

STUDENT ATTITUDES TOWARDS THE USE OF ICT DURING SARS-INDUCED CLASS SUSPENSION - A PRELIMINARY REPORT

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1. Introduction¹

For most teachers, in-class or other kinds of face-to-face activities are the most natural, effective, and convenient ways to interact with students. However, this ideal world was not to be for most teachers in Hong Kong in April 2003. The city and, indeed, most parts of China and East Asia were squarely confronted with a highly contagious disease called Severe Acute Respiratory Syndrome (SARS), also known as Atypical Pneumonia. SARS remains a mysterious disease. We do not still have a clear idea of how it is exactly transmitted. As a result, precautionary measures in April 2003 included wearing face masks, avoiding crowds, and isolating oneself as much as possible. In such an unsettling environment, it was natural and logical for all formal classes in universities in Hong Kong to be suspended for two weeks (from April 1 to April 13) or more in some cases.

Given the situation where face-to-face instructions and lectures were not possible during this period, the University of Hong Kong encouraged its staff members and students to make use of other modes of communication to sustain learning. Information Communications Technology (ICT), thus, played a prominent role in this situation. Some of the natural questions would then be: (i) How did our students respond to this sudden change in learning and teaching modes? (ii) Were their experiences positive or negative? and (iii) How can we improve on the situation, if need be, in the event of another SARS-induced non-face-to-face course delivery situation?

One of the aims of this preliminary report is to share my experiences with colleagues and others in Hong Kong in the hope of finding better ways to curriculum development and course delivery should another SARS situation arise in subsequent years. On my part, I decided to deliver 'online lectures' for two of my courses, LING2041 Language and Information Technology and LING2018 Lexical-Functional Grammar, on the WebCT chatroom. In order to evaluate the effectiveness of such 'atypical lectures', a survey was carried out. The aim of the survey was mainly to investigate students' perception and attitudes towards the effectiveness of learning with ICT when there was no formal classroom teaching. It is believed this and similar surveys are necessary in the search for improved ways of sustaining learning in potential environments of Atypical Pneumonia or any other contagious diseases.

¹ I am grateful to my graduate students and teaching assistants, Tai-Chung Pui, Carmen Lee, Olivia Lam, Sophia Lee, and Natalie Yu, for their help in coordinating the online lectures. I also wish to thank those undergraduate students who participated in the survey for providing valuable data for this study.

2. Background Information

This questionnaire survey was conducted in mid-April 2003. Two linguistics classes, involving 35 students, participated in the survey after ‘attending’ two online lectures or tutorials using the chatroom system on WebCT, a web-based course tool.

3. The Results

An online questionnaire, consisting of 12 multiple-choice questions and one open-ended question (see Appendix), was administered on WebCT to the 35 students who took two of my courses by my teaching assistants. These questions ranged from how and where they accessed the course materials to their preferences about mode of course delivery. The following is a summary of the survey results, along with brief interpretational remarks about the import of the results.

3.1 Frequency of Internet Access

Questions 1 and 2 asked students how often they accessed the Internet before and during class suspension. The purpose of these questions was to see whether students would use the Internet more (or less) frequently when there were no classes.

More than half of the students said that they used the Internet more often during class suspension.

