Modelling and Fostering Creativity: Two Post-Secondary EAL Teachers' Journey

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Abstract

Scholarly literature is replete with suggestions for fostering creativity in both teachers and students; however, few articles exist where practitioners appraise these methods and generate theories of their own. After a semester of team teaching using a creative project-based learning (PBL) approach, we reviewed, through a mutual interview process, the theory that underpinned and resulted from our experiences in our English language learning (ELL) classrooms. Our experience with this approach confirmed previous findings on creative teaching, but also included unanticipated challenges and benefits, such as a greater need for feedback and an increased sense of empowerment and ownership in our students.

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Résumé

Il existe plusieurs théories dans la littérature savante qui expliquent comment favoriser la créativité chez le professeur ainsi que chez l'élève. Néanmoins, il y a peu d'articles rédigés par les praticiens qui critiquent ces dernières ou qui apportent du nouveau sur leur faisabilité. Par le biais d'un processus d'entrevue mutuelle, nous évaluons ici les théories existantes et celles qui ont découlé d'une session où nous avons employé une approche par projet dans le cadre de nos cours d'anglais langue seconde. Notre expérience confirme plusieurs constats antérieurs sur l'enseignement créatif. Cependant, nous allons plus loin en identifiant de nouveaux défis tels que le besoin d'offrir plus de rétroaction ainsi que des bienfaits inattendus comme le meilleur sentiment d'autonomisation et de prise en charge qui résultent de cette méthode.

Mots-clés : créativité, enseignement créatif, favoriser la créativité, apprentissage créatif, enseignement collégial, approche par projet

Introduction

In a review of 90 articles on creativity, Plucker, Beghetto, and Dow (2004) found that only about one third of scholars (38%) explicitly defined the term in their work. This "definition problem" leads to conflicting results and contributes to a lack of consensus on how to identify and improve creative thinking. A vague conceptualization of creativity further extends to educational ministries and institutions that liberally apply buzz words like *creative teaching*, *teaching for creativity*, and *creative learning* in a bid to sound innovative and forward-thinking. In reality, however, policies do not always translate into practice, and rather than explicitly targeting creativity, it is often treated as an expected byproduct of an antiquated industrial model of input and output. For this reason, scholars like Robinson assert that schools treat students "like cogs in a machine" (2010) and generally "kill creativity" (2006). In short, creativity in education is often an anticipated entailment rather than an actively defined and targeted skill.

Even when creativity is deliberately sought, there is still the issue of deciding *how* to best foster it in teachers and students. While some scholars frame teaching approaches within a binary *performative vs. creative* opposition (Ball, 2003; Jeffrey & Troman, 2013; National Advisory Committee on Creative and Cultural Education, 1999; Troman, Jeffrey, & Raggl, 2007; Troman & Woods, 2001) others argue for a varied approach that allows for structure and improvisation or, as it is often stated, attention to both surface and deep learning (Baer & Garrett, 2010; Fullan & Langworthy, 2014; Hattie, 2009; Sawyer, 2011, 2015). Regardless of the approach, there are currently no longitudinal studies to show that one way is more effective than another in fostering creativity.

As two mid-career English language teachers in Quebec's junior college system, we often experimented with the content of our courses in order to get better outcomes and to keep teaching interesting. However, with time, we began to focus less on content and more on approach, seeking more creative ways to stimulate learning. This led us away from performative teaching in favour of action-oriented pedagogy, which emphasizes solving ill-defined problems and is generally viewed as a creative way to teach and to learn (Allen, Donham, & Bernhardt, 2011; Bate, Hommes, Duvivier, & Taylor, 2014; Cho, Caleon, & Kapur, 2015; Savery, 2015; Savin-Baden & Major, 2004). With this in mind, we challenged ourselves to design courses that would lead students to work together to problem-find and problem-solve in a way that would meet our language objectives.

While Brett had made a few trial runs with action-oriented pedagogy, our first joint foray came when we decided to apply this approach to our English for Specific Purposes courses. Rather than teaching a series of discrete language skills, such as summarizing, structuring a presentation, getting an audience's attention, etc., we decided to have the students teach each other the prescribed skills and then apply them to address a problem or issue related to their field of studies. Together, over the course of one semester, we used action-oriented pedagogy with a total of three high-intermediate ELL groups and two low-intermediate groups.

