

### Transcript of the Focus Group 1

- Interviewer: The first thing that we want to look at is first of all what your experience of these e-modules? And just feel free to start...
- Student 1: I thought it was really good. I think if someone had given me this back at the start of second year when I was doing pharm, I would be far better at it now. But I was learning stuff today that I should have learnt a long time ago. But no. Nonetheless yes it was good all and all.
- Student 2: It was very well made. It was very well described and like structured. It was quite easy to follow.. I mean the content wasn't easy but it was easy to follow. And what I thought worked really well because it was quite long, quite a lot of material but you put... there were quizzes and different types of quizzes, not always the same one throughout which kind of stop you from dozing off and falling asleep. I thought that was very good.
- Student 3: I thought that perhaps it should have been put a bit earlier on in the module because we've been talking about GABA receptors, glutamate receptors for like the whole two modules... and I didn't know that some were inotropes. I have no idea so to learn that now, its like I wish I knew that before. It would have been a bit easier. But yeah, it was really well done.
- Interviewer: Any other thoughts?
- Student 4: The quizzes I thought were very well placed because everything I do or have done any online learning before. What one tends to do is to see it as a goal.. I've got to get through this many pages and you kind of look at these processes like the synthesis of GABA and it registers when you look at it but obviously as soon as you go to the next slide off, you'll have forgotten it but the quizzes were very well placed in that it just brought you back every now and again to the synthesis and reinforced it... cycled it around your head again so the positioning of the quizzes was very good.
- Interviewer: So you quite liked that structure? A little bit of information content and reviewing it almost with a quick quiz.
- Student 4: Yes rather than having a quiz right at the end, it was good to have the constant
- Interviewer: Therefore did you find this a useful learning tool?
- Students: yes  
Definitely  
Yes [lots]
- Student 5: I would say that it was a lot of information though for two hours... like by the end it was like ..ok [meaning too much in tone]
- Student 6 : What was the expectation? Would you have expected students to have learnt and known everything from that or is it like a first step or precursor to doing your own thing. For two hours it worked quite well for the first 60-70%. The last 30% was quite, very intense. Especially for receptors, you had like 5 or 6 different types of receptors and then like it gets a bit difficult to keep track... um in terms of content
- Student 7 : Sorry [interrupting] I think it would be also good to use it as revision or after we go through the lectures to have a similar session or use this one because after you have already done all the lectures and gone into more details than it is in this learning.
- Students: [lots of mumbling in agreement]
- Student 7: As a summary afterwards, after we have done everything
- Student 6: What would be the expectation of students?
- Academic Lead: Just regarding that particularly point, the next e-learning module has that format so the next e-learning module that you will have access to of next week will be covering all the content from this week and some of the early content from the beginning of next week

Student: I thought it was also be useful to use it after we go on next week, but I thought it was good in the sense that now before we started the module, you got like an overview. Or the basics at least. And it's not like... it doesn't matter if you get it wrong as in you know that it's there and you can ... it's something to refer back to and then when you go to the lectures, you kind of understand even if you just recognise what he's talking about. So if you didn't understand it, you'll get it a bit more once you've gone to the lectures

Students: Yeah

Student: What was really good is that this basically gives you the building blocks to then go and do you lectures and understand your lectures... cause so many times in our previous modules, you just turn up to a lecture, know nothing about it, they assume a load of prior knowledge, fire a load of studies at you in a really haphazard way in some dreadful PowerPoint with no notes on it and you're just completely lost. Whereas with this you have the proper building blocks that you can then go on and use in lectures and tutorials and understand stuff and sort of get some formulation in your brain as to where the module is actually going and what you're meant to be learning because so many times you go in... no offence to [another module], but the first module literally was like somebody was just firing a gun at a board and there was all these lectures here, there and everywhere which didn't seem to really marry up whereas this sort of approach where you take the fundamental building blocks and then use them and then progress from that throughout the module really is the way forward I think.

Interviewer: That kind of moves into the next bit I was going to ask, what do you think make a good or a bad e-module compared to what you've done so far? I take it you like a more staged approach, is that right?

Student: And more questions

Student: Testing your knowledge throughout

Student: One of the beautiful things about e-learning modules is that you get to do it in your own time and when you're in a lecture and someone questions you, some people might not want, might not feel comfortable in answering a question publically and letting other people know if they know it or not, and the e-learning thing is good in that you get to answer the question privately in your own time and I thought that was quite good.

Student: Yeah you don't feel like you are wasting the classes' time or wasting the lecturer's time. As in you think that something, like you're not going to ask is it a GABA receptor inotropic or metabotropic in a lecture as you feel that is something that you should know. Whereas in an e-lecture, you can just do it as much as you want and take as long as you want.

Interviewer: Obviously you can also search and find other things out. Self-based learning in that helps?

Student: It gives you a chance to make things connect as well. You [indistinct] lectures but at the same time in lectures quite often, if people are mumbling or if they are speaking really quickly

Student: I liked that it was really broken up, like really broken up. It wasn't just one big long conversation about, like there were many bites that you could take.

Student: With the quiz at the end I felt that I had learnt the basic fundamental concepts like the basics of the receptor but some specifics like the binding abilities 1, 2 and 3, the specific detail, I still couldn't remember exactly but the broad questions, I felt I was more familiar with the different receptors and their mechanisms. It's just the specifics were a bit ...

Student: I think, yeah that some of the questions at the end were a bit too specific, for like... Like some specifics that you wouldn't remember.

Students: But can be used as a revision tool, probably a good idea, because if you do an e-learning module, you get all the answers at the end, and you're like cool I know it all whereas if you realise that half of it is still details that you can't remember after just doing it once, it's brilliant to keep doing it.

Student: I think that if we are supposed to know the details by the end of it, I think it might be beneficial to put it into two. So have two shorter sessions but with more questions in them and a bit more

detail. I think that will enhance our learning more than having a 2-hour session with everything in it.

Interviewer: That leads on again to the next bit. What would encourage you to complete it, this e-module? Would it have to compulsory, give you accreditation or is it just the fact that you want to revise and see how it works?

Student: I think that the fact we have exams helps..

Student: [Unclear] I think that an e-module questions encourage you to do it

Student: I'm speaking as ... not all of us here are medics but those of us who have gone through year 3 medicine and remember our e-learning lectures were in year 3, no offence to the faculty, but they were appalling and part of the reason for that was that they weren't up to date. They weren't engaging. They weren't visually astounding. They didn't do anything for us. They were just there with the content that we needed

Student: It was a recorded lecture, it wasn't e-lecture specific. It was a lecture that was recorded and they tied it up with slides

[mumbling – something about online lecture recording package – min 8:18]

Student: This was good because it was engaging, it was interactive, and we got something out of it.

Interviewer: Would you like to say something?

Student: I was going to say that it really depends if we want to use these, whether we can get the information better from lecturers. And as people mentioned if we can control our own pace of learning, it has quizzes and it is overall a lot happier to be with than lectures, then we will just be very happy to use it anyway.

Student: But I think going back to 3<sup>rd</sup> year experience, I thought this was what [student] was going to say, that most people or a lot of people didn't do the e-lectures because they felt like they were always going to be there, and then it gets around to exam time and you haven't done them and they're a useful tool. So basically to incentivise people to do them maybe. To make them compulsory or time limited or something

Student: Yes, to put an expiry date on them.

Student: But to have the opportunity to have them later

Student: It should always be open..

Student: [interrupt] Like in 3<sup>rd</sup> year

Student: ...but then that's why people did them on the last day cause..

Student: [interrupting] I think a big thing was as someone said that they weren't up to date and they'd been there literally for years.

Student: They were just boring

Student: They were so bad honestly

Student: I understand that but I'm talking about to incentivise people to do these new good ones

Student: I think even if you have it in your timetable, it's says a white space to do the e-module, I think some people still won't do it. I think the fact that you come in and do it as a group in a computer room and you see everyone else is doing it. And everyone is sitting there with their headphone on, I think that's more...

Student: ...that would be the best way to it

[Students agreeing]

Student: to have a session so South Kensington training room in library or Charing Cross where the whole class comes, and that way you can ask questions to the teacher who's there at the front

Interviewer: So actually having a time-tabled session is good?

Students: Yes

Student: That's the only way you'd be sure. Cause with any like cohort, like obviously this room people would do it, but if you take across the whole medical school there'd be aspects... it'd be a normal distribution, a lot of people would be like oh I'll use this quiet time to catch up on lectures or do other things or whatever, stuff like that. So you're not going to get everyone doing it. So the only way you can be sure if you want to roll it out and make sure people do it, is probably the way you did it with us.

Student: I think it will be beneficial

Student: For example, make people have to like they had to in third year they have to submit a score or have to completed it cause you can check when someone has completed it by a certain time. Then you get the same accountability of being here but you don't have to actually be here.

Academic Lead: Can I just interrupt for one moment? Just a quick question I just want to gauge the biomedical science students here, so have you had any experience of e-modules at all?

Student: Actually in first year...

Student: No that was only because we were with the medics, we had these like tests, online quizzes things but they weren't but they didn't teach you anything, they just...

Student: Did we?

Students [mumbling]

Student: They had self tests.. yeah yeah, but you could go on blackboard anytime and do them.

Academic Lead: So that was your choice of doing?

Student: That's it

Student: But that was just like a set of question with like multiple choice answers..

Student: ... but when you got them wrong, they would explain to you, properly why and

Student: I know... but that was also like a test where this one also...

Student: It's still e-learning... if you get it wrong, it will tell you why you'd get it wrong. That's it. Yeah that's all.

Academic Lead: That's great.

Interviewer: Next things technical points, so what did you think of how easy it was to go through it if at all? Other things was there anything you found confusing? I think we have covered the structure already but ease of use and if anything was confusing at all?

Student: The voice was good.

[Mumbling in agreement]

Student: The voiceover normally puts me off

Student: Do you get like a choice of voices?

[Laughing]

Student: Homer Simpson?

Student: Male, female, American

Academic Lead: We did. We got a choice of voices. We went through them in a lot of detail.

Student: Really?

Academic Lead: Well we haven't met [voice]

Student... He's just a voice

Student: Just a voice

E-learning team 1: We had a three or four options to select from and went around in circles with that and finally I think we thought that this one was kind of, well people could listen to for 2 hours and don't get frustrated with that. So that's good to hear that our selection was good.

Student: It was good.

Interviewer: Anything else?

Student: Does it have to be two hours long?

Student: Yeah I think to be split up

Student: Like if it was an hour that would be great

Student: The thing is I... I would rather come on an afternoon and do a 2 hour session that maybe spills on for a bit... so go from 2 to 5 in one afternoon. Rather than having to come in on two separate afternoons to do two separate one hour sessions. I think...

Student: No [students talking over – indistinct].... When it's available online if its split up into two, in the session you could still do the two separately ... have one timetabled session for two..

Student: Fair enough

Student: ... just split it up into two with two separate quizzes, and that way you can access them at home later separately rather than ...

Student: It does compartmentalise them a bit in your brain

Student: Exactly

Student: Like this came from ...

Student: At the end of the quiz, yeah. I done this quiz and I got this score on that section. This was my feedback on that section. Because all the questions on the quiz were different from three sections than the e-module. The questions .... Um. So yeah, I think if it was split up, the quiz was..

Interviewer: One of the things that you wouldn't have maybe experienced here was if you actually exit the quiz, it will save your progress and so you can actually stop it halfway through

E-learning team 2: No, no, I don't think it does at the moment but it should do. That's the intention.

Interviewer: So you could do it for an hour and then come back the next day and start it again from where you left off.

Student: That would be really good.

Student: It's quite good to have like progress tests... I think like every other department at Imperial has them, but like we don't obviously but it would be nice to just know how we do throughout the course.

Academic Lead: With regards to your point, that was one of the recommendations when we were making this e-learning module that you are supposed to have done the questions accordingly and I actually didn't want that and the reason I didn't want that was when it comes to your end of year exams, it's not that quite nicely structured, so you kind just have to learn everything. I wanted it more aligned with the exams.

Student: In terms of that, I know this would be more work, but could you have one big quiz at the end of each module and then the big quiz right at the end. So you can just do one module and then do a quiz. And then at least I've done that. If that makes sense?

Interviewer: So have like...

Student: [interrupting] have small sub quizzes...

Student: Not like have a 25 question quiz, but maybe like a 10 question quiz at the end of each section. So you could do like one section and its quiz one day and then the next day do the next section and its quiz. And once you have done all of them do the big quiz where it would all be mixed up.

Student: Yeah

Student: A bit like blackboard where you have the mixed question sets... like last year we had the COPD, asthma and then at the end you had the mixed question set... which was all of them...

Student: Then you had like a mix of all of them. Was the first part of the question about technical...?

Interviewer: Yes it was just about the technical points. How easy did you find it to use? And anything that was confusing at all?

Student: On screen it was quite easy. Buttons were simple, present and flicking back and forth was not really a big issue.

Student: It was quite easy but ... [mumbling] ... constructive criticism, there were two things that I couldn't work out at first. You know like on the slides when it showed you, click on this one to get more information. I clicked on one and then the pop-up would come up and then I would go straight to the next one and I would be looking forward to click the next one. It did tell you. It did tell you to press X to go back...

Student: Yes that was the only thing....

Student: As long as you can highlight that a bit more... maybe once you've done 60 or you could just click back, I worked out you could just click back

Student: Yeah I don't know about you guys but I found that when you finish one section, it wouldn't let you progress on. You could only press Home...

Student: But Home did flash ...

Student: Yeah, I thought I broke it...

[students laughing]

Student: I thought it got the test wrong

[students laughing]

Student: It got me for a bit as well.

Student: The way to get around that would be just instead of having it out of 86 or whatever, to just have it out of a number so when you get to the end at least you know that you have finished that section

Student: Exactly

Student: Instead of wondering if whether 86 ...

Student: Cause, there is a pop-up, the home buttons starts flashing green once you're reached that

Student: You see a little text box

Student: Yeah I realised ... no one reads the box

[students laughing]

Student: I didn't see the box

[mumbling and many voices]

Student: The things is that cause that's up there and you're looking down there and you only going see it ..

Student: Now I'm reading all the boxes

Student: And it does say 46 out of 80 and you're thinking ok ...

Student: That's the thing, I saw the box flashing but I thought maybe that flashing 20 slides

E-learning team 2: When we spoke to the developers we did ask for them to have a little banner right across the middle of the screen, and that as soon as you finish the section it will just pop up and ask you, do you want to go to the next section, or do you want to go Home. But they implemented it slightly differently. But we could take that and give it as feedback.

Student: Cause I don't know about anybody else but when I clicked on section 1 and it said 86, I thought it was 86 slides in section 1

Student: Yeah

Student: Um, I've got one thing... when you are working through what could be useful is having a menu for the slides because say you've reached halfway through and you're like oh crap I forgot the original process. The only way to go and see the things at the beginning is to go all the way back and all the way to the front again.

Student: No, you can go home ...

E-learning team 2: There is a menu at the moment, but maybe it's not very obvious.

Student: Is it the home button and then you scroll down

E-learning team 2: I think ... it's got three lines

Student: Oh next to the home button.

Student: No I'm saying for all the slides

E-learning team 2: They show a little tick next the ones you've seen.

Student: I didn't see that.

E-learning team 2: Well that's probably feedback that we need to make it more obvious but yeah we can look into that.

[mumbling]

Student: Maybe have a sidebar

[many students talking – indistinct]

Student: I always feel that people say adenosine, adenosine and he said add-e-no-sine

Student: Some of the pronunciation...

Academic Lead: With the pronunciation, there was a lot of back and fro with that and a lot of the times when I pronounce the words to him and then he came back and he still pronounced them incorrectly. And it got to the stage, where it was like, I can't keep ...

[student laughing]

Academic Lead: Like he kept saying ion as i-ong

Student: It was quite American

Student: Yeah

Student: It was quite funny. It's funny if you know it, but if you don't know it

Academic Lead: Some of the mispronunciations weren't that bad if you heard...

Student: Comparatively, it was fine.

Interviewer: If you'd heard the other voices, that was a lot better

Student: It's understandable

[many students talking – indistinct]

Student: I have a point, I don't know. Which is that I thought it was really well laid out and really clear until to the point where all the drugs came in and then suddenly it was like a barrage of drugs. And it was like oh shit, panic, skip.

[laughing]

Interviewer: So if you had it spread out, it would be a lot easier?

Student: More spread out

Student: I think... I don't know about you guys but I think if you cover the receptor, you should also cover what drug act on that receptor

Student: Yeah as opposed to have them all at the end...

Student: Cause then if you want to like... like if you group all the drugs together at the end, then you got to go back and find what that receptor does.

Student: That's a really good ... like maybe when they are showing like the ligand binding, they could just show the drug binding at the same time because then you have the visual impact of it and that helps I think. As opposed to just after the word of the drug and then...

Student: Yeah some slides had one thing on drugs and then you had like a parallel question... that you had to remember like 10-15 drugs and that's quite difficult. Especially if you have had 15 drugs over two slides, which is quite difficult to visually remember

Student: To remember what they are used for and how they acted and where they acted and were they fully or partially agonist and this was all within like two minutes of having seen them for the first time.

Student: Yeah just seeing them.

Student: Exactly

Student: This is just pure laziness speaking but what could be very useful I think is potentially, and I know that again this quite a bit of work, having then a document with a written summary

Student: They have a transcript

Student: That you can print off?

Academic Lead: I have the transcript and what I will do is that I will put that into a format that has a printer format and I will get it onto blackboard for you guys

Student: That'd be sick

Student: I think having a link so that you could download a PDF of the transcript because it's difficult to follow the concepts on the screen and answer the questions. I know that [student] somehow managed this, and write notes at the same time.

Student: Maybe to have it before hand and then you can write on it

Student: So you can't copy and paste from the program

E-learning team 1: No what we are going to do is. I think we had feedback from other students, for other modules so what we usually do is that we have a screenshot of all 86 screens along with the transcript and we'll have it as a PDF in the module itself so you can download it offline and make your notes on the paper and anything.

Student: That could be good

Student: It might be useful to have the transcript as a word document so you can manipulate the text and structure it yourself, cause when the slides are not linked together

Student: You need like a software...

Student: Yeah a word document might actually be good.

[lots of students talking]

E-learning team 1: that we have. Now all the modules. And also while you are all here on the technical points, did any of you use that navigation where it says green tick. I think the point that you were saying is ... it's somewhere at the top, with three lines and it lists down all 86 slides and it gives you a green tick if you have accessed that slide. I think that might be useful for you to jump from specific sections so you don't need to go next 86 times. I think maybe we will make that a bit more prominent or in...

E-learning team 2: I think in the beginning of the section or beginning of the e-module, we could make them go through the help. It would take 30 seconds but it shows them the different parts of the screen.



Student: Yeah. What I liked also is that you know sometimes you think that these things are going to be like a bit tedious, laborious. So once you answer the questions in the early bit, it would if you get it right, it says that's correct and it just moves on. Which is good rather than saying.... Cause you expect it to be yeah that's correct, this was this, this was this... And also when you get it wrong, it doesn't do some extended thing, it tells me what's right, which is good. They've got it, a good balance. As in not explaining everything once you got it wrong and then not just going straight on. They tell you something...

Student: A little bit about...

Student: It might be worth having just a short explanation with the final quizzes like a little bit of explanation like with the other ones, with the answers to those

Interviewer: That brings us into content. Obviously we've said the last...

E-learning team 2: With regards to that, I think there was a reason behind the last test to not have feedback.

Student: So you go through it?

Academic Lead: It is all part of [mumbling] it lowers their whole kind of learning skills but it's a lot of recalling information and so all the more kind of difficult things we are going to be going to cover that in the tutorial that we will have on Friday and so that's where I will hopefully give you feedback about how you performed on the quiz and things like that. So that's more suited to an actual classroom session with a tutor where you can go into a lot more detail.

Interviewer: That brings us onto content. Obviously you've said that the last bit was a little bit harder as you might not have covered it yet, but do you think it was generally pitched at the right level for you?

Student: Yeah

Student: Yes

Student: I thought that it had like a nice learning curve as well. Very nice.

Student: As in every slide, even if it was something that we had covered basically it built on it and then even the harder bit, the bit more challenging bits and it was good..

Student: It didn't also assume knowledge. It did repeat a couple of times which was good because you need consolidation. Like they didn't just explain, for example, how a G-protein works they did recap it a couple of times with various examples, which helps. So repetition was had an impact.

Interviewer: So that was quite a good balance. Did you find anything patronising at all?

Student: There were bits which were like repetitive, like how G-protein works but you could skip.

Student: It's better to be patronising than to assume knowledge

Student: Yeah absolutely

Student: When it came to explain the G-Protein, the intracellular part and G-protein part, and the following ones, it said that we explained this as previously and you could refer back to that. So that was good because you didn't have to fast forward through it.

Interviewer: Within the e-module, there are learning objectives set out within the first few slides.

E-learning team 2: There are modules learning objectives and then for each section there was learning objectives that were a bit more detailed.

Interviewer: Do you think through the e-module that it met these expectations of these learning objectives?

[Lots of voices]

Student: I think learning objectives, people would take these seriously if for example for present it and at the end you present it again. You know like how you build your slides. I personally think that is really useful, then it kind of ties in everything with a purpose. Whereas if you have a learning objectives as the first thing that you see, and then you have 30 minutes of random content, you will forget the learning objective because you are not going to remember what that is. I feel as if

you had one line explaining, like this explains the learning objective, this is the answer, then this would help a lot more to help put everything together.

Student: Or even like, have the learning objectives there like this content is what we have covered. Fulfils the learning objectives.

Student: Like take home messages.

Student: Sometimes they do do something like that but in reverse. They do on the slide like L4, that's slide relevant to that learning objective. Or you could just put at the end learning objective 1, see slides 10-12.

Interviewer: Other things about the content. The animations and graphics?

Student: Sick

Student: Really good

Student: Some of them were a bit quick. If I had thought about this transporter, I didn't even have time to properly look at the transporter in some cases. That might be because I was semi-writing down stuff. I think that they were a tad quick, which is probably why it would be good if they were split up cause then it could slow everything down a bit and make like that hour, really productive.

Student: There is pause and rewind, so you could just...

Student: No it's true, but I don't know.

Student: Have a speed setting maybe?

Student: Double slow. Half as quick

Student: I don't know. I feel like a tad bit slower. Even just a few milliseconds. Just so you can ... And I think the only thing about content was the drugs would have been nice. To actually see the drugs work in action as this is pharmacology after all.

E-learning team 2: Were there any particular animations that weren't easy to follow?

Student: No

Student: No

Student: I appreciated the speed actually. Because I have done things in the past where you do get to change the speed of the animations which maybe not be a bad idea if there a review animations after that didn't have the speech to rely on a certain speed and then you can just be showing the pathway. That would be good and you could dial down the speed on that. But I find it quite frustrating when you've got a really slow moving animations and do you just want to get to the next. So it needs to be a good balance. I personally found that it was quite a good speed but maybe it would be useful to have a review at the end where you could... I don't know

Interviewer: Anyone else got any other ideas that you might like to see in the e-module in terms of content or animations, that type of thing? Things that you are not quite happy with such as quizzes.

Student: One... maybe. I don't know if this was just me. You see on the bit where the animation for the cyclic AMP or ATP decreasing. I don't get it's decreasing it because it binds and then the arrows come out, and then the arrows go fainter. So I had to watch that 3 or 4 times to understand that is decreasing.

Student: Because what it did for comparing, what is did for GS and JS. For GS ok when you have the conversion of cyclic AMP, when you add in the cycle, it increases cyclic AMP and it goes bigger but to prove the opposite of that, it just did the same thing but faded it. So instead of going big or small. It was a bit weird.

Student: Yeah

Student: I think for that summary thing, it said that it activates it for both.

{Students agreeing}

Student: That was a mistake

Student: I saw that

Student: That was a mistake so the cyclic AMP stuff for the secondary cascade could be improved if you wanted a specific animation.

Student: Just for the inhibition part

Interviewer: That's good to know.

Student: I think we all knew that...

Interviewer: Is there anything else that you would like covered within say like that e-module like topics or content?

Student: All the parts!

Student: Neurotransmitters

Student: I would quite like something in how everything works together because you kind of have everything so separate. I know that it's really complex but you kind of... I tend to need an overview of things to kind of get things in my head. I don't know if it would be possible to have that.

Academic Lead: What do you mean? What kind of level are you talking about? When you say things working together, are you talking about the cellular level or are you talking about the level of two different organs, or talking about the level of the entire body?

Student: The receptors. You show us how each receptor works separately but obviously we know that gamma interacts with others and you just don't know how that happens just by looking at that.

Student: Doesn't that add a massive extra level of complexity?

[Students agreeing]

Student: Which is why... if the purpose is just to have...

Academic Lead: I think when you have gone, we're are going to go through the actual module. Because of what I've been seeing there has been some really interesting data from what you have generated. And I can use a lot of that data to explain a lot of the concepts that you have seen and so it will allow you to actually... you know. You've actually experienced this by actually doing the experiment so it will allow you to put it into context as well. I will try and do something like that to bring everything together but there will be tutorials on this information as well.

Student: I think one thing to add. I think you did it in the dopamine one, where you had dopaminergic pathways. Maybe have it for the other ones as well.

Academic Lead: Well the main issue is that the dopaminergic pathways are the best characterised. There are some disperse serotonin pathways that were detailed to a certain extent but noradrenergic pathway not well characterised and there is really only one small [indistinct] pathway so the dopaminergic pathway you can do it for that. But for the ones well characterised pathways don't actually exist within the central nervous system.

Student: I think the only time where I think it would be really useful to put them slightly more together was with the last one, so with all the neuropeptides and all that stuff, you were saying that they affect whatever it was. They affect different neurotransmitters and they cause up-release of one so maybe put a couple of slides at the end just showing it with them

Academic Lead: I'm going to do this in one of the tutorials but I'm going to relate it to the practical that we've just done cause with neurotransmitters it's very difficult to actually, you know, to put different neuropeptides together because they are so involved in everything, no-one really knows what they actually do or what they act as co-transmitters with. So you have a bit of experience with co-transmitters in your module 2 mock exam that you all did fantastically well so you obviously know so much co-transmission.

[student laughing]

Academic Lead: But that's a really good point. I will go over that with you in this module.

[student mumbling]

Interviewer: Do you have another question?

Student: I was just going to say a bit that maybe you could involve some of the pathways but obviously it's...

Student: I think it's a good point about what level. I think maybe at the end, you said you're talking about neurones, receptors and stuff like that. And it did get confusing to an extent when it mentioned the drugs but in terms of application ... the real world application, like these what would you use this for in real life?

Student: But it did say that

Student: It did say that but I'm saying for an overview... Nah it was quite good actually.

Interviewer: Finally we do a lot of blended learning in these e-modules, with this new e-module you are going to be having tutorials with it at some point, do you think this e-module will give you a better understanding before going into say a 1-2-1 with someone to talk about any of these things? Do you think it gives you a better understanding now that you've done it?

Student: Definitely

Student: It was really good

Student: So well structured

Student: Some of these things were so useful. And cause the topic itself is so useful, it was really helpful.

Student: I think it will help especially with some of these essay titles we're doing this... through ... most of them ... explain the mechanisms of receptors it helps when you are doing the background reading of your essay because most of the titles are very closely related to what the module is about.

Interviewer: So you would be quite confident going into a tutorial in more detail, going a bit deeper as well?

Student: Definitely

Student: Cause the other source of information would be is to get lectures which we may never have had or can be of variable quality in terms of the information they give. Or we go on google/Wikipedia and try to look up what say a knap receptor is. This method which is well written and verified information is a lot more reliable than Wikipedia, which some of us may not want to use.

Interviewer: Finally advantages and disadvantages of the e-modules against a face to face tutorial?

Student: The e-module is accessible which is, I mean as in always accessible so it's very much your own time, you know you can learn whenever. The biggest issue with anything that you don't have face to face contact with, that is always true, is that you can't ask questions directly. If there is anything that you don't quite understand you can't just directly ask question and I find that even if that question can be answered at a later date, it's much better for memory consolidation to then and there have a question answer. I just think it works. That's true with anything unfortunately. Anything that isn't face to face.

Student: I think basically that, in my opinion, e-modules should be like supplementary not like replace tutorials

Student: I agree

Student: I don't think we should get to a stage where people are like no tutorials, and let's just do e-modules. Because yeah. As a supplementary thing, I don't think you can get more, like anything better than the quality for the purpose of supplementary learning but for tutorials themselves shouldn't be replaced.

Student: Say we had the tutorial on a Monday at 10. Then if it says on our timetable from 9 to 10 to do the e-module so if you get in early and do the e-module by yourself wherever you are, in the library, in the common room, wherever and then everybody goes to the tutorial and that way it's on the same day and you'll have the chance to ask the question

Student: Yes I think that is the most powerful application of it. Doing it before a tutorial and then all the questions that come up, you can get them answered in the tutorial and you don't just come to blank faced to the tutorial

Student: I don't think you need to do it immediately; within a week or so

Student: Tutorials don't work well if you turn up knowing nothing.

Student: Exactly

Student: Tutorials work really well if you have a decent background grasp of the topic... and you can build it in the tutorial

Student: Consolidation

Student: And clarify areas that you can't understand. Tutorials never work if you go in there not knowing anything so I think as a way of introducing a topic, giving you the background knowledge that you can then work with in the tutorial, I think this is a really good platform to deliver that.

Student: If anything I think it should be put before a tutorial to make it more rich and whatever, efficacious

Student: I would give plenty of time before ...

Student: At least a few days

Student: Like a week... Yes maybe not like the day before or ten days before.

Student: Like for example I would prefer to have it a bit before to just have time to consolidate it and not go straight in with your brain like buzzing

Student: That's still better than nothing though. Like sometimes I go in and I'm like zero, and I'm like what I'm doing here.

Student: I'd been so keen to have these in front of every module just because it gives you an idea...

Student: A good intro

Student: ... an overview of what you have. Because the issue with going into a module especially at the beginning of a year ... you really have no idea what's coming. But just having an overview of... It's like, again, reading through a chapter in a book before going to have lectures on that... Not that I ever do that.

[Laughing]

Student: Willpower... Even if you don't remember any of that, your brain will recognise words and you'll make associations and links between receptors and this concept and it would just be so valuable to a general e-module like the one we just did that kind of just gave you an overview because even if you don't remember it all, I think it gives you that extra level of understanding that means the second time round that you hear it, you'll start remembering and you'll start making mental links. It will be so much more valuable.

Student: It gives you a sense of perspective so for example like now just before having any lectures for this module, we've done that. So it's like if by the end of the module I know that then I've learnt something.

Student: If I'd gone into a lecture and someone had started talking about neurokinin receptors without explanation which like sometimes might happen because there is an assumed level of knowledge. You know I'm happy to admit that before that I had absolutely no idea what they were talking about and again the knowledge that they will build upon, that assumed knowledge of neurokinin receptors just wouldn't have stuck because I wouldn't have had any

Student: Good point

Student: And usually... like even if you didn't know what a neurokinin receptor is in a lecture because they are using it in an applied context with assumed prior knowledge, when you go back to look at it you're not necessarily going to learn it in a structured way... what its related to and everything like that. So it's better to build upwards rather than fill in the gap.

Student: It's quite good particularly for intro week. Intro week is the week that we actually re-jig our brains after a long holiday into thinking about stuff... I mean there's a lot more e-modules that we could probably do that are accessible well before so we can revise and get our brains thinking. Not just module specific. General pharm specific.

Interviewer: Normally when we do do these learning things we do have sometimes like a revision quiz before and then you actually get some teaching, then you do the e-module and then you do tutorials or another test at the end to actually see how you've progressed through. What we tend to find is that if you do a little bit of revision before and then normal teaching and then e-module, your final marks are a lot better because you get that build-up of knowledge as you go through. We've seen that in other years as well. Anything else at all? Anything you'd like to add?

Student: This is going back to what [student] said... Our previous experience with e-modules is that it's meant to consolidate our learning but a lot of the times its not relevant to lectures so if you do decide to roll out e-lectures, to try and make it somehow relevant to the lectures that are given in person because then it can just add to, ok which one can I learn, that one or that one. So...

Student: They are pertinent

Student: ... Yeah if it's like directly linked to, for example, to the same objectives should be used for the lecture in person and the e-lecture, that might be a good way of keeping it consistent because if there is inconsistencies then there's confusion.

Student: I was just wondering as well, going back to notes and transcript, because some of the tables in the e-module were really great. They were so clear and it was really useful to have. Would it be possible to make a set of notes that had not just the transcript but also those tables and some pictures in a printable way. Sounds really lazy

[students agreeing]

Student: The pictures were really great but I can't afford to print them.

E-learning team 2: So you want a print screen of each with the transcript next to it. Is that what you're saying?

Student: But at the same time when it comes to printing, those 85 slides with like a blue background on, that's dreadful to read off so would there be a way of doing a those on a white background instead of a blue background because when it's on the screen and you're actually doing it, the blue is fine and it works well. When it comes to actually printing stuff, stuff on a white background just works so much better.

Student: Or even the transcript separately. As [student] said some of the tables were useful to have transcribed. Not necessarily to keep seeing every single slide

Student: Yeah

Student: Yeah

Interviewer: Like an image or something like that?

Student: Especially with something like the G-protein, its useful in the tutorial but later on I don't think that you really need to see

Student: Some tables and text

Student: In a way that in a word document that you can actually manipulate not a PDF

Interviewer: So notes with figures incorporated

Student: Just like the notes that we would make ourselves

[students laughing and lots of voices]

Student: The issue with notes is that no one is ever going to happy because everyone learns in a different way

Student: But at the same time...

Student: Is that difficult with the transcripts and the slides to just mesh it all together

Student: The transcript can be exactly the same

Student: Literally just copy the transcript in and just put the slides in appropriately as they come down ... would be perfect.

Interviewer: Thank you very much folks