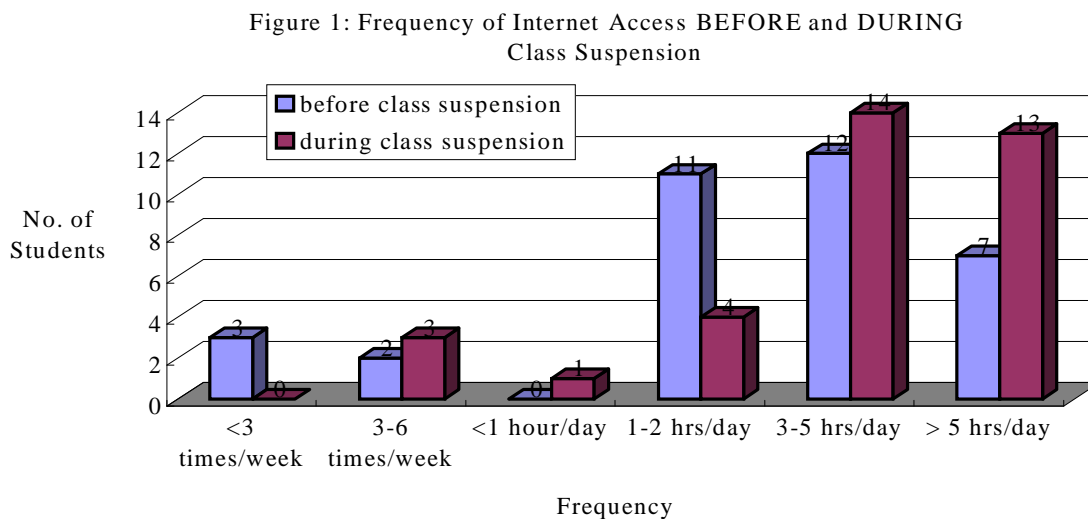


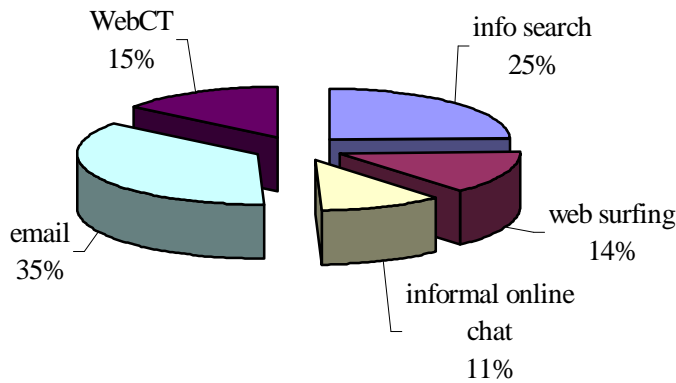
Figure 1 illustrates this point, showing that most students (27 out of 35) used the Internet more often during the class suspension period.

3.2 Purpose of Internet Access during Class Suspension

Question 3 was a general question that examined what students used the Internet for during class suspension. The most common uses of the Internet during class suspension were, as

depicted in figure 2, (i) email communication (35%), (ii) doing information search (25%), and (iii) using the WebCT (15%).

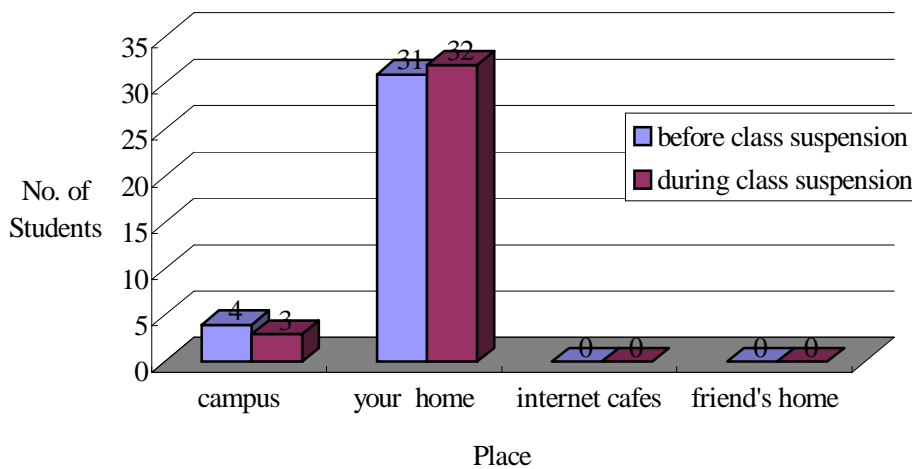
Figure 2: What do you use the Internet for DURING class suspension?



3.3 Location of Internet Access

Questions 4 and 5 addressed the issue of where students got access to the Internet. The aim was to investigate whether there would be a change of location of access because of the suspension of classes.

