



Creating Powerful Learning Experiences

Possibilities, Pitfalls and Promising Practices

Why is creativity important in teaching? How does teaching creatively promote authentic and relevant learning? What are the challenges and opportunities for designing creative ways to teach and assess learning? These are all important questions that underscore the importance of promoting meaningful and engaging learning in the classroom and beyond. In this participatory keynote session, we will be exploring the research and helpful practices that connect creative teaching to powerful learning. We will also examine some of the obstacles and risks in adopting more creative teaching approaches and how to address these challenges. Finally, we will explore, both collectively and individually, how to apply lessons learned from research and practice to the design and revision of current teaching approaches that enhance student engagement, reduce teacher frustration, and increase instructional relevance and impact

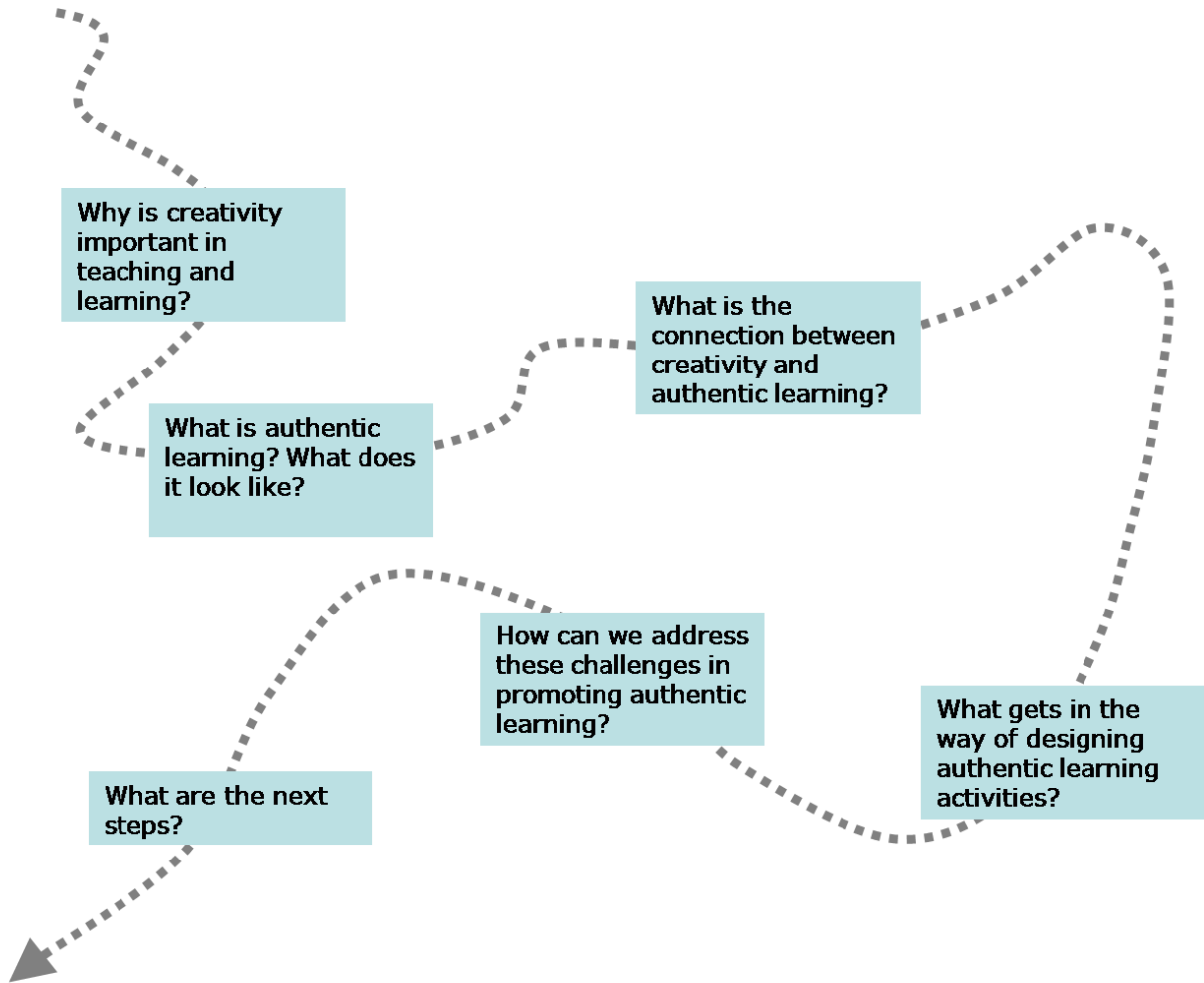
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Our Pathway . . .



