



Mary Holcomb is a second-time LINKS user in the MBA concentration course in logistics and supply chain management at the University of Tennessee.

You tried an interesting approach this past semester. Will you explain what you did?



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We had a lot of fun doing an “experiment” this semester and I have to give Randy (Chapman) credit for this. I did the Train the Trainer again this summer because I wanted to make sure that I was up-to-date on changes that were made to the simulation. I also decided to use the middle version of the simulation rather than the Extended Version that I used last year. During the Train-The-Trainer Seminar, Randy and I had an offline conversation about some of the things that concerned me about assessing individual participation and performance in a team environment. In a team not all the people are contributing equally. It’s rare to have a team where that’s the case. So Randy said “we

might want to try something. Have you ever thought about at some point during the simulation of turning the firms which consist of four students into individual firms?” I really liked this idea, and we had to think through it rationally, because it does require more work for the instructor. After further consideration I decided that I really would like to try this experiment.

The simulation is set up for the students to begin in Month 4 after three rounds of computer-generated decisions. From this point, we completed nine decisions through month 12. Based on Randy’s advice, I decided that at month eight the teams of four per firm would cease to exist, and the remaining four decision would be individual firms. We went from two industries and 11 firms to 42 individual firms for decision months 9 through 12.

The students didn’t know this was going to happen, right?

No they didn’t. There was a whole range of emotions I could see and some of which were expressed. Some of the students that felt they were carrying more than their fair share of the work load thought that it was a good thing to do. For those students who hadn’t adequately prepared the change was one of those “Oh, No!” kinds of moments and you could see it on their faces. There were also some students in between that said , “OK, I can do this. It’s going to be a bit more work, but I’ve been through several rounds and I’ve been involved with most of the decisions so I can carry on from here.”

Was this mainly to simulate what happens in the real world?”

I wanted to be able to do individual assessments relative to their learning. The simulation is a great representation of the real world and the complexity of processes and activities in a supply chain. The students have to consider multiple and related decisions at various levels in the supply chain. We don’t have many ways of getting that type of experience for our students if we don’t do a simulation like LINKS. In a team an individual’s participation varies as you have people who are willing to do more and some that are willing to do less. I wanted to make sure that everybody was motivated and required to get to a deep level of understanding and learning.

How do you feel that it worked out?

I think it was fabulous. It created a lot more work on the administrative side for Randy and the pricing will need to change if we use this approach. I would love to do this again. When I compared the team results to the individual results at the end it was quite interesting. Many of the students said that if forced them to reach a deeper level of understanding about the interactions and trade offs in decisions in a supply chain. I didn't get that same feedback last year when I did the simulation. This year I thought the individual insights regarding the simulation that were presented in their final reports were much more meaningful and reflected the difficult nature of managing a supply chain.

Has your perception, goals or approach changed following the simulation?

In addition to Randy's survey, I do a short one regarding the overall administration and effectiveness of the simulation. Last year, the feedback on a scale of 1-7 the average was five. (Scale – 1 = The LINKS Simulation did not really add to my knowledge of supply chain activities/operations; 7 = The LINKS Simulation added significantly to my knowledge of supply chain activities/operations). With an average of 5, I had confirmation that the simulation added value. My expectation going into the simulation this year was that the students would dislike it because of the added work load it would create. This is only one of about four major tasks/projects that we do throughout the semester. That's in addition to numerous medium to small ones that are assigned as a part of the course objective. When we switched to the individual teams, I heard some grumbling and complaining. Surprisingly when I got the results of my short survey back the average was a bit higher than 6 in terms of value and what they thought they learned from the simulation.

Were you surprised by anything along the way?

What surprised me is that in a group of students you tend to assume that this student or that student will be more engaged by the simulation and spend more time on it than some of their peers. I was pleasantly surprised by the number of students that I considered to be in the "highly engaged" group.

At the end you had all these individual firms, did that make it difficult to do the individual reports?

I had them do a final report that was individual and then we had them come back together with their original teams for the final presentation where they were asked to review what changed and what stayed the same from their original team strategy. That was an interesting exercise, particularly for the team where all four individuals had very strong performance . For this group, they were all excited that they had stuck to their original strategy and that it was so successful. In fact, they saw the value of the team in creating that original successful strategy as it represented input from all the members.

They began as teams and then they were competing against their own team members?

No they weren't competing against their own team members. Randy took each team and spread them across different industries. After the split to individual firms we ended up with eight industries in total. I think that part made it work well.

Do you plan to do this again and will you make any changes for next time?

As I mentioned earlier, we did the extended version of the simulation last year. In addition to everything else we were doing during the semester there was a sense that it was too much. So this year I decided to do the middle version of the simulation and to phase in the different decision areas. We started with procurement, manufacturing and forecasting, added distribution and transportation the next month, and then activated service and generate demand in Month 7. With the middle version you don't have any of the product development aspects. The students indicated in my survey that they would like a much more compressed time cycle for activating the various components. I am also planning on going back to the extended version to add the product development decisions.

I am also planning to do the individual firms again. It was so successful. Randy said, "Students will talk, and even though they are graduating they will talk to the lower-level classmates and say 'be ready, Dr. Holcomb is going to do individual firms.'" And I said "the way I look at it, this is still a win, because they will go into the simulation thinking 'I need to know how this supply chain works because sooner or later I am going to be running this on my own.'" It's just a matter of when it's going to happen.

Describe your typical student for this course? Are they all majoring in Supply Chain Management?

All of the students in the logistics and supply chain concentration course are either majoring in this area or it is a collateral. Our typical MBA student has 3-5 years work experience. We have a globally diverse class and they have different professional backgrounds from engineering to business. In between the first year and the final Fall Semester, the students are required to do an internship. During the a first year of the MBA program the students complete the typical MBA business curriculum and the equivalent of approximately four and a half semester credit hours in logistics and supply chain. This is a required concentration course for majors.

What are your class sizes?

We have been growing every year for about the past five years. This year's class had 42 students.

The simulation would be very difficult to do if it weren't for the support system that Randy provides. This is the best that I have ever experienced. I don't think it's been a matter of minutes before I get a phone call or an email back from Randy when I have a question or concern. That's just superb. I feel very comfortable asking him the mechanics of the simulation and for further explanation of why things happen the way they do inside the simulation. Sometimes Randy will say, "that's something that the students should figure out on their own." The instructional support doesn't end with the Train the Trainer session.

I like the learning experience that comes from using simulations. In this concentration course, we use optimization tools and we do quite a bit with data visualization tools. This simulation pulls all of the theory and concept together in practice. It helps me successfully accomplish the objectives for the course.