Figure 3: Location of Internet Access

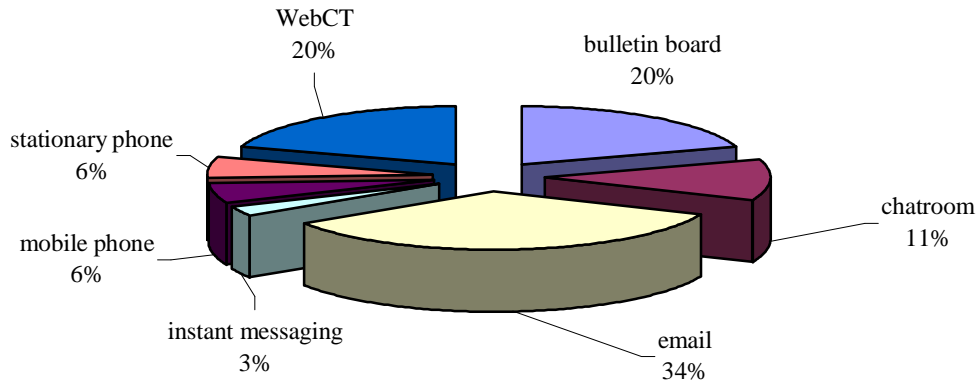


Interestingly, class suspension did not affect where students used the Internet. As clearly exhibited in Figure 3, both before and during class suspension, students usually logged on to the Internet from home, but seldom on campus and other places. This may be due to the fact that, nowadays, almost all students have their own computers and have access to Internet connection from home.

3.4 Preferred Medium of Communication for Teaching and Learning DURING Class Suspension

Question 6 asked students what channel of communication they would prefer for teaching and learning during the class suspension period. The results are shown in Figure 4 below.

Figure 4: Preferred Communication Media DURING Class Suspension

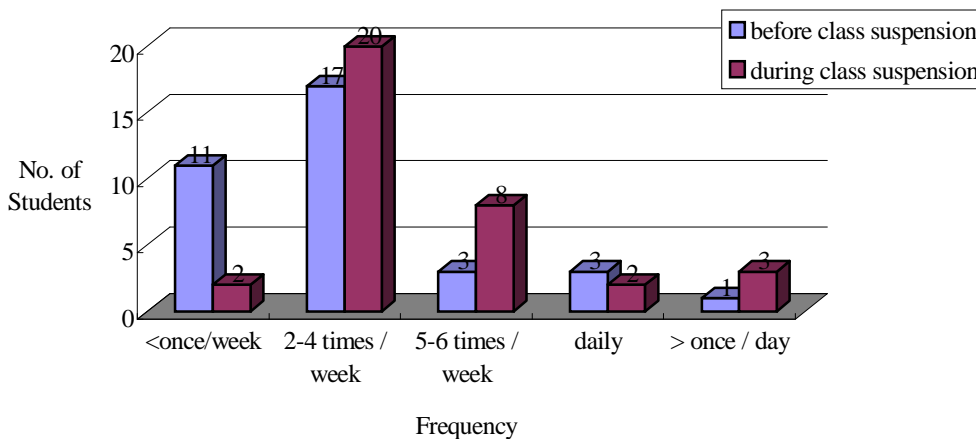


Of the 35 students, 12 students (34%) said that email would be the best mode of communication during class suspension. 7 students (20%) supported the use of WebCT while the use of bulletin board system was also supported by 7 students (20%).

3.5 Frequency of WebCT Access

Questions 7 and 8 examined how often students logged-on to the WebCT before and during class suspension, and whether students would log on more frequently during the class suspension period.

Figure 5: Frequency of WebCT Access BEFORE and DURING Class Suspension



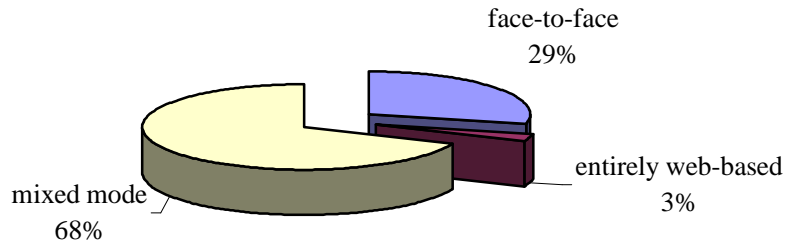
As would be expected, more students logged on to the WebCT during class suspension. As many as 28 of the 35 students logged on 2 to 6 times a week, while only 20 students did so *before* class suspension. Since students were mostly away from campus, it was natural that they relied mainly on ICT to access information about the courses.

3.6 Preferred Mode of University Education

This question aimed to find out what, from students' perspective, was the best mode of university education. There is quite a sustained debate in the literature on the merits and

demerits of non-face-to-face course delivery and it is necessary to find out what these students, some of who were presumably ‘attending’ lectures from a distance for the first time, felt about this mode of delivery.