Creativity Word Association

When you think of “Creativity”, what words or phrases immediately come to mind? Write as many words/phrases as possible in the space provided below.

Creativity is . . .

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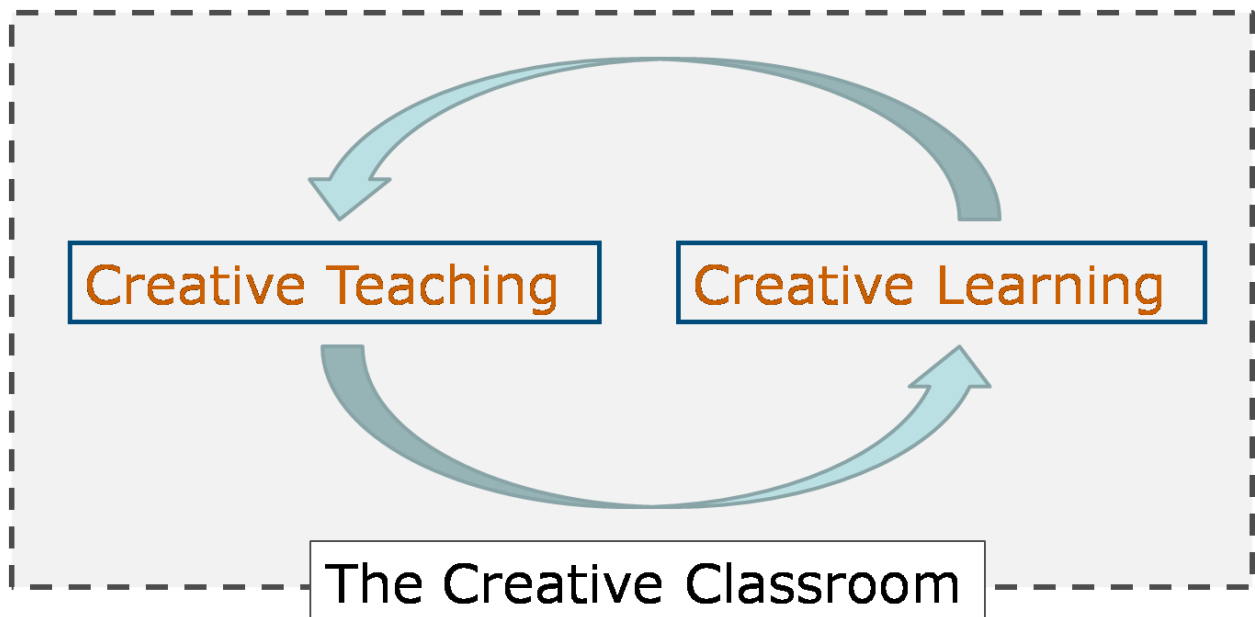
My Most Powerful Learning Moment

1. Describe a learning experience that really engaged and excited you.

2. What was significant about this experience for you?

Making Connections

What comes to mind when you see this?



Quickly write down some key ideas and thoughts in the space below.

The Creative Classroom

Here are 20 key aspects of the creative classroom developed by Gerry Hopkirk and Rod Campbell (2000):

1. Understand adult learners
2. Build on students' experience
3. Respect students' gifts
4. Explain your teaching philosophy
5. Variety, action, participation
6. Use appropriate technology
7. Use the power of stories
8. Appeal to the different learning styles
9. Take instructional risks
10. Answer questions, question answers
11. Teach collaborative skills
12. Build in reflection time
13. Play with ideas
14. Encourage conflict of ideas
15. Practice your way to theory
16. Use appropriate assessment
17. Require students to teach
18. Seek feedback often
19. Be a learner
20. Create a community of learners.

