

## CCG PLC Literature Review

Charge:

### *Certifiably Creative Graduates*

*During our strategic planning process, creativity emerged as an institutional strength, a community value, and as a critical skill for the future economy. What is the nature of creativity? Can it be developed in all learners? If so, what do we need to add to our student experience in order to develop and assess it? How do we ensure that our graduates are demonstrably "more creative" than graduates from other universities or those who do not get college degrees? Can and should this be a point of distinction for SOU graduates that would be both marketable and add value to their lives?*

## Introduction

The members of this PLC spent a long time discussing the specific language in the charge, in part because as we explored the literature on how creativity is measured we found that, while it may be technically possible to develop structures and systems to ensure that our graduates are demonstrably more creative than others, we felt that it might be more productive and feasible to reframe and expand the charge to include a broader conceptualization of creativity and innovation. This expanded charge includes not only the expression of creativity and innovation, but also the value of knowing about the foundations of creativity, maximizing creativity potential for individual students and the ability to articulate and demonstrate what we're calling "Creativity Competence" (CC) to potential employers. Our definition of creativity competence reads as follows:

1. SOU insures that students' creative potentials are supported and fulfilled
2. SOU students gain knowledge about the foundations of creativity and innovation
3. SOU students can articulate both their knowledge about and the importance of creativity and innovation and their own creative accomplishments and endeavors to potential employers
4. SOU students are able to utilize their creativity both personally and professionally to lead lives of purpose

## Definition of Creativity

Across a wide range of domains, the value of creativity as an essential component of all human accomplishment is becoming recognized. Scientific, technological and economic enterprises have begun to embrace the research of psychologists seeking to demystify creativity and challenge its exclusive pertinence to the arts. With the acknowledgment that all innovation requires some degree of creativity, it is not difficult to accept that creativity must permeate everyday life. Thus, "academic psychology has become increasingly interested not only in the study of human intelligence but also creativity as a central variable in human achievement" (Jauk, Benedek & Neubauer, 2012, p. 219).

Despite nearly a century-and-a-half of research on the topic, questions still arise regarding the essential attributes, and even the number of criteria, used to define creativity. A standard definition emerged in the mid-1950s with a consensus on two aspects: **originality** and **effectiveness** (Runco & Jaeger, 2012, p. 92). However, contemporary definitions of creativity sourced from psychological and educational scholars expand to include a triad of key indicators. For an end product to be creative, it must be original or “statistically infrequent, and therefore unpredictable, in a given culture,” **purposeful** on the part of the originator(s), and **compatible** with other human purposes, needs, or values” (Sternberg, 1994, p. 299; Clapp, 2017, p. 20). Although this literature survey certainly provided a range of synonyms, these three basic points emerged from the investigation with consistency.

It should not be surprising that originality is a crucial ingredient of a creative work. Colloquially, “original” is often used interchangeably with the word “creative.” Originality is frequently associated with novelty or having the character of being unusual or unique; it is something that is not common or conventional (Runco & Jaeger, 2012, p. 92). Still, the level of originality inherent within a creative product can be perceived somewhat relatively -- “This may well depend on the nature of the problem that is attacked, the fund of knowledge or experience that exists in the field at the time, and the characteristics of the creative individual and those of the individuals with whom he [or she] is communicating” (Stein, 1953, p. 311-312).

In addition to originality, the criteria of purpose and compatibility are also essential for a creative product. Purpose directly connects to creativity when viewed as a catalyst for finding solutions to complex issues or problems. Compatibility is determined by how well the purpose aligns with the unique context of its inception. “In this perspective, creativity is not only a reaction to but also a contribution to change and evolution. Creativity thus underlies problem solving and problem finding; it plays a role in reactions (e.g., adaptations and solutions) but it is also often proactive” (Runco, 2004, p. 657).

It should be pointed out that while the aforementioned characteristics can be useful in gauging whether or not a product is in-and-of-itself creative, they are not necessarily compatible descriptors of the creative thought process. To some extent, process and product can be thought of as intrinsically intertwined, each informing the development of the other. While a tangible product may be easier to assess, the pathway through which it is achieved deserves consideration as well. A working definition of creativity would be deficient without recognizing the underlying process.

Cognitive psychologists hypothesize that creative thinking requires a degree of **flexibility**. Human behavior, and by extension approaches to problem solving, favor a pattern of safety and familiarity; individuals tend to repeat what has proven successful in the past. However, this leads to mediocrity and stagnation (Sach, 2018, p. xix). Indeed, this strategy serves an evolutionary purpose as its ties to punishment and reward are difficult to ignore, but ironically, it is often the

inability to dismiss this deeply ingrained programming that stifles innovation and leads to failure.

Creative thinking has also been associated with **divergent thinking**, a mental process that employs a multifaceted and nonlinear approach to problem solving, thereby generating multiple ideas or potential solutions. "While convergent processes are involved in straightforward problem solving, divergent thinking is the kind that goes off in different directions. The unique feature of divergent thinking tests thereby is that a variety of responses is produced" (Jauk, Benedek & Neubauer, 2012, p. 219). When in the midst of this intellectual exercise, ambiguity is tolerated, premature closure is resisted, and judgement is temporarily suspended (Beghetto & Kaufman, 2017, p. 182) .