Figure 6: Preferred Mode of University Education

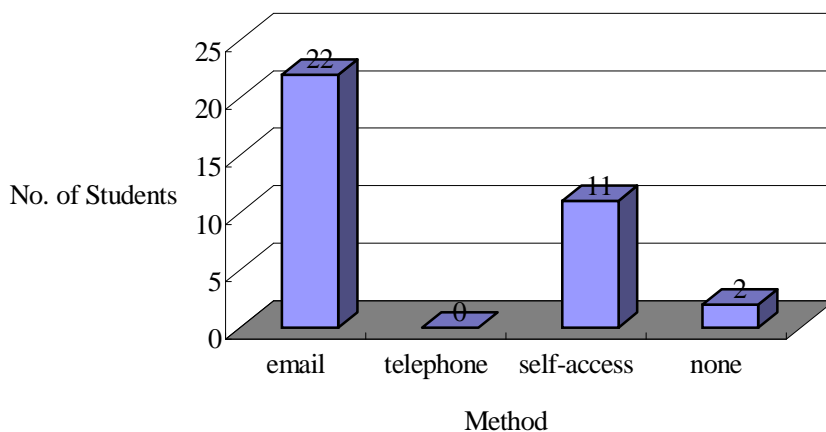


As is expected, most students dis-preferred solely web-based course delivery. They did not, however, entirely reject the concept of web-based course delivery. Indeed, as many as 68% of the students agreed that a mixed mode i.e. a combination of online activities and face-to-face interactions was the best mode of university education. This finding certainly presents a challenge to university lecturers who plan for how best to sustain learning and possibly continue interacting with students in the event of another SARS outbreak.

3.7 Mode of Learning in Other Courses

Question 11 asked students how they kept up with their learning in other courses that did not make use of WebCT. The aim here was to find out how students rated or evaluated other means of course delivery, such as telephone and email communication, which are different from the more comprehensive course delivery packages like WebCT and Blackboard.

Figure 7: Method of Learning in Other Courses (without WebCT)



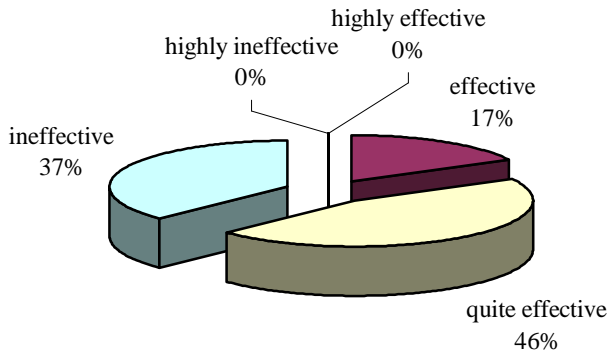
As can be seen in Figure 7, in most cases, the instructor would communicate with the students via email, while the rest of the students had to learn on their own i.e. they almost lost touch

with their course instructor or even learning as a whole. Though email communication fared better than the other non-WebCT means, it lags behind WebCT means in terms of the number of students maintaining contact with their course materials and course lecturers.

3.8 Evaluation of Online Lectures / Tutorials during Class Suspension

3.8.1 Overall Effectiveness of Online Lectures using WebCT chatroom

Figure 8: Overall Effectiveness of Online Lectures

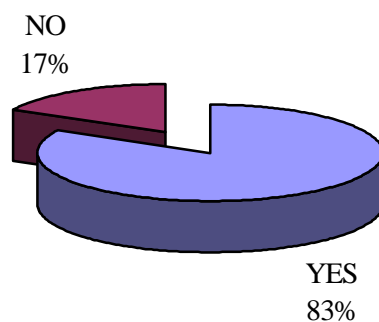


In an attempt to gauge the effectiveness of these atypical, solely ICT-based, lectures, we sought student opinions. Feedback from the students was quite positive in general. As can be read off from Figure 8, over 60% of the students found the online lectures effective or quite effective, while the rest, 37% of the students, thought that online lectures could be rather ineffective. The results are in line with the fact that most students preferred a mixed-mode learning environment.

3.8.2 Comparison of courses with and without WebCT intervention

In order to find out how course delivery on ICT mode fared compared with other non-face-to-face means during class suspension, question 12 asked students to evaluate whether they learnt better through participating in WebCT activities during suspension of classes.

