The Teaching of Creativity: Process, Product, Environment, and Assessment

Todd T. Holm

The Teaching of Creativity:
Process, Product, Environment, and Assessment

Todd T. Holm
Marine Corps University

Teaching creativity is an issue gaining more attention. Businesses and universities alike are looking for ways to promote creative and innovative thinking. As universities look for ways to teach and assess creativity, interscholastic speech and debate competition should be held up as a model for such efforts. Through a combination of iterative performances, the mastering of domain knowledge, an environment that encourages/rewards creativity, and feedback based on the Consensual Assessment Technique, forensics offers an ideal environment for students to learn the process of developing creative products.

Interscholastic speech and debate activities (forensics) can teach a variety of skills: critical thinking (Allen, Berkowitz, Hunt, & Louden, 1999; Hill, 1983; Holm & Carmack, 2012; Milsap, 1998; Rhodes, 1961; Williams, McGee, & Worth, 2001); public speaking (Allen, Berkowitz, Hunt, & Louden, 1999; Bartanen &Littlefield, 2015; Colbert & Biggers, 1985; Millsap, 1998; Stenger, 1999); argumentation; literary analysis (Endres, 1988; Lewis, 1988; Lindemann, 2002); character development (Dimock, 2008; McBath (1984); persuasion; analytic skills (Aden, 2002; Allen, Berkowitz, Hunt, & Louden, 1999; Hill, 1993; Semlak & Shandrow, 1976); and research and writing skills (Rogers, 2002; Semlak & Shandrow, 1976. McBath (1975, p. 2) tells us, "Forensics should develop students' communicative abilities, especially the abilities to analyze controversies, select and evaluate evidence, construct and refute arguments, and understand and use the values of the audience as warrants for belief."

In addition, competitive speech and debate helps students develop aspects of their personalities including self-confidence (Holm & Carmack, 2012; Sauro, 2008). A key component of the oral interpretation of literature is emoting empathy which teaches students to see the world from the perspective of others and help us understand the human condition (McBath, 1984). Because of the nature of the activity and the time students devote to travel and event preparation, competitors' time management skills, organizational skills, leadership skills, and creativity are likely to be far more developed than college students who don't face these issues. It is the issue of creativity upon which this article will focus. Forensics provides students with the best possible environment for the development of their creative abilities. Forensics is more than just a creative outlet; through their participation in forensics students are taught to be creative.

To fully understand the issue of creativity in forensics we will look at the need for creativity in our society, then define exactly what we mean by creativity, examine how the activity of forensics fosters creativity, and finally look at how the assessment process in forensics is ideal for promoting, fostering, teaching, and rewarding creativity.

Defining Creativity

Justice Potter Stewart gave us a solid analogy to use for defining creativity when he said he knew pornography when he saw it. Most people can identify creativity when they see it, but to set down parameters that define creativity is more difficult. Part of the problem is that creativity is like, and in some cases overlapping with, several other issues such as innovation, divergent thinking, novelty, and originality. Within creativity research, scholars have identified two levels of creativity; *big C* creativity and *little c* creativity (Schlee & Harich, 2014). "Big C" creativity is that which is demonstrated by individuals who are well-known and eminent in their domain, the proverbial creative genius (e.g. Steve Jobs, Thomas Edison, Leonardo Da Vinci, etc.). "Little c" creativity is that which is demonstrated through everyday problem-solving by relatively ordinary people (Csikszentmihalyi, 1996; McWilliam & Dawson, 2008, Simonton, 2012). Creativity researchers have also identified type A and Type B creativity. "Type B creativity is what educators teach in their classrooms by the means of methods, tools, strategies, and other processes such as brainstorming, visualization, imagination, mind mapping, lateral thinking, questioning, problem reversals and examination of opposites." (Sani, et al, 2011, p. 148-149). They go on to explain that Type A creativity doesn't follow any rule and is not controlled by habit or choice. When children exhibit Type A creativity people label it genius or gifted. "This type of creativity cannot be taught because it is a spontaneous activity." (Sani, et al, 2011, p. 149) These are all valuable observations and distinctions, but they do not provide us with a definition of creativity.

Creativity researchers come from a variety of fields: cognitive psychology, sociology, communication, business, the fine arts, engineering, software development, education, and the list goes on. Each field has a slightly different approach, use, and definition of/for creativity. All creativity is not created equal. "There has been an extensive debate in the psychological literature, for example, about whether creativity is a general phenomenon that applies across contexts, or a domain-specific skill that does not generalize to alternate areas or disciplines" (Marquis & Vajoczki, 2012, p. 2). The idea of creativity transcending domain boundaries is important. If participation in forensics teaches a student the fundamentals of oral interpretation and they master that skill set and then become creative, innovative, and adventurous, they might exhibit creativity in the way they perform literature. In common parlance they push the envelope. They find a new (and ideally better) way of performing literature. They exhibit creativity by producing a product that is novel, effective, and whole (Mishra, Henriksen, & the Deep-Play Research Group, 2013). If we then move the students into a different domain we hope the skills of creativity transfer. If they can cross apply their creativity to public speaking or debate events we would see the skill as transferable. But the argument could be made that all of these events are just variations on a theme. If forensics students transfer the creativity they developed in preparing events for competition to work within their major (engineering, law, physics, economics, etc.) we would be more inclined to see the skill as transferable. Prior scholarship on forensics pedagogy has presented strong evidence that participation in forensics competition results in a variety of increased skill sets. McMillan and Todd-Mancilas' (1991) surveyed forensics participants and found that 89 percent reported improvement in critical thinking skills, 89 percent reported improved organizational, 74 percent reported improved research, and 82 percent reported improved writing skills. Rogers (2005) found that students with a forensics background had higher levels of social responsibility, cultural understanding, and more job offers upon graduation and others found forensics participation correlates to academic success (Colbert & Biggers, 1985; Derryberry, 1998; Hill, 1982; Holm & Carmack, 2012; Jones, 1994; Rogers, 2005; Williams, McGee, & Worth, 2001). It stands to reason that if cultural understanding and

academic success are transferable skills, creativity should be a transferable skill as well. To understand how participation in forensics can be a portable skill we need to understand what creativity is.

Ford (1996) defines creativity as "a domain-specific, subjective judgment of the novelty and value of an outcome of a particular action" (p. 1115). Ford is not saying that creativity is domain specific, but rather the evaluation of creativity must be conducted by someone with domain-specific knowledge. If a person who rarely attends the theatre sees a performance where the actors directly interact with the audience members rather than confining themselves to an interaction between characters on stage they might view this as being very creative. But someone who regularly attends the theatre or majored in theatre would recognize breaking the fourth wall as a fairly common theatrical technique. While the technique was creative the first time it was used, its use today is imitative, derivative, and even commonplace. But one would only know that if they had some domain expertise. (This idea is explored in greater detail in the assessment section of the paper when the Consensual Assessment Technique is explained.)

Creativity is often associated with divergent thinking (Ashton-James & Chartland, 2009; Cropley, 2006; Erbil & Dogan, 2012; Guilford, 1967; Moore, et al, 2009). As Erbil and Dogan (2012) explain, convergent thinking seeks to find *the* answer or the *best* answer. Cropley (2006) adds, "It emphasizes speed, accuracy, logic, and the like and focuses on recognizing the familiar, reapplying set techniques, and accumulating information." (p. 391). Erbil and Dogan (2012) go on to explain that divergent thinking involves looking for or creating multiple alternative answers, seeking possibilities, making unexpected combinations and associations, and finding unexpected and unconventional answers. Ashton-James and Chartland (2009) claim both convergent and divergent thinking are needed for creativity: they tell us "being creative requires both convergent and divergent thinking capabilities to differing degrees depending upon the nature of the problem." (p.1036) an idea echoed by Cropley (2006). Moore et al (2009) contend "divergent thinking is an important measurable component of creativity." (p. 267). But the reality is this information does not provide a definition of what constitutes creativity.

