LESSONS FROM
THE LEARNING CLASSROOM

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This article describes all experience I had as a new professor the first year after receiving my Ph.D. An experiment with an innovative teaching method quickly deteriorated into a disaster 77ti.s article describes the emotional loll exuded on me, why my experiment failed, and how it prompted me to develop a personal philosophy of principle-based teaching.

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During the fall semester of a I -year appointment at a prestigious regional graduate business school (my first job after receiving my Ph.D.), I enjoyed a high degree of success. My teaching ratings were high, I was well liked by my colleagues, and students seemed to respond well to me.

In the spring, I taught a 7-week organizational design course (MGT44I). At the beginning of the module, I was excited and confident. At the end, I was exhausted and confused. This article describes what happened in between.

Warning Signs

A few things bothered me about being assigned this course, though I really had not taken the time to consider them until it was actually time to pre-pare for the class. First, I was somewhat concerned that this subject was not

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my bailiwick. However, I had taught five different classes as a Ph.D. student and felt confident that I could do a good job on this one as well. My philosophy, such as it was at that time, was that if' prepared as well as I could, made class fun, and engaged my students, I would do a good job.

Second, in my initial interview for the position, the previous professor in charge of organizational design had intimated that this was not a favorite course among MBA students.

> It's highly theoretical—very hard to give them enough "take aways" And that is really what these students are here for. They want a box full of tools that they can take out and use to perform well in their jobs. Honestly, they can be pretty hard on a new professor if they detect even the tiniest hit of ivory-tower thinking.

Third, one colleague had told me only half-jokingly that it ranked somewhere in the vicinity of poison ivy in popularity among the management faculty. Student ratings of the course tended to be low, and few professors wanted to take it on.

Researching Organizational Design

Undaunted, or perhaps just blissfully ignorant, I began to prepare for the module. My doctoral notes seemed a good place to start. Remembering one of my prof^{e}ssor'^{s} admonitions that one cannot truly understand ideas with-out understanding their historical origin (G. D. Meyer, personal communication, 1993), I retraced the progress of early management thought with a keen eye toward design.

After reviewing my notes, I felt little more prepared to teach than when I started. It seemed there were plenty of design options available to firms, hut very little optimism about their capacity for dealing with rapidly changing business environments. As I read other materials, I realized that the real issue of organizational design was not the particular form acquired by the organization, but rather the process by which organization members analyzed their work and adapted structures to accomplish those ends. Drucker (1974) had been right 25 years earlier—there was no particular best form for all organizations, but the optimal design hinged on the work to be done at a particular time. No particular design was likely to work well in situations where circumstances change rapidly (Drucker, 1974).

Continuing my research into more recent work, I studied the learning organization. The learning organization was purported to he an answer to the

limitations of other structures. In fact, it is not really a structure at all. The defining characteristic of learning organizations is their ability to rearrange themselves as needs dictate. Organization members examine their own processes and essentially arrange themselves around projects (Senge, 1990). Would this work in a classroom? Could I create a learning classroom'?

I wanted to go deeper than the traditional classroom. I wanted to send them away with a new skill—the skill of examining the organizations of which they would he members and designing them as needs dictated. In a blinding flash of the obvious, I hit on the class theme. I wanted my students to be able to deal effectively with change itself, not with information about which organizational form to apply. Now, how could I do that'?

Help From Above

Although I knew I had hit on the basic theme of the class, many particular questions remained. I remembered that Rich Headley (fictitious name), whose office was clown the hall, was a noted scholar on organizational theory. He was in his office when I knocked. I told him I would like to get some advice on the upcoming organizational design class. I expressed to him my concern that the real problem facing organizations is their ability to adapt and change on short notice and that any advice I give them on specific structures would he hopelessly outdated by the time they get to use it. I wanted them to know about developing a learning organization.

I explained that I would like to set the class up such that they have to examine their own learning processes. I knew it was important to give them some specific content, and I explained that I had eight topic areas chosen. I had also decided to have them work in teams. However, really. I wanted to get them to improve on the traditional classroom model we rely on. It seemed to me, I told Headley, that if they can learn to improve learning in this organization. the classroom, they can also apply it to the organizations for which they work later. Rich's response really set the one for what was to become my grand experiment:

> I have a colleague in another state who tried something that might work for you. He has his students work in teams, as you plan to do. But he also has them form a second set of teams by taking a member from each of the original tcamm. Their job is to analyze and provide feedback for the original teams. Spe-cifically, they arc to help the original teams perform better by observing how they do their work—in short, how they learn.