After giving the courses, reviewing extant texts, and debriefing one another, we decided to explicitly identify the theory that both underpinned and resulted from our practice, in keeping with Lyons and Freidus's (2004) view that generating reflexive documentation is a theoretical act (pp. 1075–1076). Through a recorded mutual interview in which we questioned our assumptions and reflected on the processes and outcomes of our practice, we came to several conclusions. First, we realized that adopting a creative, action-oriented approach required a great deal more applied pedagogical theory and tacit knowledge than we suspected when we first designed our courses. Second, our practice both confirmed findings and generated new ideas about creative teaching. Finally, we realized that in targeting our own creativity, we were also able to foster a greater creativity in our students as well as an increased sense of ownership and empowerment over the learning.

Theoretical Concepts We Used to Structure Our Course

Our first step in developing a creative approach adapted to college ELL was to conduct an extensive literature review. While this helped in the initial planning, we found that as the semester progressed we often referred back to the literature and sought out new sources to answer questions as they arose. The following is a brief summary of the ideas that we used as cornerstones to our practice, some of which we added in or developed further as the courses progressed.

Understanding Teacher Creativity

At the outset, to address the "definition problem" and to identify what we would target in our approach, Brett drew on the works of scholars from within education (Bramwell, Reilly, Lilly, Kronish, & Chennabathni, 2011; Hennessey & Amabile, 2010; Plucker et al., 2004; Reilly, Lilly, Bramwell, & Kronish, 2011) and related fields (Gabora & Ranjan, 2013; Hennessey & Amabile, 2010; Johnson, 2010a, 2010b; Sawyer, 2006, 2012, 2013), to arrive at the following definition of teacher creativity: *Teacher creativity is an interaction between aptitude, process and environment, by which an educator, through the accumulation of mini-insights of varying magnitudes, finds novel, contextually adapted ways to improve the teaching and/or learning experience.* This definition goes beyond the usual two criteria of novelty and value to encompass mini-insights, magnitude and rate, and deliberate practice.

Key to our understanding is the notion that creativity, rather than being a single eureka moment, is the product of an accumulation of "mini-insights" (Sawyer, 2013) or "half hunches" (Johnson, 2010a) over time. For example, Darwin claimed that the theory of natural selection came to him as an epiphany, however a review of his journals showed that all of the elements of natural selection were present in his writing long before he connected the dots into a coherent theory (Johnson, 2010a). In other words, when viewed retrospectively, creative ideas appear to spring to life like a fully formed Athena from Zeus's mind; however, empirical studies indicate that they are an accumulation of smaller insights that connect in novel ways over time.

Also important in this definition is the idea that the accumulation of mini-insights differs in magnitude and rate. Maslow (1968) distinguished between two different magnitudes of creativity: "special talent creativeness" and "self-actualizing creativeness" (p. 129). Since that point, most studies have either focused on "eminent"/"Big C" creativity or "everyday"/"little c" creativity (Bramwell et al., 2011; Kaufman & Beghetto, 2009; Reilly et al., 2011). Furthermore, studies have also examined the rate at which eminent insights occur, commonly referred to as the 10,000-hour or 10-year rule (Chase & Simon, 1973; Gardner, 1999; Gladwell, 2008; Sawyer, 2012). However, Amabile (1996), rather than viewing creativity as a binary, argued for a continuum from the more mundane, everyday uses, through to high impact, domain-changing creativity. Subsequent works have since identified other magnitudes of creativity, such as personal knowledge "mini

c" creativity, as well as the intermediate "localized" and "Pro c" levels (Kaufman & Beghetto, 2009; Worth, 2000, 2010). The definition we have put forward both embraces the continuum of magnitude and links it to the rate at which the mini-insights occur and connect together.

Finally, our definition views creative thinking as a neurological process that can be developed. According to Gabora and Ranjan (2013), when analytical processing fails to arrive at a solution, the brain recruits related networks known as "neurds" to form unusual associations and to generate novel solutions. In other words, from a neurological perspective, critical and creative thinking are complementary processes in the brain. Thus, rather than requiring divine inspiration or madness, creativity is a skill that can be developed with deliberate practice (Briceno, 2016; Ericsson, 2004; Sale, 2015). In multiple studies, Dweck (2006) has shown that our mindset dramatically affects our outcome. When abilities such as creativity, intelligence, and critical thinking are viewed as static givens, we are reluctant to try to improve on them or to take on new challenges that might expose our limitations. However, when these same abilities are framed within a dynamic mindset, we take more risks, we challenge ourselves, and we show more improvement in our results. Knowing that creative thinking is a neurological process shows that it falls under the same "use it or lose it" rules as other mental abilities.