Figure 9: Better Learning with WebCT?



The results are very encouraging. More than 80% of the students said that they did learn better with the WebCT during class suspension (than with other means of delivery).

4. Open-ended Comments

Besides multiple-choice questions, students were also asked to give open-ended comments. Such qualitative ways of gauging informant attitudes often go a long way to giving a more elaborate perspective of the survey situation. Of 35 students, 16 made comments on the online lectures or on the use of ICT for learning as a whole. We present below a mostly unedited version of student responses:

➤	I think the use of chatroom is a way to teach during the times of school suspension. However, I still think that face-to-face interaction is more important and useful. This is because when using the chatroom, sometimes, many people speak at the same time, and this will cause confusion. For example, someone may be answering the previous question whereas other people may ask another question.
➤	Sitting in front of the computer for a long time is tiring.
➤	I prefer to use the discussion board for discussion because the messages come in a more sequential order and it is easier for me to refer to previous messages and reply the others. The chatroom has also been very useful these two weeks, but maybe there are too many people and sometimes too many people speak at the same time and sometimes many people remain silent. Due to technical problems, I sometimes cannot type any English in the chatroom. Maybe next time, we should have online tutorials instead of online lectures. We can divide the whole class into smaller groups and this can ensure every classmate can take part in the discussion. Everyone can get some attention from the others. At the same time, the time for each session should be shortened, just like the formal tutorials. Maybe these arrangement would help a little bit. The online lectures these two weeks have been very interesting to me. Having been studying in HKU for nearly 3 years, I have my first time to have online lectures. From the first online discussion at night to the online lectures these two weeks, I recognised that there were fewer and fewer technical problems. I think this is really the efforts of Dr. Bodomo and our TA, Chung-pui. Anyway, these have been very good experiences. And it really helps me learn during the suspension period.
➤	The online lecture is a bit confusing sometimes. So many people talk at the same time. It is rather hard to follow the threads. The questions and answers posted may be separated far far away (other people' s comments may intervene in between the question and the answer). So, this makes late-comers very hard to follow what it has been talking.
➤	I think it' s good that our course has been making good use of the webCT all along, and the suspension period did not really affect our progress as much as other courses.
➤	Though ICT tools can help a lot during the class suspension period, I personally don' t like to rely heavily on ICT tools because it is not yet well constructed. Many problems can be raised which would slower the learning pace.
➤	It would be better if some audio application is used.
➤	I think the main problem of using the chatroom is I can' t follow the discussion when I come the chatroom a little bit late. I don' t know what have been discussed bf. It seems to miss something. I think it' s better to provide the script or summary of the discussion after the chatroom session.
➤	It is quite difficult to communicate and join the discussion in the chatroom when there are many people.
➤	The use of WebCT and online lectures allows the course to carry on without affecting the originally schedule, and also, allow student to carry on their learning. I think it is a good mode of learning especially during class suspension.
➤	The technical problem should be miminised. Other than chat room and email, tutor or lecturer can try to use ICQ to answer our questions as it is a more instant way
➤	I do believe the WebCT is quite useful and effective during the class suspension period, esp the online lecture and the exchange of information between lecturer and students. However, this

mode of teaching or communication can only operate on a secondary role, that means it can only ASSIST the communication, the face-to-face teaching is more reliable and effective.
➤ I think online lecture conducted in the chatroom of Web CT is very time consuming. The amount of discussion is quite limited. It may be better if we are assigned to different smaller groups. This motivates people to have more active participation.
➤ i always cant connect to the server and it wasted me a lot of time
➤ using ICT modes of learning is good
➤ It will be better if the time for having web classes is more flexible

As can be deduced from these comments, many of the students recognized the advantages of using ICT during class suspension. They agreed that participating in online lectures could help them keep up with their learning to an appreciable extent. Some of the students gave suggestions as to how the online lectures could be improved, though many of these comments had to do with technical issues, which did not necessarily reflect their opinions of the delivery of course contents.

5. Concluding Remarks

In this document, I have tried to share my experiences with other teachers about how a group of students coped with my efforts to brace the SARS outbreak and continue to teach my classes and sustain learning. I do this in the hope that, by sharing our experiences, we can find better ways of sustaining learning in the event of a similar outbreak. To improve on managing this situation of atypical lectures, we need to understand the attitudes and preferences of our students. In general, this preliminary study shows that online activities seem to be the preferred mode of communication when face-to-face instruction is not possible. In courses where WebCT was not used, instructors would still keep in touch with students via email communication, though I have doubts as to how interactivity was achieved in such a rather delayed mode of communication environment.

