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Structuring creativity: Successful strategies for using creative activities in the classroom

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Abstract:

From the political to the environmental, the 21st century presents a dizzying array of challenges for current and future generations. Society needs people who have the confidence to explore unique ideas and the willingness to take risks in shaping and sharing those ideas. Where will we prepare and encourage people to be creative? Is it in our universities? How can faculty members help our students learn to envision new, unusual and, in fact, creative solutions to ensure a better life for all? The purpose of this chapter is twofold: first, to show how three faculty members from three different disciplines structured their curriculum to foster creative thinking and, then, second, to offer a set of key principles derived from these activities that faculty members can consider when incorporating creative activities into their own classes.

Keywords: Creative teaching, Grading creative projects, Case studies

Introduction

From the political to the environmental, the 21st century presents a dizzying array of challenges for current and future generations. We need a more creative workforce that responds to our uncertain and complex times (Craft, 2006). Society needs people who have the confidence to explore unique ideas and the willingness to take risks in shaping and sharing those ideas. Where will we prepare and encourage people to be creative? Is it in our universities? As faculty how can we help our students learn to envision new, unusual and, in fact, creative solutions to ensure a better life for all?

Universities are certainly one place where creative juices can be energized. Yet, for years universities have been “failing to equip graduates with the creative skills they require to be effective in the workplace” (Wood & Bilsborow, 2014, 111). McWilliam and Kaukka (2008) argue that faculty need “to move creativity from the margins to the center” of the curriculum (651). Experience in doing creative activities can lead to students learning how to explore creative options. Yet, many faculty members have little experience developing and incorporating creative activities into their curriculum. In addition, once they have assigned a creative project, it is still not easy. Faculty members are ill equipped and often stymied to provide feedback and evaluate the creative products students present (Torrance & Shafer, 2006).

Evidence from multiple disciplines seems to indicate that creative activities should be assigned and can be assessed. Faculty can further the kinds of outcomes we want our students to graduate with, such as, critical thinking and crucial research skills while at the same time engaging student creative thinking (Sternberg, Grigorenko and Singer, 2004; Puccio, Murdock and Mance, 2006; Marie, 2008). Curriculum designers often use Bloom’s taxonomy of cognitive outcomes (1956) to write learning objectives. However, the taxonomy did not include creativity as an explicit outcome. In 2001 when Anderson and Krathwohl (2001) responded to

21st century needs and revised Bloom's taxonomy, they not only added creativity but also put it at the top of cognitive outcomes. Additional supportive evidence comes from the American Association of Colleges and Universities (AAC&U) who sought the help of over 150 faculty from across the US to design rubrics, assessment tools, for outcomes of US undergraduate education. Each VALUE (Valid Assessment of Liberal Undergraduate Education) rubric defines the outcome and offers a set of criteria for the outcome by which to score student work. Creativity was among the 15 outcomes and the rubric offers faculty a way to score creative work.

If creativity is a worthwhile learning outcome and can be measured, in what classes should it be taught? Only in the fine arts classes, or is it possible to incorporate creative activities in other classes? What about research methods classes? Marie (2008) argues that postgraduate science students need to know that creativity should be used when designing research projects. From problem identification to hypothesis formation, science students benefit from understanding and practicing the creative aspects of doing science. In business education, Petocz, Reid and Taylor (2009) show how creative activities are essential in giving students practice in thinking outside the box.

Some might argue that creative activities pull students away from learning essential content knowledge for which faculty know that they now have barely enough time now to cover. We argue that creative activities do not take away from students learning content knowledge. Creative activities energize, focus and reinforce content learning. In fact, our research has shown that creative experiences enhance content learning and engage students in rehearsing, reflecting and reviewing what they have learned (Reynolds, Stevens & West, 2013).

To include creative activities into a course curriculum, each of us (Ellen, Candyce and Dannelle) did much more than add just one assignment that allowed students to be creative. In fact, we structured the class in many different ways to give students the strong message that we seek to provide a climate in which creative responses are promoted and valued. Deliberately structuring creativity activities and paying attention to the classroom climate provides students with opportunities to explore creativity and find its place in their education and in their future life endeavors. As faculty, we intentionally incorporate creativity in the overall curriculum, including it in the activities, resources, assignments, and assessments. We even convey the importance of creativity beginning on day one of our classes through our syllabus and this sends a clear message that creative student thinking is valued and celebrated.

The purpose of this chapter is twofold: first, to show how three faculty members from three different disciplines structured their curriculum to foster creative thinking and, then, second, to offer a set of key principles derived from these activities that any faculty member can consider when incorporating creative activities into their own classes.

Three Cases of Structuring a Curriculum for Creativity

Students perceive and experience a course curriculum through the written materials (description of the course and the syllabus) and the assignments, activities and resources used to deliver the course. The three cases below describe how three faculty members from three different disciplines--Business Administration, Educational Leadership and Teacher Education--structured their curriculum to ensure a climate where students felt safe enough to take risks and be creative.

To set the context for each case, each case starts with the course description and the objectives from the syllabus and then each faculty member answers the following questions.

