

# Train Wrecks: 3M National Teaching Fellows Explore Creating Learning and Generative Responses from Colossal Failures

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*We all fail. We also like to look good and avoid looking bad. So, even though we know that taking risks and trying new approaches are important for enhancing our teaching and students' learning (Strean, 2017), we rarely talk about our failures. Our claim in this paper is that our insecurities create a substantial barrier to improving and enriching our teaching practices. If we do not find time to take big risks, and then to explore and critically reflect on failures that result sometimes from those risks, we lose out on the chance to become better teachers; more fundamentally, we deprive our students of the chance to have extraordinary opportunities to learn.*

*Nous connaissons tous des échecs. Or, nous voulons projeter une image positive de nous-mêmes. Ainsi, même si nous savons qu'il est important de prendre des risques et d'essayer de nouvelles approches pour améliorer notre enseignement ainsi que l'apprentissage de nos étudiants (Strean, 2017), il est rare que nous parlions de nos échecs. Dans cet article, nous avançons l'idée suivante : notre manque d'assurance constitue un obstacle considérable à l'amélioration et à l'enrichissement de nos pratiques d'enseignement. Si nous ne nous donnons pas du temps pour prendre des risques importants, puis pour réfléchir de manière critique sur les échecs qui découlent parfois de cette prise de risque, nous laissons passer une occasion de nous améliorer en tant qu'enseignants. Qui plus est, nous privons ainsi nos étudiants d'occasions d'apprentissage exceptionnelles.*

## Theoretical Frame

Telling students that failure is an essential part of the learning process will not free them from their concerns. Similarly, urging professors to take risks and be open to failure in their teaching will not be sufficient for them to change their behaviour. Our perspectives on failure need to be explored and re-considered and we need room to make mistakes on the path to better teaching. We believe the approach that Dweck (2015; 2017) has

demonstrated to be effective with students offers a useful way to position our consideration of teaching fiascos. Dweck differentiates fixed mindsets, which lead to giving up, from growth mindsets, which are associated with grit and resilience. Students with fixed mindsets “are invested in looking smart and never looking foolish” (2015, p. 10). Professors can have even greater commitments to appearing intelligent and avoiding any displays of incompetence. Research (Gero, 2013) using Dweck’s framework shows that teachers with more

of a growth mindset value learning over looking good and avoiding risks. Similar to students with growth mindsets, they were more interested in learning than in their reputation as a good teacher. Teachers with a growth mindset believe that the value of attempting new teaching methods outweighs the risk of making a mistake; the development of teaching ability merits taking risks in aid of improvement. We believe that fostering growth mindsets is a useful underpinning for considering our pedagogical mishaps.

We wish to contribute to discourses that are seeking to make failure more visible, while normalizing and destigmatizing it such as Stanford's Resilience Project, Success-Failure Project at Harvard and the Princeton Perspective Project. One of our favourite examples from Smith College called *Failing Well* provides students a certificate of failure upon entry, a kind of permission slip to fail. It read, "You are hereby authorized to screw up, bomb or fail at one or more relationships, hookups, friendships, texts, exams, extracurriculars or any other choices associated with college ... and still be a totally worthy, utterly excellent human" (Bennett, 2017). Wouldn't it be nice to receive a similar allowance when stepping into the classroom? Productive analysis of failure is essential to becoming a critically reflective teacher (Brookfield, 2017).

## The Set-up

In this paper we share experiences of when something didn't just go slightly wrong, but something completely backfired. We believe part of the fun and intrigue of this paper is seeing that even those who have been publicly acknowledged for excellence in teaching and educational leadership have had significant failures despite the fact that they are often less publicized. We consider how we can all respond more effectively and have greater freedom to attempt novel approaches. When we interact with new student characteristics and broader cultural influences, we are bound to face challenges. Each of

the three authors shares a teaching train wreck, examine what was learned, and raise broader considerations for reflection on teaching and learning.

## Vignette One: Racism, Law, and Disorder (Kim Brooks)

### The Story

Law students confront a dizzying array of career trajectories. Their future paths are not, however, entirely their own to determine. Among other variables, irrelevant factors like students' gender, race, or disabilities continue to restrict some career choices and directions (Roderique, 2017).

