WHEN THE ELEMENT OF SURPRISE FOSTERS LEARNING

Thoughts gathered by Stéphanie Carle, Editor in Chief, *Pédagogie collégiale*

BACKGROUND

At the 2015 AQPC symposium in Saguenay, I had registered for an intriguing workshop titled "Pedagogy of the Unexpected." I found myself in a room filled with strands of miniature lights, intriguing models and peculiar installations that helped me to easily understand the process of synaptic transmission in neurons. The workshop fascinated me, threw me off balance and pulled me outside my comfort zone, which made me want to meet the speakers to learn more about their teaching methods that harness the element of surprise, curiosity and humour as sources of motivation to promote learning.

INTERVIEW

Since 2002, Carol FORTIN has been teaching Computer Techniques at Cégep de Chicoutimi and the Multimedia Techniques Integration Program at Cégep de Jonquière. Mr. Fortin holds a Bachelor of Mathematics and Computer Science from Université du Québec à Chicoutimi. He has drawn on various instructional approaches to present a range of training sessions and lectures in the college network. He is also a mentor in Cégep de Jonquière's PARE, a support program for the next generation of teachers.

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Chilean-born teacher Esteban GONZALEZ has lived in the Saguenay–Lac-Saint-Jean region since 2003. He has been teaching Biology at Cégep de Jonquière since 2009 and has been head coordinator of the Science, Literature and Arts program since 2013. Mr. Gonzalez is a passionate biologist with a master's degree in Renewable Resources and a certificate in Environmental Science. He is currently completing a short program in Sustainable Carbon Management. He loves to teach in original, demanding and surprising ways, while conveying his enthusiasm for biology and science.

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PÉDAGOGIE COLLÉGIALE:

What is the pedagogy of the unexpected? Can you give us some practical examples of what you do?

CAROL FORTIN ET ESTEBAN GONZALEZ :

This is a method that Mr. Carol Fortin developed over his 20 years of college teaching. Just recently, we coined the name *pedagogy of the unexpected*. This is a teaching approach that leaves room for educational activities during the course that use the classroom as a forum for exchange and creation. These activities are spread over the term, take various forms and durations of time, with the goal of surprising and shaking things up for the students to grab their attention, stimulate their memory and encourage their active participation. Through the pedagogy of the unexpected, we seek to create a captivating atmosphere suited to learning. To guide our students' imagination, we rely on various methods and materials: paper, cardboard, lights, costumes, tools, surprising objects, enigmas, drama capsules, role playing, etc. For example, we use actual objects from daily life to help students grasp abstract concepts, by focusing on similarities. We project a PowerPoint presentation on the ceiling to force students to attend part of the class lying on rugs on the floor, or we hide questions under desks for a review activity. In a biology course, we transform the classroom into a living cell, in which each student becomes a cell organelle or motor neuron that produces a nerve impulse.

What factors convinced you to adopt this type of approach?

cf/eg As teachers, we often tend to remain ensconced in our comfort zone, convincing ourselves that we are using the right approach because everyone does it this way. The students also seek comfort in routine, but this does not necessarily promote learning. What led us to adopt our approach was a desire to experiment with a less rigid teaching method to enhance the connection with our students and create a relaxed atmosphere that would encourage creativity and learning. Adding a touch of emotion and enthusiasm to the teaching relationship has proved very effective with students (Saint-Onge, 1987). Because they are educational, these activities also reduce performance or competition anxiety. We know that building a bond of trust between teacher and



student is also a key component when learning a new subject (Doucet, 2009). This pedagogical relationship is crucial, especially when a student is struggling or lacks self-confidence (Rousseau *et al.*, 2009; Weidler, Kubanek and Waller, 1995). Thus, using the pedagogy of the unexpected helps build this trust by expanding and strengthening the interactions between individuals, while promoting active listening. Of course, these activities may create a moment of instability and insecurity within the group, especially during initial experiences. However, we defuse these moments with our enthusiasm and humour. Our students often report improved retention of lessons structured around activities, despite the initial discomfort the activity may trigger. In fact, the comments of students lead us to believe that while this approach generates some insecurity, this quickly gives way to positive emotions.