1. Given the objectives and course description, tell us more about the course, especially what you convey in the syllabus.
2. Who are your students?
3. What kind of classroom climate do you seek to create in this course?
4. Where in the course do you communicate that you value creativity and risk-taking?
5. How do you grade creative assignments?

Candyce: Case #1

Course Description: ELP 511: Principles of Educational Research and Data Analysis.

This course provides students with an introduction to quantitative and qualitative educational research methodologies. The focus will be on how to develop appropriate research questions, designs, and analyses. Students will learn to become critical consumers of research, able to understand, analyze and apply findings in published research studies. This course also prepares a student for their required program projects or thesis, facilitating the development of a quality literature review and project or thesis proposal. Basic statistics will be explored using statistical software.

Course Objectives: ELP 511: Principles of Educational Research and Data Analysis.

Students will be able to:

- (1) Describe the scientific method and how it is applied to educational studies
 - (2) Explain the research design process, including problem formulation, hypothesis testing, appropriate data analyses, and conclusions.
 - (3) Acquire skills for critically judging educational research.
 - (4) Identify differences and appropriate use of quantitative and qualitative methodology in educational research.
 - (5) Identify ethical issues and cultural bias involved in educational research.
 - (6) Describe the processes that institutions use to insure participant safety, i.e., institutional review boards.
 - (7) Write a well-researched problem statement, hypothesis, research question and literature review
 - (8) Perform basic statistics, including descriptive statistics, t-tests, and correlations
-

1. Given the objectives and course description, tell us more about ELP 511, especially what you convey in the syllabus.

The course I described above is a required master's course in the Educational Leadership and Policy. This probably does not sound like a course that would involve creativity in any fashion. One would not likely think about a creative assignment being part of this course.

Although creativity is not included as a direct learning objective in the course, creativity and practice in creative thinking is, in fact, essential for success. The creative activities that I use in most of my courses are both informal (on the spot class activities) as well as formal (assignments weighted with a significant portion of the course grade). All of the assignments for this course lead to a final Application Assignment which consists of writing a research proposal which requires them to identify a problem in practice, form a clear problem statement, review relevant literature, and develop a detailed research question that includes well-defined variables. While on the surface, this may sound like a relatively easy task, I am keen on having students struggle with a real problem that they care about, research the issues and develop a research question that could have the potential to impact change. For example, a student in our program might be interested in low retention rates of low-income students in a community college. To write a research proposal to study this phenomenon, students would have to first become clear on what they really want to look at. To do this, they would need to identify the constructs that they are interested in: low income students, community college students, retention in higher education, for example. In identifying the constructs, a researcher also needs to then identify the variables that will be used to measure the constructs they are interested in. In this instance: how will they measure low income? How will they measure retention? Though it may be easiest to just suggest that the student researcher use the measures that others have used, moving to that misses a step in really understanding the process of research. We are researching constructs or ideas. But to research constructs, we need to define the idea well, operationalize it, and consciously choose a variable that closely represents a construct. If we haven't identified a variable that closely represents the construct we are interested in, our research is useless. We aren't studying what we want to be studying!

In preparation for the final Research Proposal, I have students complete the assignment: Write a Poem to your Construct. For this assignment, I want my students to play with the constructs to develop the variables they will examine in their proposed study. Play is important. I believe it opens their minds to new ways of looking at the world. The poem can take on any structure the students choose: rhyming, haiku, stream of consciousness. I want them to discover what their construct(s) really means through poetry. We have a poetry reading the day the final paper is due and the class provides feedback (about students' variables, not their poetic skill).

2. Who are your students?

This is a required course for a Master's in Educational Leadership and Policy. These programs prepare students to work in an educational setting, pre-K through higher education. Most of the students are adults and many are already working professionals, returning for their master's degree to acquire new knowledge and advance in their positions.

For the most part, these students are not planning to be researchers, nor does this course really train them to become researchers. Instead, the course is intended to help students become good consumers of educational research. All of them are or will be in positions that require them to use research to make policy and practice decisions. Understanding the process of research is important and helps students navigate sometimes complicated academic reports.

Most of the students in this course are a bit intimidated by the material, at least at the beginning of the course. Many of them have had little or no exposure to research methods in their undergraduate career. If they have had undergraduate coursework, it is often very long ago or they were intimidated by it then too. While the course has very little math, because we work with statistics, some are even more intimidated due to math anxiety.

3. What kind of classroom climate do you seek to make?

A spirit of collaboration is essential in this classroom environment. Almost all of the in-class and the assignments are done as part of a group. Again, I try to foster an environment where everyone helps each other.

4. Where in ELP 511 do you communicate you value creativity and risk-taking?

I believe that this needs to be communicated throughout a course. Certainly, the Write a Poem to your Construct assignment communicates that I value creativity but there are other ways that I hope the message gets across.

