. (2009) described this effect as well, noting that in classes where storytelling embeds the learner in "contextual, authentic, real-world problems are more engaged, draw on more resources, and transfer learning more effectively" (p. 17). Both instructors and students in this study point to the credibility-building effect of an instructor's ability to share real-world experiences related to the topic of instruction. When an instructor did not share stories, in fact, students reported they might be skeptical of the instructor's expertise in that subject. As the literature indicates, credibility is a critical factor in the instruction process and in the process of building relationships between the instructor and students (Myers, 2001; Stoltz et al., 2014). Instructors reported that students ask more questions and that the level of discourse in the class in general is elevated when stories are presented. Both students and instructors reported that students were more likely to share their own personal stories when an instructor does so, leading to a greater sharing of knowledge amongst the students in the small group in general. The effect directly supports an essential characteristic of the experiential learning methods used in the course, encouraging students to share

knowledge related to the learning objectives. Training on storytelling, if added to the current professional development for new instructors, could extend instructors' expertise in facilitating experiential learning in their classrooms from the start of their instructor assignment.

The literature on effective learning for adults consistently supports the need for adults to learn in a trusting environment (Cozolino & Sprokay, 2006). A trusting relationship between mentor and learner establishes conditions in the brain for changes in neuronal networks—making the brain ready to accept and integrate new knowledge or skills and activating higher order thinking through those connections. "Learners are assisted in moving their thinking activity into the higher brain regions (the frontal cortex), where reflective activity and abstract thinking take place" (Johnson, 2006, p. 64). Respondents, specifically students in this case, reported that an instructor's willingness to tell stories in which they are portrayed as less than the "hero"—those in which they failed or made a significant mistake—made students think more highly of them and increased their level of trust and willingness to expose their own vulnerabilities as well. Instructors expressed intent to have a classroom where it was safe to share, and both students and instructors reported that to some degree, vulnerability encourages trust. While instructors often focus on the training outcomes of their classes, such as whether students achieve learning objectives or whether they can succeed during performance-based assessments, they may overlook the importance of building the team in the classroom to foster those outcomes. Findings from this study support prior research indicating the relationship between instructor and student (Cozolino & Sprokay, 2006), the connection achieved by sharing stories (Stephens et al., 2010), and the trusting relationship instructors' vulnerability encourages all lead to a greater likelihood that students will be more engaged in the class, ask more questions, and explore concepts more deeply (Andrews et al., 2009). In classes like the Captains Career Course where instructional methods focus on experiential learning, a willingness to share experiences among the students and instructors is critical to the success of the methodology. When students report that their instructors' storytelling makes the instructors more relatable, helps students connect with the instructor, and results in more students sharing stories as well, a natural conclusion would be that ensuring instructors have an adequate understanding of how stories influence and educate is critical.

Recommendations

The purpose of this study was to generate recommendations for instructors' use of storytelling in military training and education courses. The process of identifying these recommendations resulted from pairing findings from the study and corresponding supporting evidence from the literature. The resulting recommendations

Table

Guidelines for the Use of Stories in Professional Military Education

Recommendation	Support: Literature & This Study	Guidelines for Action
Select Story		

a. Integrate relevant experiential stories in lessons to bolster credibility of the material and the instructor.	• Correlation of instructor credibility with student outcomes (Stoltz et al., 2014).
	• Instructor credibility is one of the most important variables in the relationship between instructors and students (Myers, 2001).
	• Stories communicate expertise and transfer information (Bryant & Harris, 2011).
	• It is important to align instructional activities and assessment tasks with objectives, and when instruction is aligned with the objectives, students will need to spend less time learning the objective (Raths, 2002).
	• Stories help establish the instructor's competence with the subject matter. Two thirds of students agreed that personal storytelling enhances an instructor's credibility (Current Study, Research Question 2).
		• To find relevant stories to use in class, consider the lesson's objective and ask:
		  • Is there an incident from my own experience in which I have demonstrated this objective?
		  • Have I seen this objective in action?
		• Select and tell stories that are relevant to the learning objective, but don't brag.
		• Select stories with a purpose in mind for the listener.
		• Do not choose and tell stories just to reminisce, vent, or for any other personal reason. If it isn't relevant to the listener, do not tell it.
		• Be specific. It's not interesting to the audience to tell them "I always . . . ." Instead, pick a specific example with specific details and tell that story. You can generalize later.