Clearly there is a connection between divergent thinking and creativity. But even Guilford, the researcher who coined the terms convergent and divergent thinking, maintained that divergent thinking and creativity could not be equated. Most researchers have found creativity to be difficult to define. "Definitions that focus on the attributes of creative products have become widely acknowledged as the most useful approach for empirical study and theory development" (Ford, 1996, p. 1114).

Isaksen, Stead-Dorval and Treffinger (2011) define creativity by its characteristics and applications. They also differentiate it from innovation saying that creativity uses imagination, is a process, it generates, is novel, and soft. This contrasts with innovation which involves implementation, a product, developing, usefulness, and hard. Amabile (1987) is a leading expert in creativity research and has posited that a "product or response is creative if it is a novel and appropriate solution to an open-ended task" (p. 227). Ford (1996) tells us, "Researchers and laypersons seem to agree that creativity refers to something that is both novel and in some sense valuable" (p. 1114). Mueller, Melwani, and Goncalo (2012) stress, "novelty is the key distinguishing feature of creativity beyond ideas that are merely well conceived" (p. 13). However, "speaking gibberish, for example, may be novel but since it is not meaningful, it is not, by such a definition, an example of creativity because it is not useful" (Aldous, 2007, p. 177). This combination of novelty and value/usefulness seem to be at the center of most contemporary research on creativity (Aldous, 2007; Mishra & Henriksen, 2013; Mueller, Melwani, Goncalo, 2012; Simonton, 2012). Compton (2004) discusses the importance of novelty in forensics in terms of topics, literature, and argument

choices. Assuming that it is also useful, the more novel or unique an idea, example, argument, or piece of literature, the more value it has in competition (Compton, 2004). Creativity is an integral part of competitive forensics.

For the purposes of this article creativity is defined the way Simonton (2012) explains it, "creativity concerns the psychological phenomenon where someone comes up with an idea or product that is simultaneously novel and useful" (p. 217). But Lewis and Elaver (2014) state "creativity and analytical thinking do not have to be mutually exclusive" (p. 236). Rigor is not the enemy of imagination; critique does not thwart creativity. Those are two of the important qualities forensics brings to the creative process. As the article explores later, critique and revision are critical to the process of developing creativity. It is through practice, alteration, adaptation, and revisions that students begin to see creativity as a process rather than simply a product that appears as if by the magical inspiration of an external muse. Creativity can be learned and therefore it can be taught.

The Need for Creativity

Preparing college students for a working world is a complex and varied task. Students need to have a solid grasp of the technical aspects of the field they intend to enter. No one would argue that point. But post-secondary education has also identified other skills sets that seem to be universally needed such as solid interpersonal and public speaking skills, strong writing/grammar skills, and a basic knowledge of math, science, and computers (Eisner, 2010). With input from business most institutes of higher education have also taken steps to help students develop leadership skills the ability to work in a group or on a team. Higher education wants to produce critical thinkers; we want our graduates to be savvy consumers of information. Liberal arts institutions want students to have a familiarity with history, the arts, the sciences, other languages, and, more recently, we want them to have intercultural, multicultural, and/or cross-cultural experiences. These are all skills and experiences that make our students better suited to the workplace and help them become well-rounded citizens. Once again, a forensics education can help provide educational opportunities in most of these areas. Bartanen (1998) suggests that forensics programs teach to the heart of the liberal arts institution's agenda and claims "the forensics program can serve as a model of proven effectiveness for learner-centered pedagogies" (p. 1).

Higher education has met or attempted to meet, the changing needs of our businesses and communities. To greater or lesser extents we have been successful in helping students develop the skills employers are looking for in graduates. "After years of seeking students with leadership skills, companies today are putting similar levels of emphasis on those with creative capabilities" (Lewis & Elaver, 2014, p. 235). The United States has long been recognized as a mecca for intellectual and creative processes. After all we put a man on the moon, we produce what are arguably the best cinematic creations in the world, we have broken countless world records, and our artists have created countless highly acclaimed master pieces. But it would seem the creativity landscape is changing on a global scale. The United States fell just south of the top ten creative countries on The Global Creative-Class Index. We placed 11th out of the 25 countries on the index (Florida, 2004). That can be a significant long-term problem for the US because creativity and talent seem to be inextricably linked and talent goes where talent can best thrive. Ultimately, "wherever creativity goes−and, by extension, wherever talent goes−innovation and economic growth are sure to follow" (Florida, 2004, p. 123). The brain drain might very well give way to the creativity drain.

A seeming dip in creativity in college graduates has not gone unnoticed by big business. As Berrett noted, "IBM surveyed 1,500 chief executives in 33 industries around the world in 2010 to gauge how much they valued characteristics like creativity, integrity, management discipline, rigor, and vision in an increasingly volatile, complex, and interconnected world. Creativity topped the list." (Berrett, 2013). The reason is apparent to some: "Unfortunately, even though creativity is crucial to business and management success, higher education generally does not devote sufficient attention to it" (Lewis & Elaver, 2014, p. 236). Creativity is often viewed as a soft skill; like a sense of humor many believe you either have it or you don't, you either are a very creative person or you are not. That is not to say that you have no creativity, but your creative genius is not as good as other's and that is a fact of life because creativity cannot be taught (Gow, 2014). But that is not true (Amabile, 1998; Davis & Rimms, 1985; Epstein, Schmidt, & Warfel, 2008; Marquis & Vajoczkl, 2012; Schlee & Harich, 2014; Simonton, 2012; Sternberg, 2006; Tepper & Kuh, 2011; Torrance, 1987). Not only *can* creativity be taught, it *needs* to be taught.

But the United States will need to make some changes to how we approach teaching creativity if we are to be successful in creating an educational environment and pedagogical approach that will foster creativity in our students. Because "As calls for enhancing the ability of business students to think creatively and develop innovative goods and services have become universal, researchers in the area of creativity have expressed concerns that the U.S. educational system may not foster creative thinking" (Schlee & Harich, 2014, p. 133). Because even though creativity is critical to success in business and management higher education has not made a concerted effort to devote sufficient attention to it (Lewis & Elaver, 2014).

But the problem may be greater than simply not teaching creativity. Tepper and Kuh (2011) elaborate, explaining that the US educational system is "undermining creativity in K-12 education through relentless standardized testing and the marginalization of subjects like art and music" (p. B13). No one is claiming that there is a nefarious plot to undermine creativity in the United States educational system. But we cannot deny that we have prioritized other issues over creativity. We have an expressed promotion of science, technology, engineering, and mathematics (STEM) especially for young female students. These are all fields that drum analytical, linear, and classic scientific-process driven thinking into students. That is not inherently bad: I think we all agree that a greater understanding of the domain knowledge of these fields will lead to more discovery in those fields. But one could argue that "creative acts are the definitive episodes that distinguish successful innovations from less noteworthy efforts" (Ford, 1996, p. 1113). The better argument is not that we should teach creativity instead of domain specific information, but rather that we should teach creativity as part of and alongside domain specific knowledge.

"The United States must invest generously in its creative infrastructure. Education reform must, at its core, make schools into places that cultivate creativity" (Florida, 2004, p. 134). The benefits of teaching our students to be more creative is not limited to success in business for the individual after they graduate. The impact is far broader than that. It "has been indicated that creativity not only is conducive to learning, student achievement, and cognitive development but also is a predictor of academic success" (Rinkevich, 2011, p. 219). Strengthening the creativity of our current students "appears to lead to a measurable increase in creative expression in an organizational setting" (Epstein, Schmidt, & Warfel, 2008, p. 12). Finally, on a level that transcends the working world and speaks directly to Maslow's hierarchy of needs, "a more recent tradition, starting with humanistic psychology and continuing with the positive psychology movement, argues that creativity is a sure sign of self-actualization and subjective well-being" (Simonton, 2012, p. 220). Teaching and promoting creativity improves education, increases creativity in organization, and can lead to

self-actualization. Creativity seems to be a pervasive and valuable addition to individuals, organizations, and societies.