- 1) I encourage risk-taking in this course through the weekly quizzes that are done online. The quizzes are actually quite challenging and I ask students to take them after they have done the reading and before they come to class that week. I require that they take the quiz but I don't use the score on the quizzes. The purpose of the quiz is not to "test" them but instead I want it to serve as a self-assessment. Did they understand the material they have read? Can they apply it? If they don't understand the concepts tested in the quiz, I invite them to bring their questions to class. These questions are usually shared in the Critical Inquiry groups that I will explain next.
- 2) I seek to create a climate of collaboration in my courses and especially this one. Every class starts with a Critical Inquiry activity. The instructions for this activity are as follows:

Participate in a "Critical Inquiry" discussion about each chapter. You should bring notes about your inquiry and have the page numbers that you can reference so your group can have a good discussion. Below are some ideas about what you can bring about the reading from each chapter:

Something you liked, didn't like, didn't understand, about which you have an opinion you would like to state, explains the main point of the author, about which you have a strong reaction to, or you can relate in an interesting way to something else you have learned in this class or in another context.

Or it could be that you have a question about one of the quiz questions. Really, this is a time for you to critically reflect on what you are reading and learning to help you understand the material better. What you bring to the table determines what you learn.

Your small group will turn in a Critical Inquiry Sheet each day that includes your individual questions and the conclusions you made based on your discussions. These will not be "graded" but completing this form will be part of the grade for this class.

Though having a discussion about research may sound odd, students are usually quite engaged in this process. They are curious if others had the same problems as they did with the material and typically are able to get all of their questions answered by their classmates. I like this activity because it allows those who are intimidated by the topic to get the answers from their peers and it allows those who understand to understand the material even better.

5. How do you grade creative assignments?

In this class, all of my assignments lead to the final research proposal, where students identify a problem in practice, review the literature and propose a research question. The Poem to My Construct assignment is graded like any other assignment; it has points associated with it and is graded based on how closely the student attained the objectives for the assignment. They are not being graded on their ability to write a poem, but instead, did they explore what their construct meant within the structure of a poem? This assignment is weighted at 10 points out of 100 so it is a significant assignment.

Dannelle: Case #2

Course Description: CI590: Action Research Proposal

Designed to help educators see themselves as researchers, in order that they may conduct research in educational settings that contribute to the improvement of education. Research questions and methods appropriate for practicing educators will be covered.

The purpose of this course is to help educators design an action research project that focuses on a significant problem in their practice and seeks to address this problem through systematic study.

Course Objectives: CI590: Action Research Proposal

Students will be able to:

1. Fully describe a teaching problem/concern/curiosity & indicate how focused research can address this concern.
 2. Know how to access and summarize resources to write a review of the literature on selected teaching problem.
 3. Describe the advantages and disadvantages on one research method in a group presentation.
 4. Select and write about at least 3 appropriate research methods to investigate the concern/problem/curiosity.
 5. Understand the personal and professional dimensions of being a teacher scholar.
 6. Reflect critically on practice and examine underlying assumptions.
-

1. Given the objectives and course description, tell us more about CI 590, especially what you convey in the syllabus.

CI 590 is a course designed to help experienced teachers who are graduate students in the Department of Curriculum and Instruction in the Graduate School of Education write a research proposal. Action research is the systematic study of one's own practice designed to improve that practice. This is the first course in a two-part series, CI 590 and CI 591. Through the class activities and writing successive drafts, students identify a problem or curiosity in their classroom practice that they would like to know more about and improve. Next, they use library resources to review research literature relevant to their study. Then, they design the methods they will use to gather data to address the problem. Students write this as a formal three-chapter proposal that they will use in the next class, CI 591, where they write about what they learned about the problem from gathering data on it. To make a difference in their own practice, the research problem needs to be something they have identified in their own classroom, closely related to their own teaching practice.

2. Who are your students?

My students are graduate students in the School of Education. The vast majority of them are classroom teachers who are seeking this degree to increase their salary on the pay scale, or to meet state teaching license requirements.

First and foremost, my students are experienced teachers with five to eight years of classroom practice. At this point in their careers, they know how to manage a classroom and design curriculum. What they don't know and seem to be worried about is "research." Part of my job is to help them reframe their notions of research and what they can learn from research. In addition, I seek to make research not something that other people do, but something they do. In fact, I call them, "teacher scholars".

3. What kind of classroom climate do you seek to make?

I want my students to feel safe and free to take risks in the class doing the required activities. Some of the activities would not fit into the traditional notion of a research proposal. Activities such as keeping a reflective journal and working in small groups do not necessarily fit into the mold of what happens in a research class. Beginning the first night, the students break up into subject-area teams of 3 to 4 students. Then, I have them take a long coffee break with their new team members to discuss their common interests and go to the bookstore to buy a journal. When they return from coffee break, we do a free-writing activity (Elbow, 1978) – a method where students write whatever comes into their heads for 10 minutes. Then, we do a focused freewrite (Stevens & Cooper, 2009) in their journal on a potential topic for research.

