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Cultivating Creativity: Faculty Conceptions of Creativity in Agricultural Communications Students

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Cultivating Creativity: Faculty Conceptions of Creativity in Agricultural Communications Students

Abstract
Creativity has been deemed as an essential skill in agricultural communications graduates by both industry and academia, and it has a pivotal role in student success within the classroom and the workforce. In order to foster students' creative thinking skills, faculty must turn away from traditional norms of lecture-based delivery and foster an environment where students are actively creating and engaging in the learning process. The purpose of this study was to provide insight on the nature of creativity as it relates to agricultural communications curriculum—focused on pedagogical strategies and creative assessments. This qualitative case study examined how agricultural communications faculty understood and facilitated creativity within their respective classrooms using in-depth, face-to-face interviews and documents. The findings revealed a lack of a cohesive language as it relates to creativity. Additionally, the results explored different pedagogical practices that facilitate creative thinking, and the various ways faculty perceive creative assessments. Based on participants' responses, a social constructivist alignment in the classroom could prove beneficial in fostering a creative classroom environment. Additionally, the use of scaffolding (changing the level of instructor support) has proven useful in nurturing creative thought and constructing knowledge.

Keywords
create, creativity, creative thinking, students, higher education, agricultural communication

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The challenges agricultural students will face in the 21st century are unprecedented. More people live on this planet now than any other time in history, and the global population will continue to grow to nine billion people by roughly the middle of the century (Godfray et al., 2010). Due to this continuing population growth, agriculturalists will have to double food production on fewer acres and do so more efficiently and equitably than ever before (Godfray et al., 2010). Along with a growing population, technology is advancing at an incredible speed and transforming how people live, work, and connect. In order to keep up with this fast-paced environment, agricultural students need every ounce of creativity, ingenuity, and imagination they can muster to solve the real-world problems they will inevitably face, including how to feed a growing population with fewer resources (Andenoro, Baker, Stedman, & Weeks, 2016). To develop creative thinking abilities in students, university faculty must look beyond traditional norms of lecture-based delivery and facilitate an environment where students are actively engaged in the learning process, as well as incorporate pedagogical strategies that foster creativity into course designs.

Creativity in Agricultural Communications and Higher Education

As consumers have become increasingly more removed from production agriculture over the past three generations (American Farm Bureau Federation, 2018), many have developed a growing mistrust of the agricultural industry. Coupled with the rise of social media platforms, this mistrust has led to an increasing amount of misinformation shared by the media and the public about industry practices and products. To break through these barriers, we must find individuals who can communicate truthfully and effectively about our industry in new, innovative, and even creative ways. The average consumer is exposed to up to 10,000 brand or product messages each day (Saxon, 2017), and the communication they receive – through sight, sound, or experience – about an industry, organization, or brand has an impact on the responses they will have toward them (Nielson, 2018). For our voices and stories to be heard, agricultural communicators must find creative ways to effectively meet the demands of both the industry and its audiences.

Although few studies have focused on the concept of creativity exclusively in relation to the discipline of agricultural communications, there have been numerous studies that have recognized the importance of creativity to the field. Several studies have found that employers desire soft skills, like creativity, in agricultural communications graduates (Clem, 2013; Corder, 2015; Irlbeck & Akers, 2009; Morgan, 2008; 2012; etc.). However, based on employers' experiences with recent graduates, improvements are still needed in the ability of students to think creatively in order for them to be successful contributors in the workplace (Irlbeck & Akers, 2009). Many faculty members would argue creativity, and other soft skill, are incorporated into different courses through various course assignments and opportunities (Corder, 2015), but there is a need for rejuvenation within course design and delivery in order to foster a creative thinking environment and further stretch students' creative capacities.

Extending beyond the discipline of agricultural communications, creativity has been stated to be a major skill sought after by employers of college graduates in all areas, and similarly, there has been a growing concern about the lack of creative thinking abilities in recent graduates (Edwards, McGoldrick, & Oliver, 2006; Sawyer, 2012). This lack of capacity to display creative thought has been attributed in some ways to the lack of a general understanding of what exactly

creativity is or means. Without a definitive concept of what creativity is, it can be difficult to promote and assess the concept to students and graduates in any field.