Moving forward from the literature review, we had a definition of creativity that encompassed the widely accepted elements of novelty and value, as well as a strategy to achieve it. Consequently, rather than waiting for a single eureka moment to strike, we moved haltingly forward through small insights. This meant gradually pulling larger and larger pieces of the puzzle together to form a wholly more creative practice. Also, and most importantly, we knew that in deliberately targeting creativity we would get better at being creative as we went along.

Process and Environment: Changing What We Can

While studies point to the importance of values (Bramwell et al., 2011; Reilly et al., 2011), personality (Gardner, 2011; Gehlbach et al., 2015; Maslow, 1968; Worth, 2000, 2010), and problem-finding abilities (Csikszentmihalyi, 2014), we decided to focus less

on aptitude-related factors and to concentrate instead on areas where we could easily improve: process and environment.

The creative process varies according to efficiency (Lubart, 2001; Sawyer, 2013) as well as to levels of metacreativity (Runco, 2007b), proactive creativity (Sawyer, 2013), and grit/perseverance (Duckworth, 2013; Grant, 2016). For this reason, we met regularly to plan the course, to discuss ways to improve outcomes, to question our approach, to encourage calculated risks, to offer support, and to jot down ideas for future reference.

In addition to paying attention to our creative process, we focused on creating an environment that would foster creative abrasion and resolution (Hill, 2014), production at the edge of chaos (M. Fullan, 2003), and creative emergence (Lichtenstein & Plowman, 2009; Tosey, 2006). Working at the edge of chaos meant that we and our students often experienced more anxiety than in a typical English class, but that we mediated this by seeking and providing feedback, models, and reinforcement. We also focused on group dynamics and engaging diversity, as well as using online resources to create content and connect ideas (M. Fullan & Langworthy, 2014).

Modelling Creativity

While some scholars treat creative teaching, teaching for creativity, and creative learning separately, we felt that any change in one dynamically affected the other two. Jeffrey and Craft (2004) echo this sentiment when they write "teachers teach creatively, for creativity, and often both at the same time; teaching for creativity is more likely to emerge from contexts in which teachers are teaching creatively" (p. 84). Thus, while our initial aim was to be more creative in our approach, we were also consciously modelling and encouraging greater student risk-taking and innovation.

Modelling creativity challenged us in two ways. First, we were teaching in a way neither of us had ever been taught. While we found many inspiring role models online, such as Hunter (2011), Ritz (2012), and J. Fullan (2011), we were the first post-secondary EAL teachers we knew to be trying this approach. Second, as Rejskind (2000) stated, creative teaching requires that "teachers themselves be skilled in creative problem solving" (p. 156). Having trained and worked in a performative, outcomes-focused culture, we questioned our capacity to assist students in designing and carrying out original solutions to the issues they chose to address. In short, we had to be creative in exploring

unchartered territory and in making up for creative problem-solving skills that we might have lacked.

Action-Oriented Principles and Deep Learning

Discourses and the policies they inform must be interpreted (Jeffrey & Troman, 2013). As such, we felt that action-oriented learning approaches (case-based, inquiry-based, project-based, problem-solving, and problem-based learning) best embodied the rhetoric of creative discourses. Among the alternatives, we chose to use problem-based learning (PBL); however, as Savin-Baden and Major (2004) observed, it was often difficult to get a clear picture of what differentiated PBL from other approaches. The clearest guidelines we found were articulated in Savery (2015):

- Activities in PBL must have real-world value;
- Problem simulations in PBL must be ill-structured, integrative, and require collaboration;
- Learning must be reapplied to the problem with a closing analysis and resolution;
- Students must have the responsibility for their own learning;
- PBL must include self- and peer-assessment components;
- Evaluation must measure both knowledge- and process-based progress;
- PBL must be the base of the curriculum and not a part of it. (pp. 7–8)

We felt that PBL's use of ill-structured real-world problems would allow both us and our students to exercise problem-finding and divergent thinking skills in targeting questions and in arriving at multiple solutions. Furthermore, using this approach would require interaction with real-world problems and communities, and encourage students to reflect on and assess their individual and team contributions toward achieving their goals.