From the first day, I signal to students that this is not a one-way street. I am not going to lecture all the time and have them absorb information. I want them to engage in selection of their topic and choose one that has meaning for them. Their topic needs to be one for which they do not have the answer. Keeping a journal of reflection outside of class, doing reflective activities in class, and completing the creative expression at the end of the class are the threads of creativity that weave through the content of the course.

4. Where in CI 590 do you communicate that you value creativity and risk-taking?

First, I label the final assignment as “Creative expression.” Students find this in the syllabus and also find the rubric for grading the assignment in the syllabus. The syllabus is considered the written contract between me and the students.

I have listed among the books required for the course, a blank book, to be used as a journal for reflective writing in and out of class. This is the message that journal keeping is an expectation in the class.

The journal keeping activities are a consistent message that their voices are valued and that writing is a pathway to self-awareness and creativity. I always write in my own journal when they write in theirs. I show my journal and share entries I have made, even ones I spontaneously created during the writing activities. I guide them through several powerful journal writing activities, such as, dialogue, concept mapping, and metaphor. My goal is to teach them that writing is thinking and that they already know a lot that they can mine in the creation of this worthwhile project.

5. How do you grade creative assignments?

I hold the students responsible for their journal reflections by having them submit them as a reflection on two self-selected journal entries at the end of the term to which they attach a photocopy of the journal entry as well as a photocopy of the table of contents of their journals. For the creative expression assignment I have a scoring guide rubric that only describes the highest level of performance. Even though I created the rubric, I had students write the descriptors for each dimension (organization, content, etc.). The one dimension that students included in the rubric that I would not have thought to put in a rubric is that the assignment is “out of my comfort zone”. Students often start their presentation with “Writing a poem about anything, much less, action research is out of my comfort zone. But, I thought I would give it a try.” Since there is such variance in the kind of product students can create, I ask them to check the descriptors on the rubric that they would like to be graded on. Generally, unless the product is really shoddy, they receive full credit for the assignment. The creative expression is worth 10 points out of a 100 overall for the term and is scored on a rubric (Stevens and Cooper, 2009).

Case #3: Ellen

Course Description: Mgmt 410 : Developing creativity in business

Originality and “thinking outside the box” are hallmarks of creativity and innovation and often not central to an organization’s culture. What can you do, as a manager, to develop these important aspects of organizational life in yourself and your employees? This course explores the basics of creativity and how to foster this quality in yourself as well as nurture in your employees.

Course Objectives: Mgmt 410: Developing creativity in business

Students will be able to:

(1) develop skills that enhance their capacity to be creative.

(2) gain knowledge of methods that foster creativity within an organization as well as various organizational characteristics that contribute to a creative culture.

(3) analyze and evaluate aspects of creativity in the workplace.

1. Given the objectives and course description, tell us more about Mgmt 410, especially what you convey in the syllabus.

“Developing Creativity in Business” is designed to help students reconnect with their own creative juices as well as make them aware of the strategies they could use in their own organizations to develop an atmosphere that fosters creativity. The dominance of logical-rational approaches to learning in management education can create challenges for faculty interested in reinvigorating classroom learning experiences. In Mgmt 410, there is a heavy emphasis on nurturing creative confidence so that students are able to rediscover their own capability for use in a variety of business classes but, most especially in courses that focus on entrepreneurship and innovation. The course also focuses on how to build creative organizational cultures. It is a ten-week management elective available to undergraduate students who are majoring in Business Administration. The assignments are designed to remind students how creative they really are and to help them reconnect with earlier examples of that creativity that was alive in the music they used to play and compose; the watercolor landscapes they used to paint; the photographs they used to send to interested relatives; the dancing they used to enjoy; and all the various ways creativity used to manifest itself in their lives. As the Brothers Kelley have written: “Creative confidence is like a muscle—it can be strengthened and nurtured through effort and experience.” (2013, 2-3.) As one student wrote the first night of class, “I would like to learn how to improve and maintain my creativity in a world where ‘outside the box’ thinking is normally discouraged.” Through various assignments and activities, Mgmt 410 seeks to provide strength training in creativity and do so in a most celebratory way.

2. Who are your students?

Students who take the class are majoring in Business Administration and focusing on a concentration in Management and are either juniors or seniors. Typically classes in the management area are wonderfully diverse: my current class has students from Taiwan, the Philippines, Mexico, Canada and Haiti and, of course, students from the U.S. Besides English, the following languages are spoken: Hmong, Spanish, Greek, French, Arabic, Chinese, Creole, Korean and Italian. The age range varies from 20 to 40; and some students have been in their fifties and sixties. Most students work in a variety of fields such as banking, customer service, health care, food service, etc. and are planning to use their undergraduate degrees to advance in their current professional lives. Many are also the first members of their families to complete a college degree.

