INTERACTIVE VIRTUAL TUTORIALS WHICH ENCOURAGE STUDENTS TO TAKE RESPONSIBILITY FOR THEIR OWN LEARNING IN AN ACTIVE WAY.

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Context: Elluminate

Elluminate is a web conferencing tool which is linked with Blackboard™. It offers the opportunity to interact with the lecturer and other students on your module wherever you are in the world. Elluminate allows lecturers to schedule synchronous virtual classroom and webinar sessions. There are a number of tools for lecturers to use such as a virtual white board, screen sharing, web tours, breakout rooms and polling. Participants can communicate through text chat, as well as using a microphone or web cam when permitted. It can be very useful in distance learning as well as when using a blended approach. Aston has integrated Elluminate with Blackboard™ to allow for easy scheduling of sessions as well as convenient user management.

What I was trying to do?

I was using Elluminate with my first year undergraduate students – ABS module BN1105 (Quantitative Techniques) with about 900 students in total. We had more than 20 live sessions during the first term of the 2010-11 academic year and these sessions were all structured as "a gathering place to help each other by asking and answering questions relating to the module material".

There was an average of about 20 to 30 students participating in each session, but sometimes as high as 140 students per session. Essentially, these live sessions were something in-between "office hours" and "tutorial sessions" where my role was mainly to moderate the sessions. BN1105 module is very specific in a sense that every year we have many students who need any help they can get to help them improve their rather weak numerical skills. At the same time we have many students who are bored by the subject (since the level of maths and stats for them is like going back to GCSE level and they have A-level maths or stats). This diversity in the first year quantitative background was the main idea behind the live sessions – to enable weak students to get more help and support in their learning effort, while also allowing good students to demonstrate and further solidify their knowledge by helping the weak ones.

I was trying to make all students be more active in their learning. I was aware that about a quarter of them were bored and yet another third needed a lot of help. Both groups needed the motivation to be more responsible for their learning. This was difficult in the large lecture sessions and even in the tutorial classes.

Sessions are announced via Blackboard™ and are always live. By attending these live sessions students were also able to collect some points toward a small portion of their assessment (10%) and Neil Cocklin in CLIPP helped me with this all the way by sending me the list of participants for each of our live sessions.

I was also using Elluminate occasionally for my other modules (two second year modules and one MSc module) but this was done occasionally and mainly to clarify any questions students may have had relating to their coursework or final exam. I guess these were more like "group office hours".

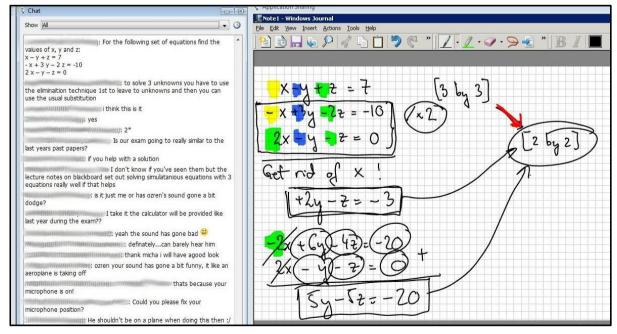Aston Business School

What worked well?

I am quite happy with Elluminate and I hope we will be able to keep it for the future years. In general, I think this worked well considering that this was not mandatory for students (students were able to collect points towards the same piece of assessment through the Discussion Board). I was particularly happy with the "chat box" which was just fantastic. It was good with 10-15 students but even better with larger numbers. It was wonderful to see many questions going on through the chat box virtually at the same time and the majority being answered by other students rather than having to rely on the lecturer.

There are probably many reasons why students were much more active in these sessions than in any of the regular tutorial sessions, but one of the reasons has to do with the fact that most students are participating in these sessions directly from the comfort of their home. In addition, Elluminate environment facilitates many different ways for on-line communication at the same time and allows students to take more time to express themselves freely (without being disturbed in their thoughts by the students who normally dominate regular tutorial sessions). The students were very inactive before and I know if I could make them more active, more of them would achieve their potential in the module. I am confident that this method made them more active, made the module more interesting for them, and, in the end, it certainly helped some of them to learn and understand things faster and in a more fun way than what would be the case without Elluminate sessions.

What were the most useful Elluminate features?

First of all, there are so many of them and I hardly scratched the surface in using all the features there. A large number of features, however, is probably a natural requirement for such software, which is trying to address many different teaching needs. I guess some features, such as white board and chat room are the core of Elluminate and it is hard to imagine not using these.

In my particular case, there was a huge hurdle in effectively using the tool due to difficulties in writing mathematical symbols. For this reason, I found Application Sharing tool in particular useful. With this tool I was able to project to a student's screen any application I was using on my screen. In combination with tablet PC where writing math is very smooth and easy, this created a perfect solution. The figure below shows a part of Elluminate screen, which illustrates Windows Journal being shared through Elluminate along with students' chat running in parallel (the question being answered in Windows Journal is typed at the top of the chat box by a student. I am sure, the same tool (Application Sharing) can be fantastic in demonstrating how to use any software.

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With my students, I did demonstrate the use of WolframAlpha (www.wolframalpha.com) but since this is web-based software, it was much more convenient to use Web Tour, which is a bit more flexible way to share applications but it works only for web-based material.

Next to these, there is a Polling tool, which is very useful when you have some questions for students and you want all them to answer. I have never used Breakout Rooms tool but I can imagine that this would be a great tool for less quantitative subjects and for more structured tutorials where there is no great diversity in terms of students' pre-existing knowledge of the subject. Still, all these tools would be many times more useful if we were able to ensure that each student has an easy access to Elluminate. Right now, this seems to be still a rather challenging task for some students and therefore it is difficult to make Elluminate sessions part of the regular, not to talk about compulsory programme.

Feedback from students

Qualitative feedback from students taking the module in 2010/2011:

- *'Many students quoted that they liked the live sessions'*
- *'To do more live sessions in other modules like in this module'*
- *'Liked the online discussion board'*
- *'Liked the interactive system'*
- *'Great and interactive teaching, Thanks Ozren'*

What did not work so well?

As with all innovative ways of working, this approach does not always fit in with ways of more traditional ways of assessing students. In my first attempt I linked engagement with the Elluminate sessions (10% of the assessment) with achievement in the end of term test. If students did not pass the end of term test they would not get their marks for the Elluminate sessions. This policy was supposed to ensure that it is still the knowledge of the subject that counts the most for passing the module. The examination board unfortunately had to overturn this approach. This year I have amended the percentage allocated to this activity to 5% for pragmatic reasons so that it is not so easy to get marks by being an active learner in this way this year (a shame in some ways). This would have worked well if it had not been for the problems with updating to Blackboard 9™ at the end of the year. Also, on the technological level, if you want to use all the capabilities of Elluminate it is better for each student to have a headset and when I did it, not many had them.

Would I use it again?

I would certainly do it again. It has created more active learners and it has helped me cope with the very mixed ability in my class. I was, however, very disheartened after the Examination Board had to amend my assessment package. I still am but this has nothing to do with what the students need and it is not the reason for me not to keep using things that work well for students.

Wider application

I can see a great deal of application for other staff. It would be wrong to say that there is not some initial investment in time but the reaction I got from students far repaid this.

The link to further information and how to use Elluminate at Aston:
http://tlc.aston.ac.uk/tool/elluminate
Here's an interview that I did for CLIPP on this activity if you prefer to listen rather than read:
http://www1.aston.ac.uk/clipp/video-clipps/virtual-classrooms-to-support-peer-learning/

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Example used with Undergraduate Students on module BN1105: Quantitative Techniques

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