We specifically focus on the favourable impact of positive or pleasant emotions during learning (Cuisinier and Pons, 2011). We want to show our students that learning is a dynamic process in which memory can be facilitated through emotional attention and a positive connection with the subject matter (Bélanger, 2010). To achieve this, we therefore must step away from the traditional lecture and note-taking approach. We also strive to make learning more active, use the classroom in a different way, and get students moving to show them a different way to approach the subject matter. With the pedagogy of the unexpected, our overriding concern is to elicit a state of wonder in students that arrests their attention and facilitates memorization of the process being studied. Later, this helps them delve back into their knowledge more easily and forge links between the activity experienced and the images or content of the textbook being used (Hidi and Renninger, 2006; Renninger and Hidi, 2016). In a situation where the teacher must focus on creating an environment amenable to learning (Education Manitoba, 2011), we believe that the use of the pedagogy of the unexpected helps create a milieu in which positive relationships between individuals supports the assimilation of knowledge.

To what extent do you see a genuine difference in the quality of transfer of learning acquired by your students?

cf/eg The benefits of this approach are hard to measure directly, because it's not something tangible, but the impressions gained from its application and our experience suggest a clear improvement in learning. This is something we sense as teachers. Helping to create a web network circuit or simulate cellular division places students in an active role that immerses them in their own learning. Suddenly their attention is on high alert. We see it in their eyes, posture, and engagement in the activity, as well as the calibre of the questions they ask. Interactions with our students and their comments reveal a genuine stimulation of their interest and motivation. We believe these factors achieve more lasting learning and promote the transfer of learning, as reported by Perrenoud (1997) and Tardif and Meirieu (1996). The students also seem to better assimilate the subject matter and then apply the concepts easier in various situations. We see positive effects when correcting exams, and subsequent classes can proceed without requiring a review of previous lessons!

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During the 2015 winter term, we wanted to conduct a qualitative assessment of the benefits of the pedagogy of the unexpected. We therefore introduced activities into the *Organization of the Living World* biology course in Cégep de Jonquière's Science, Literature and Arts program. Overall, the students were very pleased with their experience and felt it had a genuine impact on their learning. They told us that these playful approaches gave them a practical understanding of how an abstract concept works, helped them assimilate the subject matter while having fun, and sharpened their concentration. We discussed the results and activities of this course at the AQPC symposium in 2015.[1] Further down the road, it might be interesting to test the quantitative benefits of this approach, but for now, we know this is an original approach that is very popular with our students.

[1] Documents available to the public following the paper presented at the 2015 symposium can be accessed through the AQPC Website at [aqpc.qc.ca/colloque/publications/pedagogie-inattendu].

How do students react when you conduct activities drawn from the pedagogy of the unexpected?

cf/eg At first, they are a little disconcerted, but they usually dive into our activities before long. They enjoy the playful aspect and are willing to join in. We should point out that we take a gradual approach to let the group get used to the classroom dynamic. We think young people like the surprise factor and the effort we put in to this end. At the same time, they realize there are other ways to learn than rote memory, and this gets them thinking about their own learning strategies. It is well-known that students have personal learning preferences (auditory, visual, kinesthetic, etc.), so it is important to provide diversity in teaching (Aylwin, 1995). We therefore try, above all, to renew our teaching methods, vary the stimuli and encourage classroom participation. The goal is to foster learning in as many students as possible at the same time, to promote their success. Sometimes a lecture is all that's needed. We must be willing to challenge ourselves to make the whole process livelier and the subject matter more accessible.

Students may occasionally prefer to remain passive in an activity and we must respect this. However, just witnessing the activity and being surprised by what is presented lets students access the information to understand a concept, and piques curiosity about the subject matter.

What types of content are suited to the pedagogy of the unexpected?

cf/eg Any content can be adapted to the pedagogy of the unexpected, but when a subject naturally captures students' interest, there often is no need to try to surprise them. The real challenge lies in making dry subject matter simple and engaging. That is where the pedagogy of the unexpected becomes useful, and the harder and more abstract the subject, the more interesting the challenge it poses for us!