Perspectives on Authentic Learning

Bruner (1966)

- There's a difference between learning about physics and learning to be a physicist.

Lombardi (2007)

- Isolated facts, concepts, theories, formulae have little meaning until learners discover how these tools can assist them.

Siemens (2004)

- Learning to be a physicist or a journalist or historian involves making concrete connections between:
 - novices and mentors (interpersonal);
 - familiar and novel; abstract and concrete (intellectual); and
 - learner's own goals and broader understandings with the discipline, subject, profession (personal).

What is an Authentic Activity?

"Experiences of personal relevance that permit learners to practice skills in environments similar to those in which the skills will be used."

Lebow (1993)

"Real-world tasks that a person can expect to encounter on the job, in the home, or in social contexts."

Newman and Wehlage (1993)

Examples of Authentic Learning Activities

Undergraduate Engineering – Reeves and Laffey (1999)

- Over the course of a semester, air force cadets in a first-year engineering learners: (1) plan a mission to Mars; (2) design a research station on the planet; and (3) determine how to operate and maintain an energy plant to sustain life once a station is established. Students work in open spaces in small teams with faculty members serving as guides, facilitators, and co-learners. Learners use various software programs such as spreadsheets, databases, tutorials, and web-based resources that serve as cognitive tools to help them complete various key tasks associated with each of the three key deliverables. At the end of each of the three stages, cadet teams make formal military briefings to peers, instructors and other faculty members.

Undergraduate Sociology – Bain (2004)

- Learners conduct ethnographic interviews in their community to learn about how society influences individual behavior and to develop an empathetic understanding of the community's diverse cultural heritage. The instructor provides training on interview techniques, project planning and report writing to support the activities. Once the interviews are completed, the learners have class discussion about the interviews to help apply and understand key sociological concepts. Selected ethnographies based on the interviews are published in local paper and are shared with incoming classes in subsequent years. Eventually, ethnographies gathered over several years are published as a collected work.

Graduate Business (MBA) – Stinson and Milner (1996)

- Learners engage collaboratively in solving eight inter-disciplinary, ill-structured, 'authentic' problems over the course of their two-year program. The projects tend to be large macro problems that address business holistically; however, within each project, there are multiple smaller problems that learners address to help resolve the overall issue. Learners construct their knowledge of business practices by working their way through the problems and accessing appropriate content on an as-needed basis. Faculty members serve as ongoing coaches by observing learner performance, correcting novice errors, encouraging effective performance, and providing helpful resources. Also faculty members help learners develop transferable integrative conceptual frameworks across the problem situations and help learners generalize their learning to other situations as well as to real-life work applications.

Graduate Program in Leadership (Fenwick, 2002)

- In the first on-campus residency, a sponsoring organization from the private, public, or not-for-profit sector is invited to present a Leadership Challenge® to the class of learners. The Leadership Challenge is a complex, current, unresolved, and substantive leadership dilemma or opportunity of significance. Learners, in teams of 6-8, examine the issue intensively over a one-week period, gathering background information, researching similar issues in other organizations, and sometimes, interviewing members of the sponsoring organization. During this period, faculty members give seminar sessions to small clusters of learners (10-11 students) on a rotational basis. These seminars focus on developing and enhancing skills such as problem analysis, team-based learning, self-assessment techniques, etc., that can be applied to investigating the organization's issue. Faculty members observe the teams and provide non-intrusive coaching and support. The complex, real-life nature of the leadership challenge allows the teams to integrate their learning from the seminars, workshops and other readings that are part of the curriculum while attempting to find viable "solutions" to the organization's challenge. In addition, the processes of tackling the leadership challenge allow learners to develop their team and interpersonal skills in an often high pressure environment. At the end of the week, each team of students presents its analyses and recommendations to a review panel from the sponsoring organization, both orally and in a written report. After the presentations, faculty members debrief the learning experience with each team and provide an assessment based on observations, student self-reflective journaling, and team products.