I was teaching a small group (30 students) of students in first year. As their small-group instructor, I was responsible not only for a substantive area of law, but also for providing students with an introduction to the legal profession. As part of that introduction, I believed it was important to set some context for the continuing discrimination within the profession itself. Relatively early in the term, before I had come to know the students very well, I invited one of the leading equity lawyers in the province (an African Canadian) to come to the class to discuss some of the recent empirical work on the experiences of racialized lawyers.

When the guest arrived, I took a seat in the audience among the students. The class was stacked so the speaker was in the front and then students sat facing him in rows that were tiered. Not very long into the guest speaker's remarks, a male, Caucasian student in the back row interrupted the speaker to question some of the speaker's claims. The first couple of questions were direct and challenging, but appropriate. The student pervasively interrupted and asked increasingly hostile questions throughout the presentation. He questioned every piece of data

presented, asked the speaker to address reverse racism (the racism of minorities towards white people), and eventually, the student loudly interjected, “I just don’t believe you.”

The rest of the class was silent. Not one person asked a question or otherwise visibly engaged. Quite a few students looked down. The guest speaker, who was a leading senior lawyer, did not appear visibly flummoxed by the student’s interventions, although I would describe the environment as hostile and the student’s questions and engagement near the end of the talk as explicitly racist.

I did nothing. Having set myself up among the students, I felt it would seem awkward to move back to the front of the room to interfere; and I worried that it might suggest I wasn’t confident in the speaker’s ability to respond to the questions. I was embarrassed about the student’s behaviour and could not find my footing to ask a question from the floor that might have interrupted the flow. The message of the session was lost to the drama of the classroom.

After the speaker left I asked the student to stay behind so we could talk about what had happened in the class. This felt like a big risk – I could see that I had lost the confidence of the class. If the student did not stay, I worried that my authority would be completely undermined. The student stayed. I told the student why I thought his engagement with the speaker was impolite and improper, and unbecoming of a lawyer. We had a heated, but thoughtful, discussion.

It took me some classes to feel like I had regained the confidence of the class. I felt I needed to spend more time talking about discrimination in the legal profession than I would otherwise; in part to ensure that the students had a foundation for the conversation that they collectively lacked before the guest lecture. I also wanted to show that I wasn’t afraid of the topic or willing to be bullied by one student into reverting to more easily discussed doctrinal material.

## Key Learnings

In hindsight, I made a number of mistakes that together added up into an incident that resulted in a loss of confidence in my teaching (something I consider a failure). First, although I know that discrimination can be a complex topic that generates strongly held views, I did not set up the class appropriately for the guest speaker. We had no shared materials or language and no plan in case the conversation became confrontational. Second, I failed to support the guest speaker. I did not know him personally, so I had no rapport to build on in engaging him in the discussion during the class. I didn’t spend enough time in advance of the class talking with him about how I could lay the groundwork for his visit, nor did I ask for his advice on how he would like me to engage during the visit. Third, I was too inexperienced to know how to effectively intervene. There isn’t a lot that you can do to develop experience except to let time pass make mistakes that you learn from.

The conversation with the student who had been disruptive resulted in a positive outcome that was rooted in failure. At the end of about 30 minutes of this challenging dialogue, the student began to weep. He talked about his fears and struggles with his own place in the legal profession. It gave me insight into the complexities of these moments, especially when you don’t set them up properly. Perhaps as a result of this conversation, I ended up with the student in every class I taught all the way through his years of law school. Although we may fear or avoid difficult confrontations with students, they can ultimately deepen our connections.

## Broader Applications and Reflections

This incident was one of a few things that happened to me early in my career that inspired me to spend more time thinking about how to create an inclusive classroom. I think that without this failure, I might not have focused on that aspect of my teaching as

early as I did. One advantage of a failure is that it concentrates the mind on a topic and can spur us to do better or learn more about ourselves as a result.

