

## ASSOCIATION OF ATLANTIC UNIVERSITIES

Institutional Award Winner's Retreat  
Friday, November 13<sup>th</sup>, 2020  
*Held Online due to COVID-19 Pandemic*

Faculty Development Bulletin

Fall 2020

**Participants:** *Roby Austin, Saint Mary's University, Astronomy and Physics; Leah Bidlake, University of New Brunswick, Computer Science; Alla Kushniryk, Mount Saint Vincent University, Communications; Jennifer MacDonald, Dalhousie University, Chemistry; Kevin Morse, Mount Allison University, Music; Monika Stelzl, St. Thomas University, Psychology; Kristina Szutor, Memorial University, Music; Tara Taylor, St. Francis Xavier University, Mathematics and Statistics.*

**Facilitators:** Benedict Newling, University of New Brunswick, Physics  
Maryanne Fisher, Saint Mary's University, Psychology

A group of the AAU Institutional Award Recipients gathered electronically on a rainy/sunny/chilly afternoon (depending on your IP address) in November of 2020. The year had been strange and (with the gift of hindsight) would only get stranger. The teaching landscape of 2020 had, however, one dominant feature: the challenge of learning together during a pandemic. The goal of the retreat was to highlight some positive ideas and outcomes of the situation and this bulletin will attempt to capture some of what was shared.

The subject of the afternoon's discussion was "creativity under pressure", suggested by one of the facilitators<sup>1</sup>, who had been struck by the increasing everyday relevance of evolutionary theory. All of the attendees had been witness to, and taken part in, creative

responses to the pandemic and so that was how the discussions began.

### Introductions and storytelling

In small groups, the attendees shared stories of creative solutions to the difficulties of learning and teaching under enforced isolation. Some shared their own experiences and adaptations. A number of participants agreed that the extraordinary responses of their students had been a silver lining to the whole situation. Ingenious and devious solutions to the problems of running labs and music lessons, tutorials and tests, capstone projects and discussion groups were presented. Despite this diversity, some common themes emerged.

1. The previous eight months had required of everyone (instructors and students alike) **flexibility** and **adaptability**. Extensive preparation had

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<sup>1</sup> It was Maryanne. – BN

been necessary to overcome technical and logistic difficulties and to recreate or reimagine our classrooms online. As a group, it was clear that we had been forced by circumstance to change our ways of doing things, but that we were now more aware of and confident in our capacity to adapt.

2. Most of the group had some story involving the **creative use of communication technology** to connect with students, to develop or personalize the teacher presence and to build community. Deprived of some of the traditional and natural ways to do these things, we had all been forced to be quite intentional about finding ways to involve the students and to make communication fun.

3. **Collaboration** had, for most, been essential for survival. There were tales of collaboration with fellow instructors, with teaching assistants, with students and with students working as teaching assistants, but in all cases, it had been difficult or impossible to survive isolation in isolation.

It was agreed that there was some good in these themes, which should be carried forward, even when circumstances are less pressing.

### **An evolutionary psychology perspective**

“In evolutionary theory, adaptation is the biological mechanism by which organisms adjust to new environments or to changes in their current environment.” In this context, Maryanne invited the group to expand on the need for flexibility and consider how they have adapted their teaching and their personal lives in the face of new time pressures, family constraints, worries about health and financial restrictions.

There was a collective agreement that it has been important, first of all, to acknowledge those pressures as a shared human experience with our students. A part of that acknowledgement is a recognition that not all of the adaptations are things that we like: silver linings aside, some changes will go as soon as we are able to shed them. We should be able to set the tone for adapting together with our students, by admitting to difficulties with new technology and new techniques and embracing the changes despite personal discomfort.

One very general adaptation has been an overarching recalibration of expectations including expectations of course content and deliverable assessments. The group also discussed some specific classroom adaptations, like finding new ways to be energized by our students (*e.g.* through one-on-one meetings) or like encouraging self-assessment and meta-cognition by having the students video themselves. (We take up the use of video again below.) We talked around self-care adaptations too, including walks with colleagues and ways to connect to nature.

Having shared so many experiences of creativity under pressure, the group turned to considering how we might help all of our students to exercise creativity under pressure. This, surely, is a skill that is just as useful in normal and pandemic times. Even in a normal term, we ask our students to be creative as they answer homework and test questions, all the while taking several or many courses in their schoolwork and managing the rest of life as well.

The group used the Poll Everywhere “Question & Answer” tool ([polleverywhere.com](http://polleverywhere.com)), in which participants can vote for one another’s responses, to ponder the question...

## What barriers prevent our students from exercising creativity?

### votes responses classed together

- 9 + feeling constrained by their perceptions of what the “correct” answer is
  - + feeling pressure to be “correct” and therefore not free to fail in the exercise
  - + worrying about getting the “right answer”
  - + culture of framing risks and curiosity as potentially failing (vs. exploring)
- 5 + [lack of] confidence in themselves and adhering to typical roles where the instructor is supposed to solve problems
  - + too much of a student mindset (believing they don’t know enough yet to be creative)
  - + self-editing
- 5 + time pressure
  - + time. I think they are a bit overtaxed with instructors creating frequent assignments worth only a few marks
- 3 + cognitive overload
- 2 + anxiety
  - + fearful

It was clear from these discussions that if we would like to give our students the opportunity to be creative, then one of our principal tasks in the classroom is to provide a space where it is safe to take risks. The group turned to a concluding discussion about how to provide such support. Many of the suggestions, which

follow below in no particular order, were shared generously from the participants’ own classrooms and were supported by specific examples of implementation.