It is no doubt because of the increased need for and call for creativity that many organizations in higher education have started aggressive programs to promote the teaching of creativity. Stanford University requires incoming students to take a course in creative expression (Berrett, 2013). It could be a coincidence that there is a high school forensics event by the same name. Berrett goes on to talk about programs at Carnegie Mellon, Bryant University, Adrian College, the University of Kansas, and the City University of New York that are all designed to teach students to access their creative side and be more creative. Even the US military is taking steps to train our men and women in uniform to find more creative solutions to problems. Last spring I was asked to be a part of the Marine Corps University's Quality Enhancement Plan for Southern Association of Colleges and Schools (SACS) accreditation. After surveying key officers and enlisted personnel and examining after action reports, the university decided the greatest need across the Marine Corps was for an increased use of creativity to solve complex problems. As a result the QEP Team proposed a center for creative problem solving be integrated into the university and be used to train faculty to train students to find creative solutions to problems that occur on and off the battlefield. That center (the Center for Applied Creativity) opened its doors in the fall of 2015.

Creativity is a valuable attribute in any organization and it is an area in which the United States has started to fall behind. While standardized testing in K-12 and a regimented curriculum in higher education may have pushed the development of creativity to the side in our classrooms, extra-curricular and co-curricular activities often keep creativity at the core of what they do and often teach our students to be creative when the classroom experiences they have fail to do so. Going to college should be about learning and developing all of our students' abilities, including their creative abilities. As Simonton (2012) says, "no student should receive a college degree without knowing something about creativity or without learning how to be creative" (p. 220).

The Teaching of Creativity

The teaching of creativity has been an area of study for many researchers for decades. There are those who will contend that creativity is an innate trait and not learnable. As Simonton (2012) reminds us, "Although the nature–nurture issue now constitutes a general controversy in developmental psychology, it is important to remember that the debate first centered on understanding creativity" (p. 219). After extensive reviews of the available research on creativity and the teaching of creativity, both Torrance (1987) and Davis and Rimm (1985) conclude that creativity is definitely teachable. While the current higher education system seems to be primarily focused on teaching hard skills that are easily and objectively assessable on paper and pencil tests, Lewis & Elaver (2014) remind us that "creativity and analytical thinking do not have to be mutually exclusive" (p. 236). Quite the opposite, all of the content and convergent thinking is needed for students to be creative within a given domain. "The major components of creative thinking processes and creativity are a knowledge base; general as well as domain-specific skills; metacognitive skills in planning, monitoring, and evaluation" (Feldhusen & Ban, 1995, p. 242). The need for domain specific rigor is essential for creativity to prosper. As Cropley (2006) sums it up "knowledge provides a well from which ideas are drawn" (p. 395).

Teaching students to be creative does not require advanced study in creativity. It may require forethought and planning to create assignments that foster and encourage creative thought. It would certainly require teaching the domain-specific knowledge needed for creativity to take a student down a novel and useful path (think teaching them the box so they

can learn to think outside the box). It would certain require promoting an environment that is welcoming to creative thoughts and products. But it is certainly not outside the realm of possibility for any educated instructor who wants to promote creativity.

The Uniquely Human Factor

None of this should deny the fact that some people seem to be more creatively inclined than others. In the same way that a novice who first picks up a paintbrush and blank canvas might produce something that looks more like art than the novice on the next easel, some people more generate creative products more readily than others. The role of a person's personality (which might be the product of genetic coding or environment) influences creativity. Creative people "show broad interests, an attraction to complexity, self-confidence, aesthetic sensitivity, and an emphasis on the value of originality and independence, and they tend to reject the narrow and the mediocre and to cherish the general and the fundamental" (Hemlin, Allwood, & Martin, 2008, p. 205). That is not to say these characteristics can't be fostered in those who do not initially seem to have them. "Generativity Theory suggests, among other things, that creative potential in individuals is universal and perhaps limitless" (Epstein, Schmidt, & Warfel, 2008, p. 7).

A person's interests and passions drive their use of time and resources. They won't set out to be creative but they will fulfill their goals and further their passions in creative ways (Ford, 1996). In other words, creativity seems to be intrinsically motivated. It would appear that "intrinsic interest is not only sought after more than ever, but also a necessary catalyst to propel individual into and through creative work." (Lewis & Elaver, 2014, p. 237). McMillan and Todd-Mancilas (1991) reported only 7.6 percent of forensics students surveyed reported the desire to win awards was what motivated them to participate in forensics. Clearly, forensics students are internally and intrinsically motivated.

The College Environment and Creativity

After their extensive review of the available research on creativity and the teaching of creativity both Torrance (1987) and Davis and Rimm (1985) conclude that creativity is definitely teachable. Epstein, Schmidt and Warfel (2008) come right out and say "Creativity competencies can be trained." (p. 12) Many researchers have conducted empirical studies related to teaching creativity. Schlee and Harich (2014) note that other researchers have shown the impact of teaching creative can result in trained groups outperforming control groups by roughly one standard deviation.But institutions of higher education have been criticized for emphasizing a narrow, skill-based curriculum (Tepper & Kuh, 2011) that is not conducive to creativity. Westby and Dawson (1995) go so far as to say "schools may provide an inhospitable environment for creative students" (p. 8). Livingston (2010) explains that the traditional educational environment in colleges and universities is not conducive to the teaching of creativity. He writes, "If the academy wishes to center its mission on honing creativity, it can best do so by pedagogies that maximize opportunities for students to practice being inventive" (p. 60). Competitive speech activities are a direct fit for the kind of environment in which Livingston and others claim the teaching of creativity will be most successful.

Researchers have found several factors that contribute to developing creativity and creative products in the educational environment. As the University of Kentucky laid out the requirements for creativity courses offered across the curriculum, "The common thread, no matter the discipline, is that students must produce an original work, be evaluated by their peers, and revise their work based on that feedback" (Berrett, 2013). Amabile (1996) pointed out that practice and learning is necessary for creativity to occur, an idea Simonton (2012) furthers reminding us that we "acquire domain-specific expertise by means of deliberate

practice" (p. 219). Deliberate practice is differentiated from simply repeating a task until you can complete the same task each time in the exact same manner. Deliberate practice focuses on intently practicing with the intent of improving each time: Vince Lombardi's idea of practice not making perfect and only perfect practice making perfect. Hemlin, Allwood, and Martin (2008) say group interaction and time for reflection is critical. Livingston (2010) emphasizes the importance of practice, and Marquis and Vajoczki (2012) says the environment in which students engage in creative activities must support "risk taking, and [attempt] to increase students' internal motivation" (p. 2). Finally, Erbil and Dogan (2012) say, "It is reasonable to say that creativity occurs in the iterative processes of convergence and divergence" (p. 75).

This laundry list of criteria laid out by scholars could just as easily be a list of the defining characteristics of competitive forensics programs. Assuming that a coach isn't unethically writing speeches for students and students aren't just duplicating a performance their coach *models* for the students, the process most forensics students and coaches follow is one of creativity. Forensics students become domain experts (in poetry, or a specific invention or policy), regularly create original works, receive feedback from peers (and experts), revise their work based on feedback, engaging in critical reflection, conduct deliberate practice, take risks, and through the iterations of both convergent and divergent thought, present a unique, original, an often engaging performance that is a result of this creativity-generating process. Perhaps the best part is that these students are largely internally motivated to engage in this process. While we give them awards, those are usually not why students compete in forensics. They do it because it is fun and they want to do it.

While a typical college classroom does offer students the opportunity to produce original creative work, there isn't always time or incentive to also allow students the opportunity to acquire domain-specific knowledge, practice, interact with a group of students interested in their creative product, take the time to reflect on their process and product, take risks, find internal motivation, and repeat the process of creative development through convergent and divergent thinking. But forensics competition does all of those things and as Duncan (2013) points out directors of forensics ask students to commit years of their life with only the promise of helping them improve" (p. 18). At that point, the creative process has become as familiar to them as their own reflection in the mirror.

