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# Team on teams: a collaborative inquiry

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## Abstract

Over the course of an academic year, we collaborated to adopt a new instructional design for teams in our classes. We recount the story of our collaboration, outlining our process of inquiry, reflection, and support. Our simple search for better techniques shifted as our colleagues helped us reveal hidden assumptions about our roles as teachers. Our critical reflection allowed us to increase our self-awareness, specifically considering the following: how power influences our classroom interactions, how we contribute to and reinforce elements of the system that are not in our best interest, and the evolving stages of our own development as teachers. We believe our lessons will resonate with other teachers engaged in the challenges and rewards of self-development efforts.

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A man only learns in two ways, one by reading, and the other by association with smarter people. (Will Rogers)

Over the course of an academic year, we three junior faculty formed a team to address a shared pedagogical challenge: implementing effective teams in our respective courses. We each adopted a new instructional design, coaching and supporting each other along the way. Our initial interest was to learn best practices in designing team-based assignments, with the goal of arriving at a tidy “right answer” to the problems we had experienced in our classes with student teams. We each hoped our association with smarter people would aid our journey – and it did. As our relationship developed, we found a more nuanced understanding of the problems we had experienced with teams and some potential solutions. Through collaboration, inquiry, and reflection, we also discovered lessons about ourselves.

This essay features all three of our voices and reflects a broad range of institutional contexts. Jennifer was then working at Gettysburg College, a small, liberal arts, residential college in Pennsylvania with traditional undergraduate students. Joy is at the University of Michigan – Dearborn, an urban regional state university with a non-traditional, commuter student population. Paul is stationed in Connecticut at the US Coast Guard Academy, a government-sponsored service academy with military cadet students. We each teach different courses within our business school contexts: a management course, an organizational behavior course, and a statistics course. Our training also differs: Jennifer and Joy have doctorates in organization studies, while Paul is an engineer with a doctorate in engineering management. At the time of the



collaboration, we were untenured new faculty members, each having received our doctoral degrees within the prior 3 years.

Our inquiry was focused on teaching techniques, but this paper is not directly about pedagogical techniques to improve one's use of teams. After all, the approach we implemented, Michaelson and Fink's Team-Based Learning (TBL) (Michaelson *et al.*, 1982, 2002), is a well-known approach. This instructional design is built upon nearly 30 years of Michaelson and colleagues' research in their higher education classroom. Furthermore, specific aspects of the approach are firmly grounded in classic team and group research findings about developing effective group norms (Feldman, 1984), positive group cohesion (Shaw, 1981), and discouraging social loafing (Latane *et al.*, 1979). Instead, we explore the process of peer collaboration, reflection, and how teachers learn new skills. We begin with the conceptual framework that informed our collaboration. We then discuss how our relationship evolved and contributed to individual and shared learning. In our conclusions, we each discuss the insights from our critical reflection process and encourage teachers to collaborate with others as they pursue their personal professional development.

### Collaboration process

Initially, we conducted a literature review in management education journals and the broader education field to find best practices for designing student teams. We each looked for resources and then summarized them for our colleagues. After we selected the team intervention we would adopt, we realized our implementation would be more complicated than we thought. It was then that we shifted to an action research model, in order to get more systematic feedback and support.

Action research includes a wide variety of approaches and associated methodologies, reflecting different intellectual traditions and philosophies (Reason and Bradbury, 2001; Cassell and Johnson, 2006). It uses collaborative analysis to understand underlying causes and conditions which assist participants in developing strategies for personal and organizational change. Raelin (1999) highlights six distinct action approaches: action research, participatory research, action learning, action science, developmental action inquiry (DAI), and co-operative inquiry. He explains, "Their emphasis is on the interplay between enactment and feedback in real time

with the purpose of developing more valid social knowledge, more effective social action, and greater alignment among self-knowledge, action, and knowledge-of-other" (Raelin, 1999: 113). We adopted the general action research perspective, drawing closely from DAI (Torbert, 1999) and co-operative inquiry (Reason, 1996).

DAI is a process for searching to distinguish patterns and incongruities between an actor's strategy and performance (Torbert and Taylor, 2007). It encourages reflection and inquiry in the moment by integrating three kinds of learning: first-person learning, which attends to subjective inquiry such as autobiographical awareness and knowledge; second-person learning, which focuses on inter-subjective experiences with others; and third-person learning, which is traditional objective knowledge developed through the academic peer-review process (Torbert, 1999). The purpose of DAI is to achieve changes in outcomes, behavior, and vision through continual feedback and realignment (Raelin, 1999). In our case, we were most interested in regular feedback from our colleagues to help surface and, if necessary, challenge our hidden assumptions. Action research distinguishes between espoused theories, which are the beliefs that people claim to hold, and their theories-in-use, which reflect what people actually do. Theories-in-use reflect one's hidden assumptions. Identifying discrepancies between what people say and what they actually do is a major goal of the feedback process.