b. Use self-disclosure stories to establish and build trust between themselves and their students.	• Self-disclosure decreases uncertainty and increases communication and positive affect (Aidman & Long, 2017). • Learning through others' experiences is effective because it involves no negative consequences (Luria et al., 2019). • Self-disclosure in instructional settings results in positive impact on perceptions of the instructor's character, caring, and competence (credibility) (Meluch & Starcher, 2019). • Instructor self-disclosure reduces student apprehension (Meluch & Starcher, 2019) and "expressed to students a likeness between the instructor and students" (Solis & Turner, 2016). • Narrative self-disclosure increases perceptions of caring & instructor credibility (Cayanus & Martin, 2008). • Instructors who disclose relevant and appropriate personal information increase perceptions of caring, credibility, and affinity with students' experiences (Myers et al., 2009). • Instructors and students believed that the instructor's willingness to be vulnerable was helpful in developing the relationship between the instructor and student (Current Study, Research Questions 1 & 2).	• Consider stories in which you aren't the hero. If you learned a lesson, so will the students. They'd rather learn from your mistakes than make their own. • Don't overdo your failure stories. There's a balance between showing vulnerability and maintaining students' faith in your competence. • Humor in hindsight is a great way to keep a painful story from bringing the audience too far down. Leave the audience with something positive. • Vulnerability encourages trust. Share your "lessons learned" from the incident in the story—whether they are lessons about yourself, your skills, or your knowledge.

Table
Guidelines for the Use of Stories in Professional Military Education (continued)

Recommendation	Support: Literature & This Study	Guidelines for Action
Plan & Prepare		
c. Plan, prepare, and practice telling the story prior to integrating into a lesson.	• Instructors who use personal narratives to clarify course content are rated more highly compared to counterparts who do not (Downs et al., 1988). • Good stories need to be some combination of salient, succinct, funny, emotional, moving, clever, true, short, current, or personal (Harbin & Humphrey, 2010). • The storyteller must be comfortable telling the story for the listener to be comfortable with it (Harbin & Humphrey, 2010).	• Consider the "so what" of your story. Why are you telling the story? • Practice telling the story, alone or to someone else, to get a feel for pacing and details to include. • Practice telling your story with enthusiasm, authenticity, and with passion. Playing it safe, being superficial, and using generalizations isn't interesting. • Explain why you selected the story. Don't assume the lesson of the story, or the connection between the story and the learning objective, is obvious to students. Practice drawing the audience's attention to the connection to make the story more effective.
d. Include the fundamental components of a story: • sequence of events • conflict • resolution • lesson	• Building blocks of compelling narratives: challenge, struggle, and resolution (Bowman, 2014) • Effective stories have a definite beginning, middle, and end, and listeners must actively engage in the story in an interactive manner (Bryant & Harris, 2011). • The best stories are ones in which the main character is facing a choice wherein all the practical courses of actions have both pros and cons (Caminotti & Gray, 2012). • Good stories present choices and illustrate the outcome of those choices (McDonald, 2009).	• Consider the story in three acts— • the first act provides background to the conflict, • the second act begins with a turning point in the conflict and ends at the climax, and • the third act takes the climax to its resolution and ends with the lesson, moral, or takeaway. • Present choices, or multiple courses of action to allow the listener to consider the options as if they are in the story. • Take a moment before or at the climax to ask the audience what they would do in that situation?
e. Understand and incorporate a variety of narrative techniques.	• Role play enhances episodic memory (Hagen & Park, 2016). • Storytelling can function to encourage curiosity, knowledge sharing, & stimulate the process of creating meaning. Stories help develop skills necessary for making decisions (Katuscáková & Katuscák, 2013). • Narratives serve to enhance memory through linked associations (Cozolino & Sprokay, 2006). • Stories act as "cognitive flight simulators" helping students practice without consequences (Gottschall, 2012). • The goal of scenario-based training in the military is "to develop cognitive templates such that military personnel experience as many combinations of battlefield variables as possible while in training" (Andrews et al., 2009, p. 11).	• Problem-based instruction uses an ill-structured problem situating the student in the narrative for decision-making. • Narrative-based traditional storytelling, the instructor controls the pacing and release of information and context. Tell part of the story, consider the learning opportunities at various stages of the story. • If you don't have a personal story, find a story from a peer, a historical case, etc. Get to know the story well enough to create the mental image, to pace it, and to be comfortable telling it as you would your own. • One technique is to use a personal experience to walk the students through the scenario. Situate them in the story and let them make choices before continuing with the actual outcomes.