Lastly, it is important to distinguish actual "creativity" from "creative potential." Creative potential, or "talent," can be defined relative to an individual, where the investment of time spent practicing a skill in conjunction with cultivating a base of knowledge will result in strength, described as "the ability to consistently provide near-perfect performance" (Rath, 2007, p. 20). However, there exists schools of thought suggesting that creativity is less about an individual state of being (that one does not *do* creativity or *be* creative), but rather how one *participates* in the creative process (Clapp, 2017, p. 2). This perspective on the definition of creativity shifts the focus away from the individual and towards ideas, allowing for multiple people and perspectives to participate.

The definition of creativity is still evolving. This is due in part to adjustments necessitated by emerging information, but also because the research covers assessment of creative works (both intangible and physical) as well as human behavior (personal and social). Uniting the various manifestations of creativity under one definition may not be practical or even useful. Still, the field of "creativity research is well beyond its infancy and had made great progress on many fronts. There are even undeniable signs of meta-creativity" where the research itself is enlightened by advancements made within the discipline (Runco, 2017, p. 313).

## **Organizational Creativity**

Our literature review included extensive analysis of creative organizations and, as one might imagine, there is a great deal of research on creative organizations. It is worth noting the difference between creativity and innovation where, as described by Mumford, Hester, and Robledo, creativity is the "production of original, high quality, and elegant solutions" (p. 5) whereas innovation is the act of carrying out or implementing the original solution.

Many research articles focus on creativity in organizations where creativity is valued because it provides a competitive advantage in the marketplace. However we did find research that focused on creativity in schools, including universities, where the goal is to increase creative

thinking by individuals. In both cases the literature is clear that you cannot simply tell people to be more creative, but that creativity and innovation must be part of the culture in an institution.

Creating or modifying an institution's culture can be difficult, and realistically, given the individual nature of organizational culture, there is no set roadmap for such change. Researchers have identified key aspects of creative organizations and reported that creativity must be woven into the organizational infrastructure from top to bottom (Amabile, 1988). Importantly, creativity and innovation are explicitly named in the organization's mission, vision, and value statements. Some organizations also include creativity in their organizational branding, but is not an essential element in developing a culture of creativity. Other elements that are essential include performance appraisal systems and appropriate assessments at both the departmental and individual levels.

### Antecedents of Organizational Creativity

Based on a meta-analysis of organizational creativity research Damanpour and Aravind (2012) identified seven characteristics that were reliably linked with creative organizations. These characteristics include:

**Specialization:** the variety of expertise and knowledge bases within an organization

**Complexity:** Related to specialization, complexity is the potential for the individuals who possess that broader knowledge base to interrelate and "cross-pollinate".

**Professionalism:** the stated desire to span boundaries.

**Internal communication:** the commitment to create a climate that is conducive to cross-pollination.

**External communication:** creative organizations actively seek out information from external entities; this includes professional activities and alliances with similar-minded organizations.

**Technical knowledge resources:** Creative organizations actively recruit and train to increase their technical skill and diversity

**Attitude toward change:** a key driver of innovative organizations and apparent when managers encourage creative thinking and encourage members to persist.

Dunn and Dougherty (2012) outlined three "tensions" or characteristics of organizations that can impact organizational creativity. The first of these tensions looks at the role of managers and specifically the tension between supportive versus demanding managers.

Supportive vs demanding managers: Similar to what Damanpour and Aravind (2012) call Attitudes toward change, Hulsheger, Anderson, and Salgado (2009), found that while there is some support for a relationship between demanding managers and creativity, researchers generally consider a supportive collaborative environment as more conducive to creativity and innovation. Other research has described this kind of organizational support as providing “unconditional positive regard” so that individuals are comfortable exploring and expressing their creativity.

Strong vs weak ties: Similar to the concepts of internal and external communications, mentioned by Damanpour and Aravind (2012), Dunn and Dougherty talked about the relative effectiveness of “strong” vs. “weak” ties in fostering creativity. Strong ties are indicative of close relationships between individuals, whereas weak ties are more indicative of loose or more distant relationships between individuals. Researchers have identified weak ties as being more conducive to creativity in part because they tend to lead to interactions and information sharing with people who have diverse viewpoints and/or expertise (Perry-Smith and Shalley, 2003 & Edmondson & Nembhard, 2009). The sharing of diverse perspectives is again and again related to creativity in the research.

Job complexity is reflected in organizational roles that have high levels of autonomy, clear feedback channels, significance, clear identity and, variety (Shalley et al., 2004). While there are aspects of job complexity that can impede creativity, specifically when complexity moves from the individual to team or project level (Edmondson & Nembhard, 2009), innovative organizations tend to have structures or norms in place that reinforce communications and information sharing between groups working on different aspects of any one task or problem.

Amabile (1988), a keynote speaker at the 2019 Creativity Conference, articulates the symbiotic relationship between the individual and the organization. She states that the organizations cannot be innovative without creative ideas from its employees, but that individuals can be influenced, both positively and negatively, by the conditions of the organizations. In addition, she outlines three basic components of organizational creativity including; motivation to innovate, domain specific resources and innovation management skills. Importantly, she identifies “motivation to innovate” as a crucial element and describes this as the “basic orientation of the organization toward innovation” (p.152). She stresses that one of the main ways this is communicated is through the mission and vision of the organization as well as the distillation of that higher level messaging into strategies.

Much of the research on organizational creativity has focused on private, for-profit companies that, on the surface, have different reasons for developing creativity and innovative practices. Far fewer research has been done on organizational culture in higher education. However, our search revealed an instrument that was designed specifically for universities. Based on the organizational principles outlined above, Heiland and Vogel (2016) have developed the concept of the Creativity Commonwealth which they describe as a higher education community whose members seek to advance organizational creativity as a means to accomplish institutional

change (pg. 1). They created an institutional self-assessment tool designed to assess and foster institutional creativity. The "Creative Capacity" tool is a self-assessment of four key areas;

1. Institutional messaging i.e. mission/vision, planning documents, public addresses and PR/marketing materials.
2. Creativity as a value/core competency
3. How organizational change is operationalized
4. Do existing resources support creativity i.e. funding, space, technology, and personnel.