Learning to Learn

As the rate of change increases and the half-life of knowledge decreases, learning to learn has become far more important than the learning itself (Siemens, 2009). For this reason, Cho and colleagues (2015) are critical of measurable learning/outcomes-focused approaches, arguing they result in an "inert knowledge problem" (p. 4) and in a failure to equip students with the necessary meta-skills to become self-guided learners (p. 5).

Consequently, through PBL, our overall course focus was to find creative ways to teach learners how to learn, rather than what to learn. We based our notion of *learning to learn* on the following definition:

> Learning to learn requires that students begin to define their own learning goals and success criteria; monitor their own learning; critically examine their own work; incorporate feedback from peers, teachers, parents or simply other people in general; and use all of this to deepen their awareness of how they function in the learning process. (M. Fullan & Langworthy, 2014, p. 17)

Consequently, while the students were teaching each other the prescribed course skills and carrying out their own projects, we focused on teaching them metacognitive strategies to improve self-monitoring, goal-setting, and reflection.

Fully Functioning and Tending Our Garden

Maslow (1968) found that the *self-actualized*—the happiest, most open people in society—also exhibited the highest levels of everyday creativity. In implementing this new approach, however, we aimed to go beyond the level of everyday creativity to a higher magnitude defined as *localized creativity* (Craft, 2002; Worth, 2000, 2010). For this reason, we found Rogers's (1980) concept of the *fully functioning person* (FFP) more relevant to our context. While Maslow viewed self-actualization as a *state* to be attained, Rogers's FFP is in a continuous *process* of remaining open to new information and of using information to optimize growth (Bohart, 2013, p. 89). This involves being fluid, richly differentiated, and accepting of emotions, rather than being static, unfeeling, and impersonal.

Viewing our experience through the lens of the FFP helped us to frame our teaching as a process of optimization and constant creative engagement, rather than evaluating it from a success or failure standpoint. We knew, as Woodward (2013) pointed out in her explorations of Huberman's (1989) work on the professional life cycle of teachers, that reinvesting, experimenting, and learning—tending our "little gardens"—was a way to stay engaged in the profession. In short, rather than focusing on the outcome of the semester, we felt the process of trying something new had intrinsic value in itself.

Knowledge Gaps

This review of the literature, while extensive, still left us with more questions than answers. We had a clear definition of what we were targeting, how to target it, and what we hoped to achieve both for ourselves and for our students; however, we still faced a number of doubts about adapting action-oriented pedagogy to the college-level ELL classroom. With so many surface objectives to cover, were we expecting too much from ourselves and from our students by adding a dimension of deep learning? With the greater autonomy this approach afforded students, could we still provide adequate structure for the learning in terms of both clarity of instructions and scaffolding? Were we helping students to learn to learn, or were we giving them too much freedom? And, most importantly, as products of a performative educational system and as teachers within a performative educational system, were we creative enough to face the challenges that would come? To sum up, the literature review helped us to set the course, but we knew nothing about the everyday reality we would face in implementing this approach.

Reinventing the English for Specific Purposes Course

Montreal has a vibrant anglophone community in which English-language learners can engage. While many of our colleagues had taken advantage of this to plan cultural outings, we decided to make interaction with English Montreal an essential component of our course. Thus, we added to the ministerial objective of "improving English competency related to a field of studies" the amendment "through communication with authentic audiences." From this starting point, we designed a course in three stages: formative, summative, and certificative.

In the formative stage, our goal was to lay the foundations for future student-led projects. We began by teaching the students how to give workshops. The two most important instructions we gave were for students to present the information on their topic through a *pecha kucha*[1] (Arndt et al., 2010; Beyer, 2011) and then to design an engaging activity that would have the class apply their learning. We also felt that modelling a workshop would give students a better idea of the kind of teaching we would expect from

1 An image-based presentation style consisting of 20 slides set to a timer with 20 seconds per slide.

them, so we prepared three workshops: two fun workshops—Brett's was on yoga and meditation, and Julia's on the mental benefits of knitting, and one "serious" workshop on referencing and plagiarism. Finally, we had the students evaluate our workshops using the same grid we would be using to evaluate them when they were ready to present.