My **Vision for the Class**

To capture the essence of the learning organization, I had to send my students deeper into the issue of dealing with the ever-increasing degree and pace of change they would inevitably encounter as they acquired jobs. Even if I could teach them how to apply certain design solutions to certain organizational problems, it would not help them when a new issue arose.

I was assuming a lot, but at the time all of my assumptions seemed reasonable. First, 1 assumed that once I explained how important this was, they would embrace my ideas for a new, and hopefully fun, learning environment. Second, t assumed that bright and capable students would certainly be able to examine themselves in this fashion.

Third, I assumed that I was capable of pulling this off. I had never been afraid to try new things in the classroom, though I had never done anything quite this radical before. I had certainly had problems in classes before, but I had never had one completely explode on me. I should he able to handle. anything that arose.

Now, what to have them analyze? I had briefly considered the case approach, but looking at other organizations did not seem as though it would do the job. It did not seem to me that it would elicit the depth of self-examination I was looking for. I decided that the unifying theme would he to design the optimal organizational design class. I would set up a basic classroom structure, and they would design the rest. The students would take the initiative and capitalize on learning opportunities as they arose.

The High-Tech Solution

I liked the idea in principle, but mused to myself that they sure do get a belly full of teamwork around here. I was asking them not only to deal with a regular class team, but process teams as well. How that would go over with students was a real concern. One problem was simply the time constraints of MBA students. It had proven to be extremely difficult to get them together physically for any kind of group meetings, and they often seemed to resent being asked to do so much of their work in teams.

One thing that had impressed me at this university was how advanced technological support was for the faculty and for MBA students. The business school had an outstanding support staff, and every classroom was wired for computer presentations. Given that the students were likely to get jobs in

companies employing the latest communication and data technologies, I felt obliged to integrate it into this class. Using technology might also overcome some of the problems associated with work in teams.

My goal was to let the technology support the structure I had in mind. It was not designed to be a lesson in technology, though clearly we were all going to learn to use these new tools together. I thought that the technology would open up the gates of communication and let their natural curiosity and inventiveness emerge.

After giving some thought to the resources I had available, I decided that two elements of technology lent themselves to this class. The first was an online discussion forum. Students could post comments, questions, and suggestions to each other online. I felt that this would give less vocal students in the class a medium for their opinions. I hoped this would serve as an invitation to all students to participate in learning, not just the ones who tended to speak up in class. It was also designed to get students to examine alternative ways of discussing ideas in corporate environments where face-to-face meetings were not always possible.

The second was a cluster of Web sites. Because the Graduate School of Business provided a Web site to each MBA student, I thought I could make good use of this technology as well. For one thing, each content team could post the real meat of their subject areas in a readily accessible format. In addition, the process teams could weigh in instantaneously with feedback about how to improve classroom learning.

The more I thought about it, the more I began to believe that using the available technology would give students the chance to structure communication and learning in myriad ways. Although I had some apprehensions about my own lack of experience with Web sites and discussion threads, I reasoned that this was a critical part of the lesson that I was trying to teach. No one really understood yet how the information technology explosion was going to affect the classroom or the firm. My discomfort was probably a pre-amble to my students' discomfort. We would all dive in and learn this together.

The design of my class was set. Students were going to drive the learning experience. I had given them a basic structure for organizational design content in the form of teams devoted to various topics. But more important, I had given them something new and different--process teams to examine how learning actually takes place in a class. We had the technology to make it happen. I was ready to go.

The First Day

I was excited. I had worked hard during the last few weeks and felt that I was about to do something special—something that would make the subject of organizational design come alive for my students and give them something practical and useful.

Three days before class, I had posted the class syllabus on the class Web site and notified students via e-mail. Although I had heard through the grape-vine that some students were shocked at the amount of work expected, I attributed that to the usual premodule gossip. One thing did seem odd, how-ever. One week before the first day, enrollment for the class was near the limit of 50 students. After I distributed the syllabus, total enrollment had fallen by at least 10 students. Had I scared them that badly?