Definitions of creativity. A single, universally accepted definition of creativity in relation to higher education does not exist; however, creativity is often conceptualized in one of three ways: creativity as a final product, creativity as the process of creating, or creativity as part of a social system. When thinking of creativity as a final product, the evidence of a creative mind in action is based on the final end result produced, whether it be an actual product, idea, solution, etc. (Sawyer, 2012). The assessment of product creativity is often subjectively based on individual preferences or judgments about what constitutes a display of creative effort (Amabile, 1996; Beghetto, 2005; Craft, 2001; Jackson, 2006). When thinking of creativity in terms of the process of creating, the cognitive progression or growth of the individual is much more important than the final result produced (Robinson, 2011). This focuses on the behavioral characteristics that drive creativity – ingenuity, innovation, novelty, etc. – and the cognitive development of individuals (Sawyer, 2012) that result in processing "original ideas that have value" (Robinson, 2011, p. 151). Finally, creativity is sometimes seen as being part of a social system or as a social process consisting of a domain (culture) and a field (society) that surrounds the individual and influences their creative ability (Csikszentmihalyi, 1996). In the case of higher education, students are surrounded by university faculty who help facilitate creative thought in specific academic disciplines; students submit creative work and faculty decide if that work is creative before it can be accepted into the greater discipline.

Facilitating creativity. Several research studies have outlined various pedagogical strategies that foster the creative process. Baker, Rudd, and Pomeroy (2001) stated teaching college students to think creatively needs to be a top priority and argued creative thinking abilities cannot develop on their own; they must be taught and facilitated. In order to do this, faculty can no longer be just "information givers" (Baker, Rudd, & Pomeroy, 2001, p. 182). They also noted that teaching with creative thinking in mind takes more time to prepare and limits the amount of content taught in a course (Baker, Rudd, & Pomeroy, 2001). Cropley (2001) found teachers who fostered creativity encouraged independent thought, promoted collaboration among students and peers, took questions seriously, and supported students even if their answers were misguided. In regard to teaching creativity, Livingstone (2012) noted the importance of a social constructivist alignment in the classroom and explained that students are more engaged when they can conceptualize what they have learned and apply it to real-world situations. Other methods, such as utilizing positive reinforcement, promoting engaged learning strategies, and adapting teaching methods along the way, were also found to promote an environment more conducive to fostering creative ability in students (Jackson, 2006).

Assessing creativity. Utilizing appropriate methods for assessing creativity in the classroom is another way creative thought can be encouraged, or in some cases undermined, in students (Beghetto, 2005). Assessments can be used to provide students with constructive feedback regarding individual development that further promotes creative growth and has a positive impact on motivational beliefs (Beghetto, 2005). However, assessing creativity is often found to be difficult due to its abstract and subjective nature and is often done through observations and simply inferring creative activity has occurred (Sawyer, 2012).

In an attempt to provide some standardization for assessing creative thought, several measures of creativity have been developed, but none have proven to be better at measuring creativity than the others (Besemer & Treffinger, 1981; Treffinger, 1986; Torrance, 1966; etc.). The most widely used measure of creativity in higher education is the Torrance (1966) Test of Creative Thinking

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(TTCT), which provides standardized scores for creativity by measuring the concept based on four areas: flexibility, fluency, elaboration, and originality. Another commonly used measure is the Requirements Model of Creativity (Unsworth, Wall, & Carter, 2005), which measures creativity based on a set of standards, or requirements, established before the creative process occurs. Still, neither of these measures gives a full-range assessment of creativity, and it has been recommended that multiple assessments of creativity be utilized to provide more depth and rigor (Cropley, 2001: Treffinger, 1986).

Social Constructivist Theory

Much of the current research in relation to creativity in higher education has been conducted under the social constructivist paradigm. According to Vygotsky (1978), it is not possible to detach learning from social contexts as all cognitive processes originate and are impacted as the result of social interactions. The social constructivist theory reiterates that our experiences are shaped through shared social interaction and that engaged learning occurs when students are involved in social activities, such as those in the classroom (Kim, 2001).