3. What kind of classroom climate do you seek to create?

My major goal is to promote an atmosphere of experimentation, enthusiasm and fun that develops gradually throughout the term. I expect all classroom efforts to be bounded by respect and acknowledgement of the various gifts of the diverse student body in the class. This approach lends itself to growing a culture of safety. In order to begin to build community and support in

the class as well as encourage risk taking, I introduce students to improvisational forms during our first meeting. We do something called “Word-at-a-Time,” which requires students to build a sentence about a topic that the group has chosen, one word at a time. It is a useful ice-breaker and also reminds students about the value of listening (Huffaker & West, 2005). It wakes people up and signals that this class will be different in tone from others. It also provides humor since many times the sentence doesn’t make sense but reinforces the idea of collaboration, risk-taking as well as acknowledging a willingness to fail in pursuit of the greater good.

Since exploration is a key component of the class, several field trips are always on the agenda. We have explored the community garden on campus as well as several small art galleries that are student-operated. Most recently we have been treated to a tour of several art installations on the campus, and this summer will be visiting the city’s art museum. When students are asked to identify the most meaningful activities they remember from their earlier grade school and high school experiences, often many of them mention various field trips they have taken. I have found that getting students out of the classroom has many benefits including providing a bit of helpful spontaneity to their learning.

A technique that also helps to create a culture of safety is the voluntary sharing of creative gifts that begins the second class meeting. I was first introduced to the technique when I attended a “Spirit and Leadership” conference sponsored by the Center for Creative Leadership in Greensboro, North Carolina. Participants were encouraged to share a poem, exercise, photograph, story, etc. that was personally meaningful to them during the course of the two-day seminar. It was entirely voluntary and enhanced the quality of the conversations that were occurring. I show a musical video the first night of class done by a group, “Playing for Change” entitled “Stand by Me.” When I asked for reactions, the first student who spoke said it was “Awesome.” It works like a magical prompt and after that I solicit a volunteer or two for the following class who might like to share something that the class would enjoy. Most recently one woman brought examples of calligraphy she had done earlier in her life which prompted a student from the Middle East to talk about how he had learned to do that when he was in grade school. The class encouraged them to share their approaches on the board so we had an opportunity to see what calligraphy looked like in both English and Arabic. This voluntary sharing builds community, showcases students’ creative gifts and helps to build an atmosphere that reinforces the idea that everyone is creative, a central concept in the class. Because most business students often aren’t asked to share these “hidden capabilities,” the process has transformative potential. It is also fun, a helpful element in any class.

4. Where in Mgmt 410 do you communicate that you value creativity and risk-taking?

The title of the course, “Developing Creativity in Business,” should signal to potential students what the subject of the course will be as do the objectives that are on the syllabus. There is also a “methods” section in the syllabus that emphasizes the role of active learning. “The nature of this course will be learning through experience. There will be an ambitious amount of entertaining reading. There will be minimum amount of lecturing. There will be a maximum amount of activity-based learning resulting in close to unlimited opportunities for positive class involvement and contribution.”

The Artist’s Way at Work (Bryan, Cameron and Allen, 1992) is used as the primary text. The book is based on four ideas: we are all creative; increased creativity is a teachable and

trackable process; all of us can become more creative than we already are; and the business environment will reward those who are able to be creative (xxi). The book is a potpourri of exercises, activities, and readings designed to assist students in the journey to reclaiming their creativity. As the authors write,

Creativity is not dangerous, not volatile, not limited to a select few. It is a universal, not an elitist, gift. Creativity is safe. Creativity can be stabilizing. Creativity belongs, as a birthright, to all of us (xix).

The authors stress the value of taking “time-outs” during the week which are designed to be a one-two hour activity during which students are encouraged to go “play” by themselves and engage in an activity that is “festive and fun.” This is a key strategy in the course that helps students reconnect with their creative core. Students chart their time-outs as a means of checking into the class. This provides them with an opportunity to observe what others have been doing and perhaps be inspired by them. Some examples include: walking, bicycle riding, running, scrapbooking, strolling through the Rose Gardens (a local tourist attraction with a stunning view of a nearby mountain), sketching in the park, painting, playing guitar, writing, camping, gardening, star-gazing, and taking a long walk in the park.

As one student wrote, “It was a beautiful sunny day and I was sitting on the couch. I made an executive decision and I told all those voices that were arguing back and forth that I was going outside to sit on the patio. I went to the patio, dusted off a lawn chair, sat down, shut my eyes and for 45 minutes I thought only about the warmth of the sun touching my skin. I hadn’t done this since I went back to school five years ago. Boy, was it a rude awakening to feel my body relax into the shape of that chair! The release of tension and the calming effect of sitting there were so refreshing. It was that decision and reaction that convinced me that I need to make time for a timeout every week.”

An additional means of reinforcing an active approach to developing creativity is provided by reminding students about the variety of “ways of knowing” as discussed by Lazear (2000). Students are required to integrate these various ways of knowing or “multiple intelligences” (logical/mathematical, musical/rhythmic, bodily/kinesthetic, etc.) into their oral reports as well as their final creativity projects. This approach assists them in expanding their awareness and appreciation of different ways of understanding beyond the standard verbal/linguistic approach which dominates much of higher education. I review this approach the first night of class and ask students to indicate by a show of hands which are their two most dominant ways of knowing. Typically in a class of 30-40 all ways of knowing are represented. This gives me an opportunity to talk about the variety of forms that creativity can take. I want to be as transparent about this as possible so that students will feel free to explore a variety of these ways of knowing in their own creativity projects as well as the oral reports that are required in this class. I have also discovered that asking students at the end of a class to identify how many different ways of knowing I have integrated into the class is a very useful practice. It also gives them license to request more of their favorite “way.” I do my best to accommodate.