Once the students had a clear understanding of our expectations, we handed them a list of skills they would need to teach one another. The list consisted of three types of skills: essential skills mandated by our department and the Ministry of Higher Education, such as summarizing, referencing, interviewing and essay writing; soft skills we decided were necessary for group work, such as resolving team conflict and embracing diversity; and technological skills, such as building a website and working collaboratively online. Once the students had chosen their teams and their workshop topics, we gave them each an article to help get them started and told them to find two more sources on their own. Finally, once the students had prepared their *pecha kuchas* and their activities, it was their turn to teach the class. Brett recalls being surprised at the outcome:

> Sometimes the ideas that the students had for workshops—on how to present the material—was something that I wouldn't have come up with. And I took notes and I thought to myself, I*f I'm ever presenting that material, I'm going to present it that way. That was such a fun activity!* which surprised me because I thought that their activities would be…amateurish. [*Laughs*] But in some cases, the teams came up with unusual, surprising, fun ways of presenting something, but also educational, and the students really gravitated to that.

In short, the formative workshops were student-led and covered the essential skills targeted by the course. They also equipped students with the skills they would need for their upcoming projects.

In the second, summative phase, students identified field-related issues and planned the projects. To begin, we had them follow Palmer's (2007) advice to reconnect with the subjects that chose them. This meant having students journal about why they had chosen their particular post-secondary field and identify where this passion stemmed from. Also, in keeping with the collaborative, interdisciplinary principles of PBL, we had the students engage in "speed dating," where they would briefly meet and discuss issues of interest to them with other people in the class. Additionally, to provide inspiration, we showed our classes inspirational videos of projects carried out by young Canadians, such

as Terry Fox's Marathon of Hope, and Gen Y Not's "Love over Fear." We then had them form teams and began researching and problem-finding. We also had them visualize solutions through drawing (Dobrowolski, 2012) and create S.M.A.R.T. goals[2] to achieve those ends. Each team was accountable for producing a three-step process with deadlines for each step, specific outcomes, and accountability measures. Most importantly, we insisted that the students reach out to community organizations, to experts and to resource people within the Anglophone community to provide ideas, support, and community interaction. At the end of the second stage, the students presented their ideas for their projects to the class and wrote about them in process essays.

The final certificative stage of the course consisted of realizing the projects and then learning how to communicate them through narrative. Teams within specific disciplines often had predictable projects. For example, social sciences students tended to conduct surveys and experiments, while natural sciences students taught children about nutrition or created online tutorials for difficult math and physics problems. Some of the most interesting projects, however, crossed disciplines. For example, a student in communication teamed up with a pre-law student and two health sciences students in Brett's class to interview women in law and medicine and to create an online documentary on the subject of issues of gender inequality in higher education. Many students became consumed with their projects and invested considerable time and effort into making them a success.

At the debriefing stage, we and the students realized that the projects often involved a great deal more learning than any of us had initially realized. To facilitate the telling of their journeys, we provided outlines and showed them a number of narrative-style TED talks on which to model and structure their ideas. In their final essays and presentations, it was impressive to see how much they had collectively accomplished in the 15 weeks since starting the course.

2 Mutliple variations of S.M.A.R.T. goals exist. We used the acronym for Smart, Measurable, Accountable, Realistic, and Time-bound.

Methodology

Baskerville and Wood-Harper (2016), in a review of action research, describe the ideal exemplar as consisting of the following: (1) diagnosing, (2) action planning, (3) action taking, (4) evaluating, and (5) specifying learning. In our case, this process unfolded organically as we read about creative teaching practices and wondered how these could be applied to make the courses we were teaching more relevant to our learners. Thus, diagnosing the problem and planning action occurred both naturally and simultaneously. Similarly, taking action and evaluating overlapped, much in the way Charmaz (2006) describes memoing in constant comparison. Each week we collected, created, and curated texts for our classes, such as course outlines, calendars, exams, project instructions, exit reports, feedback surveys, videos of presentations, models to follow and audio recordings, all of which embodied our theoretical approach. Then, to sort our observations, Brett kept a daily journal of our process, and together we engaged in weekly informal discussions of what was working and what was not, and the ways in which theory translated into practice. Thus, at the end of the semester, when we were invited to articulate our learning to our department and at a teacher conference, theoretical categories had already begun to emerge. These categories then served as a springboard for our final mutual interviews in which we sought to evaluate how our story could be used to bridge the gap between theory and practice, and to help other teachers seeking new approaches. Consequently, the conversation gravitated around the following four points.