I looked around the classroom, a three-tier configuration designed mainly for case teaching. It was not quite full.! recognized some of my students from the fall course on leadership and groups and started small talk with them. As the last students filed in, l looked across the room. I welcomed them all and began to set out my expectations for the class:

> We are going to do things a bit differently this module. We are going to build a learning classroom. Right now, you may not know what that phrase means in its entirety. You will, but more importantly, you are going to experience what it means over the next 7 weeks.

I passed out a hard copy of the syllabus and gave the students a chance to review it for a few minutes before asking for questions. Because most had seen it before on the class Web site, it took. only a few minutes to do so. Then I launched into what I hoped would be an exciting introduction to this new course.

> Today E want to paint for you a picture of what I have in mind for our course. Every effective organization has a core purpose. Ours is to create a superbly effective learning organization by engaging all members of MGT441 into the creation, distribution, and mastery of organizational design knowledge.
>
> Each of you will be a member of two different teams. The first team is the content team. Each content team is responsible for gathering, distributing, and presenting material for a particular topic. The presentation will include posting to our class Web site materials relevant to the topic and an oral presentation during class time. The second team is the process team. Each process team will contain one member of each of the content teams. These teams will observe and record the methods used by content teams and provide suggestions for improving the learning processes of individuals, teams, and the class as a whole.

Reaction to the introduction was minimal at first. I was not sure whether that was because everyone understood what I wanted or because they did not care. Then, one student spoke up.

>I have to tell you. This is not what I pictured for this class. It looks like a continuation of our first course here. If this is just another leadership and groups course, I am going to be very upset.

From the rear of the class, another student added:

>I just don't understand this. How many teams are there? How do they work together'? This syllabus is very confusing.

I fielded these and other questions. Most of the questions centered on the uncertainty they felt about this unique approach. At the end of the first class, I left feeling that I had allayed some of the class's fears, but that some students were still not convinced of the value of the course or my method of running it. On the way hack to the office, I started thinking of ways to get the message across better.] wondered if I had been clear enough, whether my expectations

were too high, and whether this was really such a good idea after all. A

Glimmer of Hope

The next three sessions seemed to go better. I had the class analyze a case involving a manufacturing company. The company was experiencing tensions between two sides of a factory. Each side had been set up with a different authority structure, different policies, and the culture of each was wildly different. The class responded well to the case. They seemed to be able to identify the key issues, gain some insight into underlying causes, and provide fairly cogent recommendations. Things appeared to be going well.

In the meantime, I encouraged students to contribute to the online discussion thread. I reminded them that they had now been instructed in the mechanics of the thread and that 25% of their grades hinged on class participation, of which a significant portion was their contribution to the online discussion. At first, posts were tentative, some only going so far as to confirm that the technology really was working and that indeed their classmates could "hear" them. Few offered substantive comments about the class itself. After a few days, though, I noticed a change in the tone of the contributions.

The first change was an admission on the part of some students that they still did not understand what the class was all about. They could not seem to

grasp the concept of examining their own learning. The following contributions were representative of students in this category:

1. Even after 2 weeks, I still am not sure what I have learned yet or even what I am supposed to learn.
2. Process teams lack clear guidelines to help them structure their efforts.
3. What about ditching the idea of process teams completely?

It was encouraging to note that though most posts were negative, there was another camp arguing that they thought it valuable to examine the class **processes:**

> I think that we need to think about ways to improve class discussions, the transfer of information between classmates, etc. I think this is a good idea because I) it's fun to think about improving processes and 2) constructive feedback usually results in noticeable improvements.

I decided that the negative feedback on process teams was significant. I still thought they were a good idea but wondered which was more important, retaining a good idea or making good my claim that the class was going to mostly design itself. I decided to take one of the suggestions offered on the discussion thread:

> What about ditching the idea of formal process teams completely? The 25% of the grade now linked to process team performance would be an individual-level score. That way, class members could contribute insights as they go along. If some group of students thinks that getting together to discuss what is going on in other groups is valuable, they could put up an ad hoc group post.

As the date for the first content team's presentation grew near, I thought about my focus on the process of learning in the class and wondered if content might suffer as a result. My fears were allayed somewhat when I opened the class discussion thread to find the following post by one of the students.