## **Approaches to Ensuring Graduates with High CC**

SOU should look at current pedagogical approaches used on the campus to see what aspects of creativity we are already addressing in various disciplines. Creative skills can be supported by flexibility of spaces, materials provided for creative endeavors, and scheduling work outside of the traditional campus and "in the wild." (Davies, Jindal-Snape, Collier, Howe, Digby & Hay, 2013). In the case of SOU, "in the wild" may refer to the community at large, through collaborative partnerships, or specifically to our many accessible green spaces. Fluid movements and the simple act of walking, especially outside, show an increase in divergent thinking (Slepian, 2012; Oppizzo, 2014; ). Also, it is important to allow for playful instruction, and perhaps even "gaming-based" instruction (Davies et al., 2013). Hao, Yixuan, Meigui, Yi, Bodner, Grabner, and Fink emphasize the value of students engaging in a reflective process to enhance creative thinking (2016). Some of these opportunities are already in place at SOU and can be expanded. A very large literature points to the value of playful environments (Adams, 1982), which fits well with the ideas mentioned above, in the review of the organizational literature, on the value of non-evaluative, tolerant settings which convey "unconditional positive regard" and thus allow individuals to explore and express the originality that is at the heart of creative efforts.

Reflection on instruction methods and student responses can also be valuable in the building of a creativity conducive learning environment. Beghetto (2013) encourages instructors to reflect on what is happening in the classroom on a moment-to-moment basis to understand the creative dynamics of the teaching process itself. He encourages teachers to focus on the individual student's needs, and to pay attention to both affective and intellectual engagement. Teachers must be aware of how their responses to the students affect students as individuals and potentially enhance or stifle their individual creativity. Teacher responses may adversely affect intrinsic motivation and limit students' willingness to take risks. To avoid this, an instructor can allow student control of the experience and encourage individual student interests whenever feasible. Choice of extrinsic motivators to enhance class content must support student autonomy. This can be accomplished by offering a variety of options and choices, taking into consideration the students' point of view, and explaining reasoning behind instructional requests made to students. An instructor must accept that students will express unexpected thoughts and feelings resulting in equally unexpected actions. In order for students to take intellectual risks they must be given the room to express confidence in their own ability. A

teacher who is observant can act accordingly to help students get beyond their frustrations and embrace their self-efficacy. (Beghetto, 2013, p. 110-117)

In his Torrance Lecture at the University of Georgia, Simonton (2005), a second keynote speaker at the 2019 SOU Creativity Conference, listed some attributes of creative individuals. He characterized creative people as omnivorous readers. This seems to assume seekers of new ideas, information and/or experiences. Certainly, this could be applied to the aspect of curiosity that surfaces in a creative student at SOU who is attracted to research and learning. Simonton also describes creative people as having linking potential. That is the ability to link diverse ideas which presupposes exposure to diverse ideas through reading and research. He describes them as having the ability to train in one thing and apply that training to a completely different profession. This is very similar to linking diverse ideas. Ideally the creative SOU student should demonstrate cross-discipline flexibility. He also stresses tolerance of change and openness to new experience as important aspects of creative people. Lastly, he stresses the idea of people being able to code things in different ways, using fluency with more than one language and knowledge of other cultures as an example cognitive flexibility that enhances creativity. Both of these last two are directly related to the SOU mission of diversity and inclusion.

The report to the British National Advisory Committee on Creative and Cultural Education (1999), from a group chaired by Professor Ken Robinson, anticipated much of what we are considering in American education at this time. It posits that creativity and cultural diversity are inextricably linked and it described some of the attributes of creative students as:

1. Originality of ideas and actions
2. Positive engagement
3. Diversity of social values
4. Diversity of cultural values
5. Deep knowledge
6. Control of materials

In addition to that, at the institutional level we can encourage creativity by helping students express innovative thinking and teach them the importance of collaborative partnerships as they engage with their peers and other campus/off-campus entities.

While pedagogical strategies and individual characteristics are certainly important components, SOU will still need to provide a supportive infrastructure for creativity and innovation to thrive.. As indicated in the section on organizational creativity, for optimal outcomes, that infrastructure starts with the mission and vision and is then articulated throughout the organization. Later in this literature review we talk about the variety of ways that different North American universities approach creativity. While it is beyond the scope of this review to make value judgements about these approaches, it is worth outlining these approaches. Two universities, Sheridan College and Emerson University seem to have the most ambitious approaches to Creativity. Each of these has woven creativity into the fabric of the university and they appear to have built creativity throughout most or all other aspects of the university.

Two other universities we reviewed for this paper, Boise State University and UC Santa Barbara both have Colleges devoted to Creativity and Innovation. At UCSB, the College of Creative Studies provides students with the opportunity to get either a BA or BS degree with majors in many traditional areas of study. In addition, while UCSB does not have creativity as prominent as either Sheridan or Emerson, it does seem to have some level of integration beyond the materials for the College. Similar to UCSB, Boise State also has a College of Innovation and Design and they have some marketing materials that expand creativity beyond that college, but we could not find many other references to creativity beyond the website for the College of Innovation and Design.