Another key focus of DAI, like much of the action research tradition, is to foster feedback that promotes more systemic learning. Torbert and colleagues refer to this as double loop feedback (2004: 18). Where single-loop feedback provides information about how to adjust one's actions, much like how a thermometer operates, double-loop feedback provides individuals with data about how one can change his or her strategy or structure beyond specific actions. Our colleagues' inquiries, as detailed in some stories below, highlight the importance of this feedback on our teaching strategies and its impact on our learning and performance in the classroom.

Our larger process followed the four phases of reflection and action from co-operative inquiry (Reason, 1996). In this model of action research, phase one is a reflective phase in which a group forms to explore and define a shared topic. Phase two is an action phase, in which co-researchers discuss and observe their own and others' actions

within the group. In phase three, researchers test ideas in their personal lives, which lead to new personal insights. These ideas are shared with the group in the final reflective stage, when the group reconsiders its original propositions. Based on the shared knowledge, the group may modify, develop, or reframe the original propositions; or reject them and pose new questions. We apply this model as we begin the story of our process in the next section.

### **Our collaboration process**

Phase one of this process began in March 2005, with an initial focus on finding better methods to use teams in our classes. Phases two and three spanned August–November 2005. We selected a specific team approach and developed our individual courses, sharing our experiences and questions with our learning team through e-mail and phone conversations. As trust grew, we shared more personal lessons and fears about the change process and questioned each others' assumptions. We entered the final reflective phase in early 2006 as we prepared a conference presentation on our experience, and again now as we chronicle our first- and second-person experiences for this journal's third-person audience (Torbert and Chandler, 2004).

Jennifer posed the initial framework for the project and brought the team together; it took a year for Joy and Paul to meet in person. From March 2005 to December 2006, we exchanged 111 e-mails (about 61 pages of text): 47% were initiated by Paul, while Jennifer and Joy each initiated about 27%. We held seven conference calls and several face-to-face meetings during a conference in 2006. Our story is based on an analysis of our process over this 22-month period. We next share portions of our story from our separate vantage points.

### **How we began: Jennifer**

Our collaboration grew from our frustrations with team project experiences and our subsequent interest in improving team projects in our classes. Team projects were an important part of our course design, but they often failed to live up to their potential. They were stressful for our students – and sometimes for us too. For example, in my first semester as an assistant professor, one of my strongest students wrote, “Professor – I really like your class, but I beg you, please drop the teams! Not everyone is responsible and I ended up doing so much of the work because I care about my grade and not everyone else did.” I wondered: Was free-riding such a big issue?

The message from this “workhorse” student foreshadowed the negative comments that would eventually appear on my formal student evaluations. The students did not like the course or me, and they were not having any of this team stuff. Teams were the backbone of my course, and they were supposed to work through positive peer pressure. They had worked masterfully for my mentors during my graduate program, so I wondered what I was doing wrong.

I redoubled my efforts to improve my team methods, discussing the challenges I was experiencing with a colleague from graduate school, Joy. She was experiencing similar issues at the University of Michigan – Dearborn. I gave a presentation on the topic at a February 2005 teaching conference and met Paul. He, too, was frustrated that teams tended to focus on task accomplishment (e.g., completion of a project, paper, presentation, etc.) while completely overlooking undesirable group dynamics such as social loafing. We all wanted our teams to move past the typical divide-and-conquer approach in which students work on individual pieces, without collaboration, pasting the pieces together at the end. This approach often led to weaker finished products, and sacrificed some of the learning benefits we knew were possible from working together.

We decided to collaborate as a teacher team to find new approaches to team design; in other words, we launched a team on teams. Through independent research, e-mail exchanges, and conferences calls, we immersed ourselves in the teams literature, searching for the perfect solution. I sought sources primarily in higher education and management, including general management and management education. I found hundreds of sources that related to group process from a range of disciplines such as social psychology and education; a smaller subset specifically addressed student teams in management or business contexts.

We sought articles focusing on the team problems we had experienced, such as free-riding, motivational differences among team members, overcoming students' socialization to individualized learning, students work-life concerns with competing out-of-class-interests, and student conflict avoidance. Most papers focused on specific techniques (i.e., team selection) or broader educational design approaches, for example, Problem-Based Learning (Peterson, 2004) or virtual learning (Bigelow, 1999).

There were classic papers that addressed team difficulties broadly (Fitchner and Davis, 1985) and



some specific issues like free-riding (Kagan, 1994; Brooks and Ammons, 2003), peer evaluation systems (Lundberg and Lundberg, 1992), and team cohesion (Vik, 2001). What kept emerging were contradictory findings in empirical studies, conceptual assertions without empirical evidence, and cycles of confusion for the best path forward.

