

CASE STUDY 7
LET'S SHAKE TO THAT!



Case Characteristics

This is the first case where the professor (M) got involved in the process for a personal (P) reason: “to leave it to posterity,” in his own words (see Table 12). As a full professor (FP), he had substantial time available (4) and he met with me face-to-face at first, and then we collaborated asynchronously. Given the relatively high level of collaboration, I estimated our meetings at 8+. This was likely because he was on sabbatical leave for a year and the design of his course was a priority for him. He had not yet set a start-up date for the course (3). These latter elements created conditions that were optimal for course design. Finally, his previous course outline included a fair number of GOs and SOs, an excellent jumping-off point for redesigning his course.

Table 12: Characteristics of the subject matter expert

Gender	Rank	Reason	Time	Availability	No. of sessions	K/ Design	K/ DE	GO/ SO
M	FP	P	3	4	8	1	1	3

Gender: male

Profile: A = career advancement (16+)

Reason: P = personal

Time-to-delivery: 3 = over 4 months

Availability: 4 = more than 46 hours

Number of sessions = 8

Knowledge of Design: 1 = low level

Knowledge of DE:

1 = has never offered distance courses

General Obj. /Specific Obj.:

3 = GOs + SO (SO - limited number)

I had a discussion with the Instructional Development Coordinator (IDC) assigned to this course to explain my reasoning in terms of when (as in later) he should become involved in the current project. He informed me that the project leader had insisted on his being present at the first meeting. I said I would speak to the project leader on the matter. He said that he too would speak to the project leader. The tension was palpable. I did speak with “*el jefe*,” giving him my reasons for not wanting the IDCs present during initial meetings with professors (i.e. their presence tended to distract the professor and impede the natural flow of the design process by focusing on the latter steps in the design process). He said he

agreed with me and that the IDCs would be told to wait until the design began to emerge before getting involved in development.

This was where I felt, yet again, just how limited the instructional designer's (ID) authority was in this whole process. If the ID is truly the project "architect," then the IDC or "foreman" wouldn't dare challenge his working method. But, in our case, the project leader (who would likely be the "homeowner") tends to treat the ID as he would one of the tradesmen, like the electrician. So, as ID, my reaction is basically knee-jerk: I am gradually withdrawing my commitment to the project. But, just as the homeowner is not an architect, the project leader is not a design specialist. In our case, he is an administrator without any training in education, even less in design. It is starting to dawn on me that, throughout the process, from one course project to the next, the number of obstacles and downright hassles I have been encountering is increasing exponentially, namely interference by administrators and "subordinates" (here I mean the IDCs). I am beginning to get fed up. How will all this end?

Before our first meeting, I had asked the professor, as I normally do, to send me a copy of his course outline. That would be our starting point. However, contrary to my usual practice, I had not given him the website address where my tutorials on congruency and method were posted. Instead, I decided to present them to him and discuss them with him at our first meeting, since we had the luxury of time.

Session 1: At our first session, I introduced myself, described my role in the design process and told the professor that I had received his syllabus. I recalled the goals of his course and showed that I had grasped the essentials. Next, I simply asked him to talk to me about his course, how it fit within the program, etc. Thus the "global analysis" stage began. He explained that his course was the first one that the students were to take in their program. He told me they have French-language courses as well as other courses of their choosing, i.e. fundamental first-year courses. However, since they needed professional pre-requisites to be accepted into this program, the first weeks of the course focussed on a review of the requisite skills, to ensure an appropriate level of preparation for each student.

We looked at the course outline together. It was a vertical course outline, quite typical, divided into four parts:

- Course content (approximately a half-page), containing brief descriptions of the main content to be “learned” in the course;
- Assessment (about a quarter page), where the types of assignments were identified as well as the respective assessment levels that were required of students;
- Course materials section (about another quarter-page), containing a bibliography (he did not specify which of the books or articles were compulsory reading);
- Attendance (a half-page), where he clarified faculty policy on student absences from class, consequences, etc.