> Our mutual goal is to discover the best approach for an organizational design course. Thanks to everyone who has given me suggestions for constructing a graphical representation of our class. I have used these to come up with a graphic. At the bottom of this e-mail, I have provided you with the PowerPoint file so that you can design your own version. Enjoy:
>
> I envision our class consisting of five levels:

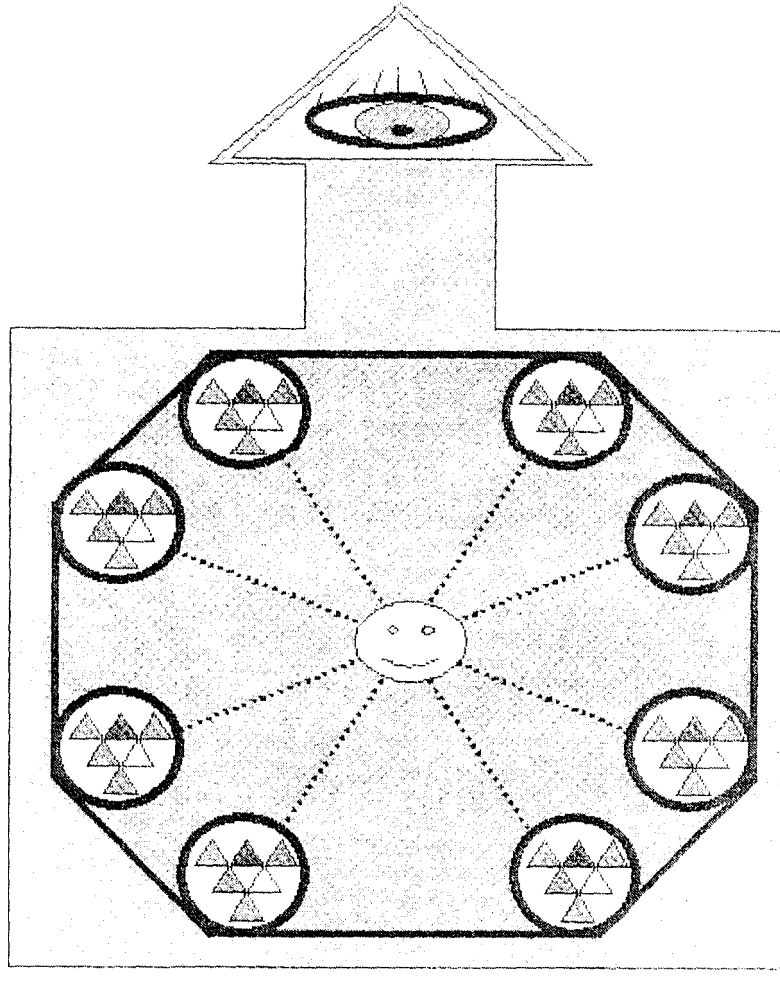- Individual students
- Content teams

Figure 1:   Student Submission for Class Design

- Everyone in the class, except Raman
- Raman, the Webmaster
- The "Eye of Wayne"

   I have represented our class goal (discovering the best approach for an orga-
nizational design course) as an upward pointing arrow. By pointing toward the
heavens, this arrow represents the necessity of continuous class improvement

under the watchful "Eye of Noel" symbolic of Professor Noel's benevolent direction of this course. This arrow emerges from a box that contains our class at each of its remaining levels (here the arrow takes on further significance as the ability to "think outside the box"). Individuals with different ideas and values are symbolized by the colors of the rainbow—these individuals come together as content teams, and a communication network (maintained by the Webmaster) serves as another means by which ideas are shared. The class structure in the form of a donut has metamorphasized into that of a wheel (much like my last meal at Krispy Kreme). After drawing this new graphical representation of our class, I couldn't help but notice its similarity to some or the cluster organizational diagrams. I invite your comments about cluster organizations to the earlier discussion thread that I started. I look forward to reading your comments there, too. Thanks.

I was ecstatic. This is what I had hoped for. The class was taking initiative on both elements—process and content. They were thinking, by golly. They had been given a lot of freedom, a little guidance, and had started to analyze not only design issues, but the process of learning in general. I felt proud. The phrase "no guts; no glory" came to mind as I leaned back in my chair. My teaching had just taken a gigantic leap forward.