## Vignette Two: Up the River without a Paddle? (Pat Maher)

### The Story

When I first arrived at the university I had just finished 100 days of paddling from Hinton, AB to the Kugluktuk, NU, 30 of which included students from another university. This experience, coupled with reading a story in a recent issue of *National Geographic* magazine, led me to dream about field course possibilities in and around my new home. The VP Academic was supportive, my new colleagues were interested, and the student body seemed very excited. Having worked in outdoor recreation and outdoor education for many years, the idea of taking students into remote wilderness settings was not new. However, planning and implementing this in the setting of higher education was new, particularly for this institution.

I made local contacts in the geographic area to figure out logistics, and I read books/accounts, scoured maps, and wrote a fairly exhaustive risk management plan. I re-certified first aid and rescue qualifications and built a case for why this course was needed. However, when I presented it to my university, there was a general look of confusion. What was all of this? Why was it needed? Other field courses already running didn't present nearly as much detail. The response I got was that I could run a course because I had a PhD as long as I went through the regular channels and filed the necessary paperwork, finance forms, etc. So, I did.

At that stage I thought it would be easy. The course was approved, I collected fees from interested students and paid for the appropriate logistics, and we were on our way. We started the trip with

conversations with local knowledge keepers (former Parks Wardens, First Nations representatives, etc.). We took it easy through the first week of canoeing on a relatively gentle stretch, and by the third week the group was solid, well-functioning, and able. Then an accident, a "near miss", occurred. We were two to three days from the nearest community, enjoying the large volume flow of the river, when we came around a corner and a big wave swamped all our canoes. On this particular day, my co-instructor (a volunteer Post-doctoral Fellow) and I were paddling together. Every boat was underwater to some degree. The weather was a bit cold, and because we had just recently been in a community and were on the final stretch before returning home, our minds were likely already elsewhere. All combined it made for a very bad situation.

Luckily, one boat got to shore, we rescued two others, and within 30 minutes, all of our gear was recovered and we were attempting to dry out. We got lucky. This is a tale of potential disaster that could have ended badly. And for more than 10 years, I have not really discussed it or reflected on it, nor wanted to. It was a very large failure, one I should have expected/seen coming based on my 20+ years of outdoor instructional experience beforehand. We joked about it as the trip ended, and all went our separate ways; however, I'm constantly reminded of what could have been and I've tried to make changes within the institution of higher education, but it is a slow process.

### Key Learnings

My reflection revolved around asking the question: "What if?" What if that accident had left a student dead? How would lives have changed? Participants would not have become doctors, Canada Research Chairs, firefighters, parents, and educators. What would have happened to my career? What would have been the psychological and financial implications? I didn't share this near miss with anyone at the institution. We had no process for that at the institution, and at the time I was embarrassed

by it and felt vulnerable. The key learnings have set some critical paths for me in terms of how I act and seek to provide leadership towards the meaningful use, and safe implementation of field courses. It has guided me to make some tough choices in future work; what I will let occur, and what I won't – in prep, set up, logistics and simply participation. I hope my students remember that day, but it certainly shaped my journey towards becoming a 3M National Teaching Fellow, and some of those students even wrote me nomination letters.

### Broader Applications and Reflections

Higher education, from the faculty level right up to senior administration is reasonably complacent when it comes to risk management in grey areas. Everyone knows that buildings must be built to a certain code, or lab chemicals stored under certain restrictions. There is even a Canada-wide insurance program that universities subscribe to, to assist them. However, in the grey area of risk management for a field course, paddling a remote river, there doesn't seem to be much guidance. If you have a PhD, you can run a course despite a lack of proper experience in risk management. It's not needed. We sit in a reactive bubble waiting for something bad to occur. Not all institutions fall into this trap, but I would suspect that many do because they are stuck between a lack of knowledge, concerns over budgets and enrollment numbers, and the sheer trendiness of running field programs, which can give a university great publicity.

### Interlude: New Perspectives on Failure

Prior to the final vignette, we would like to play with underlying notions about failure and how shifting our views may contribute to greater freedom and power in our teaching explorations, and, perhaps, facilitate growth mindsets. Why does failure seem so egregious that it keeps us from pedagogical enhancement and projects that might support better

student outcomes? In this section, we offer some quotations as catalysts that may help alter our perceptions of and relationship to failure.