5. How do you grade creative assignments?

The final project in the class consists of two parts: an oral presentation of a creative project

chosen by the student and a written reflection regarding what they have learned as a consequence of completing their creativity projects. Both are worth 15/100 points each for a total of 30% of the course grade.

Students are encouraged to choose a project that is fun and that provides them with opportunities to stretch their creative wings. The results run the gamut from displaying hand-made jewelry to training a dog to do tricks. Students have displayed photographs, shared hand-made furniture; played the drums as part of a duet; written songs and sung them; played the guitar, flute, piano, shared calligraphy, cooking skills; and sewed clothes. The examples are as varied and diverse as the students.

The presentation evaluation criteria represent 3 main features: (1) Content: significance of ideas, issues and objectives; relevance of project to class; appropriateness of choice; authenticity & uniqueness of effort; and originality; (b) Presentation/Design Issues: quality of technical execution; attention to how project is displayed; element of risk; understandable to others; and thought provoking; and (c) Oral presentation/organization/clarity: communicates concepts effectively; knowledge of background regarding project; and polished, professional and appropriate to topic.

Students are asked to submit a reflection regarding what they learned as a consequence of completing these projects. Questions they answer include: What did you learn from doing this activity; what risks did you take? How did this assignment help you pull together ideas or thoughts that you explored in class? How might you use skills you developed in a management capacity in order to motivate others? They are also required to assess their own projects and include a justification for their scores. Most students are very careful about their self-assessments and do an effective job of justifying them.

Principles for Structuring Creativity into your Classroom

Our three cases illustrate the idea that effective creative classroom activities do not burst forth unplanned. Encouraging students to be creative is developed in the context and climate of the class throughout the term. The above cases of each faculty member illustrate a variety of ways to communicate the intention that students take risks and exercise their creative insights when completing assignments and participating in course activities. . The syllabus, the activities, the course objectives, the assignments, assessments and last but not least, the climate they seek to make conveys the message that the development of creativity is valued. Let us summarize what we can learn from these cases in five principles for fostering creativity in university teaching.

Principle #1: Give students the message at your first class meeting that creativity and risk-taking are valued in this class through the syllabus, the written contract between the faculty member and the student.

Principle #2: Create class activities and structures that tap the unique contribution each individual student can make.

Principle #3: Be intentional in creating a classroom climate that facilitates student engagement and invites risk-taking.

Principle #4: Seek a variety of opportunities to tell students you value creative contributions.

Principle #5: Provide feedback and ensure grading practices that encourage creative responses and allow for diverse outcomes and explorations.

Each principle focuses on a different aspect of classroom instruction that students experience. Overall, the goal is to not leave any doubt in the students' minds that you are open to creative responses and that developing their creativity is an important outcome of the course. Now let us look at some examples of each principle.

Principle #1: Give students the message at your first class meeting that creativity and risk-taking are valued in this class through the objectives and assignments found in the written syllabus, the contract between the faculty member and the student.

The syllabus conveys a message to students not only about the structure but also the tone of the class. The syllabus that defines learning objectives and clarifies student assessments reduces student confusion and increases student commitment to learning (Ludwig, Bentz, and Fyneweaver, 2011). At the first class meeting, students generally are paying attention not to the course objectives but to the assignments. How much work am I going to have to do in this class? What kind of work will it be? Therefore, we need to make sure that students get a clear message about what we care about and what we assess. The written syllabus that students can use all term is the perfect place to tell students that you value their individual and unique responses to readings and class activities as well as give full descriptions of assignments that include valuing creative outcomes.

All three faculty members have written descriptions of the creative aspects of the class. Candyce's syllabus does not have an explicit goal related to creativity. Yet, her assignment, "Write a poem to your construct" conveys the message that there are parts of this course that will not be "business as usual." Dannelle, on the other hand, includes written objectives that underscore reflective practice in professional life. To this end, students are required to buy a blank book, to be used as a reflective journal during the term both in and out of class. Ellen, whose class is titled, "Developing Creativity in Business," certainly has the most explicit message to students that the class will be different and students will be expected to participate more fully and more creatively than they have in other contexts.

Principle #2: Create class activities and structures that tap the unique contribution each student can make.

Each faculty member in our cases had specific, intentional activities that allowed students to bring their unique selves to the class either through an assignment, an activity or a voluntary contribution. This principle focuses on activities designed to encourage individual student creativity not group work. The principle invites students to share more about themselves in class and honors their unique contributions to the class.