He had never broken down or divided up his content or objectives into weekly segments of the course, preferring instead to let himself be guided each year by the “level” of his students. When I ask him if the course objectives varied from year to year as a consequence, he said that, indeed, they did. In fact, he said he had never written down his objectives, since he felt they were implicit. He went on to explain that he tended to allude to them as his students gradually advanced through his course. It is at this point that I offered to show him the Horizontal Course Syllabus Model (HCSM) that I had used with previous faculty members who were also redesigning their courses. He agreed and during the next 90 minutes, I presented the Congruency Principle and ID Method tutorials interactively as well as the HCSM. Throughout, I answered his questions spontaneously. At the end of the presentations, I mentioned websites he could visit to review them in part or in total.

We continued with a summary analysis of the program’s other course syllabi, and especially the next level course to his. Since the same professor also taught the next course, I observed that there was not a lot of overlap in his two courses. However, it was hard to be sure, given the fragmentary nature of his syllabi (as well as those of his colleagues).

Our session ended with a discussion about writing instructional objectives in order to have at least one general objective (GO) for each week of classes, ideally with a number of specific objectives (SOs). He agreed to take time to formulate his general objectives and to insert them

into his syllabus. For instance, we began looking at themes that would be addressed during the second week of his course (the first week was focused on presenting his syllabus and on technical-logistical questions). We discussed his didactic intentions for Week 2 in general terms and, together, we wrote down a general objective (GO) that summarized what he intended to achieve that week with his students. Afterwards, we identified a few specific objectives (SOs) that naturally stemmed from the GO. We parted company with his intention of starting to identify his GOs for each week of his course. I provided him with a copy of Richard Prigent's *Charting your Course*, a book on course design with a great section on writing objectives.

By and large, I liked Richard Prigent's book very much, even if I did not agree with him on the matter of GO identification. He states that general objectives are to be written from the professor's point of view. I maintain that, on the contrary, all course objectives, whether general or specific, must target the student's acquisition of knowledge and, as a consequence, must be written from their point of view. I believe that Bloom (1984) supports this position since, when he speaks about levels of cognition, he focuses exclusively on the learner's acquisition of knowledge, comprehension, etc., but he certainly never mentions the professor's levels of cognition...

Session 2: The professor admits that he had difficulty continuing the objectives-writing assignment. He had formulated three general objectives for weeks 3, 4 and 5 of the course, but had not written any specific objectives.

His GOs include what I consider, as mentioned above, an error in objective-writing; that is, GOs are too often faculty-centered. I have relied on the following UNESCO-based resource and I encourage faculty to do so: <http://tinyurl.com/6f99up> (since the URL was too long, I used the www.tinyurl.com site to abbreviate it, thereby avoiding the danger of a broken link).

We discussed his GOs and rewrote them so that they were student-focused. We continued rewriting his GOs from one week to the next. As we advanced, the professor realized that he must decide on which themes and content he intends to cover each week. Since he had never done this

kind of breakdown before, he found the task quite difficult. There was frequent moving back and forth and to and fro between weeks, setting aside certain themes and moving others up in the syllabus. In some cases, we discarded some of them because there were simply too many to develop into learning activities. I reminded him that instructional design was an iterative process, and that nothing was absolute or definitive in what we were doing at this moment. I reassured him that we would be constantly moving things around as we worked. As the identification of his general objectives tied in nicely with a more precise definition of his content, the professor seemed pleased with our progress. But, he also seemed to tire of writing objectives and wanted to complete content identification so as to begin designing assignments, because this aspect of his course was under-developed. Consequently, we continued to work on his content.

He usually provided resource materials to his students that were part of a compilation he photocopied for them every term. They were centered on “learning objects” (Wiley, 2002) that students were to read, analyze and then interpret in their own way. The very first objects included a demonstration model with examples of how to read and how to analyze samples. The course’s ultimate goal was for the student to produce his or her own learning objects, as a result of studying the examples provided.

I use the term “object” because we are not dealing with text. In the context of this case study, I consider the term to be sufficient in describing the nature of the resource material. Naming it specifically might identify the professor, which could be detrimental to the confidentiality I have guaranteed to all the professors taking part in this study.

