2010

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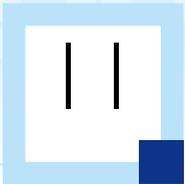
Wai Chung Ho
Hong Kong Baptist University, tediwch@hkbu.edu.hk

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Ho Wai Chung

Department of Music, Faculty of Arts

Preamble

New developments in e-learning and increasingly sophisticated learning technologies have brought a major impact on Hong Kong universities, which welcomed the implementation of Information Communication Technology (ICT) as being core to their educational missions, and to this end encouraged all graduates to be computer or ICT literate. Academics are increasingly concerned with the processes of curriculum change with respect to ICT in higher education, as well as with their delivery of multimedia lectures.

This project supported the new MA course entitled Psychology and Sociology of Music (MUS 4290). It intended to acquaint participants with the main areas of contemporary research in music psychology and sociology. It aimed to help participants to explore theoretical concepts and evidence from those disciplines of psychology, philosophy and sociology that are applicable to a variety of areas of music.

Whilst psychology has provided insights into the individual creation, performance, perception and understanding of music, sociology has examined the contexts in which people engage in these activities. These theoretical concepts include musical cognition and memory, musical development, emotional responses to music, music and gender, musical values and social meanings, and the commercial uses of music. The course also aimed to make students aware of the social organisation of musical production and reception, and the social functions and effects of music education. There was an emphasis on the tools and products of research in the fields of psychology and sociology of music.

Abstract

This multimedia project was intended to give participants a thorough grounding in the theories and principles of both the psychology and sociology of music in a wide range of practical settings. It utilized ubiquitous computing technology to establish a learning community in which participants used appropriate technology and acquired skills to access multimedia information in the educational setting of the university classroom. The project attempted to integrate a large range of communications elements - texts, sounds, pictures, photographs, animations and moving videos - to facilitate teaching and learning.

Keywords

Multimedia teaching and learning, music psychology and sociology

Introduction

Taking a learner-centered approach, this project aimed to use multimedia presentations and explanations to help students to learn and to work easily with verbal and non-verbal representations of complex musical understandings and/or educational issues. With the combination of multimedia technology and educational content materials, interactive contents can be delivered to students in new ways through teacher-centered, student-centered and mixed modes of teaching and learning (e.g., Busen-Smith, 1999; Cain, 2004; Ho, 2004; Lahav, Boulanger, Schlang & Saltzman, 2005; Neo & Neo, 2004). For instance, writing music using sequencing software packages assists student in composition (Airy & Parr, 2001; Nilsson & Folkestad, 2005). Music lessons designed to develop auditory, visual and motor skills have benefited reading skills (Douglas & Willatts, 1994). The Internet is used to explore new methods of music making, composition and performance, along with the analysis and discussion of compositional and cultural

matters related to digital music and culture (Duckworth, 2003; Hugill, 2005; Thompson, 1999). Other studies also maintained that global communication technology has offered a major contribution to music education by developing knowledge of music, and encouraging creative thinking within and beyond performance-based education (Angelides & Tong, 1995; Bauer, Reese & McAllister, 2003; Mansfield, 2005; McCarthy, Bligh, Jennings & Tangney, 2005; Webster, 2000).

The following were addressed by this project in order to provide the optimum means for students to gain access to media-assisted learning in different disciplines:

1. research would determine the optimum procedures for accessing and using wide area networking facilities to help participants access materials taught in the class, and to obtain sources of relevant references via the Internet;

2. this professional development would help the instructor to design and implement student-centered, technology-supported and project-based learning using multimedia;

3. it would support the teaching of how best to find and use engaging online learning resources as an integral part of any university education; and

4. electronic communication links would be established to facilitate communications between the instructor and participants.

Multimedia projects can help participants develop a wide variety of higher order thinking skills, group and interpersonal skills and intellectual skills in a given discipline. Participants will then present their final projects to the class at a multimedia fair. This project aimed to produce a music programme combining innovative and classical teaching methods with leading-edge research. In order to maximise participants' learning, the instructor took advantage of multimedia classroom facilities together with the latest teaching techniques. Multimedia lectures were not only convenient but also significantly expanded the way in which course materials were presented.