Candyce's Critical Inquiry discussions allow students to bring their questions as well as their expertise to the discussion. Dannelle uses reflective writing at the beginning of each class to give the message that student reflection and engagement with the project is essential. Reflective

writing in a journal encourages students to express their own voice. Another activity Dannelle uses is to have students make name plates on which they write their name and draw something they like to do as a hobby or area of expertise outside of their teaching. They talk about their area of expertise or hobby on the first night of class. The name plate is displayed during class so others will remember their names and also use the unique to generate conversation and connection across students.

Earlier in this essay Ellen indicated that using various “ways of knowing” is a major theme in her class (Lazear, 2000). Identifying and integrating these ways of knowing is an important feature of the students’ culminating creativity presentations. Although students are not required to integrate all eight of these approaches to learning into their presentations, most use as many as possible. The following is an example.

Budd has the engineer’s eye. Yet, he wants to open an art gallery when he’s done being an engineer. To say his photographs were stunning would be an understatement. He shared portraits of his family, photos of flowers and plants, various landscapes, beach scenes, European vistas, more flowers, spider webs, etc. He also shared examples of how changes in the lighting of his subject (in this case Queen Anne’s Lace on the side of the road), alters our perception of what we are viewing. As he wrote, “I love to look at everyday things and see if I can find beauty or interesting forms every chance I get. It is the artistic view on life that alters your perception of it.”

When asked at the end of the term what had been the most memorable moment of our class, most students responded “seeing everyone’s hidden talents” in the creativity presentations. This one activity was by far the feature that most impressed them.

As James and Brookfield (2014) have noted, “creative teachers are open to using many pedagogic models...dependent on the context for learning” (51). While Ellen, Dannelle, and Candyce do not formally teach a music, photography, or poetry, regardless of their approach, all three of us encourage students to reconnect with their creative core. These activities convey the message that we honor and have found ways to celebrate student individuality. Again as James and Brookfield have written, “Unless you choose to sleepwalk your way through your teaching days and ignore how students are responding to learning, no matter what the discipline you teach your work as a teacher is inherently creative” (51). In our cases we are awake and alert to the opportunities to encourage students to express their individual creativity as well.

Principle #3: Be intentional in creating a classroom climate that facilitates student engagement and invites risk-taking.

The classroom is a place where we plan for and expect intellectual exploration and learning to occur. We provide a structure for learning through our class lectures, class activities and class assignments. Within this structure, we also typically provide students with our expectations for their work and provide them feedback on their progress throughout the course. As one thinks about including creative activities into a course, the intellectual aspect of creating the classroom climate is obviously important. As we talked about in Principle #1, we need to provide a blueprint for what we hope our students will learn and what our expectations are for this work—first and foremost through our syllabi.

In addition, however, we also need to consider that the classroom climate also entails other aspects that we need to pay attention to: social, emotional, and physical. These are aspects that we may or may not pay attention to already but, nonetheless, can have a big impact on whether or not our creative activities are successful.

Social. Classrooms are social environments. Social interaction occurs between the instructor and students as well as between the students. As instructors, we have the ability to create social interactions and set the tone of these interactions. Instructors can ensure respectable and equitable interactions between students. They should be approachable and responsive to student needs, questions, and feedback. In a classroom where creative activities are happening, the classroom can seem chaotic (and in fact is). Students can feel confused—wondering if they are going to get a right answer and if anyone is in charge. One important way is to create a space where one can take risks safely without fear that things will go utterly crazy and that no learning will happen. Students need to know that you as an instructor know about the subject you are exploring together and that while you will be allowing students to explore and make mistakes in learning about a topic, you have enough knowledge and organizational skills and planning to bring them back to what is ultimately important. They need to understand that you can manage “planned” chaos!

An example of the social aspect of the classroom climate is from Dannelle’s class. Again, she asks her students to work in small groups and journal. Beginning the first night, she breaks the students into subject-area teams of 3 to 4 students. Then, she has them take a long coffee break with their new team members and go to the bookstore to buy a journal. Their work together continues throughout the term and the journal writing helps students not only reflect on their learning but also provides a venue for ongoing social interactions with their groups.

Emotional. To promote creativity, we need to help students understand and experience an element of risk. We cannot take on new adventures in business, relationships, or civic interactions without inviting at least a minimal amount of risk. Opening ourselves up to new experiences and thus new learning by its nature entails risk. If we put ourselves out there, we might make a mistake or someone will inevitably disagree with us.

To invite risk taking in the classroom, we must create an environment that is non-competitive and collaborative. As students try new ideas, they need to feel that they will not be judged harshly by the instructor’s grades for trying something new. There should be opportunities for students to share their creative projects and celebrate their success.

Candyce’s Poem to My Construct assignment is an example of asking students to take a risk. This project is graded like any other assignment and so is seen as an important part of the curriculum. However, it is graded based on how closely the student attained the objectives for the assignment. They are not being graded on their ability to write a poem, but instead, on their ability to explore what the construct means within the structure of a poem. No poetry writing skills required! In addition, students recite the poems in a “Poetry Reading” in class and celebrate each others’ successes.