Trouble in Paradise

The thread discussion on the first topic, power and decision making, was particularly good. Admittedly, it was a sexy topic. Students started an energetic thread exchange on power sources and power differentials between professors and students. The discussion ranged from the fundamental (How much do student evaluations really affect a professor's career?) to the more esoteric (How does the postmodern view of power differ from the traditional view?). Other than some complaints about it being a bit too philosophical for a business class, I was pleased and thought class participation through the thread was picking up.

Class discussion at this early stage also seemed to he going well, but not up to the standards of the discussion thread. The first presentation team had been solid, although not awe inspiring. They had delineated the sources of power in organizations and had done a good job of linking theories of power to actionable tips for getting things done. Other topics, though somewhat less provocative than power, were presented similarly and generated similar online discussion threads. Only one or two really stood out as different or exciting. They pretty much all followed the same pattern: recount the major literature on a subject, show some computer-generated slides, and maybe do a class exercise. Somehow, I had expected more creativity.

Also troublesome was the lack of higher level thinking. After the first really insightful posts, there seemed to be little indication of serious thought about improving learning. I had specifically asked that they develop new and better ways for the class as a whole to learn. This should have included discussions about how each topic area related to others.

Moreover, the discussion thread was beginning to deteriorate. Students were becoming frustrated at the volume of information being transferred. Opinions differed as to what constituted a high-quality contribution, and some students had dropped out of the discussion altogether. The following post summed it all up:

> This discussion thread is in response to the cluttering and overload of information that we are experiencing on the Web discussion. With so many worthless threads, I find that I waste my time sifting through stupid postings!

The student's solution was to have me monitor (effectively, censor) the thread!

I mulled over how to handle this problem. The simplest solution would he to impose my will on the class and monitor the thread myself. Of course, that violated the core tenet of my approach to this class, and I immediately discarded that alternative. Then it dawned on me that this would be a grand opportunity to get the class to look at itself and come up with a solution. I composed this post:

> Some of you have been noting that the discussion thread has become a source of information overload. Quite right. So how would a business organization employ this type of tool successfully? Hint for whole class: Look at the "View" drop-down menu in your MGT441 folder. Play with the sorting, grouping, and viewing tools. Now, come up with concrete suggestions for both senders and receivers of messages that will improve communication through this method.

I hoped this would prompt the students to examine how to solve this problem on their own. Their response was half-hearted. Most suggestions revolved around having someone (me) monitor the discussion. Two weeks after the previous post, I asked the class if they had explored ways to manage the flow of information. A few had, but most people were quite content to either slog through everything or only scan a few messages. The students had failed to deal effectively with even this simple design problem.

For example, one student had been criticized for the sheer volume of his contributions. Although everyone admitted they were humorous, most found them too long and too frequent. However, no one had bothered to notice that the software the class was using allowed each person to reject messages from

any particular sender. Students were very good at seeing organizational problems in a written case, and perhaps even in other actual organizations. However, they were absolutely incapable of solving the same kinds of problems in their own class.

The cluster of Web sites was not faring much better. I had envisioned it as a way to provoke thought about how each topic area related to others. A few attempts were made to do that, but mostly each content team posted its own material, providing few links between themes. Near the end of the module, it became clear that the students were making shallow connections and posting few links.

My spirits were plummeting. What had started as a grand idea was becoming a never-ending source of frustration. I wondered what was missing. Where had the class gone astray? After spending the better part of an after-noon fretting over the progress of the class, I comforted myself with the knowledge that they had yet to make their final class-as-a-whole presentation. Maybe, just maybe, they would pull it all together by then.

The Final Presentation

No one took the initiative for getting started on the final presentation. They knew from countless examples in other classes the value of stepping up and taking charge, yet they seemed paralyzed. Had they not learned to get things started before the last minute? Finally, 5 days before the presentation, one student got up in class, reminded everyone that 25% of their grades were dependent on the presentation, and offered to coordinate the preparation as well as liaise with the teleconference director.

I had solicited the help of one of my colleagues to provide feedback to me and to the students. He would be therein person to ask questions and provide feedback. Students filed in to the. room and were seated. I made a brief introduction of my colleague, Lance Fielding (fictitious name), and then asked (hem to begin.