One example of such contradiction is the advice for selecting team members. Is it best to use faculty-driven criteria such as personality or skills assessments (as in Blowers, 2003); blended models, such as the faculty member choosing team leaders and leaders then choosing team members (as in Bacon *et al.*, 1999); student selection with guidance (also in Bacon *et al.*, 1999); or a social convenience model in which students pick their friends (an approach convenient for both students and teachers)? We were also troubled by empirically grounded findings that challenged the common practice of team training to promote team effectiveness and the use of peer evaluations at the MBA level (Bacon *et al.*, 1999). More upsetting were the findings that individuals learned more alone than in teams (Bacon, 2005). In fact, I initiated an e-mail dialog with Bacon because his empirical research and studies with colleagues appeared to consistently contest our taken-for-granted team practices.

I enjoyed the research and making sense of these findings in our collaboration, which was reminiscent of the shared learning in the good old days of graduate school. However, many of the potential solutions were limited because they focused on single aspects of the problem (i.e., team evaluations, team training, team design). Solutions were not typically part of a larger framework, nor did they address their relationship to other team design or process issues. I fretted that these individual solutions could conflict with each other or create unintended consequences. We wanted a more complete "Total" solution. It was about that time that we learned about TBL theory, a comprehensive instructional design developed to capitalize on the power of learning in groups.

### **Creating our shared path: Joy**

Jennifer and I attended a June 2005 teaching conference where Larry Michaelsen, the author of TBL, had a scheduled session. Because of travel delays he could not attend the session, but I ended up meeting him serendipitously on the van ride back to the airport at the end of the conference. He told me how TBL worked, and that it had been successful in a variety of programs. I asked him

many specific questions about how I might adapt this method in my class. At the airport, he showed me the introductory TBL presentation on his laptop computer.

TBL is "an instructional strategy that is based on procedures for developing high performance learning teams that can dramatically enhance the quality of student learning" (Michaelsen *et al.*, 2004: vii). It has processes for assigning permanent learning teams, determining grade weights for assignments, and sequencing learning activities to promote individual and group accountability. Students prepare course material in advance of class, and for each module the first activity is a "readiness assessment test" (RAT). These tests are completed by individuals and then again as a team, and students are graded for both. If students disagree with the teacher's test answers, they can submit written appeals explaining their rationale and requesting credit. Lecture emphasis is determined by topics students missed on the RATs. Group activities encourage application, culminating in an integrated final project or exam (see Michaelsen *et al.*, 2004 for a complete discussion of the TBL model).

Michaelsen had been developing the method along with Dee Fink for over 20 years, and he was a compelling advocate. I was intrigued by his ideas. The learning progression was intuitively appealing. It made sense that if students read more on their own then I would not have to spend so much time lecturing; the time saved could be used for application and integration. He pointed me to the website on TBL at the University of Oklahoma for more resources (<http://www.ou.edu/idp/teamlearning/>).

I felt fortunate to learn about the method from its author, and I shared my new knowledge with Jennifer. We both ran out to buy the book, and in early August 2005 we decided to adopt the method. We told Paul, and he enthusiastically joined us. His semester began in mid-August, and he was the first of us to deploy the method. His early positive assessment of the TBL method was recorded in our group e-mail, "What I liked best about the TBL strategy is that it encourages/motivates/rewards those that prepare ahead and show ownership for their learning. How this will play out for the remainder of the semester is unknown."

When our search first began, we assumed our team problems were mundane and could be addressed with routine actions and easy pedagogical techniques. TBL could be construed as a "technique," but it was not one that could just be plopped

on top of one's regular routines. Paul was right: it was a big "unknown." It dawned on us that we were committing to a more extensive change that could be confronting and uncomfortable; systematic support was necessary. Starting here, our action research process was born.

**Coaching in action: Paul**

As the term began, we became each other's "TBL 911 hotline" and real-time FAQ resources. Adopting an entirely new (to us) pedagogy into existing courses became less daunting through collaboration. We created a scheme for sharing the risk by sharing our experiences. As one member paved the way and experienced bumps, the others would make adjustments and avoid those potential pitfalls. Here are some typical e-mail exchanges from early in the semester:

*Jen:* Greetings! How's your class going? As I'm furiously prepping for the first class tomorrow I thank you again for the TBL tips email. Now I want to ask you how has the appeals process been going for you so far? As I was typing up the instructions I started to get a little squeamish about the mayhem that I could be unleashing.

*Paul:* On appeals, I demand the following: 1. In writing only; 2. Sound argument based upon text, outside resources, etc.; 3. Credit for "appealer" only – partial credit may be awarded for convincing argument; 4. One week submittal window ... On another note, I'm not yet entirely satisfied with the level of team interaction or depth of thought. I believe I have chosen a first application that is imperfect. Any thoughts or advice on developing more engaging applications for the teams?

\*\*\*\*

*Joy:* Paul, you mentioned that you had varying success with different types of assignments. Have you learned any more about the tricks for making a good assignment or interactive class exercise?