Since these objects include a coded language that the students must master, the very first models provided by the professor are designed in such a way that he is able to ascertain whether or not the students already know the language (indeed, they should know it, given the program’s pre-requisites). These first “object-models” become, as a consequence, a sort of review for the students and the subsequent object-models progressively become part of new language elements that will raise his students’ technical competency levels. Because the professor had mastered the language with ease and depth, it got to a point where I had

to remind him that, as an ID, I was a novice in his field, and could not follow along. We needed to focus on *how* he was to transmit content so that the students could achieve the course objectives, rather than on *what* he was presenting. The conversation swung back to a more didactic level and we carried on, examining the type of assignment that he wanted to develop for his students.

I then shared with him the individual assignment and team assignment concepts. He admitted that all of his exercises up until now were destined for individual students, and that he had never thought of having them done in teams. I told him about the socio-constructivist approach in education, about the importance of working in teams, and he agreed to think about whether he might be able to write team assignments.

Although his collection of teaching objects was well put together and, for all intents and purposes, complete, I noticed that his method for doing exercises in class would need serious transformation before delivery via distance education. Normally, he presented an object-model and then produced another of similar type on a blackboard, asking his students to quickly read, describe and analyze it. Students then were required to submit their individual sheets (detached from their workbooks) at the end of the class. The professor would then correct them and return them to the students at the beginning of the next class. He wondered how he could maintain his pedagogical practice while teaching an online course.

Seeing that this type of task could likely be supported by software and that there was probably already a program out there to assist students in completing this kind of task, I asked him if he knew of anything suitable. He said he had never thought of it but that he would conduct an online search to see what was currently on the market. I told him that the IDC in charge of his course could also help him with his research. I explained further that his students could likely carry out this kind of work in a virtual classroom (by using real-time or synchronous mode technology) but it could just as well be done in asynchronous mode, outside of the classroom, either individually or in teams. That concerned him because someone other than the student registered for his course might complete the assignment. We discussed ways to prevent “cheating.” I asked if there was only one way to read or analyze one of his objects and he replied that there were in fact hundreds of ways of doing so. I then asked if his students usually produced assignments that were exactly alike. Again, he

said no, he had never seen exact copies; each student usually emphasized one element over another, etc. I then queried him on why this concerned him so, given that it had not been a problem. He recognized that he was probably just a little nervous about teaching at a distance. He concluded by saying that if indeed, some students did turn in identical copies, he would simply warn them about it. He then said that, after talking things out, he was satisfied with the approach we were developing and we finished the session on a positive note. Before leaving, I invited him to go back to writing his specific objectives (SO) for the subsequent course weeks to complete this part of the horizontal course syllabus. He agreed to try again.

Session 3: The professor informed me that he felt the *in extenso* development of his specific objectives constituted an investment in time that he was simply not prepared to make. He arrived at this conclusion thinking it would be best, in his case, to invest his time in creating objects and in developing his Individual and Team Assignments. Incidentally, he explained that the instructions he was going to give to his students at the start of each IA and TA would have clear and implicit objectives; that they would be part of the guidelines provided. I decided I would not insist. So we left SO writing for the moment and pursued our thoughts on creating IAs and TAs.

He announced that a software program actually existed that not only allowed his students to complete the tasks he wanted done, but that an instructor-version of the software also existed to help him create, edit and export his course materials. He tried a demo version and found it to satisfy his needs perfectly. Plus, the student software price was very affordable, not much more expensive than mass-market software, and his students would be able to continue using it in their second course next term. By ordering this software in bulk, there would be 15 percent off for his students. He gave me a demonstration and we were thrilled with this good news.

Since the implementation of this software pretty well changed everything in the course, we went back to the Week 2 IA and we started to rework it, importing new subject material and saving it in proprietary software format. It was easier to do than we had expected, because the software wholly integrated with the objects he had already developed

via an import sub-program. Also, this software was able to copy-paste any textual annotation he wanted right over the object. We imported his first object template, added instructions and left enough space for the student to reply. The whole thing only took a few minutes.

Encouraged by this progress, we then started work on the Team Assignments (TAs). The professor explained that, up until now, he had always expected the students to do everything by themselves. He was finding that, when the students worked in teams, they had the habit of relying on one particular team-member and taking advantage of his or her work. This would always end up with varying levels of conflict within the teams, something he wanted to avoid. Consequently, we discussed the possibility of having them simply work in pairs.

According to Lee and Allen (2001), working in pairs is very effective in improving the quality of student learning. According to their study, this method is even more effective than working in teams.