Lastly, Buffalo State University is home to the International Center for Study of Creativity (ICSC). The ICSC features prominent scholars and researchers and creativity curriculum including both a master's degree and a minor in Creative Studies. The center also features workshops and conferences on creativity.

To have certifiably creative graduates or graduates with a high CC we must find ways to incorporate creativity into the curriculum. There are a variety of ways we can do this and, after reviewing the different ways other universities approach creativity programming, we are intrigued by those universities who build this into the fabric of the university. Both Sheridan College and Emerson University seem to do this effectively. We also see value in building creativity programming directly into the curriculum. Buffalo State has both degrees but also foundational courses that are designed to augment disciplines. Offering a creativity (minor or certificate) as a support program reinforces the value of utilizing creativity principles to leverage domain-specific knowledge. Lastly, we feel that there are excellent resources in the Rogue Valley and here at SOU that could be leveraged to raise SOUs profile as a creative institution.

## Measuring Creativity

Many of the ideas we present above assume some sort of assessment. The first step in deciding on an assessment is to decide what facet of creativity is to be assessed. Creativity is a multi-faceted thing, which is why it is often called a *complex* or *syndrome* (MacKinnon, 1965; Mumford & Gustafson, 1988). There are measures of creative personality, creative attitude, creative achievement, creative environments, creative teaching, creative thinking, and on and on. There are nearly as many ways to assess creativity as there are theories of creativity.

The charge given to this PLC pointed to "certifiably creative students," which goes a long way towards specifying an assessment approach, if the first word there is taken to mean that the *creativity of the students is objectively determined and based on manifest behaviors*. This would exclude measures of, say, creative thinking (e.g., divergent thinking) because those tests usually indicate what students could do rather than what students actually do. The key question for the PLC may be "what creativity do SOU students display?" This is a very different question from "what are the creative potentials of SOU students?" The PLC sees this as a positive since potential is more difficult to assess than actual, manifest behavior.

Approaches to assessment and/or measurement should also take into account the expansion of the charge cited above, namely that SOU should recognize that creativity can be expressed in diverse ways. Citing theories on this point, creativity may be expressed within various *domains*, which are something like disciplines, though as Gardner [1983, 1990] demonstrated, not exactly the same. His influential work on multiple intelligences is relevant here. There are quite a few theories about legitimate domains but Gardner marshaled evidence from developmental and experimental psychology, as well as the neurosciences, and proposed that humans share a capacity to think in verbal, mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic ways—and that there is no “general intelligence” nor general creativity. Thus two suggestions are to consider measures that focus on (1) manifest creative behavior and (2) diverse expressions of creative talent.

It may help to clarify what is meant by “manifest creative behavior” if we look briefly at the two commonly used tests. Consider, for example, measures focusing on creative traits or the creative personality. These are generally self-reports and ask respondents to rate how often they are open-minded, flexible, autonomous, intrinsically motivated, and so on. The specific traits on these self-reports are based on theories of the creative personality. The problem is that not all people share these traits, even if many creative samples have shown them to be common. Additionally, even if a person tends to be autonomous or tend towards any one of the creative traits, they may not do so all of the time. This is the well-known “trait X state” interaction that plagues much of personality theory. Finally, even if a student rated him- or herself as high on all traits on a measure of creative personality, there is no guarantee that creative behavior would result. At most creative traits are indicative of creative potential.

Much the same could be said about divergent thinking, which is by far the most commonly used method for estimating creative potential. These tests focus on creative cognition, not personality, but they too do not guarantee actual creative behavior. They are not by themselves indicative of actual creative talent and thus not useful if the interest is in certifiably creative students.

There are also measures of creative attitude, creative competency, and so on, but to get directly at *certifiable creativity* the assessment must focus on actual, manifest creative behavior. One good option for this is that using *Creative Activity and Accomplishment Checklists* (CAAC). These are self-reports that students complete and which indicate how often each student has been involved (or is involved) in creative activities in various domains. The domains covered by a CAAC vary from sample to sample but often include specific arts (e.g., performance), science, mathematics, engineering, technology, writing, leadership, athletics, and so on. Recent versions include scales covering everyday creativity, moral creativity, and political creativity. The domains covered are chosen based on the particular needs and research objectives, so SOU could choose whichever domains fit local university offerings and opportunities.

The CAAC is a self-report using a Likert scale. It can be completed in a paper-and-pencil format or on a device (computer, tablet, phone). More importantly, recent versions include both quantity and quality scales. Older versions only assessed the quantity of involvement in various creative activities. Examinees were asked “how often have you ....” and a creative activity was named. Now there are two methods that also assess the quality of creative activity. One involves open-ended questions, so the CAAC has both Likert and free-response options. In the

open-ended portion students are asked to describe their most creative activity (within any particular domain or domains, such as the performance arts, or the everyday creativity domain). These descriptions are later rated by trained individuals for things like intrinsic motivation (which tends to support creative behavior), originality (a prerequisite for creativity, defined in terms of novelty or the degree to which the activity is rare), and perhaps value. This method is somewhat time-consuming and inter-judge agreement must be checked to insure good reliability. The other method used to assess the quality of creative activity on the CAAC uses Likert questions, so it is more reliable and objective. It simply includes questions about creative activities that reflected some social recognition. These items often ask how frequently the student "won an award for something you wrote," or "were nominated for a position based on your creative behavior," just to name two examples.