*Paul:* Tricks for good assignments? Lets see ... I'm still working on this. I've found that not only should a good application have significant decision points embedded in it (as Michaelsen advocates), but it should also inspire a degree of creativity. This may be a reflection of how I teach my course and the fact that students here are somewhat starved for opportunities to express themselves. If you are struggling with putting an application together, send it this way and I'll gladly provide my slightly-less novice comments.

The collaboration continued like this throughout the semester. We had surges of communication at the beginning of the Fall semester as we implemented our courses, and again prior to our conference presentation in May 2006. Figure 1 shows the level of e-mail communication over the span of the project.

We shared handouts and resources and offered general encouragement. We discussed the winning techniques, such as the emphasis on student-directed learning achieved by reading materials prior to class; the unexpected twists, such as student collusion during grade-weighting and peer evaluations; and the occasional disappointment, such as retiring some elements of the model early.

Through group conference calls and e-mail dialog, I could vent frustrations that my colleagues gracefully absorbed. For example, in October 2005 I wrote:

We're already at midterms and finishing up our third module. Through each cycle of TBL, my course is improving, but at a cost. In addition to generating my own cases and applications for a team setting, I am also challenged to prepare RATs that are suitable for a team setting. On the individual RATs, I can get away with a multiple-choice quiz from the test bank, but when it comes to the team RATs, I've shifted to a short problem format. While that is better, I still find that I am giving an individual quiz to a team. Now, I must develop applied team RATs that work in the team setting. Man, I never thought team teaching would require so much effort (but hopefully these are mostly start-up costs).

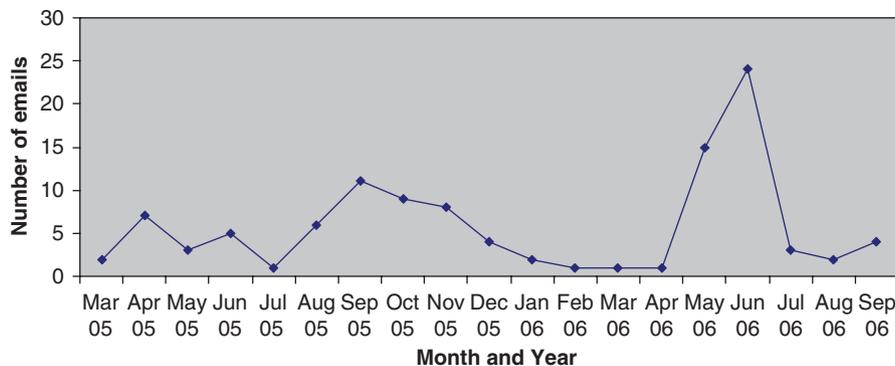


Figure 1 Collaboration activity timeline.



My colleagues listened, but also pressed me with some deeper questions. For example, when I tried idealistically to reframe the purpose of the student teams to be about learning rather than merely task delivery as is typical with most teams, Joy pointed out that such a goal may seem “awfully squishy” from the students’ perspective. Other questions prompted me to reflect on my process, as in the following example from Joy:

Paul, in the middle of the semester you noted that your course was choppy, that students were noticing this, and that you were making amends by weighting the early portion of the class less than the later portion. I’m curious how that eventually played out. Were the students satisfied in the end? We’re you able to “make it right” from their perspective and your own? Also curious about how transparent you were about this being a new process. Couldn’t that show vulnerability to a group of cadets and that you don’t completely know what you are doing?

This and other comments challenged me to reflect on how students actually function in teams, what behaviors TBL really motivates, and my underlying assumptions about teaching and learning. Observing others struggles gave us the opportunity to experience three classrooms simultaneously, and to distinguish problems caused by the method from those caused by personal implementation. Instead of simply espousing the usual palette of platitudes such as “my students are lazy and unmotivated,” we engaged in reflective learning. Ongoing reflection was key.

### Collaborative reflection

Brookfield’s (1995) concept of critically reflective teaching has helped us think about the role of reflection in teacher development. He proposes four separate lenses for reflection, all of which were encouraged by our collaboration. The first lens is one’s *autobiographical perspective*, which is aligned with first-person learning in action inquiry. The next two lenses, *students’ perspectives* and *colleagues’ perspectives*, are aligned with second-person learning. The fourth lens, *theory*, corresponds with third-person learning.

Brookfield describes three kinds of assumptions which shape one’s teaching. The most deeply held assumptions are *paradigmatic assumptions*, which are the structuring axioms one uses to define fundamental categories. Examples are that all learning is experiential or that the purpose of education is to promote democratic participation. Such assumptions are often taken for granted and difficult to confront. *Prescriptive assumptions* address

beliefs about what ought to happen, and are often based on paradigmatic assumptions. For example, if one believes in experiential education, one might also believe that learning exercises are preferable to lectures. *Causal assumptions* address the relationship between teacher and student behaviors, attributing outcomes to teacher’s actions. For example, one might assume that allowing students to select the members of their team leads to greater team cohesion.