The idea took root and the professor began reflecting on an appropriate type of exercise. I suggested an intermediate-level assessment between assignments, focusing on individual work to be completed by the students, with the synthesis to be done during the plenary sessions. I suggested an assignment that would leverage work already completed individually, such as peer evaluation. Once the student had completed the Individual Assignment (IA), he or she would send it to the professor and then share it with his or her peer. The TA could include a main activity, such as evaluating each other's IA and writing a critique of the other's work to highlight the strengths and weaknesses of the completed assignment. This sort of evaluation would be appropriate in this kind of course since the professor was especially targeting critical thinking for the students. (He had actually been wondering just how he could encourage critical thinking in this class.) So, I suggested that the student, upon reading his partner's critique, would also have a part of the Team Assignment to complete. He would react to the critique, justifying why he had chosen to answer the way he did, while also having the option of correcting his IA. The Team Assignment would then be sent off to the professor. We both agreed that this type of TA added significantly to the level of learning for his students working in dyads. As a consequence, we decided to continue

writing his TAs using this model. The professor committed to continuing importing his objects into the software format and to creating the IAs and TAs for the next two weeks.

Session 4: We had now established a functional working protocol. He imported objects into the software format, he wrote out the IAs and TAs and we reviewed them together. He had decided, since our last session, to attribute points in his course exclusively to the Individual Assignment and Team Assignment output by his students.

Next, we decided to talk about the plenary session process. He told me that, now that his students would be completing the greater part of their work outside of the classroom, he wondered what was going to do in class. In fact, he was laughing as he saying this because this was the first time he had ever faced a problem like this; before thinking about teaching at a distance, there had never been enough time to answer all of his students' questions. He spent all of his time teaching in a professorial lecture format. He now understood that he had never really had enough time to be concerned with his whether or not his students were actually learning. He said that he was always too busy making sure he was "covering" all of his material. He went on to say that he was satisfied with the design process to date, that he was more and more aware of the importance of having students fully prepare for class by completing the assignments we were designing for them so that, when they come into class, they have already completed the preliminary work and have good questions to ask. He also said that he had been in the habit of presenting them everything "on a silver platter." Now he was happy to assume a more indirect role, being less directorial and proactive and letting his students assume responsibility for their own learning.

This professor's realization confirmed my working hypothesis which I'm sure I share with a lot of other online educators, i.e. the best method of learning, whether online or not, is when the student assumes responsibility for his own intellectual effort and where the professor guides, helps, stimulates, etc. It would therefore be important that the professor, after having provided all of the tools required to complete a task/assignment, not interfere directly in the content-learner relationship. Indeed, it is up to the individual learner to create his own working relationship (or dialogue)

with the course content (learner-content dialogue), hearkening back to positions held by Wedemeyer (1979), Holmberg (1983) and Moore (1993). As a result, the student is in a stronger position, cognitively, to interact with his peers (learner-learner dialogue) and, subsequently, with his professor (learner-faculty dialogue). The learning triangle “content-learner-faculty” (Moore, 1993; Shale, 2002) is thereby balanced, allowing the learner to have recourse to various forms of support and supervision adapted to his learning needs and his own specific level of autonomy.

We now directed our discussion to the plenary session process. Based on decisions we had already made, his class resembled, schematically speaking, an hourglass (see Figure 7 below). For starters, he would review concepts seen during the preceding week, focussing on the weekly Individual Assignment but more specifically the Team Assignment, highlighting commonalities and differences in the work submitted, explaining mistakes made or particular difficulties encountered by the students. He would ask and answer questions and summarize the course content presented during the week. This discussion of work accomplished would then lead to a “link-up” with work to come the following week. At this critical junction, he would clearly explain the linkage between what they had been doing and what was now expected of them during the week to come. His double goal here was firstly, to provide students with an overview of what they would be studying and secondly, to stimulate their motivation and on-task perseverance levels. In between weekly classes, the students would complete their assignments individually and with peers (team) and prepare themselves for the next plenary session.