Physical. The classroom climate is created through our physical space also. To encourage social and emotional aspects of climate, it is helpful to create a space where students can interact easily with the instructor and their fellow classmates. Preferably, an instructor can use a classroom that

has moveable chairs and tables so that students can easily work in small groups together and see each other easily. Even in a large classroom with fixed seating, it is possible to create small group discussion zones and/or encourage students to move around or out of a classroom. Even in an online environment, instructors can create inviting environments where students can easily and eagerly interact with each other. In addition, learning doesn't always have to happen in a classroom. Field trips, activities that are centered outside of the classroom, and community-based/service learning projects are ways to manipulate physical space to encourage creativity.

One example of using physical space comes from Ellen's class. In her class, she incorporates a "Field Trip" to a monthly art gallery open house in Portland. Students are encouraged to learn about creativity through looking at art with their student colleagues. In addition, Dannelle, Candyce and Ellen all use their physical classroom space for small group interaction.

Principle #4: Seek a variety of opportunities to tell students you value creative contributions.

While the authors have a single assignment that is the "creative assignment," all of us believe that it is important to create a course where students have multiple opportunities to engage in creative practices as well as practice skills that facilitate the creative process. While Bryan, Cameron & Allen (1998) acknowledge that creativity is a natural process, it is also a process that is teachable skill that requires practice and facilitation. Like any skill that can be developed, instructors can scaffold creative assignments by providing students with opportunities to develop skills that are part of the creative process.

One way that we can facilitate the process of creativity is through reflective practices, either through individual or group reflection. Dannelle uses her journaling assignments/process to help students develop a habit of using writing as a pathway to self-awareness and creativity. She includes journaling activities in every class and models the practice by journaling herself when she asks her students to do it. In addition, she builds their capacity to reflect by sharing and asking them to use their journals to participate in a variety of reflective activities, such as dialogue, concept mapping and metaphor to help get their creative juices flowing. Candyce does this through her small group Critical Inquiry Discussions, asking students to reflect on and discuss what they are learning or are concerned about with their small group.

Another common practice in all of our classes is to spend some time discussing the importance of creativity as well as teaching directly about creativity. Ellen does this especially well. She uses *The Artist's Way at Work* (Bryan, Cameron, & Allen, 1998) as a text for the class. This book encourages students to explore their own creativity in the context of the work environment. In addition, she spends time discussing the concept of multiple intelligences (Gardner, 1983) and requires them to use this concept in designing their final project.

Principle #5: Provide feedback and ensure grading practices that encourage creative responses and allow for diverse outcomes and explorations.

The idea of grading creative projects may seem daunting to faculty. Some faculty may see creativity as a "mysterious ability, something difficult to define, measure, or learn" (Cropley, 2001, in Barak, 2009, 245-46). Given that perspective, they are more than likely not willing to make assignments that involve tapping student creative thinking. Yet, creative work can be

evaluated. This fifth and final principle identifies some of these misconceptions that surround the feedback and evaluation of creative work and then offers several suggestions regarding how to address these misconceptions

Misconception #1: It is impossible to grade consistently and fairly creative projects that are so different. How do I compare a poem with a video with a photograph?

To evaluate the variety of student creative responses, each faculty member makes the student aware of the different criteria within the task that will be evaluated. Dannelle focuses on the overall broad criteria that a student needs to include in her final Creative Expression: organization, conventions of communication, technique, and a written reflection on the creative process. Ellen scores her student work on: content, presentation/design and oral presentation/organization/clarity. Each of these criteria addresses a different aspect of the work. Taken together the student will be receiving overall feedback as well as the specific feedback about the sub-skills that contribute to the quality of their final product.

Misconception #2: Giving students feedback and evaluating creative work can stifle student originality and creativity and willingness to take risks.

If faculty feel the tension between evaluating creative work and stifling creativity, they probably won't assign it in the first place. Yet, what we do know is that students pay attention to what they are graded on (Hattie and Timperley, 2007). If we don't give feedback and evaluate their work, they won't pay attention to it. Therefore, if we seek to use creative activities in our classrooms, we need to figure out how to give worthwhile feedback and evaluate their creative efforts.

Using rubrics is one way to give students fair and consistent feedback on their work. A rubric is a written scoring guide presented on a matrix that provides feedback on criteria as well as levels of performance (e.g., needs work, competent, exemplary) (Stevens and Levi, 2013). As mentioned earlier, the American Association of Colleges and Universities has a set of rubrics for liberal undergraduate education that includes creativity as one of the outcomes.

Conclusion

The basic premise of this chapter is that student creativity can be developed, encouraged and evaluated in any course. One assignment at one point in time is not enough to encourage students to take the risks to benefit from developing creative products. The case studies and the principles of creative teaching illustrate several ways to effectively include creativity in the curriculum. Faculty members must look across the entire curriculum from the written syllabus to the assignments to the class activities to make sure that students receive a clear message that their unique, creative responses are valued. Only when we do this in our courses will we be facilitating problem solving and providing students with the skills and confidence to continue to be creative in their future work. Ultimately, we hope that they will be the creative problem solvers we need to address the complex demands on this planet.

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