Reflection is required to uncover these assumptions, but not all reflection is critical. Reflection becomes “critical” when it focuses on two areas. The first area is the role of power in structuring educational processes, with power stemming from the teacher’s role as well as larger societal categories, that is, “Was power being exercised ethically? What unacknowledged power dynamics were at play, and how were these inhibiting or enhancing people’s learning?” (Brookfield et al., 2006: 831). The second area is hegemonic assumptions, when teachers hold beliefs, shaped by the larger system, that work against their personal long-term interests. Examples are “meeting everyone’s needs” to give students what they want, even when it does not challenge them; reifying one’s teaching evaluations so that the critical comments hold disproportionate weight in determining one’s self-worth as a teacher; and over-reliance on published solutions to one’s teaching problems, which Brookfield calls an epistemic distortion (more on this below). These assumptions are embraced because they are perceived as common sense and desirable, but are in fact working against our best interests, “The dark irony and cruelty of hegemony is that teachers take pride in acting on the very assumptions that work to enslave them” (Brookfield, 1995: 15). In the next sections, we discuss the personal insights we learned in our critical reflection process using terminology from Brookfield’s model of critical reflection.

### Structure matters: Paul

I was interested in learning new pedagogies to enhance my “E-squared” – that is, the *effectiveness* and *efficiency* of my courses. Effectiveness leads to enhanced student learning while efficiency creates economies in the delivery, reducing the effort necessary (by the teacher and not necessarily the student) to learn. I admit this is an engineer-like approach to teaching, but I cannot avoid my prior professional training and experiences of almost 20 years.

I had already been tackling the team problem for a while. When I came to academe in 2003, I designed courses reflecting the format I had experienced as an engineering student: 40+ lectures with the requisite homework, assignments, and exams. My early paradigmatic assumptions about proper course design shifted as I observed the learning outcomes from my disengaged students. I moved to more active learning by introducing case studies and discussion space into the mix, but the result was still unsatisfying. Next I tried a completely problem-based course. Individual assignments that supported the learning objectives were due each meeting, and there were no exams or quizzes. Assessment was based upon students' application of the theories learned and the presentation of results. The grading load created by this rookie mistake was immense, but the learning results were much better.

While preparing the course for the third time, a confluence of events led me to team-based pedagogies. I had many positive experiences working in teams professionally, and with teams I saw tremendous potential to capitalize on the social aspects of learning (effectiveness) and the ability to better manage my workload (efficiency). Also, my school is a military academy. It is critical for the US Coast Guard that our graduates have team competency because so many of our missions are time critical and demand co-ordinated performance.

Looking back on my experience with TBL, many of my insights dealt with structure in the classroom. My teaching was, by design, fairly unstructured because I wanted my students to develop their ability to cope with ambiguity. I knew from my own professional experience that this skill is critical for them, and this paradigmatic assumption guided my behavior. I modeled ambiguity in my classes by not using a textbook, giving minimal instructions, giving assignments allowing flexibility and creativity, and writing exam questions that prompt students to capture and cope with uncertainty.

Our collaborative inquiry prompted me to reconsider this taken-for-granted assumption. Perhaps my undergraduate students at the US Coast Guard Academy were not developmentally ready to cope with the level of ambiguity I was creating. I came to realize that an unstructured approach could be frustrating for students. Perhaps I was being unfair to my students by introducing ambiguity and not giving them enough tools to succeed – raising a potential power issue in my relationship with my students. Given that I am a senior officer and my students are cadets (and we wear our military

rank insignia as a part of our uniforms), a considerable power distance amplifies the typical student–faculty relationship. I have to realize that my students will work hard to accomplish whatever I have set out, even when substantially frustrated beyond their capacity, just because of this power relationship.

I reflected on why change and adaptability are core dimensions of my teaching philosophy, and what the implications are for my teaching. Military officers like me shift assignments and positions (and even career foci) every 3 years or so, moving around the country to new cultures and organizations. We are rewarded for being adaptable and innovative. Adaptability and change can present opportunities for improvement, but they come at a cost and may be counterproductive to my overall goals as a professor. The hegemonic assumption is revealed as I realize that my goal is potentially harmful, and that I may have destabilized the whole learning process by creating a constant state of flux. Perhaps a more measured and systematic approach is called for in my new profession of teaching. At the very least, I must consider how constant change impacts learning and make more conscious decisions about when to change – and when to stay the course.

The TBL pedagogy has provided a new level of structure that was lacking in my prior free-standing courses. My students liked the structure – to a point. They accepted the prescriptions of TBL, including instructor-formed teams, frequent quizzes, and in-class application assignments. But they seemed to get fatigued by the repetition and demanded occasional changes in the format. I decided that my next iteration of this course would have flexibility built in through the progression of the semester and also a variety of options to accommodate different levels of proficiency in the subject of statistical literacy.