Table

Guidelines for the Use of Stories in Professional Military Education (continued)

Recommendation	Support: Literature & This Study	Guidelines for Action
Telling the Story		
f. Tell stories deliberately, using details, sensory information, and pacing to optimize the effects of their storytelling.	• Instructional storytelling transfers a mental image to the listener – increasing the likelihood of retention (Harbin & Humphrey, 2010). • The story people see, hear, and feel is a composite of every aspect" of the teller—visual, auditory, and kinesthetic (Simmons, 2019). • Pacing, pauses, even irrelevant details create a sense of anticipation—heightened arousal appropriate for learning (Simmons, 2019).	• When telling a personal story, slow down. Reveal key information in small pieces to build suspense. • Add details that create a picture with sensory images, even when they don't contribute in a material way to the "plot." This invites the listener into the story. • For example, describe the scene, physical and emotional details – let the listener know how you felt at that moment. • Consider details that added to the conflict? Mosquitoes biting? Hands so cold they hurt? Nervous or worried about something at home? • Use gestures, describe smells, and use sound effects. • Describe the other people in the story to make them more real to the listener—even a small detail can add to the effectiveness of the mental image.
Telling the Story		
g. Consider unique aspects of their audience when telling stories.	• Storytelling is a dynamic triangle of telling, listening, and story (McDowell, 2021). • Storytellers have the responsibility of respecting and protecting the audience as they travel together through the story (Bryant & Harris, 2011). • Students cited sensitive subjects and rigid perspectives as ways instructors' storytelling may do more harm than good (Current Study, Research Question 2).	• Consider that each instance of storytelling is different. While a story may not work well with one audience, it may be more relevant to another. • It can be helpful to warn the audience if there is sensitive content in the story. • Follow the story with an invitation to students to share their own stories – this can extend the effectiveness of the instructional storytelling.
Evaluate		

h. Assess the effectiveness of a story after each telling to improve instructional effectiveness	• Review of instruction constitutes a formative evaluation with the goal of identifying ways in which the materials are "on target" and ways in which they can be improved (Gagne, Wager, Golas & Keller, 2005).
	• The ability to reflect on personal strengths, weaknesses, and approaches to one's teaching is an important quality of effective educators (Kirpalani, 2017).
		• Following the use of a story during a block of instruction, an instructor should reflect on the storytelling experience to gauge its effectiveness, or areas for improvement.
		• You may want to ask student(s) their impression of the story
		  • What did they liked or not like about the story?
		  • Did the story help them understand a concept or some part of the lesson better?
		  • Did the story raise any questions?
		• Use student feedback and your own perceptions to improve the story for the next telling. Keep notes on findings with other lesson materials for preparation the next time the class is taught.

provide guidelines for instructors and instructional designers on the preparation, development, and implementation of stories in classes. The following criteria were established for the development of these recommendations:

- Each recommendation is grounded in research findings from established literature on adult learning, storytelling, or a combination of both.
- The recommendation provides practical, actionable guidelines for the use of stories, focused on (a) optimizing learning outcomes and (b) strengthening the instructor/student relationship.

The Table provides guidelines for instructors, support from research literature for each, and suggestions for practical implementation of each recommendation.

Findings from this study indicate that instructors are using stories in their classrooms with positive outcomes, but they are doing so almost accidentally, and without the benefit of any significant training on how stories can and do impact instruction, the instructor/student interaction, and learning outcomes. Findings might lead one to ask how much better the student experience and outcomes might be if these instructors had the benefit of training targeted at their storytelling skills. ☙

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