Characteristics of Authentic & Traditional Learning

More Authentic	←————→	More Traditional
Have real-world relevance – activities match real-world tasks of professionals in practice		Are decontextualized
Are ill-defined, requiring students to define the tasks and subtasks needed to complete the activity		Well defined problems with procedures to follow for completion
Comprise complex tasks to be investigated by students over a sustained period of time		Take place in one or two sessions
Provide the opportunity for students to examine the task from different perspectives, using a variety of resources		Provide one perspective that the learners must imitate to be successful. Limited number of pre-selected resources
Provide the opportunity to collaborate		Are completed by the individual learner
Provide the opportunity to reflect and involve students' beliefs and values		Reflection is limited to the instructor's perspective
Can be integrated and applied across different subject areas and lead beyond domain-specific outcomes		Are domain and subject specific
Are seamlessly integrated with assessment		Are not integrated with assessment but are removed from the nature of the task
Create polished products valuable in their own right, activity culminates in the creation of a whole product		Exercises or sub-steps in preparation for something else
Allow competing solutions and diversity of outcomes		Have single correct response obtained by the application of rules and procedures

From Randall, Roberts & Rogers (2005), based on Reeves, Herrington & Oliver (2002)

Some Authentic Learning Strategies

- Problem-based learning
- Experiential learning
- Games, simulations and role-playing
- Use of real-data sets
- Portfolios that promote reflection and self-assessment
- Apprenticeships
- Co-op programs
- Service learning
- Charettes
- Performance tasks consistent with professional applications, e.g. write newspaper article, prepare and submit bid, develop design proposal, etc.

Why Authentic Learning?

1. Helps learners make connections between personal interests and those in the discipline.
2. Helps learners to be more motivated to engage and persevere due to relevance of activity.
3. Helps with absorption, retention, and transfer of skills and knowledge.
4. Provides sense of enculturation into the profession or discipline.

“Dare to Dream”

Imagine yourself teaching in a perfect situation, where the students will do anything and everything you ask of them. They will read everything and write everything you ask them to. They will do it on time and they will do it well. In this special situation, you can do anything you want as a teacher and have any kind of impact on students that you desire. The only limitation is your imagination.

Question: *In your deepest, fondest dreams, what kind of impact would you most like to have on your students? That is, when the course is over and it is now one or two years later, what would you like to be true about students who have had your courses that is not true of others? What is the distinctive educational impact you would like to have on your students?*

My dream is . . .

From Fink (2003)

Conditions for Success in Enhancing Authentic Learning

1. Focus on complex and real problems, issues, or questions.
2. Clarify learning outcomes and expectations for the activity – design the activity with the ‘end in mind’ and communicate these expectations to learners.
3. Provide challenging activities and situations – design in opportunities for learners to try out their own thinking, challenge their own mental models, rethink their assumptions, etc.
4. Help learners to ask their own questions about the issue, the subject matter, and the discipline as a whole – people often learn most effectively when they are trying to answer their own questions.
5. Help learners make connections between the discipline or subject and the broader area of focus – situate the discipline, topic, area of study in a broader, interdisciplinary context.
6. Encourage opportunities for learners to collaborate and learn from each other.
7. Provide appropriate scaffolding (i.e. supports for learning) that help learners to self-evaluate their own performance, take stock of their own insights, and learn from their efforts and mistakes.
8. Ensure there is a product or deliverable required at the end of the activity.
9. Provide effective and timely feedback, i.e. individual (self), peer, and instructor-based assessment.

The Pitfalls: Things We Tell Ourselves and Others That Can Get in the Way

"It won't work with my students."

"My class is too big."

"The classroom layout has too many constraints."

"I don't have the time to re-design."

"My colleagues or (insert 'Dean' or 'Chair' here) will think I'm nuts."