Obviously this is not a definitive list of the environmental factors necessary for creativity to flourish, but the list is sound and valid. We must also allow for the individual's personality, a confluence of ideas, perspective-taking, exposure to ideas, mental agility, and plain luck. "Some famous thinkers such as Ernst Mach, Etienne Souriau, or Alexander Bain have even concluded that luck is the main factor in creativity" (Cropley 2006, p. 393). Chance meetings with people with differing viewpoints, random happenstances, and serendipity all play a role in creative development. But, again, forensics activity brings together a confluence of intelligent and creative people who articulate philosophies, perspectives, arguments, ideas, and literature from a variety of domains. While a university might be a deep pool of knowledge, forensics activities is a fast moving river of ideas and information.

The Forensics Environment and the Teaching of Creativity

In addition to the process forensics teaches, it also creates an environment that is uniquely suited to fostering creativity. The environment created by competitive speech and debate programs is far more conducive to creativity than a traditional classroom setting. Several creativity researchers and scholars have identified characteristics and influences that will promote, foster, and encourage the development of creativity and creative products (Amabile,

1987 & 1998; Berrett, 2013; Csikszentmihalyi, 1996; Davis & Rimm, 1985; Erbil & Dogan, 2012; Ford 1996; Guilford, 1967; Lewis & Elaver, 2014; Marquis & Vajoczki, 2012; McWilliam & Dawson, 2008; Pink, 2006; Simonton, 2012; Sonnentag, 2000; and Torrance, 1987). Tepper & Kuh (2011) stands out and provides a list of seven activities that develop creativity. To understand how forensics competition provides an ideal environment for students to develop creatively and creativity we will look at Tepper and Kuh's seven typical methods or activities for developing creativity:

1. **Approaching things in non-routine ways by using analogy and metaphor.** Other than the obvious exploration of metaphor and analogy in literature forensics student also explore these devices as a way to help audiences understand complex issues in informative speeches and as examples in persuasive speeches and debate rounds. When a student uses an apple's shape and skin as and analog for the magnetic fields and crust of the earth in a speech on the Earth's magnetic poles as Robert Cannon did in his national championship speech, he is using something tangible that we understand to explain something theoretical and unfamiliar. Analogies and metaphors are common techniques in informative speeches. They are also common literary components and something forensics students use and hear others use at every tournament they attend. Approaching things in a non-routine way become routine.

2. **Proposing *what if* propositions and reframing problems**. This is a common technique in literature as well, but it is often used by speakers in After Dinner Speaking and parliamentary debate rounds as well. What ADS speakers asks us to consider the idea that maybe we need confrontational rhetoric or to reframe the way we think of death, they are asking us to see our world through a different lens or look at an issue from a new perspective. When debaters engage in *hypo testing* (taking the opponent's ideas to their logical extension) they are not only seeing from their opponent's perspective, they are extending that position to build an argument.

3. **Keen observation and the ability to see new or unexpected patterns**. Paying close attention to the language of literature, finding and applying a rhetorical model to a communication artifact, generating an extemporaneous speech on economic trends, and finding social trends that become part of an after dinner speech are just a few examples of this method at play in forensics. Inductive reasoning is about building arguments from examples. When an impromptu speaker provides three or four examples to support or negate the claim being made by the prompt for the round, they are showing the audience that they have found a pattern that proves or disproves the claim. Where a student pulls together a program of literature about a common issue but from multiple perspectives, they are identifying patterns.

4. **Taking risks**. Nearly any forensic performance involves risk taking. To stand in front of an audience and portray a character, to embody that character, to emote the feelings of a character is to take a risk. To stand in front of a group and make an argument with passion and conviction to try to make an audience laugh with original humor is to take a risk. Duncan and Bonander (2015) discuss techniques for encouraging risk-taking behaviors in forensics students because, in general, risk taking can be competitively successful. The recommend that when coaches want to encourage risky behaviors they should frame the discussion in terms of the likelihood of judge's positive responses. If the coach knows some judges will really dislike the idea or approach but others will really like it, coaches can increase the likelihood of students engaging in the risky behavior if the discussion focuses on how some judges will really like it rather than mentioning that most will dislike it.

5. **Use critical feedback to make revisions and improve an idea**. This is a mainstay of forensics competition. The judges' ballots and feedback from peers and coaches promote learning and inspire transformation. Dozens of books (Faules, Rieke, & Rhodes, 1978; Hindman, Shackelford, & Schlottach, 1991; Klopf & Lahman, 1967; Swanson & Zeuschner, 1983), articles (Bartanen, 1990; Broeckelman, 2005; Elmer & VanHorn, 2008; Epping & Labrie , 2005; Lewis & Larsen, 1981; Mills, 1991; Morris, 2005; Preston, 1990; Scott & Birkholt, 1996; Verlinden, 2002) and convention papers address the importance and value of the ballot and judges' feedback in helping forensics competitors improve their performances. The activity cares so much about giving feedback to improve student performances of creative works that we train our judges to make them better at giving meaningful feedback (Holm & Foote, 2015). For active competitors it is rare to see a performance at the end of the year that is very similar to the performance they gave at the first tournament because of the constant process of revision and improvement.

6. **Bring people and resources together to create and implement novel ideas**. To bring together a collection of poetry for a program of poetry or a collection of mixed genres of literature for a Program Oral Interpretation (POI) would be one example. Finding a communication artifact and a rhetorical model that helps to explain why it has been successful or unsuccessful would be another. Identifying a problem in a persuasive or after dinner speech and proposing a solution that isn't readily apparent also involves the implementation of novel and useful ideas. But the truly important element in this blend is the human factor. When students and coaches interact and co-create performances and arguments both parties come away enriched from the experience. Peer-coaching programs, duos, debate pairings, and Readers Theatre groups are prime examples of the synergy that the activity offers that foster a unique blending of talent and resources to create a final product that is an amalgamation of the tangibles and intangibles brought together.

7. "**The expressive agility required to draw on multiple means (visual, oral, written, media related) to communicate novel ideas to others**" (Tepper and Kuh, 2011, p. B13) might as well be a description of forensic activities. I think one of the things people involved in forensics forget is that if you stopped the average college student or working professional and asked them to give a five minute speech on the contents of fortune cookie with less than two minutes to prepare most of them could not do it. Those who did would likely fumble through it pulling together random thoughts and trying to stretch it out to "make time." Forensics students know how to draw on visual and oral skills to present a message. That is really the easy part. They draw on rhetorical devices to help audiences understand extremely complex ideas. They master the art of emoting and expressing literature in a way that can literally cause an audience to stop breathing. They will learn to make an audience laugh, cry, understand, and question what they thought they knew. They will take these skills with them when they leave and they will use those skills every day at work, with their friends, and with their children.

   I recently had a discussion with a Captain in the Marine Corps about an issue he was struggling with for a paper he was writing. The issue was a military issue that I think I understood on a rudimentary level. After he explained what he wanted to do with the paper, he said something like "I'm just not sure where to take it from here." So I quickly outlined the ideas he had just run passed me, told him which claims he would need support for, and suggested two or three counter arguments that he should address in the paper. It was much easier that coaching a persuasion or helping to develop a debate case. When I looked up from the notes I was making for him he was

literally sitting there looking at me with his mouth hanging open. He said "How do you do that so fast? I might have been able to do that with a couple of weeks to think about it but you did it in two seconds and I didn't even think you were really paying attention that much." That skill is what forensics teaches; it is the mental agility that is needed for creativity and critical thinking.