One interesting option for the CAAC would use two versions, one focusing on creativity expressed on campus and the other focusing on extracurricular creativity. This sort of thing has been done several times in the past. Indeed, the researcher who developed the CAAC—John Holland—original used it in investigations comparing academic with extracurricular creative behavior. He reported that the two are not strongly related and that students very frequently express creativity outside of school that they do not express when they are in school. This same finding was recently replicated. It is quite an important finding and may imply that students have creative potential that they use outside of school that they can't use when in school. This in turn may imply that the school does not offer enough creative opportunities.

SOU could use this same methodology and monitor different cohorts. If SOU succeeds in supporting students' creativity, the difference between academic and extracurricular creativity would be expected to diminish. That would require longitudinal investigation, but CAAC data would be useful immediately and not just after follow-up data were collected. CAAC data would indicate exactly how students are spending their time and how much time is in fact invested in creative pursuits.

In addition, because the CAAC covers various domains, data from the CAAC would offer information about the diverse expressions of creativity. There are several reasons to believe that creativity is encouraged when a student explores diverse activities, and that is easy to determine with the CAAC. (Last year Robert and Michele Root-Bernstein presented their research at the 2018 SOU Creativity Conference, and this was one message: that diverse activity is good for creativity. They are not alone with this message. Far from it.)

It would be possible to use CAAC sorts of data when reviewing applicants to SOU. Sternberg (another speaker at the 2018 SOU Creativity Conference) has argued strongly for the inclusion of creativity when selecting applicants to undergraduate and graduate study. This might be an area for further discussion. Here we just mention that there are methods in the research for using creativity data when reviewing admissions applications.

The CAAC is often modified to capture particular domains of creativity or so that it targets the objectives of a particular investigation. It can be modified to fit with SOU objectives. It could ask about creative outlets, events, resources, spaces, etc. that students feel they can use. It would no doubt ask how often SOU students engage in SOU things (clubs, events, other extracurricular) and how often they are involved in creative activities in the broader community. One important index of education is *generalization*, and if SOU is effective in supporting students'

creative talents, students will use their creativity when they are at SOU, but also when they are off campus and after they graduate.

There are no perfect measures of creativity, but the CAAC has proven to be reliable and informative. It could be used in combination with other indices. The CAAC is a self-report and like other self-reports is open to biases such as students' honesty, memory, and perhaps socially-desirable responding. Previous research suggests that these are minimal influences and that CAAC data are useful. It might be used with other measures, such as the *Creative Attitudes and Values* (A&V) survey or a measure of supports and barriers to creativity on the SOU campus. Indeed, a measure of the SOU creative climate and the A&V would provide data on the degree to which SOU is in fact displaying the creative culture mentioned above in the review of creative organizations. There are a number of measures designed to assess perceptions of creative supports and barriers, including the *Creative Settings and Climate* survey.

Another possibility is to use a different methodology to assess the degree to which SOU is supporting creativity with the current curriculum. This is the *social validation methodology* which begins by asking faculty to answer some open-ended questions about their classes, syllabi, methods, and objectives. Answers to those open-ended questions are explored and commonalities identified. These can be placed on a Likert survey which can then be used to assess any class or program at SOU. This PLC also discussed options for the assessment of the curriculum and the level of creativity that is fostered within a given course. Finally, it is possible to examine how SOU academic and grading policies encourage or discourage curricular exploration. This is rooted in the belief, mentioned above, that more interdisciplinary approaches, or simply gaining perspective outside one's primary field of study, can yield innovative ideas. Note that there are assessment options for students (e.g., the CAAC or A&V), for faculty (and curriculum), and for the organizational climate or culture. With a fairly small investment each or all of these options could be prepared for SOU, with measures that are adapted such that they are well aligned with the SOU mission and strategic plan and are appropriate for SOU students and faculty.

In summary, If we adopt the expanded language for the PLC charge that we reference earlier in this document, we will likely need a multi-faceted approach to assessment. As can be seen from our review, there are a number of quality measures that we can use as a foundation.

## **Creative Universities**

In this section, we've identified five universities that feature a range creativity programming. Some of these approach creativity more holistically and attempt to embed creativity as part of the university's institutional culture. Others attempt to build creativity into programming either as a stand-alone degree or institute. Below we apply a standard set of questions to each university and provide a summary of the various types of creativity programming for each. These schools below comprise a small sample of North American institutions, but there are many more both here and abroad that we've not covered.

### **Buffalo State University**

**What role does creativity play at this institution? (Marketing, mission statement, actual building space, curriculum, events, certification, entire institution degree?) Please describe.**

Buffalo State features the [International Center for Studies in Creativity](#). The center offers both a master's degree and a minor in Creativity Studies. The website for the center includes the following statement "The International Center for Studies in Creativity (ICSC) is known around the world for its personally transformative undergraduate, graduate and distance programs that cultivate skills in creative thinking, innovative leadership practices and problem solving skills.". The landing webpage for the university references "a diverse and creative environment", but makes no mention of creativity beyond that. Buffalo State references a dedication to "creative activity", but this is part of a longer list of goals for the university.

**How does the university advertise that they are in the business of graduating creative students? Provide two screenshot of marketing that clearly advertises this if possible.)**

There does not seem to be much in the way of promotion for the two programs (MA Creativity and Creativity minor).

**Are there creativity-centric testimonials that we can include from graduates or current students?**

The ICSC has a page devoted to testimonials but none beyond that specific page.

**What are some words or messaging you noticed on the university's website other than the word 'creative' that articulates the university has positioned itself in the business of creativity.**

Very little additional messaging beyond that already mentioned.

**If the University includes creativity in its curriculum, describe how.**

As mentioned previously, the university offers an both an MA and an undergraduate minor in Creativity Studies. The graduate program is hybrid program that offer courses through on-campus summer offerings and online classes.