Aims and Objectives

The following were addressed by this project in order to provide the optimum means for students to gain access to media-assisted learning to explore theoretical concepts and evidence from those disciplines of psychology, philosophy and sociology that are applicable to a variety of musical areas:

1. to help participants access materials taught in the class and to obtain sources of relevant references via the Internet;

2. to help the instructor to design and implement student-centered, technology-supported and project-based learning using multimedia;

3. to support the teaching of how best to find and use engaging online learning resources as an integral part of any university education; and

4. to facilitate communications between the instructor and participants with the aid of an electronic communication link.

Methodology

The project comprised four major phases using different methods of data collection with different purposes.

Phase 1: Literature review (books, journals, newspapers, etc.)

The literature focused on the key theoretical issues and empirical methodologies employed by contemporary researchers in music psychology and sociology. The literature review included the following topics to facilitate the instructor's teaching preparation:

- theoretical approaches to developmental psychology and the developmental psychology of music

- cognitive processes in musical performance and understanding
- music and the brain
- musical development: special needs and special talents
- musical emotion and responses to music
- the sociology of music
- musical meaning, experience and education: a sociological perspective
- music and social influence
- gender, music and education
- sociology of music education, multiculturalism and globalisation

Phase 2: Presentational Level

This level incorporated simple presentation software that provided one-way communication from the instructor to the participants. Electronic handouts were prepared to guide the instructor, while providing a visual stimulation for students. The presentation also contained audio or video displays to better illustrate musical concepts and/or concrete examples of complex subject matter. Video images could be helpful in facilitating participants' music learning. For example, in the discussion of the components of an expert performance, a few video tapes were edited and shown in class. Participants were required to hold group discussions about the questions raised in the edited music videos regarding an expert performance. Powerpoint slide shows were available to students outside the classroom.

Phase 3: Interactive Level

This level also incorporated interactive devices, such as email, into the coursework. Simple email interaction allowed students free discussion of pertinent issues outside classroom hours. This interaction would allow the instructor to encourage more future interaction while giving a clear view of the course's objectives, as well as enabling participants to increase their understanding of the subject matter. Nearly all of them had their own computer, and their use of audio-visual media/technology and email communications with their instructor could also help their assignments and presentations.

Phase 4: Evaluation

At the end of the course, participants were asked to fill out a questionnaire concerning their reactions to the use of multimedia tools both inside and outside the classroom. Those questions concerned overall impression, effectiveness of use, whether the multimedia tools enhanced learning, how the technology affected class participation, and whether the technology contributed to learning the particular subject matter of the course.

Results/Findings

Overall Observation

The instructor made extensive use of information technology in class, which enabled simultaneous multimedia presentation of lecture contents. Most of the students were attentive in class and took notes. They learnt from the

Powerpoint presentation and through consulting the lecture notes (which could be downloaded beforehand from the Web). The multimedia materials were helpful in drawing students' attention, and provided an excellent source of discussion. For example, during week 12 of the topic on Gender and Music Education, the lecture ran a little later than usual as there were more video excerpts than usual, but students were patient and enjoyed the presentation very much: the videos promoted excitement, empathy and some laughter. Most importantly, the excerpts provided students with ideas in heated discussions on related issues during class.

Quantitative Feedback from Questionnaire Surveys Designed by the Instructor

Simple questionnaires were adopted at the beginning of a course to collect information about the students, e.g., prior coursework or experience with the course, preferred modes of teaching and learning, opinions about the use of multimedia materials and their respective effectiveness (refer to Appendix One). Most of the students said they felt more motivated in, and more attentive to, class when technology or music technology was used. Most of them also thought there should be more use of technology/music technology in the lectures. They found the multimedia materials helpful in understanding issues in class through video presentations, as well as through both the listening examples and Powerpoint presentation. Most of the class, however, believed that the video shots might interrupt their learning.