*"Failure is an event. It's not a person."* – Zig Ziglar

If you have ever heard the popular motivational speaker from Alabama, you might imagine his loud and enthusiastic drawl punching out these words. He captured a key feature of many peoples' default experience of failure. If failure is not personal, if it is something that happens rather than a character trait, it is far easier to cope with. If, after you try something new in a course and it does not work out, you morph "it failed" into "I am a failure," then you may have to overcome significant dismay. If failure is simply an occurrence, it can be an opportunity to learn about what works and what does not work when attempting a new instructive method. This may reveal where there are new actions to take or a dissimilar approach to employ. When depersonalized, failure may begin to relax its grasp. What can propel us forward after failures is the recognition that just because one class contained a failure, it is situational and not personal; our next outing may be a success.

*"Fail faster to succeed sooner"* - David Kelly, CEO of IDEO

For most skills, we can identify a somewhat predictable number of errors on the path to competence. Consider the progressions in learning to ride a bicycle. It is inevitable that learners will tip to the left; they will also tip to the right; they will stall out. If learners engage in a manner where they attempt to avoid experiencing these wobbles, it will prolong the time it will take them to achieve riding competence. The educational system communicates that right answers are what matters and thus the possibility of a powerful relationship with failure is dismantled. If students discover and expect that any learning will require some discomfort, unfamiliarity, and moments of incompetence, it can be like pulling off a bandage all at once to try to experience these

inescapable errors as quickly as possible. We often emphasize the value of process (try, revise, and try again) to our students, expecting them to willingly accept that failure precedes competence, yet many of us are reluctant to apply those same insights to our own teaching endeavors. It seems ludicrous that human beings attempt something they have never done before and expect to do it right the first time. If, instead, we begin with curiosity and actively seek the mistakes that will lead to successful performance, we may avoid the typical suffering that comes with failure, and we become more competent teachers more quickly.

*"If you don't make mistakes, you're not working on hard enough problems. And that's a big mistake."* - Frank Wilczek, 2004 Nobel Prize winner in physics

We are increasingly convinced that much of our ennui and ineffectiveness as academics (and in life) may come from not having big enough problems. When we catch ourselves being worried or upset about what other people are doing or what evaluators think of us, it can frequently be evidence that we are not working purposefully. This quotation also reminds one of us of experiences teaching waterskiing at summer camp. If kids made it around a loop of the lake without falling, they most likely were not learning. If we take on worthwhile challenges in our teaching, we are going to make mistakes, possibly encounter rejection, and likely spend some time scratching our heads wondering what to do next. This can be good news. When too much of our life seems easy or routine, we may be heading toward the boredom side of flow (Csikszentmihalyi, 1975; 1996) and we may get stale. Our best and most fulfilling teaching will most likely occur when we are pursuing goals that challenge us. Including contentious, and potentially emotionally heated issues like race in a law class or going far beyond the walls of the classroom into extended field expeditions are challenges worthy of attempting and, perhaps, not getting right the first time.

*"A man's errors are his portals of discovery."* – James Joyce

And, of course, so are a woman's. A powerful relationship with failure is one of the most effective elements in developing and progressing toward excellence in facilitating learning. A true commitment to learning and continuous improvement means welcoming errors as pathways to new understanding. We can consider the often recalled process and how much Thomas Edison may have absorbed on his way to creating the electric light. He denied failing 999 times and suggested, "the light bulb was an invention with 1,000 steps."

*"What is the best mistake you ever made?"*- Gratitude Challenge

When you ponder these various quotations and perspectives, you may imagine a bunch of elite performers sitting around and talking about their biggest failures and most beneficial errors. You can be sure that anyone who has risked and aspired to achieve on a grand scale has also had some substantial calamities. The momentary pain or embarrassment can be overcome with recognition of how it will help you overcome future setbacks. When we reflect on our failures, we can learn some great lessons.