Findings

Support for Findings from Previous Studies

Bramwell and colleagues (2011) found that teachers improved outcomes in four areas by adopting a creative approach: observable products, motivation, interpersonal connections, and personal development. Our semester confirmed all four of these findings.

In terms of observable products, our students raised money for various charitable organizations, created websites and blogs, filmed interviews with experts and resource people, and provided numerous goods and services for their communities, such as fitness

programs, healthy snacks and recipes for children, collection drives (books, canned goods, eco-waste, etc.), and more. In most cases, they were highly motivated to do the work since it connected what they were learning in their field of studies with their passion for their subject. It also required interpersonal development, since students worked in teams and with experts and organizations from the English-speaking community. Julia recalls one particularly difficult group of social and health sciences students and the connections they made:

> One of my groups of students [was] very unorganized in the beginning of their project—they had a lot of trouble finding a project that related to their field of studies—and it was really unclear if they were ever going to be able to finish their project and be able to present their project at the end of the class. They ended up coming up with an idea to go into a hospital and give flowers to the nurses and the support staff there to brighten their day… The students said they were very nervous and they weren't quite sure what they were doing, but that the reaction they got from the nurses and the staff was so overwhelming, and the nurses and staff hadn't ever been the ones to receive flowers—it's always the patients… They weren't expecting such a connection to be made with the nurses and the staff, so they were really proud of themselves for having been able to do the project.

Finally, in terms of personal development, many students said that their projects helped to confirm their choice of careers. Brett recalls that one of his students initially expressing anxiety about her future, but, after completing a project on eco-waste, felt certain that environmental law was her calling. Moreover, a handful of students decided to continue working on their projects after the course. Some even wrote to us to offer to present to future groups of students and "pay it forward."

In addition to the students having greater observable products, motivation, connection, and development, we also experienced something similar from our perspective as teachers. In terms of observable products, we have since presented our approach to our department, as well as to the wider college community at a professional conference for English language teachers (Fischer & Golden, 2016). Furthermore, we both felt that our first experience with PBL, in addition to being motivating, helped us to know the students better and to expand our classroom beyond the four walls. Most importantly, it was

a journey of self-development for both of us. Brett often refers to this as the process of "becoming the teacher that I've always wanted to be."

Challenges

Runco (2007a), on the subject of creative teaching, made the following remark: "Older students in particular might be less familiar with all open-ended tasks, and as a result might not apply themselves" (p. 183). Even though we found our college-aged learners young enough to remain open-minded, we experienced a small number of students who were challenged by the student-led structure. Generally, these students fell into one of two categories.

Otherwise-oriented. College is a time of uncertainty and changing identities. While some of the students were thrilled with the degree of autonomy this course afforded them, others were overwhelmed or uninspired at the prospect of taking on a new project. Brett recalls a conversation he had with a student who dropped his class:

> I was on the way from the photocopy room to the office when a student who dropped my class stopped me, and he says to me, "You know, sir, I just want you to know that it's nothing personal." And I said, "Ok." And he looks at me and says, "The truth is just that I don't really have any passions that I want to explore." And that was a big eye opener for me. I had always thought if I had been given time to explore something of interest to me, I would have jumped at it… Clearly, for some students, that was just a source of anxiety.

Even though we noticed a higher degree of engagement from most of the students, we were forced to admit that this approach still did not capture the imagination of all students. This points toward the process of accumulating mini-insights that we addressed in our literature review. Creative teaching involves a continuous cycle of problem finding, experimentation, and evaluation. For this reason, we are exploring and will continue to explore better ways to scaffold the learning for students with different needs.

High achievers. The most surprising outcome of this process was that, in contrast with students who were otherwise-oriented, some high-achieving students were also at odds with our efforts, particularly those seeking entry into highly competitive programs

such as medicine and law. For many of these students, outcomes are, understandably, more important than learning. Rather than trying something new, they wanted the familiarity of a one-right-answer classroom in which they knew they could excel. Essentially, in demanding problem-finding and creativity, we had changed the rules of a game they were good at. This uncertainty, at a critical point in their academic career, was destabilizing and, in some cases, increased already high levels of anxiety.