This experiment led me to reflect on my paradigmatic assumptions about my role as a teacher. I entered the collaboration with the assumption that my role was to develop students into self-motivated life-long learners. I now see this assumption is overly simplistic and idealistic. Students are not monolithic; they follow some sort of distribution. A one-size-fits-all approach to education cannot fully succeed.

#### **Whole narratives: Joy**

We launched our classes and anticipated results. One of my paradigmatic assumptions is that



change is good, and that it is important to change teaching methods from time to time to keep engaged. I relished the challenge, working to find adequate team assignments to complete the TBL learning cycle for each module. I overcame my resistance to multiple-choice questions and made friends with the Scantron<sup>®</sup> machine, cautiously accepting it as a useful tool. This small change was the first of several that required me to reconsider my role as a teacher.

The emotional support of my colleagues was helpful for getting through the rough spots. For example, I had a problem with my grade-weighting exercise, in which two students tried to “hijack” the process to put 45% of the course grade-weighting on peer evaluation, so that team members could collude to get high grades. About half the class vocally agreed with the idea; the other half was deeply offended and accused the first half of being lazy. The session ended without a resolution. In a panic, I e-mailed my colleagues immediately after class to complain and ask for advice. Paul coached me:

Seems like there's a serious split on how to grade. Did the non-slacker half merely roll over on the negotiation? At any rate, it doesn't sound like you have consensus. I would be hesitant in inserting myself by requiring weights. I found that when my grade weighting exercise ran into a second day, the negotiations were much more focused and serious because the less vocal had an opportunity to think. If you'd like, I can provide you some consensus building techniques from the world of expert judgment elicitation (think Delphi method, etc.).

Paul's comments show that his grade-weighting exercise was not resolved in a single session either, and he explicitly recommended not intervening, but I was not reassured. Instead I perceived this as a failure of the method. I was mad. Reclaiming teacher power, the next week I announced the grade weights. I surfaced a prescriptive assumption about the teacher–student relationship in a note to my colleagues:

I am confident I will resolve this particular situation [with the grade weighting]. However I wish I hadn't used this exercise because I feel a loss of innocence, a naïveté. I like to operate on the assumption that students want to learn and that I am serving some higher goal of improving their lives. This exercise showed the naked instrumental underside of the whole teaching endeavor. They want to get easy grades. I know where each student fell on this debate, so now my view of about half the students is tainted. I'm insulted by their attitude, and yet I'm the one who gave them the option/power to offend me this way – so I don't really have a right to be offended when it's my own fault.

This episode caused some dissonance about my self-image as a teacher because it exposed a misalignment between my espoused theory and my theory-in-action (Argyris *et al.*, 1985). I believed that “enlightened” teachers were innovative, open to new ideas, and adaptable. Correspondingly, staying in one's comfort zone for too long would inevitably lead to stale and unimaginative teaching. I wanted to model enlightenment in my willingness to embrace change, but when the going got tough I reverted to the comforts of teacher power. I was disappointed in myself, fretting that I was falling behind Jennifer and Paul. Was I going to be the weakest link?

Michaelsen offers comprehensive directions for the TBL method, which make adoption straightforward. However, some of the suggestions require a major shift in mindset. For me, a big challenge was giving up a lecture format. What would I do with all that liberated time?

As it turned out, I need not have worried because there was less free time than I expected. It took time for the teams to do the quizzes, for me to go over the answers they missed, and to field arguments about the answers. My students were very good at pointing out weak or unclear multiple-choice questions, raising their issues in a lively whole class debate instead of the formal petitions proscribed by the TBL process. Eventually, arguing for points became a weekly game, and I started to feel like the target. This was the same instrumental quest for points that had so peeved me in the grade-weighting exercise. Ha! Teacher power has its privileges, and I used them (again): I put a stop to the whole class debate and began enforcing the formal written petition process. Externally, the problem was handled, but inside I was noticing a patterned reliance on power that was unsettling. Critical reflection was working as intended.

The RAT process encouraged tactical coverage of course materials based on students' test performance, instead of the usual linear progression of a lecture. However, I found it difficult to explain a discrete concept without establishing a shared foundation. I wrote, “It seemed like there were a lot of wrong answers, and it didn't feel right trying to address them surgically (i.e., without more of a framework). I couldn't be sure we had the same framework, so my comments about the individual question felt like they were disappearing into a vacuum.” I ended up covering many of my slides and “lecturing” anyway to establish the necessary context.



I realized that my lectures rely on a guiding narrative, and each topic has a story with a beginning, middle, and end. My performance relied on well-rehearsed and sequential stories. My new non-linear lectures felt disorganized, and students noticed it too. At the end of the semester, I received lower evaluation scores than normal on “preparation/organization of lectures,” “presentation clear,” and “course objectives clear.” Ironically, I received *higher* evaluation scores on “quantity learned” and “this class increased my interest in the subject area.” Perhaps the importance of clarity and good organization are overrated.