Vygotsky (1978) argued that learning is not the accumulation of new knowledge by students, but rather it is the process by which students are incorporated into a knowledge community. As a result, Vygotsky (1978) proposed the Zone of Proximal Development (ZPD) and claimed that meaningful learning occurs within this zone. The ZPD represents "actual development as determined through problem-solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). In terms of creativity, the ZPD has been used to describe the learning zone that bridges a student's current level of creative development with their level of potential creative development, which is enhanced through the use of effective pedagogical strategies (Shabani, Khatib, & Ebadi, 2010). Scaffolding is one such strategy that is often associated with promoting student learning through the ZPD. Although certain elements are initially beyond the learner's capacity for thinking, instructors can help them overcome this knowledge gap by providing more instruction up front, then decreasing the level of instruction in order to facilitate creative or critical thinking (Shabani et al., 2010).

Purpose and Objectives

While there has been a significant amount of research on creativity, few studies have focused on creativity in higher education and even fewer have focused on creativity specifically in agricultural communications. Creative thinking abilities have been deemed by employers as an important, yet lacking, capability of graduates from agricultural communications programs (Clem, 2013; Corder, 2015; Irlbeck & Akers, 2009; Morgan, 2008; 2012; etc.), and the lack of research on this topic is concerning. This qualitative case study sought to add to the existing research on the topic of creativity by exploring the perceptions of creativity from agricultural communications faculty from programs across the United States. The purpose of this study was to better understand the nature of creativity in the context of teaching and learning in agricultural communication so that it can be fostered in future graduates to better meet industry needs. The following research objectives guided this study:

- RO1: Define creativity in the context of teaching and learning in agricultural communications.
- RO2: Explore pedagogical strategies that facilitate creative teaching and learning.
- RO3: Discover faculty perceptions of creative assessments.

Methods/Procedures

A qualitative case study approach was used to investigate the research objectives of this study. In qualitative research, the researcher becomes the observer and hopes to make sense of participants' beliefs, attitudes, insights, and opinions through a set of interpretative practices that make the world visible (Creswell, 2012). The essence of a case study is that it investigates a contemporary phenomenon, or "case," in-depth and within real-world context—especially when the boundaries between a phenomenon and its context may not be clearly evident (Yin, 2009). In this study, creativity was only investigated as it related to the academic field of agricultural communications, and the boundaries of this case were limited to the attitudes and beliefs of agricultural communication faculty in programs across the U.S.

To investigate the case of creativity in agricultural communications academic programs, purposive sampling was used to identify the sample from a population of all agricultural communications professors in the United States. In this technique, the researcher relies on their judgment when selecting members of the population, and it is an appropriate method when limited amounts of participants can serve as data sources (Creswell, 2012). Participants were identified from a public list of attendees at the annual Agricultural Media Summit (AMS) held in St. Louis, Missouri and had to meet the criteria of being an active instructor or faculty member e of agricultural communications. Eleven participants were recruited via email with 10 agreeing to participate in the study. Although Creswell (2012) recommends including no more than five individual cases within a case study, 10 participants were included due to their varied levels of experience in higher education, as well as to gain a more in-depth understanding of the construct in relation to programs from across the county.

Interviews took place within the three days of the AMS meeting at a neutral and convenient location in the hotel in which the conference was hosted. As suggested by Ary, Jacobs, and Sorenson (2010) and Erlandson et al. (1993), a semi-structured interview guide was utilized to give researchers the freedom to move away from set questions to form a more conversational tone and nurture a comfortable environment for the participant while gaining detailed and complex answers. Interview guide questions were adapted from a previous study regarding creativity in higher education (Justyna, 2016) to better reflect the agricultural communications discipline. Questions included asked the participants to define what creativity meant to them, what creativity looked like in their courses, how they promoted creativity in students, and how they assessed creativity in student work. Each interview ranged from 30 to 45 minutes in length and was audio recorded to ensure authenticity and to aid in transcription. Each participant was assigned a pseudonym to safeguard confidentiality.

Leech and Onwuegbuzie (2007) recommend using several types of data sources to ensure rigidness of the qualitative process. In addition to their interviews, participants were encouraged to share documents that would support their responses in the form of course assignments, rubrics, and syllabi to provide a means for triangulation in this study. Documents and artifacts contribute stable data sources, which complement and interact with participants as they are reflective of their course design and learning outcomes and include measures of student assessment (Erlandson et. al., 1993).