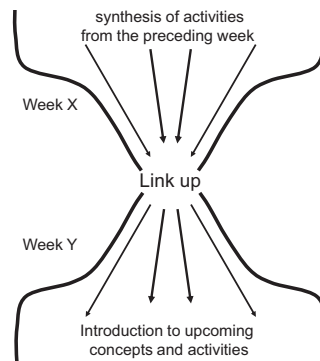


Figure 7: 'Hourglass' plenary session

The professor said he was pleased with his course's progress. Its new format was much more interactive than the original, and was, without a doubt, a better course. He told me he was especially satisfied with the way the plenary session would be delivered as he found it more organized and systematic than before. He also thought that his students would really appreciate this approach and he was looking forward to implementing it.

Subsequent sessions: The next sessions we undertook were asynchronous, mostly composed of exchanging documents with either my feedback or his, followed by didactic material references to be completed by the IDC. The prime reason for working asynchronously was that the professor was on sabbatical and out of the country for 6 months. From the moment he left, he continued to send me his IAs and TAs. I sometimes suggested reworking parts of them, but essentially the course was designed and would remain in this state until the next cycle of continuous improvement got underway.

Ex Post Facto Interview

On online courses: "It's too soon to tell where things are going. I think it looks promising but there is still a lot to do, a lot of technical things. I think there are still a lot of students who do not read the documents before class. It's not worse than before...there always will be some who don't."

On students: "For the better students, no problem. I think they like it... they can do it themselves...take this type of course] so it works well for those students, but I have quite a few who are completely lost. I don't think it's because the course is given electronically – they would be lost anyway because it's beyond their grasp – in their case, online learning does not help. It's a lack of preparation on their part. My first-year students are a very diverse group. I try to bring them all up to standard, but some of them have a long way to go. They're obviously all individual cases. One student is afraid of computers. She has never touched a computer in her whole life and is very dependent on her professors, on the course itself... in a case like that, any student would be lost. I get the impression that for those who want to dive right in, it's better for them, everything is there, and it's all well organized."

On plenary sessions: “No major change here, no time-saving... maybe I am the one who should change. Those who work well, who do their work, succeed very well. They are very good students. Some of them got 100 per cent on their exam. [...] I have three groups but the [Bell] curve is not like it used to be. There are a group of really good students, and then there is a group of really bad students. The results are polarized.”

On teams: “I’ve been having problems with teams, but for different reasons. The stronger members of a team find that working in teams is a waste of time since the weaker members don’t contribute much...they let the stronger ones lead. So I dissolved the teams and asked the students to reform them as they wished, and to just keep me in the loop. Some teams subsequently divided up the work instead of doing the activities all together. It seems they did not share results... they only divided up the work. But in the better teams, the work was undoubtedly done together and the stronger members learned the most because they had to explain the subject to the others. Therefore, with teams, I’m never sure what the outcome will be.”

On weekly assignments: “While some are working, others go home on weekends, so they have problems reaching each other, etc. Even with dyads, it’s no better. Keeping things balanced is hard. At the start of the course, I alternate between individual assignments and team assignments, but as we move forward, the workload increases and they have to do both individual and team assignments. Practice is very important in this course. It is not only cerebral; they must also acquire skills. They have to train themselves. And we, as professors, must train them so that they learn to work regularly and systematically. If they don’t develop a method, they will not succeed. The theoretical parts are less demanding. They can get behind sometimes, but as for practice, consistency is extremely important.”

On media-based courses: “I noticed that there are those who really want to work to their maximum potential. The online course allows them to work at their own pace. Everything is there for those who want it, but for the others, there isn’t much you can do. If they don’t want to work, they just don’t want to.”

On changes in the professor's workload: "It takes me twice as long to do my corrections. I print out the assignments, correct them and enter the corrections on the computer and then resend the assignments. Automatic correction is not viable because, in my field, there are simply too many subjective elements to correct. There is no one right answer. The accuracy of the answer depends on the manner in which it is presented. I might provide them with an answer key, which would shorten part of the correction work, but then, I don't want my answer keys circulating in emails. In class, I project the students' assignments, hide their name on the screen and review them."

On new subject: "During the plenary session, since they almost always have two types of exercises to do each week, I either emphasize one or the other. There is not enough time to go over everything. In order to get everything done that I want done, I must see them twice a week. When offered the chance to practice in the lab when I am there, they don't show up...they practice on the computers."

