

CONSTRUCTING AN EFFECTIVE MODEL OF BLENDED LEARNING: A CASE OF GENGEIO IN ULIS, VNU HANOI

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I. INTRODUCTION

For the last decades, blended learning has been of dominant discussions concerning educational innovation and training in general, and language teaching and learning in particular. A great deal of research has been conducted to prove its efficiency (Garrison, 2004; Handcock & Wong, 2012), and many institutions have adopted this new trend in their formal training. Although theories on models, principles to design as well as characteristics of a blended course are available, very few reveal instructions on how much course time is allotted for web-based learning, and how much is for in-class learning.

University of Languages and International Studies (ULIS) has put blended learning into practice in several courses, among which is General Geography of the United States and the United Kingdom (GENGEO). Observations of the blended courses show two extremes of blending: on one spectrum, the majority of the content in a course is learned online, and face-to-face time is merely regarded as Q&A session; on the other spectrum, learning is mainly carried out face-to-face in class and online learning is considered supplementary. Although Dziuban Hartman and Moskal (2004) assert that the ratio between traditional face-to-face and online delivery is not important, the survey questionnaire after the pilot GENGEIO shows the different result as the time allocation in a blended course strongly affect the content design, which then lead to different levels of students' satisfaction of the course

In short, based on the survey findings achieved from the blended GENGEIO pilot course in ULIS, this study aims at designing a more effective model of blended GENGEIO course which also suggests a better frame of time allocation and content design between face-to-face and online learning and teaching.

II. LITERATURE REVIEW

1. Blended learning

There is hardly a consensus on its definition but, in general, blended learning can be defined in simple words as a combination of online and traditional face-to-face classroom learning activities and resources (Garrison, 2004). In a blended learning course, a part of face-to-face time is replaced by online and it is primarily focused on integrating two separate paradigms, the in-class activities and online activities – synchronous or asynchronous (Laster et al., 2005).

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According to Allen and Seaman (2010), the time that students learn online can account for 30-79 percent of the course time, below which it is considered a web-facilitated course, and beyond which it is online or distance courses. It is clear that from 30 to 79 percent is a very wide range; however, the two authors do not describe a clear cut between the two spectrums, such as whether there are any differences between a blended course with 30% web-based learning and one with 79% web-based learning in terms of course design and course activities. Although Dziuban Hartman and Moskal (2004) suggest that the ratio between traditional face-to-face and web-based delivery does not matter, course designers still struggle deciding on the amount of time spent in-class and online so as to have well-blended courses (The Oxford Group, 2013).

2. Benefits and challenges with blended learning

Research has been conducted to prove the benefits of this educational model, some of which are to improve learners' outcome, to enhance individualization, personalization and relevance as it lets the instructor tailor learning content to meet the various needs of learners (Handcock & Wong, 2012). In addition, Handcock and Wong (2012) also praise blended learning courses as a switch from passive learning to active learning which offer learners the best of both the traditional educational approach and the technological application while teachers and learners still enjoy greater flexibility and accessibility.

Although organizing blended learning courses is the desire of educational institutes, its practice poses some challenges including technical, organizational and instructional design challenges. Hofmann (2011) views technical changes as a way of ensuring the success of the program by utilizing appropriate technologies and ensuring learners to use the technology successfully and effectively. At the same time, he also points out that organizational challenges include overcoming the idea that blended learning is not as effective as traditional face-to-face learning and teaching, refining the role of the teachers as well as monitoring learners' progress. Finally, in terms of instructional design, the challenges are listed as follows: how to teach, what to teach, how to make the online delivery interactive, as well as to ensure all the elements of the course are well coordinated.

3. Effective model of blended learning

3.1. Components of an effective model

A blended learning model can be used as a guide in evaluating and integrating separate components to create effective learning situations. According to Holden and Westfall (2006), the key components are learning environment, media and instructional component:

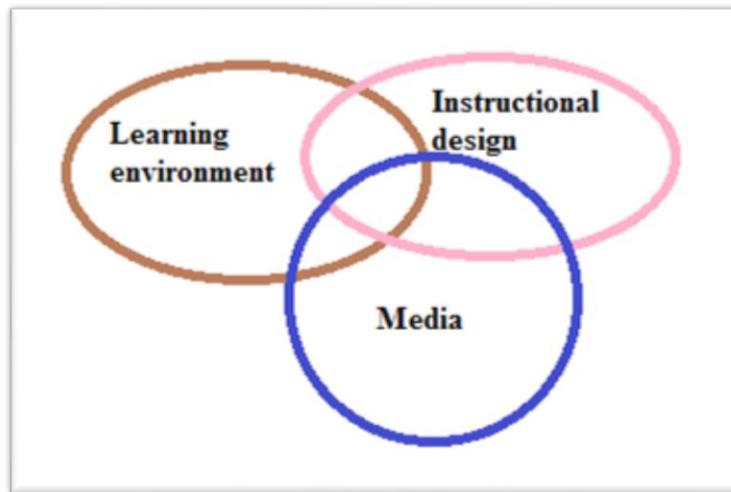


Figure 1. Components of Blended Learning

3.1.1. Learning environment component

In a blended learning course, the learning environment consists of face-to-face interaction in the traditional classroom and online learning. Certainly, each learning environment has its own advantages and disadvantages; however, an effective model of blended learning aims to employ positive attributes of each environment to ensure the best use of resources to attain the instructional goal and learning objectives (Holden & Westfall, 2006).