Interviews were transcribed verbatim, and course documents were included with interview transcripts in the data analysis. All data were analyzed through the constant comparative method using open and axial coding with the assistance of MaxQDA software. The constant comparative

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method helps in identifying dominant themes and comparing responses to prior, but similar, responses (Glaser & Strauss, 2009). Data were categorized into general themes during the open coding phase, which Creswell (2012) describes as relating broad themes of information to form a central phenomenon. From this open coding, data were organized into sub-themes before using axial coding to ensure all facets of the data were thoroughly scrutinized (Creswell, 2012).

According to Lincoln and Guba (1985), the trustworthiness of qualitative research is based on four pillars: credibility, transferability, dependability, and conformability. Credibility was established in this study through the use of additional data sources for triangulation and by maintaining an audit trail of research documents (Creswell, 2012). The use of one-on-one interviews allowed data to be retrieved straight from participants, which provided some degree of credibility by allowing them to expand upon beliefs, attitudes, and opinions and generated data that is both reliable and honest (Lincoln & Guba, 1985; Richards & Morse, 2002). Transferability was achieved through the use of rich, thick description and long, detailed quotations (Creswell, 2012; Lincoln & Guba, 1985). This provided a detailed account of field experiences that will allow readers to make their own decisions regarding transferability (Lincoln & Guba, 1985). To address confirmability and dependability, an audit trail, triangulation of sources, and relevant studies were utilized to support the research objectives and interpretation of the data of this study (Lincoln & Guba, 1985; Richards & Morse, 2002).

Results/Findings

Demographic characteristics were collected in each interview and included gender, years of experience in higher education, and professional title. Out of 10 participants, five were male (50%) and five were female (50%). These participants had varied professional experience in higher education ranging from four years to 25 years with an average of 16.1 years. Six participants (60%) were assistant professors in agricultural communications, while four (40%) were full professors.

Research Objective One

Research objective one sought to define creativity in the context of teaching and learning in agricultural communications. Three themes emerged at the conclusion of the data analysis process: beginning conceptions of creativity, creativity as a product, and creativity as a process.

Beginning conceptions of creativity. There were several initial conceptions of creativity from participants. Most agreed creativity involved being "unique," "different," or "innovative"; however, many had independent ways of conceptualizing the term. Dr. April initially described creativity as "It's individualistic. It's contextual. Creativity in one context may not be creativity in another context…It is one of those things that you know it when you see it." While Dr. Tom stated, "Different is what I find creative…it still comes down to individual taste—it's subjective."

Creativity as a product. Most participants described creativity in terms of a final product, idea, or activity produced as described by Sawyer (2012). Dr. Katie illustrated this by saying, "[Creativity] is very broad…I guess I would define creativity as somebody who can be unique in their way of delivering the message in a way everyone understands while still accomplishing their goal." Other participants saw creativity as a physical product created by students' application of knowledge. Dr. Donna addressed stated, "Creativity for me would be showing how [students] have taken ideas from their coursework, applied it to that situation, and came up with a final concept." Dr. Ron added, "I think creativity is the ability to use your imagination in such a way you come away with something that you can see or demonstrate…it's tangible."

Creativity as a process. A different view of creativity was mentioned by some participants who described it as more of a process. According to Dr. Sarah, "I think there's another aspect to creativity that relates to strategy as well, because if you are strategic in your thinking, you can see other approaches when doing something that the other people are not seeing." Dr. Tom added,

> I think the brain does two kinds of thinking: creative and critical thinking. Creative thinking can be a lot of things, and it is not necessarily a product. It's looking at alternatives. It's looking at opportunities. They've identified a problem or an opportunity and came up with an alternative…for me, creative thinking isn't just product based.

Research Objective Two

Research objective two sought to explore pedagogical strategies that facilitate creative teaching and learning in agricultural communications courses. Four major themes emerged in the data analysis process: real-world relevance, classroom environment and expectations, foundational knowledge, and challenges.

Real-world relevance. Providing real-world relevance was a major focus of many participants' courses. Most recognized the need for real-world skills to be implemented within courses, and some thought implementing these scenarios increased student engagement and creative thought. Some participants explained they applied creative thinking in the classroom with respect to students' lives and future careers. Dr. Lucy described a course she felt facilitated creative thought:

> They are free to choose their own topics and…they develop [campaign] materials; they work in groups. So, that facilitates creativity in different ways. They're bouncing ideas off each other, but they're learning how to work with people. You don't get to pick your team. It's very real world. They have to be creative in developing those interpersonal relationship skills.