The absence-of-lecture format also revealed my hegemonic assumption about the importance of my lectures for student learning. I wrote to my colleagues, “I also feel like I’m shirking some of my duties to teach by asking students to read it themselves in the book. This is a self-serving concern based on the assumption that my lecture is somehow magic in comparison to reading it.” Raelin (2006) advises teachers to remove themselves from the center of the learning, but I still found myself drawn towards center stage and notions of charisma. This worked against my best interests because it created high performance expectations, using “performance” here in the true dramatic sense. As Raelin suggests, it also works against the students’ interests by making them more passive and dependent on me as the center of learning. “Performance” is a big piece of my teaching style and it had worked well for me, so I was not ready to completely give it up. Still, increased awareness was helpful as I began contemplating how to shift to more student-centered practices.

### **The dark and the bright of TBL: Jennifer**

Students like groups and teams for various reasons, some in alignment with faculty desires and others more dubious. Socializing was very important to my extremely homogeneous 19–22-year-old student population. Teams and TBL in particular fostered social interaction, as students literally made friends in my class and developed alternative social networks. At a time when many undergraduates face new social hierarchies, increased stress to perform academically, and peer pressure to “play the field” and drink silly amounts of alcohol, the significance of these classroom-based social networks cannot be underestimated.

As organizational behavior teachers, we know the downsides of cohesion. Some teams had problem

members that they were unwilling to confront. The desire for conformity and conflict avoidance outweighed their equity concerns. For instance, early in the semester, teams might put absent team members’ names on assignments even though they were not present for either the in-class activity or the off-line write ups. Some teams would pull along their underperforming members, punishing them at the end with low peer evaluation scores. Peer evaluations were compiled anonymously at the team level, so students never had to directly confront their slacker teammates with critical feedback. Depending on the severity of the punishment, an individual’s grade could drop an entire grade, and the feedback was too late to change the offending student’s behavior.

The original dilemma that had spurred my quest for better team solutions was free-riding. TBL helped resolve this dilemma, but raised other ethical issues. I wanted student teams to be responsible for giving each other feedback; this was a prescriptive assumption about what ought to happen in a classroom. As I saw problems with this feedback process, I began to wonder if my undergraduate students were emotionally, conceptually, and developmentally prepared to give each other valid and useful feedback. I questioned my role in providing “supervision.” Specifically, should I intervene and change peer evaluations when the majority of a team sinks one team member?

I also wondered if team members’ perception of shirking had more to do with insider/outsider group dynamics, because on occasion wayward students have shared with me that they were not informed about meeting locations or times. This often led to a downward spiral of trust between team members, as well as disenfranchisement for the outsider. I considered my role as the authority figure requiring the assignment, and wondered if it was a fair use of power. With TBL’s privileging of teams and the group discussion format, I have become sensitive to learners who may be disenfranchised in this methodology. Clearly, no pedagogical design can serve all learning styles, but I continue to ask myself the following questions: What kind of learning reality am I socially constructing for my students by using this method? Who benefits? Who loses?

Despite my reservations with the TBL, I have continued using portions of the TBL method for the last five semesters in my introductory classes, albeit in modified form. I use the team formation process, individual and team quizzes (RATs), and



meaningful group projects. I adapted the group grade-weighting element by setting minimum and maximum ranges for the individual, group, and participation categories. I extended the negotiation period for grade weights over several class periods to permit introverted students to formulate their voices, and I asked someone to play devil's advocate against whatever position is most strongly advocated (having learned from Joy's experiences). These two moves would likely be considered overly meddlesome by the TBL founders, but they partially address my concerns about equity and fairness. In informal comments and formal course evaluations, most of my students have spoken positively about their team experiences. Curiously, many of the students who initially resist teams applaud the experience at the end of the term, and those who strongly advocated for a high team weighting on grades acknowledge the numerous challenges in making teams work well.

My implementation has improved over the past 2 years as I have gained confidence, something I partially attribute to our collaborative team. I suspect many established faculty have created similar networks of colleagues to investigate a topic. Having a network external to one's home institution provides a safe place to try new ideas, share frustrations, and openly discuss mistakes and fears.

### The search for the Holy Grail

Our initial search focused on process and technique, but our quest evolved to include questions of philosophy and teacher identity. We each brought unique strengths to the collaboration process. Paul's background in engineering and operations gave him a different framework than that of Jennifer and Joy, with backgrounds in management and organizational behavior. He was good at visualizing systems and processes, as demonstrated in handouts and spreadsheets, which he frequently shared. Jennifer's strength was in seeking and synthesizing cross-disciplinary research. Joy's strength was writing and integrating the pieces.