The presenters, one from each topic area, were lined up on the front row of the room. Within minutes, my hopes for an 11th hour save were dashed. The presentation was boring and lifeless. One person was speaking right after the other, and they were communicating separate blocks of ideas. There was virtually no integration of the material. I wondered where I had gone wrong.

In addition, the students were highly critical *of* the class and *of my* performance in particular. The most common comment was the lack of leadership in the whole module. They felt that a radical approach had been taken to the class, and that to change a company's (or a business school's) culture, a clear

vision had to be articulated by a leader. That leader, they thought, should have been the professor. They made it clear that they had failed to become a learning organization, and they mostly blamed me.

A few articulate suggestions did emerge. One called for centering the class on a simulation or an extended case instead of the class itself.

I think the class would he much improved if it were designed around one singular company facing a number of organization design issues and operational problems. This company would be the same company we would deal with throughout the entire 7 weeks. In small groups, our goal would he to create solutions to the different issues this one company was facing.

Suddenly, it lilt me. If I were to take the suggestions for changing the class that were being offered, it would look exactly like the traditional MBA class—exactly like what I was trying to avoid. If I were to take this suggestion, my students could avoid the pain of self-examination. They would be thinking about someone else's business problems, not their own. Similar to a
one-legged duck, we had swum full circle and were back right where we started. I began to feel that I had failed completely. I asked a few questions of
each presenter, but my heart was not really in it. Mostly, I wanted it all to be over.

Comments From a **Colleague**

Fielding arose to ask his questions. His opening remarks stunned me:

How many of you realize what a great opportunity Dr. Noel has given you this module? I have listened for nearly an hour to bright, articulate students complain that their professor did not do this, did not do that, and so on and so forth. I want to know what *you* did at each of these incidents where you complained. What action did *you* take to find out what to do? To come up with creative solutions? "lb give the class alternatives when you saw things wrong? One of the first things that will happen to you when you get your first big job is that your boss is going to ask you to initiate a project, handle a crisis, or solve it major problem. He or she will not give you directions. Hell, you may not even know exactly what the problem is, and you will have to define it. Are you going to go hack to the boss for clarification every time you face an ambiguous situation or arc you going to take the initiative to define it yourself? Your career will depend on the answer to that question.

Students remained silent as Fielding sat down. I looked up, a bit disoriented from all the conflicting thoughts running through my head. I thanked

the students for their participation and dismissed them. I began to wonder if I was blaming myself too much for the failure of the class. On the other hand, it was my class. Was it not my responsibility to ensure that the students learned?

Student Evaluations

This was a day that I would long remember. I was accustomed to high student ratings. There were always those one or two students in my classes that questioned my teaching methods or disliked me personally. But overall, I felt I came across as a competent, caring professional. As I opened this package of responses, though, I felt weak.

It was virtually unanimous. My organizational design students thought the class was rotten. Almost to a person, they complained. Page after page was an energetic denouncement of me as a professor. Some said they wanted their money hack. All were bitterly disappointed.

I groaned. I felt myself sink into the office chair and let my head fall back. I felt tired—very tired. It was almost time to leave this school for a tenure-t^{r}ack position elsewhere. I was glad. After doing such a solid job in the fall, I had now failed miserably. The fact that these ratings would have little effect on my career was of little comfort. It bothered me tremendously. I knew I would have to figure out what had happened, but not right now. I shut down my computer, locked the door, and started for the parking lot.

So What Went Wrong?

Since this experience, I have had many friends and colleagues smile knowingly as 1 describe it to them. Almost universally, professors who have had more than a couple of years of teaching experience have had a classroom disaster (Daft, 1995). They also acknowledge how difficult and painful it is to remember, much less talk about such experiences (Kraft, 2000). Although they may differ considerably in specific content, they almost always have a common theme—the professors were trying something new, and the students did not respond as anticipated.