While Tepper and Kuh (2011) provide cumulative characteristics of the kinds of activities and perspectives students learning to develop their creativity will find most helpful, other researchers have looked at the individual characteristics of creative organizations to see what organizational factors and climates best facilitate creativity. Hemlin, Allwood, and Martin (2008) found that encouraging supervisors, freedom to choose work assignments, and contact with researchers in neighboring research fields promote creativity. These would be common traits of successful forensics programs as well. In the same way that some workplace supervisors do not allow employees to choose assignments or mandate exactly how work is to be done, there are coaches who assign students to events and model for the students how the performance should look. These are not good coaches and they are not stimulating the students' creative abilities. At best, students of coaches who take this approach will never be better than the coach they are told to model. An extremely directive coach inherently limits the students' opportunity for growth and the development of creativity. Shapira (1995) points out that an organization's support for creative actions and willingness to use creative ideas are critical in promoting creativity. When students develop a new approach or technique and that approach or technique is functionally sound and improves the overall performance, other students will also adopt that approach. "In creative settings, exposure to creative exemplar products may invite imitation and as such influence creative performance" (Rook & van Knippenberg, 2011, p. 346). This idea is also proffered by Ashton-James & Chartand (2009). Duncan (2013) and Cronn-Mills and Schnoor (2003) both point out that many public speaking textbooks include sample speeches written by forensics students as exemplars. Students in the classroom and in competition feed off the creativity of forensics students.

The very nature of forensics teams also seem to support and promote creativity. Livingston (2010) says to promote creativity we need to embrace interdisciplinarity, allow students to mentor each other, and practice problem solving as a team game. Again, these are common practices of most forensics teams where extempers often file jointly and engage in weekly briefings by domain, or in debate activities where teams will work together to develop cases or scout other teams to help develop counterarguments, and of course peer coaching is a standard part of nearly every successful forensics program (Keefe, 1991). Hemlin, Allwood, and Martin (2008) discuss creativity in what they term creative knowledge environments "one where each individual has a number of tasks or projects and where experiences from one domain can exert a positive influence on another" (p. 206). The interdisciplinarity of forensics is clearly evident. Our activity is continually pushing participants to find new and fresh ways of presenting material. Ford (1996) contends that even the most creative people will fall back on uncreative solutions when they are in an organization that doesn't foster creativity. Because we, as an activity, are constantly rewarding creative (novel and valuable) ideas and approaches, we perpetuate creative development.

Even the aspects of our teams that we sometimes consider negative, such a disharmonious atmosphere in the vans or the constant turnover in membership as students leave the team through natural attrition and new members enter, are, according to Hemlin, Allwood, and Martin (2008), positive environments for fostering creativity. Friction provides

opportunity for new and creative solutions or approaches. The turnover in membership keeps ideas fresh and creativity flowing from multiple perspectives and people.

Assessing Creativity

Creativity is one of a myriad of criteria upon which forensics competitors are evaluated. Students are first evaluated by what would be considered domain specific criteria. For example, solid rhetorical composition, the building of an argument, and the mechanics of delivery are all criterion applied to public speakers. The choice of literature, character development, and development of a thematic program (when appropriate) are criteria applied to oral interpretation performances. Creativity is a nuance of forensic performance that accents but does not over power the fundamentals of the domains. When it comes to assessing creativity, researchers have been searching for a good method of determining what is and is not creative and who is and is not creative. "The most common test measuring the creative process was developed by Torrance" (Schlee & Harich, 2014, p. 134). For years the Torrance test (Torrance, 1987) in which, among other things, subjects are given ambiguous partial drawings and asked to draw the rest of the picture which were then rated by trained evaluators, was used to assess an individual's creativity. A comparison can be drawn to many aspects of forensics. For example while the Torrance test asks participants to complete a partially drawn picture, forensics asks students to complete a performance that is just words on a page or to complete a program of literature based just on an idea or a single poem. Then we assess the student's ability to fill in what isn't there (emotional context, delivery, context) with their own creativity.

Unfortunately, unlike forensics, the Torrance Test does not always translate well to real world applications. "When it comes to judging real-world creative products, few people look to divergent-thinking test scores, psychologist-defined scoring rubrics, or self-assessment checklists. They ask experts." (Kaufman & Baer, 2012, p. 83-84). Asking of experts is the basis for one of the most widely used creativity assessment methods today: the Consensual Assessment Technique (CAT) (Conti, Coon & Amabile, 1996; Hennessey & Amabile, 2010; and Kaufman & Baer, 2012). The CAT has been widely used for the last 30 years (Henessey & Amabile, 2010) and shows no significant racial or gender bias (Kaufman et al, 2010). Hennessey and Amabile (2010) found that the CAT yields coefficient alpha inter-rater reliabilities as high as 0.957. The system relies on the subject matter expertise of evaluators in their given fields, not on an expertise in the study of creativity. In short, the research shows that when you are an expert in a field (literature, rhetoric, performance studies, argumentation, etc.) you are uniquely qualified to recognize a product within your field that demonstrates a novel, imaginative product that is viable and useful.

A judge's ballot is essentially a form of CAT. Students are evaluated, the quality of their work holistically is judged, students are given feedback including an indication of the quality of their performance compared to others in the round of competition (the rank in the round); and then a second score that is the judge's evaluation of the quality of the performance where compared to a larger body of work they have seen over the years (the rating for the round). This system is not without its flaws. If you only needed three experts to assess a panel of six participants finding qualified experts would not be difficult on a college campus especially when other schools are sending their experts to help with the assessment. But tournaments are usually looking for a dozen or more judges at the same time to judge final rounds. Typically is a judge has been used in an event in preliminary rounds tournament managers will try to avoid using them to judge final rounds. Add to that a body of hired judges who may feel insecure about taking a strong stance without knowing what the norms are and the hired/lay judges who judge primarily on delivery or whether or not the speaker made them laugh and the assessment gets even more difficult. Throw in events with

drastically differing styles and content between speakers, for example, a round of Dramatic Interpretation could have a monologue; a dialogue;performances that break the fourth wall; programs of literature; performances that involve impressions or characterizations; content that is hilariously funny; content that is heart-wrenchingly sad; people who sing; and people who mime, all competing in the same event in the same room. Even for seasoned judges with high levels of domain knowledge, comparing very different types of performances is hard. But to evaluate the level of creativity students bring to bear on a humorous performance and compare that to the level of creativity another student offered in a dramatic performance is all but impossible.

It is helpful if judges have a shared frame of reference for what criteria should be used to evaluate events or even genres. Several scholars have tried to identify the best or most commonly used criteria for various events. Some researchers looked at specific events like Hansen (1988) and Holm (1990) who looked at the evaluative criteria of after dinner speaking or Harris (1987) who looked at rhetorical criticism. Others sought commonalities by genre of event: Jensen (1990) searched for the evaluative criteria of public address events, Elmer and VanHorn (2003) identified commonalities of judging criteria and feedback in oral interpretation events, and Harris (1986) looked at the judging criteria of limited preparation events. While Olson (1989) identified evaluation criteria for all NFA individual events, Lewis and Larsen (1981) looked at the inter-rated reliability of forensics judges, and Kristine Bartanen (1990) analyzed the impact of the criteria referenced ballot. Clearly forensics scholars have devoted great energy to identifying pedagogically sound criteria by which forensics students can be fairly evaluated.

Any coach or competitor who has been to even a handful of tournaments will tell you, forensics judges do not have a 0.957 interrater reliability rating. That is probably the result of the complexity of variables that go into evaluating a performance. While creativity (e.g. pushing the envelope, taking risks) is most often rewarded by judges, it is but one of many criterion. The creative act itself also needs to fit the performance and the event. It also needs to add something unique to the performance without violating the written rules of the events. For example, a program of literature on our perception of time could be creative if it was twelve minutes long and the last two minutes were people explaining why they need more time or wishing they had more time. More than likely it would still be ranked poorly in a final round. But performances that violate unwritten rules or norms are often rewarded. I remember a program of literature on anachronisms where the "*introduction*" came near the end. The introduction being placed out of its normal place in the timing of the performance contributed to the performance while violating the performance norm of having the introduction at the beginning of the performance. In the same regard, when a duo (who would go on to become national champions) began by pulling one another into a sort of side-body hug I was ready to chastise them on the ballot for touching their partner during a performance (my interpretation of the idea of off-stage focus would prohibit that). But when they announced they were conjoined twins I had to shift my paradigm and actually reward them for their creativity.

