Fostering Curiosity and Creativity in Higher Education: An Essential Agenda for Student Success

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Never has there been a time requiring more complex solutions to complex problems than present day. Popular media report worldwide and local crises, conflicts, and catastrophes that seem to grow daily in intensity and frequency. Such situations pose a challenge to citizens to be able and willing to step up and take leadership roles in order to adequately respond to society’s emerging needs. Higher education has long been viewed as a site for developing leaders for the future, but it is becoming progressively clear that established methods, no matter how studied or tested, will not resolve the knotty, new problems our world faces. For years campus mission statements have included language that explicitly extols creativity and innovation among faculty, administration, and students. However, while the rhetoric is heartening, few institutions have been able to deliver on that promise; rather than moving students toward exploring their inherent curiosity, unfortunately all too often our educational systems’ standardized approaches have resulted in standardized thinking (Robinson, 2011). Many stories point to the decline of individuals’ confidence in their creative abilities and willingness to take intellectual risks by the time they reach adulthood (Welkener, 2000; 2004; 2011). This is tragic if, as Maslow stated some 40 years ago (as cited in Dacey & Lennon, 1998), “the concept of creativeness and the concept of the healthy, self-actualizing, fully human person seem to be coming closer and closer together, and may perhaps turn out to be the same thing” (p. 137). Thus, the call to include creative skills within the competencies being addressed in higher education is becoming increasingly prominent (Hulme, Thomas & DeLaRosby, 2014).

The purpose of this paper is to contribute to the much-needed conversation in higher education about how to ignite and support students’ lifelong curiosity and creativity in both the curriculum and co-curriculum. Learning objectives for this work are for readers to be able to (a) understand various ways in which students may define creativity and their own creative skills,
(b) explore the potential of these definitions for better understanding the complex interplay between creativity, learning and development, and (c) consider how to create scaffolded educational activities that encourage students to follow their curiosities into creative outcomes. Sections of this paper will mirror these objectives and outline a pathway into intentional practices that have the potential to foster a “commitment to unwavering curiosity” and creativity in the college environment. Indeed this learning agenda is essential as long as higher education’s charge is to help students thrive in a changing world.

Creativity—What Is It and Who Has It?

Although creativity is a slippery term with myriad definitions, there seems to be some convergence of its elements in the description provided by Jackson & Shaw (2005) as part of their work with the Higher Education Academy Imaginative Curriculum Study in England. Their work suggested that those in academic positions tend to associate creativity with

- originality (making a contribution that adds to what already exists)
- being imaginative (using imagination to think in certain ways that move us beyond the obvious and the known into the unknown, that see the world in different ways or from different perspectives that take us outside the boxes we normally inhabit and lead to the generation of new ideas and novel interpretations)
- exploring for the purpose of discovery: (experimenting and taking risks; openness to new ideas and experiences)
- doing/producing new things (invention)
- doing/producing things no-one has ever done before (innovation)
- doing/producing things that have been done before but differently (adaptation, transference)
• communication – which is integral to the creative process. (Jackson & Shaw, 2005, p. 2)

While this list was created from research with academics, the results are very similar to those I found in a qualitative study on college students’ definitions of creativity (Welkener, 2000). First-year student participants from various disciplines at a Midwestern university involved in this study offered definitions of creativity that included both cognitive and affective qualities: doing or seeing something in a new way; being open-minded, spontaneous, and imaginative; expressing knowledge and oneself; and taking risks. They often struggled to define creativity due to its perceived ambiguous and subjective nature.

Since I assumed such definitions would be of even greater import if placed in the context of students’ experience with their own creative performance, I designed the study to not only address students’ conceptions of creativity, but also their “creative identities” (the term I used to convey how they have come to view their creative potential). Participants were purposively selected who thought of themselves as possessing high, moderate, and low levels of creativity in order to elicit a variety of perspectives. Interview transcripts, written materials, and a representation of their ideas that did not rely solely on use of the written word were utilized as data sources.

Findings from this study revealed that those students who regarded themselves as low in creativity defined the concept as an innate trait that allowed individuals to be able to come up with original ideas on one’s own—a quality that they believed they did not hold, and given its inherent nature, could not develop. These participants often found comfort in dealing with facts and avoided occasions where creative activity was asked of them. Holly’s story provides an example.
I don’t think I have [creativity]…. Like I’ve never been able, from the time I was in grade school…whether it was an art project or they’re like “be creative,” you know “do something,” I would just kind of sit there and look at everyone else’s projects and be like… “that’s really neat, why can’t I come up with something?” I always thought my ideas were dumb, I was kind of afraid of like what people would say. And when it came to like English classes, we would have to write short stories, or like the creative writing classes—I dreaded them, because I couldn’t think of anything original, it’d always come back to what stories had I read before and like I couldn’t come up with my own thoughts. (Welkener, 2000, p. 157)

Nick shared Holly’s feeling of creative inadequacy, saying

I always remembered my art classes in high school—we would always have, well, you know sometimes we’d have objects and I always tended to see them in a very realistic way. I could never, you know, stretch the boundaries like some other…like the people who can look at the clouds and see animals, and I’ve never really been able to look at the cloud and see the bunny, or the dog…it just, it hasn’t been there. (Welkener, 2000, p. 156)