3.1.2. Media component

It is widely held that some instructional media are more appropriate than others in supporting either synchronous or asynchronous learning environment; therefore, the selection of a particular medium may affect how the content is designed and delivered so as to make use of the positive attributes of that specific medium (Holden & Westfall, 2006).

3.1.3. Instructional component

The selection of instructional strategies can support the achievement of learning objectives; hence, when developing a blended learning course, maintaining instructional quality is paramount.

According to Woodall (2010), as traditional classroom allow teachers and learners to be face-to-face in the same place and at the same time, which guarantees positive interaction between instructors and learners; therefore, it is advisable that this classroom time be spared on complex, broad, programmatic or new content as well as culture building, team building, networking activities or materials to be presented. Apart from the advantages mentioned earlier, this instructional design entails some disadvantages such as travel expense and time or passive role of learners in lecture-based sessions.

Another instructional strategy is virtual classroom which allows teachers and learners to be in different places but still at the same time. On the one hand, this strategy offers more flexibility than traditional classes though it still has all the benefits from a traditional classroom; for example, learners can “raise hand” to ask questions or raise opinions. On the other hand, such technological concerns as high-speed internet connection and advanced workstation can be obstacles. As well, it requires the teachers have good technical skills and adequate resources to make the lesson seamless and interactive (Woodall, 2010).

The final instructional strategy is media which is not limited to merely technology but includes such vehicles as stand-alone, asynchronous, or synchronous online learning, performance support tools (knowledge management tools), traditional classroom, labs or other

“hands-on” experiences, and reading assignments, CD-ROMs or other self-paced learning (Kaur, 2013).

3.2. Principles for an effective model

In order to have any effective courses in general, and effective either online or blended learning courses in particular, Pelz (2004) emphasizes three principles in his report. The first principle is to ensure that learners do most of the work, not teachers. Some activities that can be utilized to involve more learners’ engagement in lessons are student-led discussion; students find and discuss web resources; peer assistance and self-assessment.

The second principle concerns interaction between learners and teachers as he states that interactivity is the key to effective blended learning. Actually, higher interaction and connection between teachers and learners is widely believed to be an advantage of blended learning approach in comparison with other educational models (Handcock & Wong, 2012).

The final principle is ‘presence’ which should not be limited to physical presence, but rather, social, cognitive and teaching presence. While social presence refers to a community of learning, cognitive presence is the extent to which teachers and learners construct meaning through discussion; and teaching presence is the facilitation and direction of cognitive and social process for the realization of personally meaningful and educationally worthwhile learning outcomes (Pelz, 2004).

3.3. Key characteristics of an effective model

In addition to the three components and the three principles of effective blended course, it is essential that in an effective blended learning course, the online teaching parts have these key characteristics. They are: visual, organized, compassionate, analytical, and leader-by-example (Savery, 2005).

- Visual: Due to the characteristics of the online teaching and learning part in any blended learning courses, texts largely replace in-person, face-to-face, verbal communication. A lack of different visibility can create a wrong learners’ that lecturers are not effective or devoted enough to the teaching, which consequently may cause poor learning outcomes. Visibility can be both teachers’ visibility during the course, such as timely return of assignment and feedback or communication via emails, or different visuals aids and media used in the course, for example, videos or photos.

- Organized: both online and blended courses require high time management responsibility of learners, which leads to increased organization responsibility of the teachers. Therefore, it is suggested that teachers include regular learners’ self-assessment, prepare syllabus and assignment due dates carefully, in addition to an orientation session of how to be successful on blended learning courses.

- Compassionate: in order to be compassionate, blended teachers should allow frequent communication with learners via emails, discussion forums, and they should show how much they care about learners’ personal progress by reminding them about upcoming events or deadlines or frequently discussing learners’ progress.

- Analytical: teachers need to manage online learning assignment to ensure that students fulfill the assignments and achieving learning outcomes. Therefore, it is important that they return learners’ assignment with feedbacks timely as well as frequently check learners’ progress reports provided by the online system.