In taking stock of the challenges, we realized that PBL had an overall positive effect on motivation and learning, but that it still presented some difficulties when introduced to college-aged students. A small handful of students who were facing outside challenges, such as personal problems, a lack of engagement, or the stress of admittance to high-demand programs, found that PBL placed an additional burden on them as learners and resulted in increased anxiety. Consequently, even though we felt this approach allowed for more differentiated learning, we recognized that we were still limited in meeting the needs of each student. In short, while PBL emphasizes cognitive diversity and offers greater opportunities for guided learning, there is not, nor should there be, a one-size-fits-all approach to pedagogy.

Increased Feedback

Hattie (2009) describes feedback as a dialogue: feedback both from the teacher to the student and from the student to the teacher. Since we were new to PBL, we knew both we and our students would need more feedback throughout the process. Consequently, we implemented several feedback loops. These were both time-consuming and time-saving: the more we invested in feedback early in the course, the less we invested later. As such, we were not sure if we should include this increased need for feedback in the section on challenges, or if we instead viewed it as an opportunity to foster more dialogue and interaction. Finally, we settled on creating a separate theme for feedback. However, in addition to Hattie's categories of teacher-to-student and student-to-teacher, we added a third and fourth space of student-to-student feedback and teacher-to-teacher feedback.

Teacher-to-student. We often joked that there were days when we felt much more like consultants than teachers. Every class included a moment for students to work in teams and for us to circulate between the groups and answer specific questions. Since each project was unique, each team had their own questions and proposed courses of

action. Feedback needed to be targeted and personalized. This was an opportunity to talk to every student in the class and to build better rapport. It also helped to improve final project outcomes and to counteract some of the anxiety of an unfamiliar approach.

In addition to weekly team consultations, Brett also increased feedback by employing Roberge's (2015) oral correction method. To do so, he combined traditional pen-and-paper feedback with recorded clarifications and suggestions using his mobile device. Students, upon receiving corrected work, were given time to both read and listen to Brett's feedback and then make the necessary modifications. Even though recording individualized mp4 files was time-consuming, Brett found this reduced time spent teaching whole class lessons by allowing for more targeted feedback, and increased overall performance in subsequent tasks.

Student-to-teacher. From the onset, we both agreed that we would need initial diagnostics as well as final course evaluations. However, we would also need a system to get more immediate, ongoing feedback. To do this, we would randomly select five students at the end of each class to write exit reports. These exit reports allowed students to write about questions and concerns they had, to identify learning—both in terms of content and life lessons—taking place, and to evaluate the day's lesson as well as their overall satisfaction with their performance and the course. Each week, we would read and respond to the exit reports and engage in a written dialogue with students. We found that this provided us with key information on whether we were meeting our targets, on opportunities to clarify expectations, and on the students' level of satisfaction and engagement. This regular student-to-teacher feedback, provided a real-time window into how the course was unfolding and gave us the confidence we needed to know that our approach was working.

Student-to-student. PBL requires a great deal of self- and team-monitoring from the students. Even though we addressed some of these meta-skills in our formative workshops, some students still needed encouragement to apply newly acquired conflict-resolution and goal-setting abilities to real situations. Thus, as certificative exams loomed and tensions over projects escalated, we began hearing more and more comments about students who were not pulling their weight. To address this, we borrowed the concept of "stormy first drafts" from Brown (2015), the writing of short, private texts in which

students could safely express their fears and frustrations. Once their concerns had been privately identified, we then reviewed some of the skills from the workshops and allowed the students time to resolve conflicts and renew goals. We found that, as Lichtenstein and Plowman (2009) suggested, this "surfacing" actually allowed for greater creative emergence, provided it was then followed up with the establishment of new positive feedback loops. In short, student-to-student feedback provided a critical third space for dialogue in the PBL approach.

Teacher-to-teacher. Finally, there was a fourth, tacit dimension of feedback that we only became aware of as we wrote this article. Both of us were extremely grateful to have had someone with whom to implement this action-oriented approach. Our regular debriefings allowed us to monitor our creative process, to express our concerns, and to create a safe space for us to learn. Also, as we had read in our literature review, it created an environment where we could engage in creative abrasion when we disagreed and connect half-hunches to generate better solutions. Most importantly, our creative collaboration allowed us to openly discuss our successes and failures, and to focus on the journey of becoming more creative teachers and more fully functioning people.