Classroom environment and expectations. Participants also said establishing a positive relationship with students in the classroom was essential to facilitate creativity in the learning environment. The attitude of the instructor was noted as an important component of facilitating creative thinking, as Dr. Katie explained,

> If I'm more rigid walking into a class and enforce the rules, students will follow them. When I get the assignments, they've followed the rules. When I tend to be free-flowing—follow their leads, interest areas, and discussions—they tend to be free-spirited in their creative realm.

Further noting the importance of rapport between students and professors in the learning environment, Dr. Donna stated,

> I find that my students haven't had an opportunity to critically think in high school or do creative thinking and problem solving on their own. I try to prompt them, encourage them, and give them the confidence to do it on their own by seeing examples, learning from those examples, and then doing it themselves.

Student engagement. The subtheme of student engagement emerged as participants described the ways they foster creativity through activities and discussions. Participants described the ways they stretched the creative thinking capacities of their students to generate new ideas through meaningful learning environments. Dr. Nick elaborated on this by saying,

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> [Students] are more engaged when they're being creative… Their writing becomes their baby if they care anything about it at all… There is something about that creative assignment that causes students to hang on to it longer and not be comfortable just finishing it.

Dr. April also noted the importance of student expression and individuality in the course design process. "I enjoy giving students some 'own-ness' in the [course] design process so to speak... It gives them a sense of ownership in the process, so they don't just feel like they're being told what to do all the time."

Freedom to fail. Students having the freedom to fail also emerged as a subtheme. Dr. Katie stated, "I am the type of person that I want the students to feel able to fail in my classroom. I want to learn from them, too." Dr. Ben added that this freedom is one practice he uses to facilitate creativity. "It's turning students loose and saying, 'You have freedom; go be different.' Being their safety net and also giving them the freedom to fail." Dr. Nick related this to a specific course he teaches:

> My big message in that class when it comes to creativity: don't let your inhibitions keep you from doing something that is really creative. Let it be okay that you find out that your risk didn't work because what's the worst thing that can happen?

Need for ambiguity. A final subtheme related to the students' need for ambiguity in assignment directions to promote creativity. Some course assignments reflected this by allowing students to explore individual interests while still providing structure for the overall assignment. Dr. Katie alluded to this by explaining, "All students want to learn if you give them the right outlet to express themselves and allow them to be creative in their own way without putting too much parameter on them." Similarly, Dr. Tom added,

> As an instructor in our ag comm program, I don't want to be in the position where students, instead of being creative, are designing things because they know I will like it. If I can keep that purposely vague, they don't know what the target is.

Foundational knowledge. The third theme related to the facilitation of creativity in agricultural communication classrooms was the importance of foundational knowledge related to the course content. The course syllabi provided by participants were reflective of this foundational knowledge as each assignment was meant to build on one another. Participants all agreed that students must master core skills in order to facilitate creative thinking; otherwise, the student may end up frustrated. Dr. Ben addressed the importance of core skills by explaining,

> [Students] aren't thinking about 'how do I adjust the camera?'; they're thinking, 'how can I make quality images?' It's kind of like riding a bike. Once you learn, you're not worried about the pedals of the bike anymore. You can start to do different things and be creative.

Classroom challenges. Several participants also mentioned numerous challenges faculty often face that can sometimes hinder their ability to truly facilitate creative thought. One such challenge was related to the monotony of teaching the same course over an extended period of time. Additional challenges involved having the time to refresh and revitalize those courses. Dr. Ron expressed concern for this by explaining, "I think there is a danger that you teach the same thing, all the time, the same way." Dr. Ben added,

> I do think there is some benefit to having some freshness to what we do. Now, does that mean it has to be a new course or a new take on the course? Sometimes it's just rethinking what you do.

Research Objective Three

Research objective three sought to discover faculty perceptions of creative assessments within agricultural communications courses. Two major themes emerged from the data: assessments of products and assessments of student effort.