## Vignette Three: Not Even a Sporting Chance (Billy Streaan)

### The Story

It was a rare moment in a university environment: a roomful of academics agreed. Various professors who taught our diverse sport science courses aligned on the notion of an inter-disciplinary senior capping course in which students would integrate their learning of anatomy, exercise physiology, motor learning, biomechanics, and sport psychology, etc. Thus, Dimensions of Physical Activity Performance was created. In its first instance, a bio-mechanist and an exercise physiologist teamed up in what became a frustrating experience. Then a colleague who had

coached at the national level and was familiar with applying the sundry domains had an unsatisfying go at it. Donning my metaphorical red cape, I volunteered to apply my pedagogical super powers. With a bit of unspoken “let me show you boys how it’s done,” I confidently entered the course with some self-proclaimed brilliant strategies for engagement and active learning.

At the time, Shaquille O’Neal was near the peak of his career and was dominating the National Basketball Association but was still incapable of shooting free throws effectively. I concocted what I thought would be a wonderfully stimulating way to address the problem from an array of scientific perspectives. Could it be due to fatigue? Were there issues with his mechanics? How might mental factors impede performance? Could there be anatomical disadvantages for this skill? What kind of teaching or interventions seemed most probable to be useful? As I began to unveil my case study with panache and asked what I thought would be *pro forma* questions about material students learned in their prior courses, I was completely thrown off guard by the collective inability to recall essential principles or understand them in any kind of applied (let alone integrated) manner. With each successive attempt at a novel approach to pursue the learning outcomes, I was like Edison, discovering just another way that did not provide illumination.

As I felt that I had pretty well exhausted my creativity, (with bruised ego in tow), I had one last idea to try. I showed the students a clip from *Jerry Maguire*, in which Tom Cruise’s eponymous, and at this point exasperated, sport agent character confronts Cuba Gooding Jr.’s football star, the character Rod Tidwell. The dialogue includes “I am out here for you. You don't know what it's like to be ME out here for YOU. It is an up-at-dawn, pride-swallowing siege that I will never fully tell you about, ok? Help me ... help you. Help me, help you.” I then turned to the class, having set the context, before showing the clip, of wondering how the course could be improved, and said, “Help me help you. Help ME

help YOU.” Just as my confidence in my teaching strategies did not produce the enchanting learning I imagined, this last-ditch effort uncovered little that would be productive in course improvements. I felt like we muddled through the course with relative mediocrity.

### Key Learnings

Even as I write this, I notice the impulse to emphasize that this happened many years ago, in attempt to look good. This is an issue of ego, as was my confidence (read arrogance) entering the course. Retrospectively, I would say that I did not yet understand that a superficial checklist of courses completed did not give me the important framework of students’ prior knowledge and skills. I was delusional in thinking that I could rely on experience alone to successfully teach this course. As obvious as this context seems for collaboration, I failed to seek out collegial counsel or other support. I wanted to prove to my colleagues and to myself how good I was. To the extent that my actions were about me and not about the students’ learning, it impeded what could have been possible within the context of the course.

### Broader Applications and Reflections

At a deeper level, I think our collective experiences in attempting this course demonstrate how ineffective our curriculum is at teaching for retention and application. My own discomfort with the information dump approach to education was reinforced and our examples provide more evidence that if you want students to be able to transfer or apply knowledge and skills, that has to be part of the pedagogical method. There are also some ideas to consider from this experience about how faculty often approach our work as if we are separate from students and we enter the world of learning differently from students. While we usually look first to content (course goals or learning outcomes), students usually begin from the perspective of

motivation (instructions and entry point) and exposure (first contact) (Bowen, 2017).

## Conclusions

We believe that teaching is a human endeavour. We all bring concerns, considerations, and vulnerabilities on our journey with students. Our experiences suggest that being critically reflective about the actions and events of teaching and not personalizing failure or diminishing ourselves is important for our growth and for our students' learning. When we are transparent about our humanity and we model generative approaches where we improve our practice as a result of our errors, we help students to be more open to exploring and experiencing natural and necessary mistakes along their path.

Avoidance of failure can make our teaching stale and it can deprive our students of innovative approaches and richer experiences. When we allow ourselves the freedom to dare greatly, we may have a train wreck or two, yet we may also pave the way to new adventures in teaching and learning.

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