Creativity is just one criterion used to evaluate performances. The issues with interrater reliability (Lewis & Larsen, 1981) is not that judges are unable to agree on what is and is not creative, but rather they have differing opinions on what criteria should be used to evaluate a performance and what weight each of those criterion should be given. In a fairly thorough exploration of creativity assessment instruments, no instruments were found that were better suited to assessing creativity in a forensic setting than the CAT. So it is not surprising it (the ballot) is the de facto assessment instrument in forensics. As coaches it is important that will have discussions with students about what they see as the salient criteria by which events are judged and ask them to engage in self-reflection and self-evaluation so

they can determine where their performances offer opportunities to showcase the skillsets they see as critical to judges. This helps them establish goals and make meaningful changes to their performances rather than just making changes for the sake of change in hopes that the change will make it better. This practice also teaches them to analyze, compare, critique, and synthesize what they perceive to be the best practices of forensics competitors. Those are the more advanced levels of Bloom's Taxonomy (Bloom, et al, 1956).

Discussion

This article has examined how forensics activities promote, foster, teach, assess, and reward creativity and the creative process. As educational institutions nationwide begin to answer the calls of industry and society for more creative graduates, forensics programs should stand as a model for the teaching of creativity. A student on a forensics team has many advantages that cannot be readily afforded to a student in a traditional classroom. For example, a forensics student can study and compete in forensics activities for up to four years not just a semester. Coaches take hours of time coaching each student, on weekends the students travel hundreds of miles to compete against students from other schools and national tournaments can involve over 100 schools and 1,000 competitors. A close bond develops between students on the team and between students and coaches. That bond, a shared sense of purpose, combined with the friendly competitive atmosphere of most programs and tournaments, motivates students to stretch themselves performatively. The forensics community is a safe place to test creative ideas, and the community rewards creativity while staying grounded in domain-specific knowledge and training.

The forensics community provides an environment that is ideal for creativity. Coaches and peers encourage participants to stretch their creative abilities. Judges reward creative approaches that are novel and useful. Those factors make it almost impossible for forensics to *not* teach students to be creative. As colleges and universities look for ways to foster creativity they should look to forensics education as a model. Creativity is not taught as a stand-alone module or unit, it is best taught as an add-on component to other assignments and tasks. As the Marine Corps looks for ways to teach creativity they are looking for ways to modify their current war games, exercises, and case studies to allow for options that will foster *out of the box* thinking while still maintaining the rigors of the content to be covered. Because creativity tends to require the adaptation of domain specific knowledge the focus of the education process needs to be on domain specific content. Teaching creativity requires a medium for the creative outlet. Forensics teaches students to be good communicators, but it recognizes, fosters, and rewards creative modes and means of communication. In doing so it teaches creativity.

Forensics students make creativity a habit; they learn to look for new and interesting ways to approach ideas and arguments. They recognize the value and usefulness of novelty and learn to generate novel, useful solutions to problems and challenges. That is something their peers in college can rarely claim. To fully develop their creative side, students who compete in forensic activities should try to engage in all of the forensic events. If they can't compete in all of the events they should, at a minimum, engage in each genre of forensic competition: Oral Interpretation, public speaking, limited preparation, and debate. Each genre teaches a different aspect of creativity. The more often students find ways to stretch their creative muscle in different venues and forums, the more universally they should be able to apply their creative acumen when they graduate and enter the work world. It is that flexibility in the application of creative ideas that will change our world. Coaches in the activity should not underestimate the importance of the fact that they teach students to be creative. Students should never underestimate the value of a forensic education.

Future Research

It is clear that forensics provides all of the activities, support, and opportunities for students to develop their creativity producing skills. Anyone who has watched final rounds at a national tournament or even a highly competitive regional tournament would have to admit that there is a lot of creativity displayed in those competitive rounds. But that is not proof that forensics improves an individual's creativity ability. Future researchers need to conduct empirical studies to see if students who join a forensics team show increased creativity scores on standardized creativity assessment instruments faster or to a greater extent than a control group.

Additionally, researcher should determine if the creativity skills fostered in one area (forensic competition) transfer to other areas (the work place for example). We seem to assume that once someone has learned to be creative within a specific domain the ability will transcend the boundaries of that domain. While research has given us no reason to believe that won't happen, we also have no evidence showing that it does happen.

Conclusion

It seems that there is a downside to just about anything. In this case the downside to teaching students to be creative is that they will likely expect the work world. The work world claims to want creative people and creativity. But that is not always the case. As a society we want creative people and we want innovative thinkers. But on a day to day basis we often prefer it when people think, behave, and work *inside the box*.

This is even true in elementary schools where we would expect teachers to support the creativity of young children. Westby and Dawson (1995) report that "children who were the teachers' least favorite students showed…behavioral characteristics…similar to the pattern for the creative prototype. Conversely, the teachers' favorite students showed…behavioral characteristics…opposite of that for the creative prototype" (p. 8). They go on to point out that some of the most creative children go unrecognized, or worse yet, are punished for their creativity. In the workplace, Mueller, Melwani, and Goncalo, (2012) found that organizations and decision makers regularly reject creative ideas *even when they have claimed that creativity is an important goal*. The researchers explain that "the more novel an idea, the more uncertainty can exist about whether the idea is practical, useful, error-free, and reliably reproducible" (Mueller, Melwani, & Goncalo, 2012, p. 13). As a society we must shift from a zero-defect mentality to one of acceptable risk taking. When we focus on not doing anything wrong we are not focusing on creativity. The key, in the working world and in the forensic world, is to find a balance between the two perspectives.

The fact is that creativity is based on novelty, and novel ideas tend to be new. New ideas are sometimes scary because they haven't been proven. As we set out to develop a system for teaching creativity to our students we must also teach them to be open to creative ideas. If we do that, one day we will have a society that is open to new and creative ideas.

References

Aldous, C. R. (2007). Creativity, Problem Solving and Innovative Science: Insights from History, Cognitive Psychology and Neuroscience. *International Education Journal, 8*(2), 176-187.

Allen, M., Berkowitz, S., Hunt, S., & Louden, A. (1999). A meta-analysis of the impact of forensics and communication education on critical thinking. *Communication Education, 48*, 18-30.

Amabile, T. M. (1998). How to kill creativity. (cover story). *Harvard Business Review, 76*(5), 76-87.

Amabile, T. M. (1987). The motivation to be creative. In S. G. Isaken (Ed.), *Frontiers of creativity research: Beyond the basics* (pp. 223-254). Buffalo, NY: Bearly.

Aden, R. C. (2002). Reconsidering the laboratory metaphor: Forensics as a liberal art. *The National Forensic Journal, 20*, 2-12. Retrieved from http://cas.bethel.edu/dept/comm/nfa/nfj.html

Ashton-James, C. E., & Chartrand, T. L. (2009). Social cues for creativity: The impact of behavioral mimicry on convergent and divergent thinking. *Journal of Experimental Social Psychology, 45*(4), 1036-1040. doi:10.1016/j.jesp.2009.04.030

Baer, J., Kaufman, J. C., & Gentile, C. A. (2004). Extension of the consensual assessment technique to nonparallel creative products. *Creativity Research Journal, 16*, 113–117.

Bartanen, K. M. (1990). Colloquium on Ballot Criteria: The Use of Criteria Referenced Ballots for Individual Events. *National Forensic Journal, 8*(2) 133-144.

Bartanen, K. M. (1998). The Place of the Forensics Program in the Liberal Arts College of the Twenty-First Century: An Essay in Honor of Larry E. Norton. *Forensic, 84*(1), 1-15.

Bartanen, M. D., & Littlefield, R. S. (2015). Competitive Speech and Debate: How Play Influenced American Educational Practice. *American Journal Of Play, 7*(2), 155-173.