Assessments of products. Most participants agreed they assessed creativity on a product level. Practical, project-based assignments were very common according to the syllabi they provided and statements from participants. One project-based assignment allotted up to 60% of the students' grades for visual aesthetics. The primary assessors to the visual portion of the assignment were unity of fonts, colors and graphics of the layout, and appropriateness of the elements. Another class rubric allotted up to 33% of the students' grades for a creative lead. The criteria outlined, "Interesting, creative, attention-getting outline and clearly stated intro paragraph."

While some faculty specifically addressed creativity in their assessment methods, others thought assessing creativity was a challenge. Dr. Nick simply explained,

> I wish I did, but [it] is hard to assess…I can't tell you that we have any measurement of how creative students are being other than the qualitative assessment, 'yeah, that is a creative story.' I can back that up with reasons why it's creative: unique angle, deep connection to the reader, quotes used, and those kinds of things.

In terms of quantitative assessments of creativity, Dr. Donna explained, "I don't think I have anything that specifically says, 'category: creativity, here is the five things I'll be able to do to grade you on creativity'." Instead, she said she prefers to "look at the overall project" to determine if it is creative. Other participants, such as Dr. April, described their hesitation to grade for creativity on project-based assignments. "I, to be perfectly honest, fall back on those more concrete aspects of assessment rather than the less concrete, more abstract aspects of creativity."

Assessments of effort. Instead of just relying on assessing the final product to determine student creativity, some participants assessed the amount of effort students put into a project. When describing creative students within his class, Dr. Jerry said, "I associate creativity with initiative." Dr. Ron added to this by recalling a group of students he felt were particularly creative and went beyond his expectations simply because "they took the time to be more creative at what they were looking at." Dr. Ben further illustrated this by explaining characteristics of a creative student: "Inquisitiveness. That'd be the thing that jumps out at me. Maybe a passion and work ethic to go beyond what is average. To want to work and to look for that uniqueness and different perspective." Dr. Tom added,

> My assessment of a person's creativity is what I see for effort…I always come back to judging the gap of the person who did the work. Was it a big leap for this one student? [Something] they [had] never done before or is it just a repeated step for someone who has done several of these before? I'm resisting giving you criteria because it's not in my nature of what I call creative.

Discussion/Conclusion

Although all participants in this study agreed creativity was "innovative," "unique," or "different," there was no agreement on a single definition and how it related to agricultural communications. This ambiguity is seen in prior literature on the topic and is the result of the subjectivity of the construct and the lack of a clear definition in higher education and among experts about what creativity is (Amabile, 1983). Participants' views of creativity were supported by the previous literature, however, as many described creativity in terms of the final product, the

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process of creating, or creating in a social system (Csikszentmihalyi, 1996; Robinson, 2011; Sawyer, 2012). The majority of participants described creativity from the end product viewpoint. Assessing creativity through evaluating the end result produced has proven to be useful as it allows a means for measuring the creator's inherent creativity and allows for a comparison of that product with other product-based creative work (Craft, 2001). However, this does not account for the creative leap of the individual as described by process creativity, which could undermine students' individual expression of creativity ability (Beghetto, 2005; Sawyer, 2012). Understanding how exactly creativity is viewed could help instructors better promote and facilitate expression and growth of creative capabilities to bridge the gap between industry needs and students' abilities to address problems in innovative ways.

The importance of creativity was widely supported by all participants in this study. This is supported by previous literature that lists creativity as an increasing area of importance for students and faculty, particularly in agricultural communications (Clem, 2013; Corder, 2015; Irlbeck & Akers, 2009; Morgan, 2008; 2012; etc.). To help promote these abilities, participants stated they used real-world situations, referred students to industry experts, and constructed assignments to reflect and build capabilities students would need within the industry. Providing these learning opportunities allows students to gain a deeper connection to what they have learned and nurtures creative thought and problem-solving (Csikszentmihalyi, 1999; Livingstone, 2012). As these are the types of situations students will face in their future careers, it is important that instructors promote opportunities in which students can enhance their creative problem-solving capabilities.