On multimedia and computers: "I am always learning. I thought of offering them the possibility of reach me online, outside of class times, but I haven't done that yet. Five out of fifteen of my students have bought the software to use at home, while others work in the lab. Some students appreciate this but most of them don't care much for technology."

On course sequencing: "I'm realizing that twelve weeks of subject matter is too much. If I miss a class, which often happens, I lose a week. If there is something I have learned through all this, it is to go through the syllabus in detail on a weekly basis, which I really like. There is no more guess work. I know where I'm going and I know where I'm at, [I know] what I haven't done yet... everything is planned. (...). There is a certain rigidity to it all, but I really like that everything is set up in advance... such and such a subject, such and such a week...from A to Z, no improvisation. But on the other hand, there's a lack of flexibility. I can't play catch-up. I do not want to skip over anything. The only way I have found is to reduce the activities to twelve weeks, with one free week."

On course planning: “In terms of planning, I certainly save time. Everything is planned. I study the material ahead of time. I check to see if the technical team has done its work, if everything is posted on my website, but I note that there are a lot of things to redo. When I work with the software... everything is fine, but some pictures are too large. On the other hand, if I try to reduce them [in size], things get blurred. So those that have been reduced need to be re-done to improve the quality. Now I put the pictures up myself, which reduces the support team’s workload. In this way, I am satisfied with the quality.”

On online tools: “I still haven’t tried using screen-sharing software (SSS), nor the live platform. I would like to try to see if I would benefit. This could replace a plenary session in the classroom. And also, with SSS, I would like to see my students at work, see what they do to complete their work. Just like in a lab. Each student performs the experiment and the professor supervises. (...). I have not tried this yet, but plan to soon. At the end of the year, I want to try it. I wonder if, do I want to use on-line tools to replace the SP or for labs? I would really like to do the labs, work on individualization, but I don’t have enough time. I want them to do more hands-on work. Time goes so quickly that we end up with lots of things unfinished. I would like them to make mistakes, start over and figures things out on their own. I would be there to help, to correct, but also to let them try to do it themselves. But, if I make time for this, I can’t do everything else. Perhaps run some sequences that the students could view on-line, some case-studies, to see if they can go through the exercise, while they are hearing the professor comment on the student’s technique. It could be a kind of on-line exercise, an added resource for the students who wish to use it...we could set up in advance and they could access it at any time. Then I could go into more detail.”

On students: “They make so many mistakes. They invent things! The weaker students, for example, cannot distinguish between what’s important and what is not. They depend on the instructor. Others can’t grasp the way I present my subject matter. Some are afraid of computers, some refuse to even try. So, it’s the multimedia aspect that separates them from the others. In other words, multimedia separates them from

what they learn, which, in the past, was taught in a classroom in the traditional way. Must we cater to their needs or simply cast them aside?”

On moderating plenary sessions: “I am up-to-date in my course. No surprises there. My course is flowing relatively well. (Did you record what you said during your sessions?) No, I didn’t think about recording my plenary session explanations... I could have put them on a site with visuals. This is giving me ideas but I am not quite there yet. It is true that I could add my comments to my learning objects...that would be an added resource for my students, especially when accompanied by a film or an animation. Otherwise, I have lots of other projects that are incredibly time-consuming.”

On current projects: “I find the whole thing very interesting. It’s all new, I love it! And it doesn’t seem to bother students that I can always be reached. We move on, we improve; but the course will never be stand-alone; I will always be present. Quite simply put, the student wins out. The difference with a text book is that the resources [we’ve produced] are closer to reality. They can read and hear them whereas with a book, you can only read about it [the subject matter]. With multimedia, continuous learning can occur any time, even at home. It’s about flexibility. And resources are more complete, closer to reality. A book is abstract, distant... multimedia reaches the senses. And there is diversity—it adapts to many different learning styles.”

On the impact on the professor’s workload: “It’s more work, but this doesn’t bother me. Corrections just take more time... (How do you shorten correction time?) That’s the question. Automatic correction is difficult in my field. A justified interpretation is the norm and can vary a lot. Right now, downloading homework can take an incredible amount of time at home if one does not have high-speed internet connection. Especially since I always have students who are late handing in assignments...[it’s usually] whenever they get around to it. Computers and humans are complicated.”