The end of term questionnaire was a follow-up to another questionnaire which collected students' opinions about the use of such materials at the beginning of the term. The students were asked about their interest in music psychology and the sociology of music after taking the course, their opinions about the effectiveness of the multimedia teaching materials used in class, as well as their overall ability in using multimedia resources for presentations and other assignments (refer to Appendix Two). Below is a brief description of the questionnaire results.

There were altogether 18 questions. Seventeen year-one and year-three students together with two MA students completed the questionnaire. Twelve students majored in music education; two in conducting; three in other areas: one in information technology in music, and two in music culture in Hong Kong. Most students were generally confident in learning the psychology and sociology of music. All students said that they had either *some confidence or a little confidence.* More of them said that they had some confidence with the psychology of music (10 students) than the sociology of music (nine students). More students answered that they had little confidence in learning the sociology of music (eight students) than the psychology of music (seven students). Apart from one student who did not answer, most students believed that technology made them more creative, and that it made them more motivated. All students looked at the library's database. Most thought their

skills in using web browsers and online library materials were *good.* One evaluated himself/herself as having advanced skills with web browsers and two said the same about online library materials. Fourteen students used the CD drive in the computer for their presentation; five used the scanner; four used VCR; and two used a digital camera. Only one student used audio equipment, and two did not answer this question.

As the data showed, most students believed that technology made them more creative, and almost all of them thought technology made them more motivated. Almost all students thought the listening, video and Powerpoint presentations used in class were helpful in understanding issues. Most of the class agreed that more technology should be used in the future. The addition of high quality graphics, audio and video to teaching content, along with more editing and authoring software, could provide a major enhancement of computer-based learning. One student had another opinion. He/She believed that the equipment of the university needed upgrading and should be more user-friendly. All the positive feedback showed that the project's use of multimedia materials was very helpful in encouraging students to learn, and to do so efficiently.

Discussion

Although there was room for improvement, the instructor ranked her overall performance in teaching and course design as good. The instructor prepared lecture notes carefully, along with parallel multimedia presentations. Every lecture was also conducted well in terms of the organisation of learning activities for the development of multimedia teaching and learning materials. Most students found their knowledge and ability to think and discuss much improved after the course, as was reflected in the instructor's survey results. Once the learning moves beyond the recall of principles, facts or data, and into the area of creativity, problem-solving, analysis and discussion, learners need to have interpersonal communication and the opportunity to question, challenge and evaluate. All the presentation skills, classroom activities and teacher-student interaction and communication have to be considered, and carefully examined as a whole. At the heart of these ideas is the shift away from thinking about education as being solely in the mind of the instructor and more as a partnership between teacher and student with the teacher as the major architect of learning. Multimedia teaching and learning is celebrated as a way of helping students to solve problems creatively.

Enhancement on Teaching and Learning

This project recognised that the achievement of excellent teaching and learning depends on not only the ability and commitment of the instructor and students, but also the choice of appropriate teaching contents, resources and evaluation processes to ensure these standards are met, and that mechanisms are

developed to monitor the achievement of standards and the enhancement of quality. The following were some questions that were taken into consideration by teaching practice to monitor the enhancement on teaching and learning:

1. Course design: How does the instructor define the objectives for the course and then apply the objectives to each class session?

2. Technology: What technologies can the instructor select, develop, and/or use to enhance her teaching?

3. Lecturing: How can the preparation and delivery of the lectures attract participants to the psychology and sociology of music, draw and maintain their attention, and, through pacing and variety, enable students to be not only attendees but also intellectual participants with the aid of the multimedia project?

4. Knowing the participants: For teaching to be most effective, it is critical that the instructor should understand how her teaching relates to the learning experiences, learning approaches and learning styles of her participants. Informal conversations related to the course improvement and teaching effectiveness were conducted outside the classroom between the instructor and the participants.

5. Discussion: How will the participants' thoughtful conversations enhance their understanding, and help the instructor

to monitor the progress of their learning?

6. Feedback and evaluation: How can the instructor monitor the effectiveness of her teaching early and frequently enough in the semester so as to introduce changes that might benefit the students? As mentioned earlier, two actual questionnaires were designed to collect participants' feedback on the course, which the instructor could use to improve her future delivery of lectures.