We had similar personalities as conceptual big thinkers, intuitive thinkers on the Myers Briggs Type Inventory. Our whole inquiry of looking for a theoretical and conceptual "Holy Grail" of teams, as well as our analysis of what it all means for us as a team, is consistent with our personality type. We also note, with the benefit of hindsight, that our search for the Holy Grail is consistent with the "epistemic distortions" (Mezirow, 1990; Brookfield,

1995) that happen at earlier stages of adult development. These distortions involve people's beliefs about the nature and use of knowledge. According to Kitchener and King's (1981) model of reflective judgment, one's views about what is known and knowable, changes with one's level of development. At the earlier stages, people look for the one right answer and rely on external sources of authority – believing that "every problem has a correct solution if we could only find the right expert" (Mezirow, 1990: 15). This accurately describes us looking for our team answer. At later developmental stages, people realize that the truth is constructed and provisional, with no "right" answer. Our individual change efforts, combined with collaborative inquiry, which revealed our blind spots, helped us take a step toward this later developmental stage. As Jennifer writes:

Student teams like all pedagogical practices have trade-offs. I now feel less obsessed with finding and implementing the "perfect" solution. Comprehensive solutions have downsides, just like the more tactical single-technique solutions. Single-technique solutions tend to address specific issues without consideration of how different solutions interact. In contrast comprehensive solutions such as TBL dictate a complete strategy that consumes nearly every aspect of instructional design, leaving limited opportunity for me to place my fingerprint on the course. Over time these necessary constraints on the learning environment have supported a more cohesive way to deploy student teams, and yet it chafes at the edges of my own ideas about teaching and learning.

We may aim to correct epistemic distortions, but some distortion is inescapable. Valuable insight comes from identifying and contextualizing our distortions so that we may compensate for them (Roth, 1990). Awareness is always the first step.

TBL is a good process and offers many advantages. Based on a well-developed and structured paradigm, the book and related resources gave us a systematic way of integrating teams in our classes. It created a different type of learning community in the classroom, with students learning from each other. Also, by providing a dramatic contrast to our regular teaching practices, it made us more mindful of our habitual methods. We respect the approach and acknowledge that it contributed significantly to our development. We greatly admire the complete body of research we read on our quest, and our teaching is all the better for the experience. However, we now realize that the process is not the "Right Answer" – because there is no *right* answer. Instead we see TBL as a piece of a multidimensional



solution to teams, an element which can be adapted to craft a more personalized approach.

### Practicing what we preach

Teams are increasingly important for organizations. According to a 2007 survey by the National Association of Colleges and Employers, recruiters list teamwork as one of the most highly sought skills (NACE, 2007: 9). We know our students need teamwork skills to succeed in the modern workplace (Chen *et al.*, 2004). We ask them to work in teams, be reflective, and push themselves outside their comfort zones. We believe we should not ask our students to do something we are unwilling to do ourselves, so it only seems right that we, too, challenge ourselves.

Teaching is still largely a private endeavor, based on the paradigmatic assumption of academic freedom. It can be isolating, especially for junior faculty (Massy and Wilger, 1994). Admittedly, discussing our teaching issues and “problems” can make us feel vulnerable (Shulman, 1993; Norman *et al.*, 2006). This makes us silent among the very colleagues who could help us solve our problems. Referring to this as the “privatization” of teaching, Palmer (1997: 1) reminds us that:

By privatizing teaching, we make it next to impossible for the academy to become more adept at its teaching mission. The growth of any skill depends heavily on honest dialogue among those who are doing it. Some of us grow by private trial and error, but our willingness to try and fail is severely limited when we are not supported by a community that encourages such risks.

Action research emphasizes the importance of personal reflection and feedback from others to

achieve personal transformation (Schön, 1983; Torbert, 1991). Similarly, Brookfield (1995) advocates the importance of both for becoming a critically reflective teacher. Building on these scholars and our personal experience, we advocate for both reflexivity and collaboration to help build the “teaching commons” (Huber and Hutchings, 2005): specifically, teacher collaboration following a systematic process on problems that are personally relevant and engaging, with ongoing reflection and feedback from trusted colleagues. Institutions can help by encouraging and rewarding collaboration, and providing structures to promote cross-disciplinary and even cross-institutional collaboration. Mostly, we faculty members need to remember that our colleagues are a potential source of support, allow time in our busy lives for shared dialog with trusted colleagues, and overcome our fears of sharing teaching problems.

We “practiced what we preach” by working in a team and consciously becoming learners. We placed ourselves voluntarily in this learning experiment to improve our teaching practice and experience personal growth. We could have continued with our prior course formats and saved ourselves the discomfort of learning something new, but we stepped up to the challenge because we believe that we are co-learners with our students. While we did not explicitly discuss our collaboration with our students, they were both audience and participants in our learning process. As our experiences increase, we can easily forget what it feels like to be a beginner. Sharing the uncertainty our students face and moving outside our comfort zone in our team process helped us remember.

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