## **Boise State University**

**What role does creativity play at this institution? (Marketing, mission statement, actual building space, curriculum, events, certification, entire institution degree?) Please describe.**

[Boise State University](#) does not advertise its connection to Creativity on its homepage at all. It was only through an article about Creative Institutions that I learned that Boise State has a new College of Innovation and Design. Only by clicking on the Menu, on Academics, and then

Programs that you finally can see College of Innovation and Design listed as one of the College choices. Within that they have a "Id:EA Certificate that "prepares you with skills in creative problem solving." Courses include "Creative Concepting" and "Growth Hacking".

**How do the universities advertise that they are in the business of graduating creative students? Provide two screenshot of marketing that clearly advertises this if possible.)**

Although the homepage of Boise State does not connect the entire University to nurturing creativity, the advertising within the College of Innovation and Design advertisement does make it sound like the whole University is embracing new ways of thinking, with these pictures and statements, that are not targeting only Arts students.

**Are there creativity-centric testimonials that we can include from graduates or current students?**

Boise State does not have quotes from students, instead having links to students within majors that connect to a video, or a bio, specifically about that students path. I was unable to find any testimonials about creativity or the new College of Design and Innovation.

**What are some words or messaging you noticed on the university's website other than the word 'creative' that articulates the university has positioned itself in the business of creativity.**

Some of the best messaging is buried within the description of the College of Innovation and Design. "Growth", "re-imagining", "innovative", and "exciting" are interesting choices to describe what they are trying to do. This is their overall message about the College:

"The College of Innovation and Design (CID) is about nurturing new ideas – born out of the best faculty, student, and community input to ensure the growth and value of a Boise State education. From new cross-disciplinary majors to courses designed to build skills employers demand to re-imagining the future of a university, CID is looking to incubate the most innovative and exciting ideas facing Boise State and higher education today."

**If the University includes creativity in its curriculum, describe how.**

The courses listed in their College of Innovation and Design as counting towards the degree are actually courses already taught in the other programs. They also have "vertically integrated projects" as classes, that allow student to do research with professors for credit. Identified projects range from sagebrush restoration, to building a robot, and interestingly, one is called "Make It' and the goal is to continue to grow a Maker Space in the library.

**Emerson College**

**What role does creativity play at this institution? (Marketing, mission statement, actual building space, curriculum, events, certification, entire institution degree?) Please describe.**

Creativity is treated as a dimension of the learning experience at Emerson. While some of the other institutions examined by this PLC take a more intellectual approach to the study of creativity itself, Emerson embraces its reputation as a renowned liberal arts school and points to its commitment to the arts as proof of its creativity-focused education. Creativity is also mentioned in the college's mission statement:

Emerson College educates students to assume positions of leadership in communication and the arts and to advance scholarship and **creative** work that brings innovation, depth, and diversity to these disciplines.

This mission is informed by core liberal arts values that seek to promote civic engagement, encourage ethical practices, foster respect for human diversity, and inspire students to create and communicate with clarity, integrity, and conviction.

There is one creativity-specific BA offered at Emerson (described at the end of this report), and there is a strong focus on the arts and other creative fields commonly found in liberal arts institutions. An Associate Professor named Thomas Vogel has written and released a book titled *Breakthrough Thinking: A Guide to Creative Thinking and Idea Generation (HOW Books)*, which features case studies with some of his former Emerson students.

**How do the universities advertise that they are in the business of graduating creative students? Provide two screenshots of marketing that clearly advertises this if possible.**

Emerson's primary campus is located in Boston, MA. The landing page of this college's website announces its position on creativity loud and clear through the first tagline of a rolling series of marketing messages: "Become a Creative Force. Here, independent minds shape the world." Beyond that, there is not a strong singular focus on creativity in Emerson's online marketing, but one can find it interspersed in news stories and descriptions of student projects. This institution generally seems to employ a "show don't tell" methodology when it comes to marketing that the university is creative. This is an institution that celebrates creativity but doesn't outwardly announce that it is centered on the business of creativity, unlike Sheridan College in Toronto.

**Are there creativity-centric testimonials that we can include from graduates or current students?**

None found with a narrow focus on the science of creativity that would be of much use here, but there are some blog/news stories that communicate the university's commitment to creativity in a subtle manner.

**What are some words or messaging you noticed on the university's website other than the word 'creative' that articulates the university has positioned itself in the business of creativity.**

"Independent thinking" is a phrase that popped up a few times. Another way creativity is celebrated at Emerson is the accolades given to specific faculty members. An excerpt from a blog post describes a film produced by Emerson faculty in collaboration with students and industry experts about creative thinking:

YesNoMaybe, a film by Thomas Vogel and Jasraj Padhye, follows the journey of several Emerson students as they experience their own creativity during a 14-week long college course in 'Creative Thinking.' The film features students, educators and industry experts and provides a close look at how students can learn and practice creative thinking and problem solving as a skill, and how creativity can be taught. YesNoMaybe offers a fresh outlook into why creativity is considered a "21st century skill.". As an aside, Dr. Vogel will be screening and talking about the the film at the 2019 Creativity Conference.

The workshop explores the nature of creative and critical thinking, as well as the increasing importance of [creative] problem solving. Participants will experience that creativity is a skill which can be learned and enhanced through tools. The workshop will focus on fostering individual creativity and revitalizing the creative process when facing challenges.

**If the University includes creativity in its curriculum, describe how.**

The Business of Creative Enterprises (BA) is a unique program targeting students who are interested in leading and managing businesses in the creative economy.