Is there a risk of the "form" sometimes eclipsing the "content"?

cf/eg We must not lose sight of the main purpose of our role, to facilitate understanding of the subject matter in order to promote success. We are not presenting a show! We are teaching and the students must learn. There is no point putting on a whole production if everything has to be explained again in the next class. Some ideas we have tried did not work out. We have to learn from our mistakes and adjust for the next time without taking ourselves too seriously. Young people are forgiving; they appreciate our effort and also remember our successes. At the end of an activity, reviewing what has been taught is also important, along with providing feedback to the students, to ensure that they have learned what they needed to. This prevents misunderstanding a concept.

What advice would you give to teachers interested in following your example?

cf/eg First, have fun and remain true to who we are as teachers. This is an activity based on sharing between the teacher and their students. Start slowly and carefully target the content to be taught (definition, new concept, review, etc.). When we want to create a new pedagogical activity, we start from the learning objectives and develop a lesson plan to clearly target what we want to teach. We ask ourselves the following questions.

- **What are the physical and material constraints?**
- **What is the most original and unexpected way to transfer this knowledge?**
- **How can we surprise the students to sustain their interest?**
- **What form will the instructional activity take?**
- **How many students will be taking part?**
- **How much time and what materials will be needed to conduct the activity?**

Knowing these parameters clearly outlines what we want to teach and reduces potential sources of confusion.

Finally, although this might seem rather obvious, we have to trust in and remain true to ourselves. Otherwise, the students will sense that it's not authentic. We need only realize that the possibilities are endless for a fresh approach to a subject, with a slightly different slant. In brief, we have to risk gradually moving beyond the tried and true. The more we do this, the more fun we'll have!

How can courses using the pedagogy of the unexpected be organized with classes of approximately forty students?

cf/eg It all depends on the subject matter to be taught. Everything is possible, although each constraint poses a



challenge in its own right. With a large group, we might target a small number of participants for the activity, while the others observe; we might reorganize the space to break off into subgroups, or even move to another room to organize a huge set-up in which everyone can participate. It all depends on the context as well as the physical and material opportunities available. Sometimes, just posting keywords from the theory encountered so far all around the classroom falls within the spirit of the pedagogy of the unexpected.

Moreover, it sometimes takes very little to surprise students and pique their curiosity: it might be a riddle or a puzzle presented at the start of class, which can only be solved after learning the day's lesson, a playful scenario featuring the concepts to be covered, an unusual object or prop around which the class is structured, an audio recording to welcome students to class, a quotation highlighting the ideas to be discussed, a story told about the concept to be mastered, and so forth (Aylwin, 2000). These are the various sources of stimulation that promote learning.

It may seem like a great deal of creativity is needed to imagine these activities! How can teachers put the pedagogy of the unexpected into practice even if they do not consider themselves very creative?

cf/eg The trick is to add flair to our teaching by playing to our strengths. This is a skill we develop over time. At first, we may just use a change of lighting, a hand-drawn poster, background music, a different classroom layout, etc. We have to trust our instincts and gradually become more daring. With experience, it becomes easy to imagine an original concept in about 10 minutes. If we're not comfortable with this approach, however, we have to refrain from overdoing it because students are perceptive and everything may come off as fake.

Like any other teaching strategy, the pedagogy of the unexpected could lose its element of surprise if overused during a term. How can we overcome this phenomenon to maintain the "unexpected" effect?

cf/eg We vary our teaching techniques through teamwork, visual aids, drawings and diagrams to be completed in class, etc. The pedagogy of the unexpected is just one tool among many in our teaching kit. This diversity of strategies also maintains the element of the unexpected with students and lets us surprise them in order to encourage learning. However, this strategy can in fact lose its effectiveness if misused or overused, just like Prezi presentations.[2] One must strike the right balance, and above all, vary the sources of stimulation. Sometimes, a more conventional class is also called for. In our case, we can almost say that this becomes the unexpected!

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[2] Prezi is an online application for designing dynamic presentations that combine a spatial aspect and movement [prezi.com/fr/].

Both the English- and French-language versions of this article have been published on the AQPC website with the financial support of the Quebec-Canada Entente for Minority Language Education.