I was looking for two new things from my students. First, I wanted them to reflect on themselves as an organization. Second, I wanted them to take responsibility for learning when questions arose instead of looking to me for answers. Neither of those things happened. They simply *could* not, or would not, embrace a more self-directed approach to learning. Rarely did they

really question whether the methods they were using were effective. Even less frequently did they explore ways to improve those methods. Late in the module, one student captured this phenomenon eloquently:

> I have a great example of how we have failed to be a learning organization. I've checked with several fellow students, and I've determined that I'm not the only person who would have derived great value out of having copies of each group's presentations available in a downloadable format so that I could take notes on them, assuming that we'd all have something of value to add to the hare hones of a PowerPoint presentation. Some interesting observations for you:
>
> - Despite repeated comments on the subject during class, only one group learned from this and offered their presentations in a format we could easily print out for take aways.
> - Group 6 (my group) was the only group to do so; even after offering to show subsequent groups how to do it, none sought us out.
> - Interesting enough, the last group, Learning Organizations, did not have a presentation available for download but at least offered something for viewing ... except I kept getting an error message when I went to it.
>   In summary, we """". Or we just don't give a *** . Which is sad (sic).

Even the simplest suggestion by a fellow student for a change in process seemed to stymie them. Yet this was the real lesson I wanted them to get. It was as if they were clueless about how to change, they knew how but were too stubborn to do so, or there was some taboo against it embedded deep in the classroom culture. For sometime after the class ended, I was angry with them for being stupid and obstinate. I realize now that the design of the class itself had uncovered much deeper issues in trying to get students to become more involved in their learning.

Power, Social Dynamics, and What I Did Not Know

For one thing, power is not a commodity. It cannot be traded or given as a gift. I thought that by just giving the students power over the class, they would immediately begin to use that newfound power to build the classroom of their dreams. Why did they not do that?

First, they likely did not really believe me. I may have said that things would be different, but why should they accept that at face value? Why would they think I would not punish them for failing to live up to the. MBA standards that they already understood? Like it or not, 1 had a tremendous amount of power over them. I could seriously affect their CPAs. I could refuse to write recommendations. I could talk them down to other professors. In short, I sim-

ply could not change, at least not in the short term, the power arrangements in that class. I was king.

My misunderstanding of this basic fact caused me to fail to see how my students may actually have felt about the class. They were probably confused and probably did not trust me. Learning, in their minds, may have been a peripheral concern anyway, much less a rigorous self-examination of how they learned. At times, it seemed to me that the unspoken rule was: Please the professor, get the grade, and then get the job. My putting the onus on them to learn did not inspire them; rather, it messed up the system. For all its obvious faults, that system was predictable. Add to that the fact that the course had a reputation of being esoteric and ivory tower, and you have a distinctly inhospitable setting to try the kind of experiment I tried.

The social dynamics of the class reflected that my students still considered me the power center. The dynamics did not change nearly as much as I thought they had. Even though I tried to give students more voice, I was still the center of the communications hub in that class.

For example, one electronic post during the first 2 weeks asked, "What does the professor really expect here?" Another student wanted specific guidelines for analyzing how learning was occurring in the content groups, saying, "We just don't see how they could be of any use" Most of the time communications among the students seemed to focus on what they were sup-posed to do. It seemed as if class discussion (live or electronic) was done largely for my benefit, not to engage in any kind of real group learning.

However, the fatal flaw in my class was the assumption that my students knew how to construct knowledge from those experiences. They did not. The classroom experiences I intended to be fodder for thought were essentially meaningless to them. They had no idea how to take them and discern how they might inform their future managerial decisions. Other classes at this institution used participatory methods to be sure, and some required self-reflection. To my knowledge, though, none required a deep analysis of the learning process itself. However, my answer to the traditional classroom, as I perceived it, was "you figure it out yourself." I had leapt gracefully from the frying pan into the fire.

Months later I was reading in a completely different subject area and stumbled on an important insight on the subject of teaching methods. A quote from Richard Feynman (1995), one of the brightest theoretical physicists of the last century and a legendary teacher, made me realize why my approach did not work: "First figure out why you want the students to learn the subject and what you want them to know, and the method will result more or less by common sense" (p. xviii).

When what Feynman was saying really sank in, MGT44I made sense to me, and I knew why I had failed.

I did not know what / wanted them to learn.

Principle-Based Teaching

I knew why I wanted them to learn. I wanted them to be better managers. The "what" part was more elusive. I wanted them to know what others had to say about organizational design, but I also wanted them to learn to think on their own, to be able to solve new problems.