However, even though it was recognized that the use of ICT was generally helpful during class suspension, most students preferred a mixed-mode learning environment, i.e. a combination of face-to-face interaction and online activities. ICT tools like WebCT may thus be good learning aids that complement formal classroom education. One of the most salient points from this study, in my opinion, is that this student preference for a mixed-mode learning environment constitutes a challenge for our further development of course management and delivery in the event of SARS and other contagious diseases. Teachers would have to find ways of simulating a more face-to-face situation without being in the same physical surroundings. One such (imperfect) solution is the provision of resources such that teachers can do real-time, live, video-broadcasts of their lectures.

About the author:

Dr. Adams Bodomo is Associate Professor in the Department of Linguistics, University of Hong Kong. He is an avid believer in the use of ICT for enhancing learning. His current ICT-related projects include The Use of Information Technology in Teaching Language and Linguistics Courses, Linguistic Features of Mobile Phone Communication, and Communicating in the Age of Information Technology: New Forms of Language and Their Educational Implications. The preliminary report presented is part of a SARS-related project titled Atypical Lectures in an Environment of Atypical Pneumonia and Other Contagious Diseases.

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APPENDIX:

QUESTIONNAIRE SURVEY (APRIL 2003)
THE USE OF ICT DURING CLASS SUSPENSION

1. How often did you get access to the Internet BEFORE class suspension?
 - A. less than 3 times a week
 - B. 3-6 times a week
 - C. less than one hour per day
 - D. 1-2 hours per day
 - E. 3-5 hours per day
 - F. more than 5 hours per day

2. How often do you get access to the Internet DURING class suspension?
 - A. less than 3 times a week
 - B. 3-5 times a week
 - C. less than one hour per day
 - D. 1-2 hours per day
 - E. 3-5 hours per day
 - F. more than 5 hours per day

3. What do you use the Internet for DURING class suspension (Choose TWO)?
 - A. information search
 - B. web surfing
 - C. informal online chat
 - D. email communication
 - E. using web-based course tools (e.g. WebCT)

4. Where did you often get access to the Internet BEFORE class suspension?
 - A. campus
 - B. your home
 - C. friend's home
 - D. internet cafes

5. Where do you often get access to the Internet DURING class suspension?
 - A. campus
 - B. your home
 - C. friend's home
 - D. internet cafes

6. Which of the following communication media would you prefer for teaching and learning DURING class suspension?
 - A. bulletin board system
 - B. chatroom (e.g. IRC, chatroom on WebCT)
 - C. Email
 - D. instant messaging (e.g. ICQ, MSN/Yahoo Messenger)
 - E. mobile phone
 - F. stationary phone
 - G. web-based course tools (e.g. WebCT)

7. How often did you log onto the WebCT of this course BEFORE class suspension?
 - A. less than once a week
 - B. 2-4 times a week
 - C. 5-6 times a week
 - D. daily
 - E. more than once a day

8. How often do you logon to the WebCT of this course DURING class suspension?
 - A. less than once a week
 - B. 2-4 times a week
 - C. 5-6 times a week
 - D. daily
 - E. more than once a day

9. In GENERAL (i.e. with / without the threat of SARS), what, in your opinion, should be the best mode of university education?
 - A. face-to-face classroom education
 - B. entirely web-based education
 - C. mixed mode

10. How would you evaluate the effectiveness of an online lecture using a chatroom DURING class suspension?
 - A. highly ineffective
 - B. ineffective
 - C. quite effective
 - D. effective
 - E. highly effective

11. How do you keep up with your learning in other courses which do not have a WebCT platform?
 - A. The instructor / tutor communicates with you via email / instant messaging.
 - B. The instructor / tutor communicates with you on telephone.
 - C. Self-access learning (e.g. reading reference books, web-based information search)
 - D. None. Learning has been suspended throughout the class suspension period.

12. As compared to other courses which do not make use of any ICT modes of learning during class suspension, do you think that you can keep up with your learning better through participating in WebCT activities DURING class suspension?
 - A. Yes
 - B. No

13. Any other comments?