Craft (2005) argued that instructors hoping to teach for creative thinking must focus first on learner empowerment. Participants stressed the importance of providing students with a learning environment that fostered student engagement, opportunities for students to explore ideas without fear of failing, and instruction that encouraged creative thought. This is reflective of a social constructivist alignment, as participants illustrated the impact social interactions had on encouraging creative thinking and constructing knowledge in learning environments (Kim, 2001; Livingstone, 2012; Vygotsky, 1978). Through the lens of social constructivism and the ZPD, faculty take on the role of facilitator and mentor further establishing the social context in which learning occurs (Vygotsky, 1978). Participants demonstrated the use of various skill-building activities that encouraged students to think beyond their ZPD and provided opportunities for students to reach their creative potential.

Although assessments in higher education are powerful tools for encouraging student motivation and determining their mastery of course content (Beghetto, 2005), participants struggled to assess student work consistently and objectively in regards to creativity. Their major concern was the subjectivity of the construct. As a result, participants relied entirely upon their own judgment of the level of creativity displayed in a student's work or the amount of creative progression or effort to provide the basis for their assessments of student creativity. The lack of a consistent assessment method often leads to subjective grading of creative work and may make it more difficult for students to fully grasp their creative growth and potential.

Participant responses were reflective of Cropley's (2001) criteria for assessing creative work which focused on the initiative students exhibited in completing course assignments. These criteria include asking students to exceed expectations, take risks, and employ originality and problem-solving. Most of the participants acknowledged when students were given structured, arbitrary criteria, they gave back uniform, surface-level work. The more ambiguous the requirements of an assignment were, the more likely the assignment lent itself to creativity, yet this could be a fine line to balance as most students typically desire detailed rubrics. As instructors strive to promote

more creative thought, they may find it difficult to determine the limit of too much freedom to creative versus too much detail to meet course objectives.

Recommendations

For Practice

Previous creativity research has found students become more effective learners when they acknowledge and employ their own creative abilities and combine them with traditional academic capacities (Jackson, 2006). Because agricultural communications is largely a skills-based discipline, it is imperative for instructors to carefully consider learning objectives, course design, and outcomes to promote creative thinking. When students are able to immerse themselves in learning because it is an enjoyable task, the basic prerequisites for creativity are met (Csikszentmihalyi, 2014; Livingstone, 2012).

The findings from this study highlight a distinct need in our discipline for an improved dialogue among faculty and students regarding creativity. With a better understanding of this abstract concept, faculty could implement proactive and practical planning of their courses, which would likely increase creativity across teaching and learning. Craft (2005) stated teaching for creativity could be likened to effective teaching, and participants outlined several successful pedagogical strategies and practices for teaching for creativity that could be easily transferred to any agricultural communications classroom. More emphasis should be placed on encouraging creativity by providing students with foundational core skills and knowledge on which they can build creative thought, ensuring meaningful student engagement in learning activities, and situating learning in real-world contexts and applications. Faculty should also make a stronger effort to formalize an assessment method for creativity focusing on the growth of the individual creator rather than the final product. This would allow faculty to measure the creative leap of the individual without forfeiting foundational knowledge.

A stronger effort to focus agricultural communications courses within the social constructivist alignment could also prove beneficial in facilitating a more creative environment for students. Following recommendations from Shabani et al. (2010) and Vygotsky (1978), emphasizing social learning opportunities within the classroom in the form of collaboration and cooperative learning would allow a greater opportunity for encouraging and enhancing students' creative capacities. Faculty should also focus on establishing a learning environment that provides opportunities for students to explore creative alternatives without the fear of failing an assignment. In doing this, the faculty's role as a mentor and facilitator is enhanced, further building their rapport with students.

For Research

Many recommendations for future research would allow us to further understand the concept and importance of creativity in relation to agricultural communications. This research should be expanded to include industry professionals, and an investigation of the students' perspectives of creativity should be conducted. Doing so would provide a more holistic and deeper understanding of the concept. Additionally, future studies need to expand on the concepts explored in this study to help quantify creativity and how we can best promote it through curriculum design and development and assessments or learning outcomes. Further research should also be conducted with other stakeholders and participants within various fields and disciplines of higher education. This would provide a universal view of creativity in higher education, as well as helping to add

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depth to the understanding of the construct. Investigating the effects of a social constructivist alignment on pedagogical strategies that foster creativity could also help determine the success of this approach in higher education. Finally, exploring pedagogical strategies and course designs that best foster creativity in higher education would provide guidance for instructors hoping to facilitate a more creative learning environment.

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