In short, our new approach required us to create an environment, both inside and outside of the classroom, that was more amenable to open, constructive feedback. Students had to express their needs and concerns to both us and their peers, and we had to be prepared to listen and engage with them and with each other as colleagues. Through this communication, we strengthened the students' linguistic abilities, created a market of ideas, and connected half hunches to generate creative ideas of greater magnitude.

Growing in Multiple Directions

As mentioned previously, cultivating creative thinking is an oft-hoped-for byproduct rather than an explicitly stated goal. We found that in defining and actively seeking to engage creative thinking, in addition to the language-related objectives of our courses, we were able to generate growth in multiple directions.

From our perspective, through the process of modelling creativity as teachers, we were much more empathetic to the creative process in our students. For example, we knew that it had taken us half of a career to realize that we needed to move past surface

level content changes in our courses to achieve our goals. Following that discovery, we only felt secure in implementing an action-oriented approach after an extensive literature review. Consequently, when our students jumped into problem solving too early, we knew to ask them if they were sure they had found the right question. Similarly, we knew that too many of them would dive immediately into their projects unless we insisted on literature reviews and consultation with experts. Generally, we were able to anticipate their struggles because we had developed our metacreativity and perseverance through our own process. This allowed us to better assess the students' ability to learn to learn: to self-monitor, to set goals, and to reflect.

Another welcome, but unintended benefit of soliciting creative thinking was that it also fostered a sense of ownership and empowerment in our students. Rather than feeling that school was preparing them for a distant, unknown future, we noticed a sense of immediacy in what they were learning. Having a choice in the issues they addressed and the solutions they presented imbued the language structures, vocabulary, and conventions with purpose. Students engaged in the tasks of writing professional emails, providing accurate instructions, and setting clearly worded goal statements, not because we told them these skills would be useful at some point, but because they wanted their experts to respond positively, their teammates to respect them, and their project to succeed. Furthermore, in doing so, they also realized that they had the power to make the changes they wanted to see. Rather than passively observing issues in their surroundings or wondering why the school, the community, or the government was not taking action, they came to understand that they too were a part of their schools and communities and that change could come from them. In other words, the surface linguistic skills they acquired allowed them to do the deeper learning about how their studies related to the world around them.

Fostering and modelling creativity also had unanticipated benefits for us as educators. Though neither of us won a teacher of the year award or felt that we had totally mastered PBL by the end of the course, we recognized that we had acquired a number of new teaching skills to add to our repertoire. Also, in keeping with Dweck's (2006) growth mindset, we felt that the experience had flexed our creative muscles and given us a number of ideas for other courses. Both of us eagerly talked about new ways to improve the general communication course, and we continued to engage in proactive creativity by jotting down new ideas for the specific skills course in the future. Most importantly, in our debriefing, we realized that we had taken a risk in trying something new and, in

doing so, we had staved off the serenity and conservatism associated with the later years of the professional life cycle of teachers (Huberman, 1989). Tending to our little gardens (Woodward, 2013) or engaging in what Sale (2015) refers to as "deliberate practice" helped to renew our commitment to the profession and to find flow (Csikszentmihalyi, 2014) in our work.

In Closing: Challenging but Worthwhile

After reflecting on our experiences with PBL, we realized that much of the literature on creative teaching had been right. We had improved both our students' and our own observable products, motivation, interpersonal connections, and personal development. However, we also realized that creative teaching should not be viewed as a solution to all of education's problems and that it need not be contrasted with other, more direct, "performative" approaches. Even though we had increased overall student engagement, we still felt there were learners who would have preferred a one-right-answer classroom. We also acknowledged that PBL required much more guided feedback, from teacher to student and student to teacher, as well as *between* students. This was much more labour intensive in the beginning of the course, but ultimately resulted in higher overall achievement. Finally, we were pleased to observe a number of unanticipated outcomes to our approach, both for our students and for us. Key among these were student ownership and empowerment, and, for teachers, it meant finding excitement and flow in the creative process and in course delivery.

In critically examining our experience, we hope to open a door to greater dialogue between teachers who are moving away from the way they were taught toward new horizons. As the profession changes, as well as the content of our courses and the way students learn, we need to adapt our pedagogy and get creative if we are to remain current. While there is a great deal of scholarly work on creativity, creative teaching, creative learning, and learning for creativity, few scholarly texts address the real-life issues practitioners face when engaging in new approaches. Through our reflections, we are hoping to open a third space where educators can engage with creative teaching theory and shed light on how these ideas take shape in everyday practice.

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