Powerpoint software, graphic animation and audio-visual resources rendered abstract ideas and concepts more intelligible, thereby enhancing student learning. While MA students might have problems with concentrating because of fatigue from work, they were generally observed to be interested in the teaching materials, especially the visual ones, such as DVDs, film excerpts and MTV excerpts.

Limitations/Difficulties

This project described the Music Department's efforts to increase MA students' access to and mastery of music technology skills. The limitations we faced in relation to budget, equipment and time spent with students were held in common with many other educational institutions. Although students answered that they had at least the basic skills of using web browsers and online library resources for the course, the instructor received complaints from some students that they

found it difficult to find materials on the Internet. Some admitted that they had no training at all with the use of technology or the Internet. A few even had problems in downloading the lecturer's teaching materials. While this specific curriculum was designed to fit our institutional context, the instructor hopes that it could provide a philosophical approach to technology skills training that could be adapted and implemented in a variety of situations. Some students also complained that they could not borrow video resources from the university library for their presentation. These were some of the most pressing problems and limitations in the use of information technology in class. If we are able to respond to these limitations, we can build systems that support both formal and informal learning.

The video tape review was regarded as one of the current fashions in evaluating the teaching ability of teachers and the learning effectiveness of students. Videos for lessons were originally required for teaching and learning evaluation for this course. Nonetheless, as shown in the survey conducted in the first week of the course, most of the students were hesitant about video-taping some of the lectures. As a result, the instructor gave up her video-tape evaluation.

Conclusion

To sum up, the instructor characterised her experiences with multimedia resources in the classroom as successful and rewarding for both her students and herself. The instructor particularly emphasised creating content and motivating students to take advantage of the strengths and dynamism of multimedia resources as part of the course development and delivery. It was recognised that the achievement of excellent teaching and learning depends on not only the ability and commitment of the instructor and students, but also the setting of appropriate teaching contents, resources and evaluation processes to ensure that these standards are met, and that mechanisms are developed to monitor the achievement of standards and the enhancement of quality.

The revolution of multimedia technology and music technology in education is actually less about machines than it is about students. Used wisely, it can promote creativity, initiative and communication. On the basis of the evidence of changing classroom practices, one may doubt that more changes in philosophies have occurred than stated (Jorgensen, 2005; Robinson & Latchem, 2003; Walls, 2008). On the basis of the TDG's project, the instructor applied for Faculty Research Grants to address the gap in the literature by examining one music faculty's strategic responses to the challenge of e-learning and multimedia technologies. The overall analysis intended to examine the relations between university culture, teaching practices, student learning and multimedia technology. The findings of this project were reported in international refereed publications (Ho, 2007 & 2009).

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Acknowledgements

Appendix One

Questionnaire on Students' Opinion on the Use of Multimedia Materials in the Taught Postgraduate Programme, Psychology and Sociology of Music

The Department of Music is committed to the development of high quality research and study at postgraduate level. In addition to the teaching materials, we have adopted the use of multimedia in classes to enhance students' learning experience.

The following asks for your opinion about the use of such multimedia materials and their respective effectiveness in assisting your studies at Hong Kong Baptist University. Your contributions and opinions are highly appreciated, and will help us improve the course to make your studies here even more efficient and enjoyable.

Unless stated otherwise, please use a tick " √ " to indicate your choice in the boxes provided.

1. You are currently in:
   - ☐ MA1   ☐ MA2

2. Field of your major at the MA level:
   - ☐ Choral Conducting   ☐ Music Education
   - ☐ Others, please specify:_____

3. Have you had any teaching experience?
   If yes, for how many years?
   - ☐ No
   - ☐ Yes, please specify: _____

4. Prior to this course, have you had any training in psychology?
   - ☐ Undergraduate level   ☐ HKAL/HKCEE
   - ☐ Others, please specify: _____
   - ☐ None

5. Prior to this course, have you had any training in sociology?
   - ☐ Undergraduate level   ☐ HKAL/HKCEE
   - ☐ Others, please specify: _____
   - ☐ None

6. Do you feel more motivated about learning music and music education when technology or music technology is used in your lessons?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

7. Do you think technology/music technology can make you more attentive to your lectures?

☐ Yes, a lot   ☐ Some
☐ A little   ☐ Not at all

8. Do you think there should be more use of technology/music technology in your lectures?

☐ Yes, definitely   ☐ Some
☐ A little   ☐ Not at all

9. Will you welcome the department to video-tape a few of the lectures to evaluate the effectiveness of the course and your level of participation?