**UC Santa Barbara**

**What role does creativity play at this institution? (Marketing, mission statement, actual building space, curriculum, events, certification, entire institution degree?) Please describe.**

UC Santa Barbara uses the words "sparking Creativity and discovery" on its home page. It also has student quotes on the landing page that specifically talk about growing creatively. The actual implementation of Creativity is through the College Of Creative Studies (CCS), one of the three Colleges students can choose their major from (the other two are College of Engineering, or College of Letters and Science). It is interesting to note that the CCS at Santa Barbara is not new, it has been in place for 50 years. The classes taught within the College of Creative Studies appear to be combinations of existing classes taught within the other programs. The description of the degree is:

Since 1967, the College of Creative Studies (CCS) has offered a small intellectual community of committed undergraduate students and faculty set within a major research university. CCS

students and their faculty advisors work together to design a study plan that encourages students to take risks, to explore, and to develop their passion. Whether it is producing creative work or conducting original research, students are inspired and empowered to make significant contributions to their field by creating new knowledge.

Students may earn the bachelor of arts degree in Creative Studies with a major in Art, Biology, Chemistry & Biochemistry, Mathematics, Music Composition, Physics, or Writing & Literature. They may also earn the bachelor of science degree in Creative Studies with a major in Chemistry & Biochemistry, Computing, Mathematics, or Physics. Qualified students may apply to earn the bachelor of science/master of science degrees in Computer Science (with the B.S. earned in CCS and the M.S. in the College of Engineering).

**How do the universities advertise that they are in the business of graduating creative students? Provide two screenshots of marketing that clearly advertises this if possible.)**

The landing page of UC Santa Barbara has a beautiful picture of its stunning location, and this quote:

The link to the College of Creative Studies is not obvious though, you must click on Academics, then choose Undergraduate Colleges and Majors, which at last takes you to the rather drab looking photo of the College of Creative Studies, that looks like few updates have been made since 1967.

**Are there creativity-centric testimonials that we can include from graduates or current students?**

On the Homepage of UC Santa Barbara there are only 2 student quotes, with pictures of the students. One of them speaks directly about creativity:

"It was incredibly important that while pursuing a Ph.D. I would be allowed freedom to grow creatively in my interdisciplinary scholarship. Getting to know UCSB's strong spirit of collaboration across departments assured me of my choice." Xochitl Clare, PhD Student, Ecology Evolution, Marine Biology.

**What are some words or messaging you noticed on the university's website other than the word 'creative' that articulates the university has positioned itself in the business of creativity.**

Words such as "dynamic", "collaborative" and "inspirational and "spark" are used throughout the web site. A brief description used to describe the campus culture names creativity:

"A dynamic environment that prizes academic inquiry and creativity to generate discoveries with wide-ranging impact: This inspirational setting, this collaborative community, this is UC Santa Barbara."

## Sheridan College

**What role does creativity play at this institution? (Marketing, mission statement, actual building space, curriculum, events, certification, entire institution degree?) Please describe.**

Sheridan College, located in Toronto, is a self-described “Creative Campus.” While some universities use creativity as a dimension or quality to enhance their curriculum, creativity is a core theme of Sheridan’s campus culture and is interwoven into their academic programs. Sheridan also offers creativity-specific programs, such as the *Sheridan Board Undergraduate Certificate in Creativity and Creative Problem Solving*, which “provides an opportunity for every degree student to gain a deliberate set of 21st century creative thinking skills and creative problem solving competencies that are recognized in a formal credential and endorsed by the International Center for Studies in Creativity, Buffalo State, The State University of New York (“ICSC, Buffalo State”).\* Two of the six learning outcomes defined in this certificate are as follows:

- Facilitate the Creative Problem Solving (CPS) process through the use of structured, deliberate skills, tools and frameworks
- Practice creative leadership in the context of solving complex problems and instigating change

The benefits of a “Creative Campus” as defined by Sheridan are:

“Our Creative Campus empowers you with practical skills and problem-solving knowhow, gets you collaborating with a diverse range of students and professors — and delivers a unique learning environment that inspires.”

Sheridan College also offers a graduate certificate in the Creative Industries, where students can develop their skill-set in the business side of creative professions, such as filmmaking and video games. This certificate is intended to round out a creative studies degree and teach students the business acumen required to launch and sustain creative ventures. While there certainly is a focus on the arts, Sheridan College is reminiscent of SOU in their offerings.

**How do the universities advertise that they are in the business of graduating creative students? Provide two screenshot of marketing that clearly advertises this if possible.)**

On the landing page of their “About Sheridan” section, one will find a nearly 2 minute video describing what creative skills are and why they are needed in today’s society and rapidly-evolving world.

There is also a video about a cross-faculty workshop called “Creativity Working Group” in which the senior advisor faculty member Yael Katz describes how creativity is conceived of and

cultivated at Sheridan College, with the priority set on helping students tap into their own creativity and express it in their studies.

**Are there creativity-centric testimonials that we can include from graduates or current students?**

Sheridan's website features a campus blog called "Curiosities." The leading story on the blog is about a first-year Honors College student from Sheridan living with Cystic Fibrosis, who collaborated on the development of a temporary tattoo kit to help raise awareness about CF and promote an upcoming film about teenagers who also live with the disease. From the blog: "To stay positive through the turbulent times with CF, Bianchin uses art as a creative outlet, turning to a canvas to express herself."