Berrett, D. (April 1, 2013). Creativity: A cure for the common curriculum. *The Chronicle of Higher Education*. http://chronicle.com.proxy.lib.miamioh.edu/article/The-Creativity-Cure/138203/

Bloom, B., Englehart, M., Furst, E., Hill, W., & Krathwohl, D. (1956) *Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain,* (New York: David McKay Co.)*, 201-07.*

Broeckelman, M. A. (2005). An Analysis of the Meaning of Individual Events Forensic Ballots Based on Judge and Competitor Metaphors. *Forensic, 90*(1), 5-17.

Brown, R. T. (1989). Creativity: What are we to measure? In J.A. Glover, R. R. Ronning, & C. R. Reynolds (Eds.), *Handbook of creativity* (pp. 3-32).New York: Plenum.

Dimock, J. P. (2008). Beyond Interpretation: A Barthes-ian Approach to the Oral Reading of Literature. *National Forensic Journal*, *26*, 61-79.

Colbert, K., & Biggers, T. (1985). Why should we support debate? *Journal of the American Forensics Association, 21*, 237-240.

Conti, R., Coon, H., & Amabile, T. M. (1996). Evidence to support the componential model of creativity: Secondary analyses of three studies. *Creativity Research Journal, 9*, 385–389.

Compton, J. A. (2004). A scarcity principle explanation of novelty in forensics performance. *The Forensic of Pi Kappa Delta, 89*(Summer), 25-35.

Cronn-Mills, D., & Croucher, S. M. (2001). Judging the judges: An analysis of ballots in impromptu and extemporaneous speaking. A paper presented at the National Communication Association Convention in Atlanta, GA.

Cropley, A. (2006). In praise of convergent thinking. *Creativity Research Journal, 18*(3), 391-404. doi:10.1207/s15326934crj1803_13

Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and invention*. New York: HarperCollins Publishers.

Davis, G. A., & Rimm, S. B. (1985). *Education of the gifted and talented*. Englewood Cliffs, NJ: Prentice-Hall.

Derryberry, B. R. (1998). Forensics as a cooperative agent: Building a tradition within an academic community. *The Forensic of Pi Kappa Delta*, *83*(3), 33-41.

Duncan, A. (2013). Antidosis for a Forensics Life: An Isocratic Defense of Modern Practices of Competitive Forensics. *National Forensic Journal, 31*(1), 15-26.

Duncan, A. & Bonander, A. (2015). Playing with Someone Else's Chips: This Could Be Really Great…Convincing Students to Gamble with Event and Performance Choices. A paper presented at the National Communication Association Convention in Las Vegas, NV.

Eisner, S. (2010). Grave New World? Workplace Skills for Today's College Graduates. *American Journal Of Business Education, 3*(9), 27-50.

Elmer, D., & VanHorn, S. B. (2003). You have great gestures: an analysis of ballot commentary to pedagogical outcomes. *Argumentation & Advocacy, 40*(2), 105-117.

Endres, T. G. (1988). Maintaining Integrity in Forensics Interpretation: Arguments Against Original Literature. *National Forensic Journal*, 6(2), 103-112.

Epping, D., & Labrie, J. (2005). You did what?!?: An Expectancy Violation Approach to Normative Behavior in Collegiate Forensics. *The Forensic, 90*(1), 18-29.

Epstein, R. R., Schmidt, S. M., & Warfel, R. (2008). Measuring and training creativity competencies: validation of a new test. *Creativity Research Journal, 20*(1), 7-12.

Erbil, L., & Dogan, F. (2012). Collaboration within student design teams participating in architectural design competitions. *Design and Technology Education, 17*(3), 70-77.

Feldhusen, J. G., & Goh, B. E. (1995). Assessing and accessing creativity: an integrative review of theory, research, and development. *Creativity Research Journal, 8*(3), 231.

Florida, R. (2004, October). America's looming creativity crisis. *Harvard Business Review, 82*(10), 122136.

Ford, C. M. (1996, October). A theory of individual creative action in multiple social domains. *Academy Of Management Review, 21*(4), 1112-1142. doi:10.5465/AMR.1996.9704071865

Faules, D. F., Rieke, R. D. & Rhodes, J. (1978). *Directing Forensics*. Morton Publishing: Denver, CO.

Gow, G. (2014). Can creativity really be taught? *Tech Directions, 73*(6), 12-16.

Greenstreet, R. (1993). Academic debate and critical thinking: A look at the evidence. *National Forensic Journal, 11*(1), 13-28.

Guilford, J.P. (1967). *The Nature of Human Intelligence*. New York: McGraw-Hill.

Hansen, C. T. (1988). Judging after dinner speaking: Identifying the criteria for evaluation. *National Forensics Journal*, 6, 25-33.

Harris, E. J., Jr. (1986). Judge demographics and criteria for extemp and impromptu at N.F.A. nationals. *National Forensic Journal*, *4*(2), 135-147.

Harris., E. J., Jr. (1987). Rhetorical Criticism: Judges' expectations and contest standards. *National Forensic Journal*, *5*(1), 21-25.

Hemlin, S., Allwood, C. M., & Martin, B. R. (2008). Creative knowledge environments. *Creativity Research Journal, 20*(2), 196-210. doi:10.1080/10400410802060018

Hennessey, B. A., & Amabile, T. M. (2010). "Creativity." *Annual Review of Psychology, 61*, 569-598.

Hill, B. (1982). Intercollegiate debate: Why do students bother? *The Southern Speech Communication Journal, 48*, 77-88.

Hill, B. (1993). The value of competitive debate as a vehicle for promoting development of critical thinking ability. *CEDA Yearbook*, 14, 1-23.

Hindman, M. S., Shackelford, J. & Schlottach, K. (1991). *Working forensics: A competitor's guide.* Kendall Hunt Publishing: Duduque, IA.

Holm, T. T. (1990). What are you laughing at?: The evaluative judging criteria of After Dinner Speaking. A thesis published by North Dakota State University.

Holm, T. T. & Carmack, H. J. (2012) Forensics as a Correlate of Graduate School Success. *Journal of the Association of Communication Administrators*, 31(1), 29-45.

Holm T. T. & Foote, J. G. (2015). Judge training: judging individual events, judging parliamentary debate, judging Lincoln-Douglas debate. *Speaker and Gavel, 52*(1), 44-75.

Isaksen, S. G., Stead-Dorval, K. B., and Treffinger, D. J. (2011). *Creative approaches to problem solving: a framework for innovation and change*. Los Angeles: SAGE.

Jensen, S. L. (1990). A content analysis of public address critiques: In search of uniqueness in evaluative criteria and judging practices. *National Forensic Journal*, *8*(2), 145-162.

Jones, K. T. (1994). Cerebral gymnastics 101: Why do debaters debate? *CEDA Yearbook, 15*, 65-75.

Kaufman, J. C., & Baer, J. (2012). Beyond new and appropriate: who decides what is creative? *Creativity Research Journal, 24*(1), 83-91.

Kaufman, J. C., Baer, J., Agars, M. D., & Loomis, D. (2010). Creativity stereotypes and the consensual assessment technique. *Creativity Research Journal, 22*(2) 200-205.

Kaufman, J. C., Plucker, J. A., & Baer, J. (2008). *Essentials of creativity assessment*. Hoboken, N.J: Wiley.

Keefe, C. (1991). Developing and managing a peer forensics coaching program. *National Forensic Journal, 9*(1), 65-75.

Klopf, D. W. & Lahman, C. P. (1967). *Coaching & Directing Forensics.* National Textbook Company: Skokie, IL.

Lee, C. S., & Therriault, D. J. (2013). The cognitive underpinnings of creative thought: A latent variable analysis exploring the roles of intelligence and working memory in three creative thinking processes. *Intelligence*, *41*(5), 306-320. doi:10.1016/j.intell.2013.04.008

Lewis, J. J., & Larsen, J. K. (1981). Inter-Rater Judge Agreement in Forensic Competition. *Journal Of The American Forensic Association*, *18*, 9-16.