### **Helping our students to be creative under pressure**

One way to reduce the fear of being “wrong” is to allow the resubmission of work in low-stakes stages, each of which receives feedback. This can include the whole class workshopping one another’s work. A full-on workshopping approach can go beyond peer review, so that everyone in the class is invested in one another’s success.

An interesting prompt to help students who are nervous about asking questions (for fear of being “wrong”) is to suggest “If you don’t have a question, can you imagine what somebody else’s question might be”. This approach can separate the student personally from the question and makes it feel as if the asking carries a lower risk. Sometimes, in this guise, students can even be persuaded to proffer an *answer* to the imagined question, which can give insight into their thinking processes.

We agreed that it is important to find a way to celebrate mistakes. Many students are willing to join their instructor on a diversion prompted by something like: “What you did was not what was intended, but look at what results! Let’s see where that takes us.” This kind of improvisation is easier in person than on line, but online submissions through forms or discussion boards can be subjected to this kind of follow-up.

Different forms for the presentation and sharing of work can inspire creativity. We discussed posters, for example, as a way of giving our students a physical ownership of their work and an artefact

to keep after the course is over. Video presentations of performances, arguments or explanations (see below) can allow our students to be creative in a different way than a written essay or problem set.

Scaffolded work can promote creativity by providing students just enough information to make a discovery for themselves. An expert judgement is required to determine the necessary level of scaffolding, but the discovery is inspirational for the students themselves, for their colleagues *and* for us.

We discussed formative assessments of various kinds, including chances to resubmit corrected work and tests that are repeated first individually and then in a group. An interesting prompt on tests is to ask “What do you wish I had asked you, but didn’t”, which gives our students a chance to creatively show off what they know. A useful prompt in this context can be to ask the students to imagine a milk carton with a picture that shows what is missing from the exam.

In some disciplines, where the students might be forgiven for imagining there is just one correct answer, creativity can be stimulated by saying “Well done; now do it in a different way”. Even when there is a specific answer, students can exercise their creativity in presenting their process, for instance in video submissions which explain their reasoning.

The group contrasted two uses of restrictions to prompt creativity. In some cases, the imposition of restrictions or challenges can require ingenuity and prompt creativity (*e.g.* “Do this without using...”), but sometimes lifting all constraints and restrictions can have a similar effect (*e.g.* “Forget this is a computer program, what would you do if it weren’t.”). Sometimes a gradual

transition from unconstrained to tightly constrained is effective. In medical schools and job interviews, the “in-tray test” begins with incomplete information that is periodically updated, sometimes even with conflicting data, while students are working on their solution. Interrupted case studies rely upon a similar tightening of constraints as a solution is developed.

Working together encourages creativity. Opportunities for group work can be enriched with clear guidelines about how to make the most of group work, including opportunities to reflect on the group work itself (as well as the output) and clear guidelines about how to be involved with the group work (such as “Think together, write alone.”).

## Concluding

At the end of the afternoon, we *had* been able to find things to celebrate about the bizarre teaching and learning environment in which we all find ourselves. The discussions were a testament to the creativity of this group of dedicated teachers under the peculiar pressure of a pandemic. Even in less turbulent times, however, we need ways to help our students to be creative under all kinds of pressures. We hope that his bulletin can convey a flavour of the richness of the discussion that resulted and perhaps provide some inspiration or encouragement as a result.

## Resources

During the afternoon, we experimented with the following classroom tools.

- Google’s **Jamboard** at [jamboard.google.com](https://jamboard.google.com) (for sharing ideas)
- **Polleverywhere.com** (for surveys and checkpoint questions)

- The **chat** feature of your favourite online meeting environment (we were using Teams)
- **Breakout rooms** in your favourite online meeting environment (these are now available in Teams, but at the time we employed a workaround)

and we discussed

- **Yammer avatars** available in Microsoft 365 (to build instructor presence and a sense of community)
- **calendly.com** (appointment and scheduling)

### **Student choice in assignments**

<https://www.facultyfocus.com/articles/course-design-ideas/giving-students-a-choice-in-assignments-can-boost-creativity-and-motivation/>

### **Helping students with test anxiety**

<https://science.sciencemag.org/content/331/6014/211>

### **Having students create test or homework questions**

<https://peerwise.cs.auckland.ac.nz/>

### **General principles for encouraging innovation & creativity**

<https://www.facultyfocus.com/articles/faculty-development/encouraging-creativity-and-innovation-in-yourself-and-your-students/>

### **Education and creativity**

[https://www.ted.com/talks/sir\\_ken\\_robinson\\_do\\_schools\\_kill\\_creativity](https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity)