Appendix One: Influence Diagram Variable Explanations

Lecture Learning → Laboratory Learning (S)

Explanation One: For this instance, within the School of Computer Science & Informatics, for particular modules laboratory teaching session accompany the lecture session to allow the use of theory to be turned into practical application of the knowledge learnt. This is supported in terms of previous modules for Computational Thinking, Web Applications and Problem Solving with Python all having accompanying laboratory learning session to develop knowledge further (Cardiff University, 2013a).

Lecture Learning → Tutorial Learning (S)

Explanation Two: For this instance, within the School of Computer Science & Informatics, the majority of modules will incorporate some form of tutorial. This may be in the form of a separate time slot for the session or even given its own independent tutorial slot. This relationship is supported by the documents mentioned in the previous example. Within the first year autumn semester modules, in particular Problem Solving with Python, there would have been tutorial sessions linked to lectures to ensure students understood the mathematical side of programming languages and not just developing code functions and classes (Cardiff University, 2013b).

Lecture Learning → Interaction on LC Module Discussion Boards (S)

Explanation Three: For this particular relationship, each individual student has their own allocated user area within the Cardiff University Learning Central system which allows them to view all their enrolled modules and relevant course documents. As lecture learning increases, the increasing usage of Learning Central for document retrieval and using discussion boards to question users can be clearly seen. This is supported by the usage of the discussion board for coursework queries within second year on the Communication Networks & Pervasive Computing Module (Rana O, 2011).

Lecture Learning → Module Topic Understanding (S)

Explanation Four: For this relationship, it is essentially based on the ability of the student's learning capacity, style and academic ambitions. The more effort they put into lecture learning, the potentially higher the module mark or degree class they will eventually achieve. As the lecture learning increases, whether that is attendance, concentration or the other factors mentioned can typically have an increased affect on the module understanding. This is supported by the reflected results within the school from previous years. The students who are constantly willing to learn new things, push themselves will in time have a greater understanding on the modules.

Module Topic Understanding → Individual's Motivation (O)

Explanation Five: For this instance, it is a very common concept that occurs. As students develop initially within first year, if they are do not understand a particular topic it may lead them to having greater motivation in wanting to teach themselves further such as reading more about the subject and question lecturers to classify particular items. Alternatively, some students may come into the modules having had previous experiences with concepts being taught and lack motivation to learn as they feel they already know the concepts well enough. However, this can be on rare occurs and typically results in the student leaving University to pursue other ventures in some cases.

Module Topic Understanding → Learner's Potential Development (S)

Explanation Six: For this relationship, as the module understanding increases, it has an adverse affect on the learner's potential development. This is in the form of gaining higher module marks with a greater understanding of the topic and it can be applied to other modules to aid the development of a student. Similar concepts are taught within various modules and the ability to make interrelationships between content is crucial to understanding concepts and developing as a Computer Scientist or an Informatician.

Module Topic Understanding → Career Planning (S)

Explanation Seven: For this relationship, as the module understanding increases, once again an adverse affect takes place as the career planning and potential job openings can begin to take place. Top graduate jobs require a minimum of 2:1 from your specific degree scheme. The ability to display learning abilities, analysis information and apply knowledge is crucial to any form of graduate job. This is supported by graduate job applications that search for analytical skills, problem solving and strong communication (TARGETJobs, 2013).

Module Topic Understanding → Module Topic Knowledge (S)

Explanation Eight: For this instance, the relationship is straightforward. As the understanding of the topic being taught in the module increases so should the knowledge learnt within the topic and how that knowledge can be applied to practical scenarios. This is supported by the correlation between students who attend the majority of teaching session, do further reading and apply great refinement to completing assignments.

Module Topic Understanding → Assessment Stress (O)

Explanation Nine: For this relationship, it displays the fact that have increased or decreased understanding of the content being taught within teaching session, then an inverse or adverse effect on assessment stress due to the student having a greater or lesser understanding of the content being taught. This is supported by the common relationship with students who do not attend lectures, lack understanding of the content and have greater stress levels surrounding exam period or close to assignment deadlines.

Module Topic Understanding → Self-Confidence (S)

Explanation Ten: For this instance, the relationship is similar to the previous one mentioned. As topic understanding within modules increases, so does self-confidence academically, professionally and socially. If a student is comfortable with their level of understanding of the topic then they are likely to feel more confident with assignments and exams.

Module Topic Understanding → Viewing YouTube Channels (O)

Explanation Eleven: For this instance, the relationship with social networking mechanisms begins to come to life. As mentioned throughout the previous paper, there are multiple mechanisms being used e.g. Facebook, Twitter, YouTube. As the module understanding increases or decreases, YouTube can have an inverse or adverse level of usage. This social networking mechanisms gives students the chance to search for alternative learning methods such as YouTube Channels providing tutorials for relevant or current topics being taught in lectures (Woodlock D, 2010).

Module Topic Understanding → Viewing Corporate Businesses with Relevant Academic Twitter Posts (O)

Explanation Twelve: For this relationship, it is similar in essence to the one discussed in the previous justification. Once again, as the module understanding increases or decreases, this can have an increasing or decreasing effect on the student's choice of using social networking mechanisms understanding certain parts of the course content. For this instance, the usage of Twitter profile produced by corporate businesses with particular relevant real life business examples or even further explanations of content can be made available (Webb, S. and Hamilton, T. 201-).

Module Topic Understanding → Online Forum Usage (O)

Explanation Thirteen: For this instance, it is a similar process to the previous discussion whereby having an increased or decreased understanding of modules, it can have an inverse or adverse effect on the usage of online forum to discuss issues that other students or professional may be having with a particular topic or subject (System Dynamics Society, 2013).

Module Topic Understanding → Facebook Group Conversions (O)

Explanation Fourteen: For this relationship, once again as the topic understanding increases or decreases the usage of Facebook groups to increase or decrease. This service over the past three years of studying has been beneficial in clarifying coursework or exam questions, and potential job opportunities **(**Facebook, 2010).

Module Topic Understanding → Viewing Corporate Businesses with Relevant Academic Facebook Posts (O)

Explanation Fifteen: Similar to the previous relationship, as the topic understanding increases or decreases, the student's ability to interact with the relevant corporate business fan pages may increase or decrease based on the previous variable. This is supported by services such as the IBM fan page which provides relevant content with their current projects and hyperlinks to other projects which students may be able to utilize for case studies examples within assignments and exams (IBM, 200-).

Interaction on LC Module Discussion Boards → Individual's Time Management Skills (S)

Explanation Sixteen: For this instance, the more time available to interact with all learning central resources causes better time management and prioritising particular items.

Tutorial Learning → Interaction across Cardiff Mailing Systems (O)

Explanation Seventeen: For this instance, as tutorial learning decreases, the interaction across Cardiff mailing systems in terms of questioning the lecture to classifying points, will begin to increase as the student lacks understands of the content being taught.

Laboratory Learning → Interaction across Cardiff Mailing Systems (O)

Explanation Eighteen: For this instance, as laboratory learning decreases, the interaction across Cardiff mailing systems in terms of questioning the lecture to classifying points, will begin to increase as the student lacks understands of the content being taught.

Interaction across Cardiff Mailing Systems → Career Planning (S)

Explanation Nineteen: For this relationship, as the interaction across the Cardiff mailing system increases, the opportunity to sign up to job prospects sites and interaction with a Careers Advisor within the school increases.

Learner's Potential Development → Career Planning (S)

Explanation Twenty: For this relationship, as the module results begin to get higher or maintain a high level of academic performance, this reflects the capabilities to be able to find graduate jobs based on obtaining at least a 2:1 within the degree scheme.

Academic Twitter Posts → Academic Twitter Direct Messaging (S)

Explanation Twenty-One: As more Twitter posts are discovered, the student is likely to become more interested in the content being displayed and could potentially wish to direct message the profile owner to further their understanding of the content being taught.

Individual's Motivation → Individual's Time Management Skills (S)

Explanation Twenty-Two: Deemed to be a correlation between the individual's motivation increases and the having an adverse effect on the time management skills to ensure all lectures are attended, assignments are completed to a high standard and strong ability to prioritise tasks.

Assessment Stress → Individual's Motivation (S)

Explanation Twenty-Three: As the levels of stress increase or decrease a similar pattern occurs with the individual's motivation. As a deadline approaches the student will obviously be stressed and forcing them to be more motivated to complete the task in hand.

Module Topic Knowledge → Individual's Motivation (O)

Explanation Twenty-Four: For this relationship, as the topic understanding increases different students have different perspectives in terms of the desire to be motivated to complete tasks further.

Module Topic Knowledge → Academic Twitter Posts (O)

Explanation Twenty-Five: For this instance, as the module knowledge decreases or increases the usage of Twitter for discovering relevant posts on "following" profiles such as friends, companies or societies, becomes more active and increased usage.

Self-Confidence → Individual's Motivation (S)

Explanation Twenty-Six: As self-confidence improves whether that is within the academic or social environment it will have a beneficial effect on the individual's motivation to perform better within their academic surroundings. This may be in the form of being more interaction within lectures or tutorials and having more willingness to push for every last possible mark on an exam or assignment.

Self-Confidence → Skype Conference Calls (O)

Explanation Twenty-Seven: As self-confidence increases or decreases, the usage of Skype for video calling can increase or decrease. This is based on either for academic conference calling to fellow students wanting to discuss multiple topics within a group chat or even using the mechanism to phone close friends and family to provide support during a difficult settling period within first year at University.

Communication with Friends → Skype Conference Calls (S)

Explanation Twenty-Eight: In this relationship, as the communication with friends increases within the academic environment, this can then potentially cause Skype usage to steadily increase to provide some support to building on the academic knowledge already taught.

Communication with Friends → Facebook Group Conversions (S)

Explanation Twenty-Nine: As the communication with friends increases within and outside the academic realm, this causes more interaction to occur on Facebook group conservations. This method is typically used to provide classification particular issues that may have been discussed in previous conservations.

Facebook Group Conversions → Academic Facebook Group Chats (S)

Explanation Thirty: As the main group Facebook conservation occurs, smaller friend group interaction chats begin to occur if a particular post on Facebook has worried a particular individual. This separate conversation assists with classify issues between friends if the individual is unwilling to make they confusion shown publicly.

Academic Facebook Group Chats → Academic Facebook Private Messaging (S)

Explanation Thirty-One: As Facebook group chats begin this can have an increasing effect on the private messaging between particular profiles. If the individual can not fully understand the comments being stated by the friends within the chat, they may then wish to privately message the individual who posted the initial point within the Facebook group.

Unplanned Illness → Module Topic Understanding (O)

Explanation Thirty-Two: As unplanned illness occurs increases, this can decrease the module understanding as the student will miss lectures, tutorials and laboratory sessions. This makes it difficult for the student to stay on top of work due to them having to catch up on work they may have missed and then having to continually understand the new content still being taught.

Unplanned Illness → Facebook Group Conversions (S)

Explanation Thirty-Three: As unplanned illness begins to occur, the Facebook group conversions will begin to increase as the student needs to play catch up on the content they have been missing during lectures, tutorials and laboratory classes. This provides crucial support for displaying the usefulness of social networking sites to provide not only essential teaching material but also a range of human comments to improve the student's understanding of a particular topic.

Online Forum Usage → Facebook Group Conversions (S)

Explanation Thirty-Four: As the online forum usage increases the usage of Facebook group conversions will in turn increase as well. This is due to students finding relevant content on online forum and willing to share the details of the content with other students on the Facebook group.

Viewing Corporate Businesses with Relevant Academic Facebook Posts → Viewing Corporate Businesses with Relevant Academic Twitter Posts (O)

Explanation Thirty-Five: In this instance, the increase or decrease of viewing Facebook posts will have an adverse or inverse effect on viewing Twitter posts. This point is purely based on the student's preference on social networking site mechanisms.

Viewing Corporate Businesses with Relevant Academic Twitter Posts → Viewing Corporate Businesses with Relevant Academic Facebook Posts (O)

Explanation Thirty-Six: In this instance, the increase or decrease of viewing Twitter posts will have an adverse or inverse effect on viewing Facebook posts. This point is purely based on the student's preference on social networking site mechanisms.

Appendix Two: Focus Group Structure

"To What Extent can Social Networking Sites enhance the Student Education Experience?"
Focus Group Procedure and Questions

Introduction:

Welcome and thank you for taking the time to attend our focus group. The purpose of this study is to build on the questions asked within my questionnaire in the previous semester and discuss your ideas on how this interactive teaching session should be structured. What you discuss here today will be very helpful for my individual project and your ideas will assist structuring this session for your course colleagues. You are welcome to ask me any questions about the research and about our discussion after today's session.

You have all been invited due to your interest with the teaching session and because you are likely to have a range of important views and experiences to share about this particular topic. The idea of this group discussion is to provide a calm and relaxed environment to allow you and the other invitees to contribute freely within the session.

All points of view both positive and negative comments, are important. How much you wish to contribute within this session is entirely up to you. You should not be worried about what you are expected to say as there is no right or wrong way, it is purely opinion based. However, please make sure you allow others to speak as the questions will be directed to the group and asking participants' view on the questions is valuable for my research.

So I do not miss any of the comments made, I will be audio tape recording this discussion and producing a transcript after this discussion. I have asked for your permission to do this as it will make my research much easier and allow the discussions to flow more easily. I should point out that your contributions with the discussion are purely anonymous and will be kept entirely confidential and just used for my project research and no third party.

Our discussion will last approximately 30 minutes and I would like to explore a number of topics within that timeframe. If you have any questions about the research could you please keep them until the end and I will be more than willing to answer your questions. Please feel free to ask questions throughout the discussion as long as it is related to the topic being discussed.

I would like to start by asking you to introduce yourselves individually, stating your name and current degree scheme you are studying and then the questions will follow afterwards.

Questions:

1) What was your first reaction to this type of teaching being introduced within a lecture?
2) Have you ever experienced any forms of learning that involves the use of social networking mechanisms?

3) Which module out of Developing Quality Software and Professional Skills, do you feel this module would be more applicable to?
4) What social networking mechanisms would you apply to this teaching session?
5) What are your views on using personal and/or anonymous social networking accounts for these interactions within the teaching session?
6) What are your personal experiences with these social networking mechanisms to date?
7) If the concept of video conferencing was introduced within the lecture, what kind of individual would you want and what would their background need to be?
8) Do you think is proposed teaching method could work on multiple modules?

Thank you for your participation within this focus group. Just to reiterate the point made earlier, all your answers within this focus group will be kept strictly confidential and just used for my research within this project.

Understanding Your Participation

Please read this page carefully

I am asking for your participation in a focus group to assist the research in discovering how social networking sites enhance the student education experience. By participating in this focus group, you will be helping the construction of the teaching session based on your personal preferences on teaching styles.

I will observe your actions and record details about your responses and views during this focus group.

I will be recording the entire interview and reviewing all your actions made within the focus group once it is completed. By signing this document, you give your permission to use your voice recorded during the interview for the purposes of discovering learning preferences and improving the session based on viewpoints found within the focus group. All responses will remain anonymous as part of this study.

Any information attained from this interview but remains confidential and not released to any other projects with a similar research area.

You may tell the evaluator if you wish to pause at any point within the evaluation procedure.

If you have any questions, please ask them now

If you agree with these terms, please indicate your agreement by signing here:

Please print your name _____

Signature   _____

Date   _____

Appendix Four: Interactive Teaching Session

Prepared By: Samuel Boyes (Information Systems Year 3 Student)

Module/Code: CM1203 Fundamentals of Computing within Java

Overview & Purpose: Evaluate to what extent social networking sites enhance the student education experience. Uses Facebook Groups, Twitter Hash tags and Potential External Skype Calling within the Session.	Education Standard: Year One BSc Business Information Systems BSc Computer Science BSc Computer Science with High Performance Computing BSc Computer Science with Security and Forensics BSc Computer Science with Visual Computing BSc Computer Systems Engineering BSc Software Engineering

	Teacher Guide	Student Guide	
Objectives (Specify Skills/Information that will be learned)	• Ensure the students understand project development using Java within real life projects in industry. • Students willing to discuss their own project experiences to date.	• Understand the new content being taught surrounding project management, development and people management.	Teaching Materials Required: None Stated
Information (Give and/or demonstrate necessary information)	• Lecture Slides designed to inform the students of content, the types of team roles and motivation factors surrounding project management.	• Utilise the chance to ask the lecturer questions about the content being taught and any further issues surrounding their own project work.	Other Resources (E.g. Handouts/Lecture Slides/Textbooks): Lecture slides provided upon entering the lecture

Verification (Steps to check for students understand content and processes)	• Facebook polls and discussion questions within the Secret Facebook group.	• Group discussions to clarify the content delivered has been understood by everyone within the session.	Additional Notes: Provides the opportunity for students to clarify both content being taught in the lecture but also ask questions about issues they are having with project development.
Activity (Describe the independent activity to reinforce the lesson)	• Group discussions and posting on the Facebook group or Tweets about content being taught.	• Group discussions to decide on their own team member types and their preferences on how to motivate individuals.	
Summary (Display the importance of this type of session/Gain student understanding)	• Provide an innovative teaching method that includes the traditional lectures within the module, alongside supplementary social networking mechanisms.	• Give a slightly different learning method for the students involved within the session.	

Appendix Five: Focus Group Facebook Post

CALLING ALL FIRST YEARS:

This is a follow up message about research for my final year project which you will have heard about if you completed my questionnaire last semester. I need 8-10 of you guys to take part in focus group which will last approximately 30 minutes and I would like to ask up to 10 questions to gain different perspectives on using social networking sites within education. The provisional date for the focus group will be Wednesday 20th February but a time will not be confirmed until I know all the participants' availability.

If you are interested please can you either private message me or like this post, so I can sort out the arrangements for the session to take place.

Some food will be provided as a thank you for taking part.

Thanks guys!

Appendix Six: Focus Group Email

Hi Guys,

As you may or may not remember, each of you completed my questionnaire for me in the last semester. As you guys showed an interest in my proposed teaching session, I will now be running a focus group to gain your individual preferences about the how the session should be delivered and provide more of an interactive chat to discuss viewpoints on the topic. If any of you are interested in taking part in my focus group I would be extremely grateful. The focus group will probably take place on Wednesday 20th February. If you know any other students who would be willing help with the focus group, please ask them to get in contact with me.

Thanks

Sam

Dear Sarah,

I am a third year Information Systems student producing my final year project which is researching the area of "To What Extent can Social Networking Sites enhance the Student Education Experience?". My Supervisor is Professor Whitaker and he suggested you were the best person to speak to first. As part of my research I will be constructing an interactive teaching session which utilises Facebook, Twitter and Skype within the session. I have sorted the procedure for using Facebook and Twitter, however I need your assistance with the Skype part of my session. I want to include a recent Cardiff University School of Computer Science & Informatics Graduate to speak during the session, ideally someone who is working in industry now. The alternative option is to Skype an experienced professional in industry who can speak to the students about their experiences in work and the graduate recruitment procedure. This teaching session is only for first years and will be within either the Professional Skills or Developing Quality Software module. Any help with finding the individual would be very much appreciated.

Kind regards

Sam

Response:

Hi Sam

Are you a member of LinkedIn? We have a School group set up on there with lots of alumni who have joined as members and are now working in the field, so that would probably be a good first port of call.

I also have the details of a few others - mainly who graduated last year - that I could help put you in touch with if you weren't having any luck through LinkedIn?

We (as a School) also have good contacts with the graduate recruitment person at IBM if that's the sort of thing you were thinking of as well...
Let me know and I'll try my best to help.

Best wishes
Sarah

My Response:

Hi Sarah

Thanks for responding so quickly. Either of the two options would be great, I do not know if its easier for you to start the discussions with the individuals such as the graduates or the IBM graduate recruitment person, or alternatively I get in contact with them through any form of email addresses you have available. The session is not due to take place until week 6 or 7 but I know how these kind of things need to be planned in advance. My preference would be for me to go through you as the point of contact as they are more likely to respond to you due to your position in the school.

Thanks

Sam

Response:

Hi Sam

Just wanted to let you know that I have contacted one of our graduates via LinkedIn who has been recommended to me by a couple of other staff members when I was asking who would be good for your project.

I'm waiting to hear back from her and will let you know as soon as I do.

Thanks

Sarah

Response:

Hi Sam

Jennifer Lay graduated in 2011 and is happy to be interviewed for your project and for me to pass on your contact details.

Her number is: 07976 592860.

You would need to speak with her after 6pm if that's ok or on weekends. She is also coming along to the Turing Lecture this Thursday evening if you wanted the opportunity to meet with her face-to-face.

Hopes this helps - I've told Jennifer you will be in touch.

Thanks very much

Sarah

Appendix Eight: Focus Group Comments Analysis

Transcript Extract	Argumentative Questions	Linguistic Resources	Summary of Reaction Based on the Answer's Usefulness: :) :/ :(
Person One:	**Reaction to this type of teaching?** "That its a good idea" **Experience of learning that involves the use of social networking mechanisms?** "No" **Which module? Applicability?** No Comment **What social networking mechanisms?** "It could just be a public?" In relation to the openness of the Facebook group. **Personal and/or anonymous accounts?** No Comment	**Time Markers:** **Contrast:** "It could just be a public?" suggesting an alternative to the approach which was being put in place. **Conviction:** **Vagueness:** "No Comment" was given in some cases either due to not wanting to contribute or felt others had answered the question in a similar way they would have contributed. **Awareness of the Topic:** "Facebook, YouTube and Twitter"	**Q1) :)** **Q2) :(** **Q3) :/** **Q4) :)** **Q5) :/** **Q6) :)** **Q7) :/** **Q8) :/**

	Personal experiences with social networking mechanisms? "Facebook, YouTube and Twitter" **Video conferencing?** No Comment **Multiple modules?** No Comment		
Person Two:	**Reaction to this type of teaching?** "Yeah, we haven't really had much experience with it. I can not really think of a time when a lecturer has used that method of teaching for us…apart from Kirill. Yeah using your phone to text in items within the session" **Experience of learning that involves the use of social networking mechanisms?** "No"		**Q1) :)** **Q2) :(** **Q3) :)** **Q4) :)** **Q5) :/** **Q6) :)** **Q7) :)** **Q8) :)**

	Which module? Applicability? "Professional Skills seems a lot more guest lecturer based, more edges towards one off lectures. Had different lectures of different people and the attendance is a lot lower because the module is 100% coursework assignment based" **What social networking mechanisms?** "The only problem with that is that I know from some students in the past, do not like Facebook or do not want it due to privacy issues. They may feel they are missing out on the items if lecturers are talking to you and saying these. They should not be obligated to join" "I guess its hard for them, they can view the group but they may still feel like they are losing out from the items being discussed on there instead of lectures" **Personal and/or anonymous accounts?**		

	No Comment **Personal experiences with social networking mechanisms?** "Facebook, Twitter and Tumblr" **Video conferencing?** "The main issue would be Eduroam and having a secure connection" **Multiple modules?** "I don't think it could work if you were trying to teach a language such as Java. Due to you needing to have a PowerPoint on another screen or something to be working on the two teaching methods at once. As you wont be able to keep up if it is just words and you wont really understand" "Yeah you need to see the code being taught at the time"		
Person Three:	**Reaction to this type of teaching?**		Q1) :) Q2) :(

	"But that method was anonymous but there was a problem with people sending stuff in from their phone's and thinking it was funny" **Experience of learning that involves the use of social networking mechanisms?** "No" **Which module? Applicability?** No Comment **What social networking mechanisms?** No Comment **Personal and/or anonymous accounts?** No Comment **Personal experiences with social networking mechanisms?** "Facebook, Twitter and foursquare"		**Q3) :/** **Q4) :/** **Q5) :/** **Q6) :)** **Q7) :/** **Q8) :/**

	Video conferencing? No Comment **Multiple modules?** No Comment		
Person Four:	**Reaction to this type of teaching?** "We also have the unofficial COMSCI Facebook group, which some lecturers are actually in such as Kirill" **Experience of learning that involves the use of social networking mechanisms?** "No" **Which module? Applicability?** No Comment **What social networking mechanisms?** "I think a Facebook group for each module would be a good idea, as the		**Q1) :)** **Q2) :(** **Q3) :/** **Q4) :)** **Q5) :/** **Q6) :)** **Q7) :)** **Q8) :)**

	lecturers go through you can ask questions and share notes on the module itself" **Personal and/or anonymous accounts?** No Comment **Personal experiences with social networking mechanisms?** "Facebook, Twitter and foursquare" **Video conferencing?** "I think the a person from IBM would be quite good, then I guess a previous a student who has their degree and is actually working is as good. It depends would you just be going to the lecture just for them?" **Multiple modules?** "The same with teaching a language, if you had say someone who's job is now working with Java, the idea of video conferencing could give additional insight to the session		

	itself. I agree with you in terms of the PowerPoint side of things"		
Person Five:	**Reaction to this type of teaching?** No Comment **Experience of learning that involves the use of social networking mechanisms?** "No" **Which module? Applicability?** "Developing Quality Software because you are in groups for it, it would allow you to share your ideas with other groups to see if you are having similar problems. Due to you being with your group the whole time, you do not get the chance to see how other people are doing" **What social networking mechanisms?** No Comment **Personal and/or anonymous**		**Q1) :/** **Q2) :(** **Q3) :)** **Q4) :/** **Q5) :)** **Q6) :)** **Q7) :)** **Q8) :/**

	accounts? "I think you need both, as if you ask a question it is nice to allow the lecturer to know who asked the question so they can directly get back to you with the relevant information. At the same time, I think it would benefit being anonymous as it gives the students the chance who do not have the confidence to ask a question within the lecture to be able to push their idea forwards to get the answer they want" **Personal experiences with social networking mechanisms?** "Facebook and YouTube" **Video conferencing?** "I do not think their background really matters, as long as the guest speaker makes the session more interesting and I don't think the background matters that much. Since you are only proving the principle, it doesn't really matter		

	what their background is" **Multiple modules?** No Comment		

Participant One – Male Student, Third Year BSc Information Systems

Moderator: "What was your first reaction to this type of teaching being introduced within a lecture?"

Participant One: "I think people would engage more if it was something I could potentially relate and people would relate to it more if they were interested in the topic. It could be used a lot more than something like the Cardiff Portal, the use Facebook, Twitter and Skype could potentially have a very positive affect on learning"

Moderator: "Have you ever experienced any forms of learning that involves the use of social networking mechanisms?"

Participant One: "Not learning as such, portal is not really a social networking site. Use social networking help in my group work within learning for modules. It is a lot for work and communicating within private Facebook group but minimal within Twitter if any. Skype could help through interaction. Facebook used for sharing group work and creating group meetings"

Moderator: "Which module out of Developing Quality Software and Professional Skills, do you feel this module would be more applicable to?"

Participant One: "Professional Skills is more emphasis on websites and appearance, used for usability and improving usability in conjunction with learning with Facebook, Twitter and Skype. It is more applicable to this sort of area compared to Developing Quality Software"

Moderator: "What social networking mechanisms would you apply to this teaching session?"

Participant One: "Depends on the aims of the learning itself, using out of hours learning Skype could be very useful. I think Facebook with the ease of setting up groups can be help students within their organisation. There has been one or more modules were Facebook groups have been used for communication, could be an option. Twitter is a good research tool within the lectures for retrieving data and other viewpoints compared to what is being taught"

Moderator: "What are your views on using personal and/or anonymous social networking accounts for these interactions within the teaching session?"

Participant One: "Depends on the context, whether its private based questions, then anonymous would be ideal. Especially if it entails people asking questions about the topic and not wanting to be known. If there is consent to use their questions and communications, then personal account usage would be fine. Additionally, it depends on the context you are working with such as group work"

Moderator: "What are your personal experiences with these social networking mechanisms to date?"

Participant One: "Facebook and Twitter mainly, only use Skype if I am away. Mainly Facebook and Twitter but growing more towards using Twitter currently"

Moderator: "If the concept of video conferencing was introduced within the lecture, what kind of individual would you want and what would their background need to be?"

Participant One: "Someone who is going to apply themselves, bringing a new wave to the lecture as it would keep students engaged more. More 3D dimensional learning and ideal if someone wants to come in as a guest lecturer would can not make the slot they were given. Gives another opinion from someone who is not actually there, gives a second input into the conversation. You want the person to give a good input, depends on what is being said, the relevance of the topic and its applicability"

Moderator: "Do you think is proposed teaching method could work on multiple modules?"

Participant One: "I think other modules it could work, I cant see why not. Especially emphasis on Skype, it could be applicable to all modules in that case. If a student was able to view the lecture by Skype, it could work for all modules"

Feedback Participant One:
- "I think they are very good but one thing I would say is that you are unsure whether you are taking the viewpoint of a student or a lecturer. That could be made more clearly but apart from that it is fine"

Participant Two and Three – Female Students, Third Year BSc Information Systems

Moderator: "What was your first reaction to this type of teaching being introduced within a lecture?"

Participant Two: "I think it would be useful, it ones of those things where Irena tried it when she lectured Informatics and she included the Facebook polls for discussion. I definitely think as an outside it is useful as you can refer back to it when you are doing extra reading or revision because students are always on their computers in lectures anyway, it brings their focus back to lets respond to this online rather than just not paying attention"

Participant Three: "I agree, Facebook is on your phones, on your iPads and you are on it in the lectures whether the lecturer knows about it or not. It's great to interact with it but the problem is with Facebook as the posts appear. If you didn't go on it for a day, or have been inactive you completely miss the thread and when it comes to coursework or lectures you can miss important stuff. It's good to use within lectures for discussions, especially stuff that is additional and not compulsory to the module learning. I still think emails and learning central should still be where the core documents come from. With Twitter, there is not enough space to do it. I do not think that's a great one. I think Skype would be a good one if you can't physically be at the lecture, its good but obviously you have to make sure you have reliable communications. If you only have an hour slot and you are messing around with connections it can be difficult"

Participant Two: "Twitter is a good one actually, I know a friend's lecturer within a different school in Cardiff University used it and they used it to post references or news articles because you do not have the same problem with Facebook as it all changes based on activity rather than time logs, you can just scroll down and check what the lecturer has posted for the day"

Moderator: "Have you ever experienced any forms of learning that involves the use of social networking mechanisms?"

Participant Two: "Relevant more to this year with the final year project, Irena again has done a lot of things were she has posted relevant information for different people's projects within the private supervisor group"

Participant Three: "The flip side is that not so much learning from a lecturer's perspective but students setup Facebook groups to support one another, so in terms of learning if you are really stuck and you are not comfortable contacting the lecturer or if the lecturer is not particularly helpful it can be a really great asset. You just have to be careful on the boundaries of what is acceptable to post and what could be seen as cheating"

Participant Two: "YouTube is another good one, as you can post relevant videos within the Facebook groups"

Moderator: "Which module out of Developing Quality Software and Professional Skills, do you feel this module would be more applicable to?"

Participant Three: "Developing Quality Software just because Professional Skills can be tedious and you hear it from so many other things, I don't think you would need extra information or support within the topic as it is such as simple thing to deliver. With

Developing Quality Software, the ability to share YouTube videos, they were a great help for revision and project development as it assists your understanding of how different people play different roles within a project group. YouTube videos were great for that as it allows the students to understand the real world scenario. Whereas, Professional Skills, you can explain it on paper or lecture slides which is sufficient enough I think"

Participant Two: "The thing I would argue is that Professional Skills you don't need the extra resources, you could do your lecture based purely on Facebook which may make it more interesting or tutorials designed for more interaction. I remember it was easy to switch off during the lectures or not pay attention"

Participant Three: "Would you pay attention if Facebook was used?"

Participant Two: "If it was made interactive"

Participant Three: "True. If someone posted a CV and you had to spot the difference that would be good, that would make it a bit more interesting"

Moderator: "What social networking mechanisms would you apply to this teaching session?"

Participant Three: "I think Skype should be available for when you can not attend the lectures for whatever reason, just so you can sign on to some sort of live feed. I also think YouTube videos is a really good one as well and as said Twitter is good for posting links. Just because if Facebook gets mixed based on interactions and you may miss a particular item"

Participant Two: "For example, the law school tried for a while to record all of their lectures and then posting them up towards revision time, so you can go back and refresh your mind of the comments made and that would be a useful thing"

Moderator: "What are your views on using personal and/or anonymous social networking accounts for these interactions within the teaching session?"

Participant Two: "Anonymous I would say, as the personal one if you gain access things, Facebook constantly changes its privacy settings and you are constantly trying to stay up to date on what people are allowed access to. If it is an anonymous account you do not have to worry about lecturers gaining access to your personal account or other people you do not necessarily to see your profile"

Participant Three: "That's the thing with Facebook groups. For example, in Irena's module you had to physically become friends with her work Facebook account to be allowed access to the private discussion group. Therefore, she could see all of your profile, just by you joining a group to gain access to lecture information. You definitely did not have to do that I would definitely use my own personal account as that wouldn't bother me but when you have to do that, that's when I would rather choose to have an anonymous account. Whereas, with Twitter it isn't anything about you and you can just follow someone. It's more of a one way system whereas with Facebook it was to be two ways"

Participant Two: "Id say for LinkedIn or Twitter it is fine to use your own personal one but when it comes to Facebook because it's more of a socialising site it becomes anonymous maybe"

Participant Three: "I think with Skype, you turn off the camera and only view it one way"

Moderator: "What are your personal experiences with these social networking mechanisms to date?"

Participant Three: "I use Facebook purely for communicating at University and contacting from when I am way from home. I don't use it for any career aspects, when I move into a real career I will probably shut it down and use it on a minimal basis if someone wants to contact me they can but I wouldn't use it. I don't use Twitter, I am not very good a keeping posts short and LinkedIn I use that quiet a lot"

Participant Two: "Facebook is the socially element, contacting people in Uni or contacting people from home which I can not see directly in person. With the professional side of things, I keep it very private. I barely use Twitter, just simply for following other people and not actually sending tweets and LinkedIn in I have only just started using."

Participant Three: "If you find me, you can not see anything about me unless you are friends with me on Facebook and I have heavily restricted privacy settings on it unless you are friends with me"

Moderator: "If the concept of video conferencing was introduced within the lecture, what kind of individual would you want and what would their background need to be?"

Participant Three: "Kind of like what that individual is now working on, bring someone in from the industry who is doing it currently do it now. Not another lecturer who is teaching the course within another University because I don't see the point in that. I just want to know what the job is and why the lecturer feels they would be beneficial to the course"

Participant Two: "Developing Quality Software, you don't really have a client with that one but maybe you could practice conference calling but I suppose that is more the second year basis"

Moderator: "Do you think is proposed teaching method could work on multiple modules?"

Participant Three: "I think our school as whole would be relevant as the degree as a whole are such hot degrees that the subject is changing all the time and every module is about a year or two behide the industry. I think you could have it within all the modules as it is still relevant because our degree is relevant to such current things but perhaps other schools such as English or History, you don't necessary need a real life perspective on things where as within Computer Science you do. Within Computer Science you can not just do things through theory, so yes you could have within multiple modules"

Participant Two: "I would agree it can be used within all of them, I just think within some of them you could not use it all the way through the course. Some modules you need the theory behide it before you start applying new teaching technologies."

Participant Three: "More relevant to second and third years when you are doing group or individual projects. Computer Forensics, it could be a handy module to use because someone within the Police force could Skype, talk about their experience with Computer Forensics and talk about recent cases they have had"

Feedback Participant Two:

- "The questions are really clear, I could always answer them. I don't think there would be a problem with those. Potentially use Facebook or Twitter examples of how the teaching could work. Depends on the feedbacks you get from the students, is there a back-up plan if the conversation starts to become dry"

Feedback Participant Three:

- "I may be worth explicitly stating what social media you want to directly use within the teaching session, providing prompts to aid the discussion. With examples, be careful not to indirectly prompt them to make an answer based on that"

Moderator: "What was your first reaction to this type of teaching being introduced within a lecture?"

Participant One: "That its a good idea"

Participant Two: "Yeah, we haven't really had much experience with it. I can not really think of a time when a lecturer has used that method of teaching for us…apart from Krill. Yeah using your phone to text in items within the session"

Participant Three: "But that method was anonymous but there was a problem with people sending stuff in from their phone's and thinking it was funny"

Participant Four: "We also have the unofficial COMSCI Facebook group, which some lecturers are actually in such as Kirill"

Moderator: "Have you ever experienced any forms of learning that involves the use of social networking mechanisms?"

Participant One: "No"

Participant Two: "No"

Participant Three: "No"

Participant Four: "No"

Participant Five: "No"

Moderator: "Which module out of Developing Quality Software and Professional Skills, do you feel this module would be more applicable to?"

Participant Five: "Developing Quality Software because you are in groups for it, it would allow you to share your ideas with other groups to see if you are having similar problems. Due to you being with your group the whole time, you do not get the chance to see how other people are doing"

Participant Two: "Professional Skills seems a lot more guest lecturer based, more edges towards one off lectures. Had different lectures of different people and the attendance is a lot lower because the module is 100% coursework assignment based"

Moderator: "What social networking mechanisms would you apply to this teaching session?"

Participant Four: "I think a Facebook group for each module would be a good idea, as the lecturers go through you can ask questions and share notes on the module itself"

Participant Two: "The only problem with that is that I know from some students in the past, do not like Facebook or do not want it due to privacy issues. They may feel they are missing

out on the items if lecturers are talking to you and saying these. They should not be obligated to join"

Participant One: "It could just be a public?"

Participant Two: "I guess its hard for them, they can view the group but they may still feel like they are losing out from the items being discussed on there instead of lectures"

Moderator Prompt: "Have you ever had any lecturers so far use polls for multiple choice questions, We had a module last year where Irena Spasic, would deliver a lecture and as a summary at the end of the lecture she would post a poll being used as a question with multiple choice answers. Have you used anything like that before?"

Participant Two: "Krill used it for one of the exam questions….to do with what exam questions people were happy answering."

Moderator: "What are your views on using personal and/or anonymous social networking accounts for these interactions within the teaching session?"

Participant Five: "I think you need both, as if you ask a question it is nice to allow the lecturer to know who asked the question so they can directly get back to you with the relevant information. At the same time, I think it would benefit being anonymous as it gives the students the chance who do not have the confidence to ask a question within the lecture to be able to push their idea forwards to get the answer they want"

Moderator: "What are your personal experiences with these social networking mechanisms to date?"

Participant One: "Facebook, YouTube and Twitter"

Participant Two: "Facebook, Twitter and Tumblr"

Participant Three: "Facebook, Twitter and foursquare"

Participant Four: "Facebook, Twitter and foursquare"

Participant Five: "Facebook and YouTube"

Moderator Prompt: "Do you find you tend to spend more time on one than the other?

All Participants: "Facebook!"

Participant Two: "Constantly using it"

Moderator: "If the concept of video conferencing was introduced within the lecture, what kind of individual would you want and what would their background need to be? e.g. A graduate recruitment person from IBM or an COMSC graduate from a few years ago"

Participant Four: "I think the a person from IBM would be quite good, then I guess a previous a student who has their degree and is actually working is as good. It depends would you just be going to the lecture just for them?"

Moderator Answer: "What I am trying to do is essentially a presentation that a lecturer would normally deliver and alongside this students can interact on Facebook groups and having a specific Twitter hash tag to later aggregate the data. For the Skype instance, would be a small sub-section of the lecture and if the videoconference works correctly it could result in the students talking back to the person on the other side or alternatively asked for questions to be sent to be, I ask the person and then they respond but the chat would be video recorded. It is difficult to get the time slots to match as the person is obviously working and I will need to find a good time e.g. lunch hour, that fits well for both parties"

Participant Five: "I do not think their background really matters, as long as the guest speaker makes the session more interesting and I don't think the background matters that much. Since you are only proving the principle, it doesn't really matter what their background is"

Participant Two: "The main issue would be Eduroam and having a secure connection"

Moderator: "Do you think is proposed teaching method could work on multiple modules?"

Participant Two: "I don't think it could work if you were trying to teach a language such as Java. Due to you needing to have a PowerPoint on another screen or something to be working on the two teaching methods at once. As you wont be able to keep up if it is just words and you wont really understand"

Participant Four: "The same with teaching a language, if you had say someone who's job is now working with Java, the idea of video conferencing could give additional insight to the session itself. I agree with you in terms of the PowerPoint side of things"

Participant Two: "Yeah you need to see the code being taught at the time"

Moderator Prompt: "Just to clarify and summary the session, which module between Developing Quality Software and Professional Skills do you think this teaching method will be best suited? As once, this session is finished I need to approach the module leader for that module"

Participant Five: "I think Professional Skills is too broad and its hard to narrow down particular questions and topics.

Participant Four: "Yeah I think Developing Quality Software would be the one"

All Participants: "Yeah we agree that this should be one"

Appendix Eleven: Post-Teaching Session Feedback Questionnaire

FYP: Post-Teaching Session Feedback

*1. Are you male or female?

○ Male
○ Female

*2. What degree scheme are you currently studying?

○ BSc Business Information Systems
○ BSc Computer Science
○ BSc Computer Science with High Performance Computing
○ BSc Computer Science with Security and Forensics
○ BSc Computer Science with Visual Computing
○ BSc Computer Systems Engineering
○ BSc Software Engineering

*3. How beneficial was the Facebook discussion group within the teaching session?

○ Extremely beneficial
○ Very beneficial
○ Somewhat beneficial
○ Slightly beneficial
○ Not at all beneficial

*4. How beneficial was the use of Twitter within the teaching session?

○ Extremely beneficial
○ Very beneficial
○ Somewhat beneficial
○ Slightly beneficial
○ Not at all beneficial

*5. How beneficial was the use of Skype within the teaching session?

○ Extremely beneficial
○ Very beneficial
○ Somewhat beneficial
○ Slightly beneficial
○ Not at all beneficial

*6. Was there a particular aspect learnt, through the use of social networking mechanisms, that you thought was beneficial to understanding the content being taught?

[text box]

*7. Were there any particularly aspects, through the use of social networking mechanisms, that did not enhance your learning within the session?

[text box]

*8. Based on the following statements, how would you describe your approach to learning?

○ Prefer to have ideas explained to you verbally
○ Use words and phrases to visualise ideas
○ Engage and solve problems using a hands on approach
○ Prefer for information to be displayed in writing, such as drafting and note taking
○ Combining multiple learning concepts

*9. Based on your response to the previous question, which word would you associate with your previous answer?

○ Auditory
○ Visual
○ Kinesthetic
○ Read-Write
○ Multimodal

*10. Do you feel this type of supplementary teaching can be used within multiple modules and why?

○ Yes
○ No
Why?

[text box]

✱ 11. If this session was to be produced again, what would you change and why?

[text box]

✱ 12. Overall, how satisfied were you with using this type of learning alongside the traditional method?

○ Extremely satisfied
○ Very satisfied
○ Somewhat satisfied
○ Slightly satisfied
○ Not at all satisfied

[Done]

Appendix Twelve: Teaching Session Declaration

Understanding Your Participation

Please read this page carefully

I am asking for your participation within this experimental interactive teaching session, all the data that is uploaded within the session will be used solely for the purposes of my project and not given or sold to any third parties.

I am asking for your participation through the use of your personal social networking accounts in the form of Facebook and Twitter. An investigation has been conducted into using anonymous accounts and providing them as an alternative to the personal accounts. However, if you use a false name so that you can use Facebook anonymously, your account may be disabled according to Facebook's terms & conditions. The option to use the anonymous was removed as a result of the investigation. In terms of Twitter, the data posted, depending on the openness of your account, is made public and therefore please be aware that other users that will be able to see your tweets.

Your participation within this interactive session is purely optional but the more participants that are involved, the greater the interactivity levels and engagement with the teaching mechanisms being provided.

Please be aware that any data uploaded will be policed by the team giving the lecture and I would like to ask you to only post or tweet comments that are relevant to the topics being discussed and content that may be useful for exam revision or coursework research.

Thank You

Any further questions about the research please get in contact.

Samuel Boyes - BSc Information Systems Third Year
Boyessr@cardiff.ac.uk

Appendix Thirteen: Facebook Posts and Twitter Tweets

Related Tweets

Matt Williams @voxmjw
And here's the survey for those who attended. RT @sb0y3s: Post-session questionnaire available at http://www.surveymonkey.com/s/LKP92D7   #AskSNT2013

Martin Chorley @martinjc
Thanks to @HandyBiteSize for joining us to test @sb0y3s's social media enhanced lecture. Was a fun experiment. Also to @voxmjw for the time.

Matt Williams @voxmjw 26m
Ultra lecture over. ALL the online services -- Google Hangout, Facebook, Twitter. Big thanks to @HandyBiteSize, @martinjc, and
@sb0y3s.

Jamie MacDonald @TheJamieMac
#askSNT2013
Have you completed any high profile projects that we may have encountered?

Jamie MacDonald @TheJamieMac
#AskSNT2013
What would you say is your most interesting/challenging project to date?

Gari Rowlands @garirowlands
do you offer any placement schemes for students? #askSNT2013

Carey Hiles @HandyBiteSize
@garirowlands We do. Applications are closed for 2013 entry, but keep an eye on http://www.boxuk.com/graduates/apply/ … for next year #AskSNT2013

Samuel Boyes @sb0y3s retweeted by Martin Chorley
Post-session questionnaire available at http://www.surveymonkey.com/s/LKP92D7 #AskSNT2013

Sam Jones @Sam_Jones7
#AskSNT2013 how helpful is social media within consultancy in terms of helping clients understand their problem and your solution?

Ben Murphy @BenMurphy1990 favourited by Jamie MacDonald
Do you employ any eXtreme Programming methodologies alongside your agile software development methods? #AskSNT2013

Jake Middleton @jakemiddy
Do you have any graduate jobs for September or internships for this summer still available? #AskSNT2013

Carey Hiles @HandyBiteSize
@jakemiddy this years graduate applications closed in January sorry. http://bit.ly/TFA8Xq but we are always looking for talent #AskSNT2013

Jake Middleton @jakemiddy
Get involved with @sb0y3s' dissertation, investigating using social networking sites within the student education experience #AskSNT2013

Samuel Boyes @sb0y3s
FYP - Interactive Teaching Session: Any questions for @boxuk #AskSNT2013

ComScI Society @COMSCISociety retweeted by Elliot Howells
Get involved with @sb0y3s final yr project investigating use of social networking sites within the student education experience #AskSNT2013

Sam Jones @Sam_Jones7 retweeted by Jenny Carter
My uni colleague @sb0y3s is investigating the use of social networking sites within the student education experience.. Join in!! #AskSNT2013

Michael L.K @classic_mikey 14 Apr retweeted by Sam Jones
Legend of a guy @sb0y3s investigates social networking site usage within the student education experience - JOIN THE DEBATE!! #AskSNT2013

Lowri Williams @Lowri_Williams
#AskSNT2013 #help #dissertation #socialmedia #education #debate

Lowri Williams @Lowri_Williams
Check out @sb0y3s who investigates social networking site usage within the student education experience and join the debate #AskSNT2013

Jamie MacDonald @TheJamieMac 14 Apr
Get involved with @sb0y3s final yr project investigating use of social networking sites within the student education experience #AskSNT2013

Related Facebook Posts

Sam Boyes
Please help with my analysis of the teaching session by completing this short questionnaire. These 12 questions are crucial for understanding to what extent this method helped enhance the education experience and understanding how different students learn:

https://www.surveymonkey.com/s/LKP92D7
FYP: Post-Teaching Session Feedback Survey
www.surveymonkey.com

What topics within the module are you struggling with leading up to exam period?

- ○ **I & IS -Need for information in decision making**
- ○ **I & IS -Basic concepts: data, information, knowledge and metadata**
- ○ **I & IS - Categories of information based on source, nature, level, etc**
- ○ **I & IS - Characteristics of valuable information: avail, accur, reliab**
- ○ **I & IS - Organising data and information: structured, semi-struct and unstruct**
- ○ **MF for CS - Secure comms and crypto (prime nums, factoring vln, PubK and RSA**

alg

○ **MF for CS - Spatial navigation (trigonometry, vectors, matrices)**

○ **MF for CS - 3D geometry (dot and cross products, geometric transformations)**   **+1**

○ **MF for CS - Finding an answer (numerical techs, solving equations, approx sols)**

What topics within the module are you struggling with leading up to exam period? Continued

○ **Java Prog - Java virtual machine**

○ **Java Prog - Primitive types, variables, classes, objects and methods in Java**

○ **Java Prog - Input and output**

○ **Java Prog - Simple graphical objects and event-driven programs**

○ **Java Prog - Inheritance and generics**   **+3**

Sam Boyes
Join the Q&A on Twitter as well!

Sam Boyes
An innovative teaching method designed to support traditional lecture learning.

Please feel free to post questions that can be asked to a representative from Box UK using this or Twitter.

Please feel free to post relevant material, extra reading or anything interesting relevant to the topic of discussion within the lecture.

Twitter users, please feel free to use the supporting hash tag #AskSNT2013 to post similar items as an alternative to Facebook.

Sam Boyes
Looking forward to tomorrow afternoon, check out http://www.boxuk.com/ for more info about the participants involved #AskSNT2013

Software Consultancy | Agile Software Developers | UX Agency | Box UK
www.boxuk.com
Box UK are award-winning software consultants, Agile software developers and UX practitioners delivering high performance products for progressive organisations worldwide.

Sam Boyes
Are you struggling with a particular aspect within the module? please complete the poll below

Sam Boyes
Does anyone have any questions on the content discussed by Martin and Carey? or even general questions about the module?

Appendix Fourteen: Sentiment Analysis of Qualitative Questions

Question 6:

Approximate classification rationale: Useful[2] being able to communicate with other students while the lecture was on going .[sentence: 2,-1] To get a different view on things[-2] [sentence: 1,-2]

Approximate classification rationale: Experience in a working experiences [sentence: 1,-1]

Approximate classification rationale: Experience in a working environment [sentence: 1,-1]

Approximate classification rationale: Not in this case but I can see how it would [sentence: 1,-1]

Approximate classification rationale: The video conference was beneficial as I feel I paid more attention to it than I would have if it was a recording [sentence: 1,-1]

Approximate classification rationale: The video conferencing used was helpful[2] as it allowed someone with first hand knowledge and experience to contribute when they otherwise might not have been able to. [sentence: 2,-1]

Approximate classification rationale: having an actual programmer speaking to us [sentence: 1,-1]

Approximate classification rationale: Providing insight from someone within industry was great[3] for building on the concepts taught within [sentence: 3,-1]

Approximate classification rationale: Nice[3] to see someone from real world relating concepts [sentence: 3,-1]

Approximate classification rationale: Being able to ask questions to a professional in the field by the facebook group proved to be useful[2] [sentence: 2,-1]

Approximate classification rationale: It allows for real -time feedback ,It isn't always plausible to put your hand up and ask in a large lecture [sentence: 1,-1]

Approximate classification rationale: Having someone from industry really helped to actually put theory into practise [sentence: 1,-1]

Question 7:

Approximate classification rationale: More content was needed to help with the lecture [sentence: 1,-1]

Approximate classification rationale: Twitter ,I doesn't provide the same learning ability as facebook [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: Not really -it only added to the session [sentence: 1,-1]

Approximate classification rationale: The use of twitter and Facebook as a Q&A forum was not very beneficial. Perhaps in addition to this, they could be used to show interactive content to do with the topic. [sentence: 1,-1]

Approximate classification rationale: No one appeared to use the Facebook group and only a few people tweeted questions before the lecture [sentence: 1,-1]

Approximate classification rationale: the session has to stop and then restart so it disrupts [-2] the flow of the lecture [sentence: 1,-2]

Approximate classification rationale: Nobody seemed interested[2] in posting questions [sentence: 2,-1] (This instance should be reversed as word interested is used in a different context for this answer).

Approximate classification rationale: Other than google hangouts ,not sure what facebook and twitter added [sentence: 1,-1]

Approximate classification rationale: People didn't really seem interested[2] in the twitter or facebook questions [sentence: 2,-1]

Question 10:

Approximate classification rationale: having industry involved gives a different aspect [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: Easy to setup [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment

Approximate classification rationale: Students would be more willing to ask questions through social media [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: they don't have to worry[-4] about putting their hand up in lectures which can be intimidating[-4] [sentence: 1,-4] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: More interactive and engaging [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: to display interactive content /lecture content .[sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: its universal [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: It's fun[2] :D [1 emoticon] [sentence: 3,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: The concept of someone within industry giving a guest lecture can be applied to any content that is specific to the person's role in the their job [sentence: 1,-1]

Approximate classification rationale: It would help people to understand any problems[-2] they were having with the content [sentence: 1,-2]

Approximate classification rationale: Students would be able to learn in some new ways which they could find interesting[2] [sentence: 2,-1]

Approximate classification rationale: It allows students to engage more and take part in lectures which allows for better[2] concentration [sentence: 2,-1]

Approximate classification rationale: Use of google hangouts may facillitate more guest speakers as there is no need to travel [sentence: 1,-1]

Approximate classification rationale: All modules could benefit from the social aspect [sentence: 1,-1]

Approximate classification rationale: It's certainly doing no harm[-3] ,but presents no noticeable benefits .[sentence: 1,-3]

Question 11:

Approximate classification rationale: Make a new website so that the lecture and students can have more control on the content that is being displayed. Try not to use generic social media [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: Leave the video conference [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: More interactions /more opportunities for interaction as there was not a lot of content to be questioned about [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: I would have the stream of questions live on a screen in the room so we can all See what is being asked [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: More interaction between the local and remote [video]speakers [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: I would not change anything [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: I think it was well executed[-2] .[sentence: 1,-2] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: Adding some additional content [maybe surveys]to Facebook .[sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: more interactive [sentence: 1,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: Nothing :D [1 emoticon] [sentence: 2,-1] [result: max + and - of any sentence] (Detect Sentiment)

Approximate classification rationale: Make people more aware of the discussion mechanisms beforehand. [sentence: 1,-1]

Approximate classification rationale: More background beforehand [sentence: 1,-1]

Approximate classification rationale: Dont see what using facebook added and dont have twitter [sentence: 1,-1]

Approximate classification rationale: More information on the topics being discussed and time it so the lecture before, the lecturer goes it[sentence: 1,-1]