Students who considered themselves high in creativity also believed it was an inborn characteristic, but one that they were privileged to have been given. Unlike those with low self-assessments of creative potential, this group was engaged in continual efforts to exercise their creativity and chose to situate their academic work within fields often considered traditionally creative such as the fine arts. Kate deemed creativity a significant aspect of her experience, even describing it as an extension of herself.
When I think of creative, I think that it’s like a word that describes myself. Um, I think that I have been creative since I was little, you know, finding different things in everything, you know. Um, art has… it’s something that I feel you have to be creative… you have to be a creative artist to be an artist. And uh, you know, I’ve had artist talent since I was young. I’ve always thought of myself as being creative….

(Welkener, 2000, p. 171)

External influences such as family members, teachers, peers, and social expectations shaped all of these students’ conceptual and self-definitions of creativity. Validation or negation of participants’ attempts at creative work from important others was critical in determining how they came to understand their own creative ability. Regardless of deeming themselves low or high in creativity, students’ narratives revealed that their creative identity mediated their motivation and ability to perform in creative ways. Probably the most striking example was from Holly, who recalled a defining moment from her third grade art class.

It was just some art project we were doing—we had to draw something. And I can remember exactly what it was—we had to write our name on paper, fold it in half, and then cut around our name and then we were supposed to draw something out of the shape that it made. And I wanted to do a spaceship, and my third grade teacher—I just remember…like “what is that?” She had no clue what it was. I tried to tell her, and she told me it didn’t look like that at all. (Welkener, 2000, p. 190)

Although the experience took place a decade prior to our conversation, it was clear that the teacher’s criticism of Holly’s work had a lasting impact on her sense of creative ability.

When students were given signals by key people in their lives that they had some success with creative risk-taking they continued striving to improve. When their attempts were not
acknowledged in positive ways, often their creative efforts stalled and so did the development of their creative identities.

### Curiosity, Creativity, and Development—What Role Do They Play In Learning?

As I see it, curiosity is the precursor to creativity; it is the driving force that enables someone to commit the time, reflection, and personal investment necessary to produce creative results.

A connection between creativity and curiosity may seem self-evident, and, indeed, psychologists and philosophers have long held that creativity and curiosity are related. It seems logical enough; we can imagine that the typical individual is satisfied by the usual solution to a problem or the usual way to conceptualize a situation. But the intensely curious individual keeps thinking about it and so might come to a new, creative solution or conceptualization of an old problem. (Willingham, 2014)

The curious person is not generally satisfied with the status quo; therefore the exploration and examination that are likely to follow curiosity have an increased chance of resulting in originality. Thus, rather than its reputation for “killing the cat” curiosity should be celebrated and encouraged as the impetus for leading humans to creative solutions.

In similar fashion to curiosity’s connection with creativity, my research findings suggest that creativity and holistic development are tightly bound phenomena. Students’ definitions and creative identities were forged in the context of their understanding of the nature and limits of knowledge (the cognitive domain) and perceptions of the role of relationships (interpersonal domain) and self (intrapersonal domain) in knowledge construction. Consistent with Kegan’s (1994) and Baxter Magolda’s (1992, 2001) assertion that adolescents and young adults in college rely heavily on external cues for making judgments about what to believe, how to assess
relationships, and how to regard one’s sense of self, participants in my study turned to others to determine their interpretations of creativity and creative identity. Many of these students faced significant dissonance when trying to wrestle with the uncertain and ambiguous nature of creativity and sought relief in answers found outside of themselves.

However, the developmental demands of being involved in this research project that required grappling with abstractions—or similar prior occasions that stirred doubts about concrete facts—seemed to create a context in which a few students could accept a measure of uncertainty. Such students no longer viewed knowledge in every arena as “absolute” but entered into a way of knowing that considers knowledge in some areas as tentative—the intermediate perspective Baxter Magolda (1992, 2001) referred to as transitional knowing. While narratives from some students (especially those from fields where self-reflection is obligatory such as the fine and literary arts) suggested that they were starting to raise a small, internal voice from within the noise around them, they were still frequently following external formulas (Baxter Magolda, 2001) and turning to authorities or peers for answers. This position is less than ideal given that for creativity to be maximally potent, self-authorship, or the ability to “coordinate, integrate, act upon, or invent values, beliefs, convictions, generalizations, ideals, abstractions, interpersonal loyalties, and intrapersonal states” (Kegan, 1994, p. 185) is necessary. In other words, creativity is at its fullest potential when individuals have the capacity to construct meaning for themselves rather than adopt existing meanings. Complexity in thinking, social relating and viewing self allows one to transcend external influences and find a “personal authority” (Kegan, 1994, p. 185) that sets the stage for creativity to occur.

Curiosity, creativity and development intersect and find their home in learning. Reynolds, Stevens & West (2013), paraphrasing Starko (1995), posited that “learning itself is a creative act
where students integrate prior knowledge, relevant knowledge and new knowledge in a meaningful way” (p. 52).

