Suggested Additions
To Supplement the MIT Blossoms Learning Videos

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My name is Said Jahama, and my presentation today is about possible additions that could be used within the MIT BLOSSOMS videos. It is about how to complement the videos and what more could we add to make the experience more engaging.

First I have a funny story that is related to this picture you see. Last week I was at KAUST, Saudi Arabia's King Abdullah University of Science and Technology, where I gave a similar presentation. For some reason or another, they use Macintosh for their presentations. My presentation files were on my PC. I wanted to use my PC, but they did not have an adapter for their data shows. As a result, I was only able to use an old power point presentation, and I had to improvise and revert back to my old habits of being a teacher. I had many more things that I wanted to present, but they were on my PC and could not be accessed. To be honest with you, I really failed miserably there. I think everybody has been in that situation at one time or another. After that, I had a decision to make because my career was on the line there: either go without the technology and try to do a mostly textual presentation and rely on your talents, or do a technological presentation (just rely on technology) and hope for the best. In short, I'm praying for the best here, hoping technology will work!

I think you are familiar with the vision of BLOSSOMS. "The vision of BLOSSOMS is to begin to develop a large, free repository of video modules created by gifted volunteer teachers from around the world, seeded initially by MIT faculty members and by partnering educators in Jordan and Pakistan." Let me just emphasize one thing: BLOSSOMS videos were never intended to replace standard education. They are just resources to be used by the teacher according to his will. The question is whether he or she wants to use it, and how much could it be utilized? I skip the rest of the goals as I believe you are also familiar with the goals.

Let's go to the real material here. [http://techtv.mit.edu/collections/linc/videos/7641-suggested-additions-to-supplement-the-mit-blossoms-learning-videos - starts at 3:30, ends at 3:45]. The original vision of BLOSSOMS was to have a video DVD where you have segment one, segment two, segment three, coming in sequence. After each segment, there would be a question and answer section. There are some activities that students can engage in. The video teachers could also customize some activities to use as they see fit, using a teacher's guide to show how best to do that. So this was the original vision.

We at eLearning Arabia envisioned something more that could be added to this. Here is example one. [http://techtv.mit.edu/collections/linc/videos/7641-suggested-additions-to-supplement-the-mit-blossoms-learning-videos -
starts at 4:15, ends at 4:30].

So, if every teacher wanted to use a yardstick or a tree branch for this experiment, perhaps it would not be good for the environment. We tried to find something to save the environment. In other words, one benefit of the above is that we are "going green." We added our own simulation. Of course, students needed to see it once in the video, but now how much could they play with it? Perhaps the teacher also could do it once, but after that the simulation might help the students. After each exercise, after seeing each part, we envisioned ways that we could add a simulation that helps students see what is being illustrated. Perhaps it is envisioning three pieces of stick, and then trying to see if I can make a triangle out of it. It took me like five times to actually get it, by the way.

Now to the experiment, you can see here I cheated a bit. I flipped the numbers so that we could proceed not randomly, but instead try to pick numbers that are correct. I will show you the simulation here. [http://techtv.mit.edu/collections/linc/videos/7641-suggested-additions-to-supplement-the-mit-blossoms-learning-videos ; starts at 5:15, ends at 6:15]

You could pick six and 10, which I guess is not going to work. But that is the essence of the experiment. Does it make a triangle? No— bad luck! All right. Now let's reset. Let me cheat again. Is seven going to work? Seven and 21? Where is 21? This should work, is that right? Just barely, I guess. It forms a triangle. All right. And students could actually do this on their own. Actually, at KAUST I asked people. I respect their minds a lot and there were some smart people there. They said, how much is the percentage, actually? I did not do it as well as you did it, but they said, "It's 100%. It's going to happen all the time." I was really surprised to get that answer. I explained a bit, and then they said, "Yes, yes we understand."

Anyway, so that was one simulation. Of course, there is another tool there that says, "What if I tried 100 sticks?" So I'm saving 100 sticks, and hopefully 100 trees. We do random generation of "triangles" or "no triangles." So the students could see 13, 20, and 7, or 0, 6, and 3, or something like that. A green means you form the triangle, red means you did not form it. This is random, of course.

Here in the chart, we almost hit it on the spot actually: 24, 2, and 76. [continues to refer to video segment] I'm cheating a bit; it is actually 25%. But it takes them time to realize that. What I am saying is that this actually substantially enriches the experience of the student, provided they have a computer in class. It does not have to be everybody that has a computer, as long as the teacher could demonstrate with a computer in front of them.

Here is another example of a BLOSSOMS simulation. [
http://techtv.mit.edu/collections/linc/videos/7641-suggested-additions-to-supplement-the-mit-blossoms-learning-videos begin at 7 mins., 20 seconds, ends at 10 mins., 30 seconds]

This is great video for students to see and they should see it, which in this case uses an example of infectious disease. They should actually do it in class with the hats. But then, also, they could play with the simulation a little bit, just to add more flavor to the experience. Here we have a sample size of 30. We start it and we have to pick a patient. Let's pick at random; let's pick patient 3. We used the same color coding— green, black, blue, red. As you can see, it is progressing day by day: what happened the first day, what happened the second day, and so on. It reaches a stable state here and stays until day six.

Now you could generate reports here - this is what we added. There is a report, as you see, showing which patients are susceptible. There is a report with color-coding, showing how many patients we started with, and so on. These are additional tools that amend what has been happening in class. I think Dick told me that this video was shown at Harvard Medical School. It was for physicians, and they were excited about this experiment. They could see new things and experiment with how the disease evolved.

It does not really involve a lot of effort to conduct the experiment. The effort is to understand what lesson the teacher is trying to get across, to work with him, and to see how we could really devise a simulation that addresses what it is he's showing. That is why I do not believe in ready-made content. It has to be really done within the class, which is what is happening here. It is a bit costly, but for some lessons, I think it is useful.

Now the BLOSSOMS website contains these two videos along with the simulations I have shown you. Let's go to the DVD interface that we have developed at eLearning Arabia. You can see that these are the segments— segment one, two, three, four. Of course, somebody could say: "Well, perhaps I am really affecting the learning curve, or the learning path, because I am allowing the students to go from one to three." However, we could disable that. Then once a student had it correct, he could go to any segment that he wants.

So these are the segments. The students could see which segments they are looking at. And this is the video. This is the simulation - both are showing and also there is the text or the transcript. So if the student doesn't understand anything, or needs to know more, the transcript is there. All of these are just additional tools that help the whole experience.

Some of you may wonder, how does Dick sound in Arabic? Listen. He sounds terrific! [http://blossoms.mit.edu/video/larson/larson-watch-arabic-vo.html]

Last but not least, [As the picture suggests], if I have delivered some new ideas, I may sleep easier tonight. Or perhaps *you* slept well right now! It depends on the context. Thank you.