"It might be successful in your subject but it's not going to work in mine."

"That approach seems somewhat juvenile and flaky - it doesn't seem like it's serious learning."

Insert your own here . . .

Strategies for Moving Forward:

How Do I Take Steps to Enhance Opportunities for Authentic Learning?

1. *Start small, think big* – change one activity at a time and assess its impact.
2. *Do a ‘reflective audit’ on your current teaching* – see Bain’s questions on next page.
3. *Take a scholarly approach* – find out what has been learned about a particular approach (adopt a ‘Scholarly Teaching’ approach¹).
4. *Try out an approach with your class* – research its effectiveness and share your results with others (adopt a ‘Scholarship of Teaching and Learning’ approach).
5. *Pair Up with a colleague* – consider peer planning, peer teaching, and/or peer observation and review.
6. *Find out who else has done something similar or has the same challenge* – go to conferences, check journals, ask your Teaching and Learning Centre colleagues, post questions to listserves.
7. *Seek internal or external funding* – look for grants focusing on innovation, development and/or pedagogical research.
8. *Organize a ‘sharing session’ or reading group* – ask Teaching and Learning Centre, faculty association, VP- Academic’s office for advice, help, or support.

¹ See Richlin (2001) for a helpful distinction between scholarly teaching and the scholarship of teaching and learning.

A Reflective Audit:

Four Questions that the ‘Best’ University Teachers Ask Themselves as They Prepare to Teach

1. What should my students be able to do intellectually, physically, or emotionally as a result of their learning?
2. How can I best help and encourage them to develop those abilities and the habits of heart and mind to use them?
3. How can my students and I best understand the nature, quality, and progress of their learning?
4. How can I evaluate my efforts to foster that learning?

From Bain (2004)

Learning Lab Activity

Directions for each triad

1. Write down or describe a teaching scenario, lesson, or evaluation strategy that you think is stale or not where you would like it to be.

NOTE: Keep your 'Dare to Dream' idea in mind.

2. As a group, brainstorm ideas for improvement.

NOTE: Refer to 'Guiding Principles for Brainstorming' on the next page.

See next page for Step 3

3. Choose one idea and discuss as a group how you might implement it.
NOTE: Refer to 'Conditions for Success' and 'Characteristics of Authentic Learning' for guidance. Be mindful of the 'Pitfalls'.



Guiding Principles for Brainstorming

Every contribution is worthwhile

- Even weird, way-out ideas
- Even confusing ideas
- Especially silly ideas

Suspend Judgement

- We won't evaluate each others ideas
- We won't censor our own ideas
- We'll save these ideas for later discussion

From Kaner (2007)

Applications Sheet

Directions:

Please take a moment to recall the ideas, techniques, activities, and strategies explored in this session, as well as in the other sessions up to this point in the conference. Quickly list as many possible applications as you can. Don't censor yourself! These are just possibilities. You can always assess the feasibility or desirability of these ideas later.

Interesting IDEAS, TECHNIQUES, ACTIVITIES STRATEGIES, from this session	Some possible APPLICATIONS of these ideas to my work.

Adapted from Angelo and Cross (1993)

The Minute Paper

Please answer each question in one or two sentences:

1. What was the most useful or meaningful thing you learned during this session?

2. What question(s) remain uppermost in your mind as we end this session?

Adapted from Angelo and Cross (1993)

The Muddiest Point

What was the 'muddiest' point in this session?

(In other words, what was least clear to you?)

Adapted from Angelo and Cross (1993)

Final Words

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. . . people learn by confronting intriguing, beautiful, or important problems, authentic tasks that will challenge them to grapple with ideas, rethink their assumptions, and examine their mental models of reality. These are challenging yet supportive conditions in which learners feel a sense of control over their education; work collaboratively with others; believe that their work will be considered fairly and honestly; and try, fail, and receive feedback from expert learners in advance of and separate from any summative judgement of their effort.

Bain (2004, p.18)

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Examples of Authentic Learning in Action

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