I told myself that I needed to teach them to think through design problems themselves. In reality, I had not mastered the subject I was teaching. On some level, I hoped they would come up with something useful. The problem was that I did not really know what that was going to be. On top of that shaky foundation, I was proposing to teach them how to learn themselves. I did not really know what that meant, either.

As a result of my experience, I have developed what I call "principle-based" teaching. I never plan a class without thinking hack to Feynman's admonition. Principle-based teaching means first deciding what the lesson really is. I force myself to state (to myself) what I want my students to under-stand before I plan how to teach a particular subject.

For example, I want my current students to know how to take a set of facts and create projected cash flows for a new business. (Now I mostly teach entrepreneurship.) I want them to be able to tell whether that business is viable and suggest ways to remedy problems. The method I have developed follows from the things I want them to know.

I do not just tell them how to do it, however. I let them discover the logic behind the cash flow statement. For example, if projections show a negative cash balance at any point, it generally means they are undercapitalized. I could tell them that, but it seems to sink in better when they look at the cash balance and realize they would be bouncing checks. Rather than give them a list of rules, I get them to understand that tracking the flow of cash in a new venture allows them to do something very practical and down to earth: not bounce checks.

The second part of Feynman's rule is that the method is determined by the material to he presented. I agree that it is usually pretty straightforward to decide how to deliver content when you know what it is. However, to this I have added another component. I teach the students how the fact I am relating was discovered or the principle I am teaching was formulated. I want my stu-

dents to understand where the facts and rules we teach come from and also be capable of reasoning through and distilling down the vast array of concrete experiences they will have to formulate new rules, new insights.

In the case of spreadsheets, I lead them through a process of identifying why cash flow is important. That part is usually easy. I tell them something that is obvious to everyone. If a business spends more money than it makes, it eventually goes out of business. Then I give them a set of facts about a fictitious business and have them construct "some kind of document" that shows "how money flows in this business."

At first, they are lost. After some prompting, though, they usually come up with something that resembles a spreadsheet. I then ask a series of more specific questions. "How much money does this business have left at the end of the year? Do any expenses seem excessive to you?" Then I suggest to them how to order things. "Put your revenues first. That way you can easily subtract your expenses. Separate expenses into direct and indirect categories. Then you can tell how much each unit of production actually contributes toward your overhead"

The important thing is that in the end, they have a series of rules that can be applied to almost any new business. They know why cash flow is important and how to think cash-flow issues through. If they forget the specific rules, they can regenerate them. Hopefully, they have not only learned how to generate financial statements but also a little about how to teach themselves.

To teach this way, I have to provide much more support than I did in my design class. It failed to sink in on me then just how different my expectations of them were from the norm. I should not have expected them to know how to be self-reflective in this way without a lot of coaching and support (Kolb, Rubin, & McIntyre, 1984). Teaching this way is harder—much harder. Because most students seem to have trouble taking experience and developing useful principles from it, I now have to guide them through that process. Such an approach would have saved me some of the anguish of my earlier experience.

For example, I could have done the same thing with such problems as the discussion thread overload in MGT44I . Instead of assuming they could figure this out themselves, I could have guided them toward the answer by suggesting that they estimate time spent on the thread by the average student, the percentage of posts that were really worthwhile, and then guided them through a communications analysis. This would have accomplished two things. They probably would have solved the immediate problem, and they would have had a very useful tool to use to think through any number of organizational communications problems.

So, you see, the problem was not that I tried something new. It was that I took the path of least resistance. It was my responsibility to enter that classroom confident that I knew something—something I could convey with conviction—something they could use. From the moment I despaired of having anything like that to con^{v}ey to them, I had lost the battle.

Laziness fills the gap created by this kind of despair. Educators often advocate accepting that we have little if anything to learn from the past—new knowledge is the only kind that counts (Ford, 1994). However, the classroom is not the place to create knowledge. The answer is not having the students construct knowledge. It is to guide them on the path toward correct knowledge as best we know it now and to show them how to acquire new knowledge at the same time.

This is a tremendous responsibility. I do not always get it right. I still try new things. I fail frequently. However, I never try a new teaching method without first deciding what it is I want the students to learn. I never ask them to do my job.

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