Research has also found that creative assignments provide numerous opportunities for students to extract deeper learning and insights from what they are learning, allowing students to not only learn course content but also take a different perspective on their learning. (Reynolds, Stevens & West, 2013, p. 52)

Thus creative activities that require students to “take a different perspective on their learning,” have the potential to promote the development of students’ voice, meaning-making, and learning.

Implications—What Do These Ideas Mean and What Can Educators Do?

If there are vital connections between curiosity, creativity, holistic development and learning there is likely much work ahead to transform higher education environments into sites where creative learning occurs. Given that college students frequently rely on external sources for knowledge, views of relationships, and validation of self (something that Kegan (1994) argued is actually characteristic of a majority of adults), and the nature of creativity necessitates the ability to author one’s own views, it will take intentional work on the part of educators responsible for the curriculum and co-curriculum to design practices that attend to the whole person/learner as a creative force. Therefore, my suggestions for practice that support creative learning specifically recognize the three dimensions of development—cognitive, interpersonal, and intrapersonal (Kegan, 1994; Baxter Magolda, 2001).

Cognitive development is enhanced when learners’ current meaning systems are called into question. Students who engaged in defining creativity and determining their creative identities by being part of my study faced a challenge to their current thinking by being asked to
engage with ambiguity. Sarah said the project “agitate[d]” her and described her cognitive dissonance.

I mean I just realized there’s something, you know, in me that hasn’t been agitated before…. It’s hard to define something which isn’t defined—which isn’t well defined, anyway, you know—which is purposefully like not well defined. Like there’s a reason why it isn’t (laugh) and I found that reason like really quickly…. (Welkener, 2000, p. 228)

The discomfort Sarah was feeling was due to being jostled out of understanding the world as concrete and knowable—a positive step toward embracing the uncertainty needed to begin to discover her own curiosities, form her own views, and determine new creative pathways. A similar approach could be taken in any classroom or co-curricular activity by choosing an “ill-structured problem” (King & Kitchener, 1994) to promote development. Adia, a study participant, recounted an illustration.

I’m in a philosophy class…right now and we’re trying to define what is…integrity. And we’re not supposed to come up with examples of integrity to define it—so you’re not supposed to really define a word by examples, but I guess that’s the only way to deal with it…. We’ve spent probably about four classes on it and we haven’t come up…we keep finding fault with what we’re doing, so we haven’t come up with any solutions yet. (Welkener, 2000, p. 195)

Adia, slowly, over the weeks of debate about the meaning of integrity, was becoming more accustomed to living with its ambiguity which helped her take a more assured stance when defining creativity and her creative identity in the study.
In the college years, the interpersonal domain is often responsible for many trials and triumphs in development as students learn to operate as adult members of a community; opportunities abound for learning about the role of relationships in their lives. Sydney shared that risk-taking emerged as one of her most important lessons.

I think I’ve learned so many more new things, and . . . not only about like the classes I took in art history and my chemistry and biology classes, English and stuff like that—not only just in classes, but . . . living in a dorm and learning to live with other people. Just being aware of society around me in relationship to myself. . . . Probably the most important aspect about creativity that I learned is the whole idea about taking risks.

(Welkener, 2011, p. 109)

Since students are often psychologically tethered to others while in college, determining which risks are appropriate and which are not advisable can be another developmental demand with which students struggle. However, taking risks (and even failing from time to time) can enhance students’ creativity, development and learning (Welkener, 2011). Once again, perhaps curiosity can lead the way. Accordingly, educators inside and outside of the classroom should model curiosity and risk-taking and partner with students to show them that learning can be fun, meaningful, and rewarding. Starting with low-risk learning activities will welcome those who are less confident in their creative abilities.

Finally, according to Baxter Magolda (2001), the intrapersonal (identity) development of students has often been neglected during college.

Having followed [students’] journeys from the beginning of college to their early thirties, I concluded that the missing piece of their college experience was the lack of emphasis on developing an internal sense of self. They learned disciplinary content and processes
for thinking about it and applying it. It was not until after college, however, that their employers and graduate educators stressed that their thinking, knowing, and applying their perspectives to their work all hinged on their internal values and how they defined themselves. (Baxter Magolda, 2001, p. xxii)

Students in my study were asked to define their creative identity; to do so they frequently went to others for advice. Asking students to turn the mirror on themselves is most difficult likely due to the academic world placing primary importance on the expertise of authorities. Opportunities during college for reflection on things outside oneself are great—more occasions to reflect inward on the self are needed in higher education in order to develop students’ complexity in creativity, development and learning.

The recommendations I have presented here for fostering curiosity and creativity—providing opportunities for transformation in all three dimensions of development via ambiguity, risk, and self-exploration—can clearly be connected to learning outcomes in any classroom or student activity. Daloz, Keen, Keen, and Parks (1997) contended that “a capacity for connection, for reflective, creative, strategic response to suffering and tough problems lies at the core of what it means to be human” (p. 4). If higher education is still in the business of preparing humans to tackle the world’s most vexing issues, curiosity and creativity play a vital role.
References