One can also find detailed stories about graduates and current students on the "Sheridan Stories" section of their website, in which students describe how the skills they learned at the college have empowered them in creating special projects like documentaries and even sharing innovative teaching tools with faculty to enhance the classroom experience.

**What are some words or messaging you noticed on the university's website other than the word 'creative' that articulates the university has positioned itself in the business of creativity.**

The words "personal," "intimate," "deep connections," "innovative," "inspire," and "spark" are words that lend themselves well to the marketing messages of Sheridan College. The institution also features the tagline "Sheridan: Get Creative" on some of their marketing assets as well. In exploring their creative assets, a pattern begins to emerge on how Sheridan College sells what they do: 1) they define what creativity means to them, 2) they describe how creativity applies to the subject at hand and 3) they declare Sheridan College as the "Center of Creativity."

## References

- Adams, J. (1982). *Conceptual blockbusting*. New York: Norton.
- Amabile, T. M., Schatzel, E.A., Moneta, G.B., & Kramer, S.J. (2004). Leader behaviors and work environment for creativity: Perceived leader support. *Leadership Quarterly*, 15, 5-32.
- Beghetto, R. (2013). *Killing ideas softly?: The promise and perils of creativity in the classroom*. Charlotte, NC: Information Age Publishing.
- Beghetto, R., & Kaufman, J. (Eds). (2017). *Nurturing Creativity in the Classroom*. New York: University of Cambridge Press.
- Clapp, E. (2017). *Participatory Creativity: Introducing access and equity to the creative classroom*. New York: Routledge.
- Davies, D., Jindal-Snape, D., Collier, C., Howe, A., Digby, R., Hay, P. (2013). Creative learning environments in education: A systematic literature review. *Thinking Skills and Creativity*, 8, 80-91.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Creating minds*. New York: Basic Books.
- Great Britain. National Advisory Committee on Creative, Cultural Education, Great Britain. Dept. for Education, Employment, Great Britain. Dept. for Culture, Media, & Sport. (1999). *All our futures: Creativity, culture & education*. Retrieved from <http://sirkenrobinson.com/pdf/allourfutures.pdf>
- Damanpour, F., & Aravind, D. (2012). Organizational structure and innovation revisited: From organic to ambidextrous structure. In M. D. Mumford (Ed.), *Handbook of organizational creativity*, (pp. 483-513) Elsevier Science & Technology. Retrieved from <https://ebookcentral.proquest.com/lib/sou/detail.action?docID=765294>.
- Dunne, D., & Dougherty, D. (2012) Organizing for change, innovation, and creativity In M. D. Mumford (Ed.), *Handbook of organizational creativity*, (pp. 569-583) Elsevier Science & Technology. Retrieved from <https://ebookcentral.proquest.com/lib/sou/detail.action?docID=765294>.

- Hao, N., Yixuan, K., Meigui, L., Yi, H., Bodner, M., Grabner, R.H., Fink, A. (2016). Reflection enhances creativity: Beneficial effects of idea evaluation on idea generation. *Brain and Cognition*, 103, 30. <http://dx.doi.org/10.1016/j.bandc.2016.01.005>
- Hulsheger, U. R., Anderson, N., & Salgado, J. F. (2009). Team-level predictors of innovation at work: A comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology*, 94, 1128– 1145.
- Jauk, E., Benedek, M., & Neubauer, A. C. (2012). Tackling creativity at its roots: Evidence for different patterns of EEG alpha activity related to convergent and divergent modes of task processing. *International Journal of Psychophysiology*, 84, 219-225. <https://doi.org/10.1016/j.ijpsycho.2012.02.012>
- Mackinnon, D. (1965). Personality and the realization of creative potential. *American Psychologist*, 20, 273-281.
- Mumford, M. D., & Gustafson, S. B. (1988). Creativity syndrome: Integration, application, and innovation. *Psychological Bulletin*, 103, 27-43.
- Mumford, M. D., Hester, K. S., & Robledo, I. C. (2012). Creativity in organizations: Importance and approaches. In M. D. Mumford (Ed.), *Handbook of organizational creativity* (pp. 3-16), Oxford, England: Elsevier.
- Oppezzo, M. (2014). Give your ideas some legs: The positive effect of walking on creative thinking. *Journal of Experimental Psychology*, 40(4), 1142-1152.
- Piffer, D. (2012). Can creativity be measured? An attempt to clarify the notion of creativity and general directions for future research. *Thinking Skills and Creativity*, 7(3), 258-264.
- Rath, T. (2007). *Strengths Finder 2.0*. New York: Gallup Press.
- Runco, M. A. (2004). Creativity. *The Annual Review of Psychology*, 55, 657-687.
- Runco, M.A. (2017). Comments on where the creativity research has been and where is it going. *Journal of Creative Behavior*, Vol.51(4), p. 308-313
- Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24, 92-96.
- Sachs, J. (2018). *Unsafe Thinking: How To Be Nimble & Bold When You Need It Most*. New York: De Capo Lifelong Books.

Simonton, K. (2005). *Diversifying experiences & creative development: Historiometric, psychometric, and experimental findings*. Presentation at the annual Torrance Lecture, University of Georgia, College of Education, Athens, GA.  
<https://www.youtube.com/watch?v=t2WqOaIKPoc&feature=youtu.be>

Slepian, M. (2012). Fluid movement and creativity. *Journal of Experimental Psychology*, 141(4), 625.

Stein, M. I. (1953). Creativity and Culture. *Journal of Psychology*, 36, 31–322.

Sternberg, R. (1994). *Encyclopedia of human intelligence*. New York: Macmillan.