☐ Yes, definitely   ☐ Perhaps
☐ Neutral   ☐ Not

10. Do you think the video shot will interrupt your learning or the delivery of the lecture?

☐ Yes, definitely   ☐ Perhaps
☐ Neutral   ☐ Not at all

11. Do you find the video presentations helpful in understanding issues?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

12. Do you find the listening examples helpful in understanding issues?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

13. Do you find the Powerpoint presentations helpful in understanding issues?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

14. Other opinions:
_____
_____
_____
_____

Appendix Two

End-of-term Questionnaire on Students' Opinion of the Use of Multimedia Materials in the Psychology and Sociology of Music

The following asks for your opinion about the use of such multimedia materials and their respective effectiveness in assisting your studies at Hong Kong Baptist University. Your contributions and opinions are highly appreciated, and will help us improve the course to make your studies here even more efficient and enjoyable.

Unless stated otherwise, please use a tick "√" to indicate your choice in the boxes provided.

1. You are currently in:

☐ MA1   ☐ MA2

2. Field of your major at the MA level:

☐ Choral Conducting   ☐ Music Education
☐ Others, please specify:_____

3. Have you had any teaching experience in school? If yes, for how many years?

☐ No
☐ Yes, please specify: _____

4. Did you find psychology interesting prior to this course?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

5. Did you find sociology interesting prior to this course?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

6. Do you feel more motivated about learning music when music technology is used in your lessons?

☐ Yes, very much   ☐ Some
☐ A little   ☐ Not at all

7. Do you think music technology can make you more creative?

☐ Yes, a lot more   ☐ Some
☐ A little   ☐ Not at all

8. Do you find the video presentations helpful in understanding issues? If yes, to what extent?

   ☐ Yes, very much   ☐ Some
   ☐ A little   ☐ Not at all

9. Do you find the listening examples helpful in understanding issues? If yes, to what extent?

   ☐ Yes, very much   ☐ Some
   ☐ A little   ☐ Not at all

10. Do you find the Powerpoint presentations helpful in understanding issues? If yes, to what extent?

    ☐ Yes, very much   ☐ Some
    ☐ A little   ☐ Not at all

11. How do you rate your skills using a web browser e.g. Netscape to access your learning materials for this course?

    ☐ None   ☐ Basic
    ☐ Good   ☐ Advanced

12. How do you rate your skills using online library resources for this course?

    ☐ None   ☐ Basic
    ☐ Good   ☐ Advanced

13. Are you going to use the following equipment for your oral presentation? Tick all that apply:

    ☐ Scanner   ☐ Digital camera
    ☐ CD drive in a computer
    ☐ Others (please specify): _____

14. How would you rate your general confidence in learning Psychology of Music?

    ☐ Much confidence   ☐ Some confidence
    ☐ Little confidence   ☐ No confidence

15. How would you rate your general confidence in learning sociology of music?

    ☐ Much confidence   ☐ Some confidence
    ☐ Little confidence   ☐ No confidence

16. On the whole, do you feel technology/music technology has helped you and motivated your learning (including your oral presentation) for this course?

    ☐ Yes, very much   ☐ Some
    ☐ A little   ☐ Not at all

17 Do you think there should be more use of music technology for this course?

   ☐ Yes, definitely   ☐ Now it's enough
   ☐ Could reduce the present use

18. Will you be happy to spare about 20 minutes for an individual interview to articulate your views on technology/music technology for this course? Dr Ho's Project Assistant will arrange your most convenient time and place for an interview after the term break in May/June. Your help is deeply appreciated. Please write down your contact number.

    ☐ I will be available. Please contact me at:
    _____

    ☐ I will not be available.
    _____