Lewis, M. O., & Elaver, R. (2014). Managing and fostering creativity: An integrated approach. *International Journal of Management Education*, *12*(3), 235.

Lewis, T. V. (1988). The Performance of Literature at Forensics Tournaments: A Case for the Use of Original Material. *National Forensic Journal*, *6*(1), 63-67.

Lindemann, K. (2002). Pseudonyms, Performance and Pedagogy: Performing Original Literature in Forensics. *National Forensic Journal*, *20*(1) 45-48.

Livingston, L. (2010). Teaching creativity in higher education. *Arts Education Policy Review, 111*(2), 59-62.

Marquis, E., & Vajoczki, S. (2012). Creative differences: teaching creativity across the disciplines. *International Journal for the Scholarship Of Teaching & Learning, 6*(1), 1-15.

Mathisen, G. E., & Einarsen, S. (2004). A review of instruments assessing creative and innovative environments within organizations. *Creativity Research Journal, 16*(1), 119-140.

McBath, J. H. (1975). Forensics and Speech Communication. *Bulletin Of The Association Of Departments & Administrators In Speech Communication*, (*11*), 2-5.

McBath, J. H. (1984). *Rationale for forensics. In American forensics in perspective* (D. Parson, Ed.). Annandale, VA: Speech Communication Association.

McMillan, J. K., & Todd-Mancilas, W. R. (1991). An assessment of the values of individual events in forensics competition from students' perspectives. *National Forensic Journal, 9*, 1-17.

McWilliam, E., & Dawson, S. (2008, December). Teaching for creativity: Towards sustainable and replicable pedagogical practice. *Higher Education, 56*(6). 633-643. doi:10.1007/s10734-008-9115-7.

Meneely, J. M., & Portillo, M.(2005). The adaptable mind in design: relating personality, cognitive style, and creative performance. *Creativity Research Journal, 17*(2/3), 155-166.

Mills, D. D. (1991). Interpreting the Oral Interpretation Judge: Content Analysis of Oral Interpretation Ballots. *National Forensic Journal, 9*(1), 31-40.

Millsap, S. (1998). The benefits of forensics across the curriculum: An opportunity to expand the visibility of college forensics. *Forensic, 84*(1), 17-25.

Mishra, P., Henriksen, D., & the Deep-Play Research Group. (2013). A new approach to defining and measuring creativity: rethinking technology & creativity in the 21st century. *Techtrends: Linking Research & Practice To Improve Learning, 57*(5), 10-13.

Moore, D. W.,Bhadelia, R. A.,,Billings, R. L., Fulwiler, C., Heilman, K. M., Rood, K. M. J., & Gansler, D. A. (2009, August). Hemispheric connectivity and the visual-spatial divergent-thinking component of creativity. *Brain and Cognition, 70*(3): 267-272. ERIC, EBSCOhost (accessed September 4, 2014).

Morris, K. (2005). Evaluator vs. Critic: Judging Intercollegiate Forensics. *National Forensic Journal, 23*(1), 75-78.

Mueller, J. S., Melwani, S., & Goncalo, J. A. (2012, January). The bias against creativity: why people desire but reject creative ideas. *Psychological Science, 23*(1), 13-17.

Netzer, D., & Rowe, N. M. (2010). Inquiry into creative and innovative processes: an experiential, whole-person approach to teaching creativity. *Journal of Transformative Education, 8*(2), 124-145. doi:10.1177/1541344611406905

Olson, C. D. (1989). The development of evaluation criteria for individual events. Proceedings from *National Communication Association/American Forensic Association (Alta Conference On Argumentation)*, 434-439.

Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future*. New York: Riverhead Books.

Preston, C. T. (1990). The Impact of Written Ballot Criteria on the Frequency and Type of Ballot Comments in Collegiate Limited Preparation Speaking Events. *National Forensic Journal, 8*(2) 163-178

Rhodes, M. (1961, April). An analysis of creativity. *Phi Delta Kappan*, *42*(7), 305-310.

Rinkevich, J. L. (2011). Creative Teaching: Why it Matters and Where to Begin. *The Clearing House, 84*(5), 219-223. doi:10.1080/00098655.2011.575416

Rogers, J. E. (2002). Longitudinal outcome for forensics: Does participation in intercollegiate competitive forensics contribute to measurable differences in positive student outcomes? *Contemporary Argumentation and Debate, 23*, 1-27. Retrieved from http://www.cedadebate.org/journal

Rogers, J. E. (2005, September). Graduate school, professional, and life choices: an outcome assessment confirmation study measuring positive student outcomes beyond student experiences for participants in competitive intercollegiate forensics. *Contemporary Argumentation & Debate, 26*, 13-40.

Rook, L., & van Knippenberg, D. (2011). Creativity and imitation: effects of regulatory focus and creative exemplar quality. *Creativity Research Journal, 23*(4), 346-356. doi:10.1080/10400419.2011.621844

Sani, B., Clow, K. E., de Nardin, T. J., & Stammerjohan, C. A. (2011). Teaching creativity: where do we go from here? *International Journal of Education Research, 6*(1), 147.

Sauro, T. (2008, June 16). To speech his own: Art of debate helps charter students in all aspects of life. *Record, The* (Stockton, CA).

Schlee, R. P., & Harich, K. R. (2014). Teaching creativity to business students: How well are we doing? *Journal of Education for Business, 89*(3), 133-141. doi:10.1080/08832323.2013.781987

Scott, C. R. & Birkholt, M. J. (1996). A Content analysis of individual events judge decision justification, *National Forensic Journal, 14*(1), 1-22.

Selingo, J. J. (2013). Attitudes on innovation: How college leaders and faculty see the key issues facing higher education. *The Chronicle of Higher Education Report, Washington, DC*, 1–16.

Semlak, W., & Shandrow, K. J. (1976). *An Empirical Analysis of Forensics Skills Employed by Participants in Bicentennial Youth Debates*. A paper presented at the annual meeting of the Central States Speech Association in Chicago, IL. Retrieved from http://www.eric.ed.gov/

Shapira, Z, 1995. *Risk taking: A managerial perspective*. New York: Russel Sage Foundation.

Simonton, D. K. (2012, July). Teaching creativity: Current findings, trends, and controversies in the psychology of creativity. *Teaching of Psychology, 39*(3), 217-222.

Sonnentag, S. (2000, July). Excellent performance: The role of communication and cooperation processes. *Applied Psychology: An International Review, 49*(3), 483-497.

Squalli, J., & Wilson, K. (2014). Intelligence, creativity, and innovation. *Intelligence, 46*, 250-257. doi:10.1016/j.intell.2014.07.005

Stenger, K. (1999). Forensics as preparation for participation in the academic world. *The Forensic of Pi Kappa Delta*, *84*(4), 13-23.

Sternberg, R. J. (2006). The nature of creativity. *Creativity Research Journal, 18*(1), 87-98.

Swanson, D. R., & Zeuschner, R. F. (1983). *Participating in collegiate forensics*. Dubuque, Iowa: Gorsuch Scarisbrick.

Tepper, S. J., & Kuh, G. D. (2011). Let's get serious about cultivating creativity. The *Chronicle of Higher Education*, *58*(3), B13.

Torrance, E. P. (1987). Teaching for creativity. In S. G. Isaken (Ed.), *Frontiers of creativity research: Beyond the basics* (pp. 223-254). Buffalo, NY: Bearly.

Verlinden, J. (2002). The metacritical model for judging interpretation events. *National Forensic Journal, 20*(1), 13-20.

Westby, E. L., & Dawson, V. L. (1995). Creativity: Asset or burden in the classroom? *Creativity Research Journal*, *8*(1)*,* 1–10.

Williams, D. E., McGee, B. R., & Worth, D. S. (2001). University student perceptions of the efficacy of debate participation: An empirical investigation. *Argument & Advocacy, 37*, 198-209.