- Leader-by-Example: blended learning can be a brand new experience for learners; hence, it is suggested that teachers give good online learning and behavior such as model responsibility by returning assignments timely or model the right way learners should communicate online.

In short, it is widely held that a blended learning course should be built taking the three components of learning environment, media and instructional design into great consideration (Kaur, 2013). At the same time, it is believed that in order to be successful, blended courses should follow the three principles suggested by Pelz (2004) as well as possess the characteristics proposed by Savery (2005). However, it is noted that none of the recommendations and instructions of designing effective blended courses above mentions the aspect of time shared between in-class and online section as well as the course content design. Therefore, the survey findings obtained after the pilot GENGEEO course suggests careful reconsiderations.

III. GENGEEO IN ULIS – A CASE STUDY

1. Description of the pilot blended course

General Geography of the United States and United Kingdom, or GENGEEO for short, is a content subject on an overview of American and British geography and culture. It is a 3-credit subject and it is traditionally offered in the form of face-to-face lecture-based sessions. Since semester 2 of year 2016-2017, ULIS has decided to offer more options to students to choose from: either traditional face-to-face or blended GENGEEO. There were four pilot blended GENGEEO classes last semester which managed to recruit 104 students from Year 2 to Year 4. GENGEEO course is delivered in 15 weeks, with two quizzes, two reflective essays, one group presentation and one final exam as assessment. The amount of information, mainly facts and figures of the American and British geography and culture, is rather large but quite manageable for students to take in. The lecturers in the faculty believe that GENGEEO is suitable for the blended approach which requires students to be independent and responsible for their own learning. As a result, of all the country studies subjects, GENGEEO was chosen to be pilot as the first blended course in the faculty.

2. Research procedure

2.1. Pilot course design

As it was the first time GENGEEO has been offered, blended between traditional and online sessions, being pilot and then studied on its results are very essential. Firstly, the four blended GENGEEO classes were divided into two groups which used different time allocation – different time-shared portion between in-class and online. The aim was to later investigate the time and content appropriateness of these blended courses based on students' view and feedback on their experience learning in the blended courses. The first groups is coded Group A with 50 students and the second group is Group B with 54 students.

The two groups learned the 15-week GENGEEO blended course; the materials of which had been prepared and posted on the online platform (an e-learning platform of ULIS). The 15 sessions of the course, however, were divided with some differences in terms of when and what to learn on online and face-to-face sessions. Basically, the content that the two groups learned is similar; the difference lies in delivery method – web-based self-study or face-to-face lectures and discussions.

Finally, after 15 weeks the students were asked to do survey questionnaire on their experience with the pilot blended GENGEEO course. Because the benefits that blended courses can bring about are widely agreed on, the questions in the questionnaire focus much on the students' feedback on their experience – satisfaction and difficulties when taking the blended courses in order to improve the quality of the course and the students' contentment with the course.

2.2. Survey questionnaire design

There are a total of 30 closed questions in the questionnaire, the answers to the 26 of which are scaled from 1 (strongly disagree) to 5 (strongly agree); the other four questions are three-option questions; additionally, there is one open question for students' further comments or suggestions.

ĐẠI HỌC NGOẠI NGỮ
KHOA NGÔN NGỮ VÀ VĂN HÓA CÁC NƯỚC NÓI TIẾNG ANH
 Bộ môn Đại nước học
 * * *
PHIẾU KHẢO SÁT
 về khóa học tập kết hợp môn Địa lý đại cương Anh-Mỹ

Các em hãy khoanh vào đáp án mà em đồng tình nhất:

How much do you agree or disagree with the following statements?		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Overall, I am satisfied with this course.	1	2	3	4	5
2.	Given the opportunity I will take another course in the future that has both online and face-to-face components.	1	2	3	4	5
3.	This course experience has improved my opportunity to access and use the class content.	1	2	3	4	5
4.	The online and face-to-face course components of this course enhance each other.	1	2	3	4	5
5.	The E-learning site (Moodle) is well-organized and easy to navigate.	1	2	3	4	5
6.	The web resources in this course are helpful.	1	2	3	4	5
7.	When I encountered a problem with the use of the technologies in this course. The technical support service helped me with my problem in a timely and effective manner.	1	2	3	4	5
Compared to typical face-to-face courses I have taken		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8.	... this course offers the convenience of not having to come to campus as often.	1	2	3	4	5
9.	... this course allows me to reduce my total travel time each week and related expenses.	1	2	3	4	5
10.	... I am more engaged in this course.	1	2	3	4	5
11.	... I am likely to ask questions in this course.	1	2	3	4	5
12.	... I feel that the amount of my interaction with other students in this course increased.	1	2	3	4	5
13.	... I feel that the quality of my interaction with other students in this course was better.	1	2	3	4	5
14.	... I feel connected with other students in this course.	1	2	3	4	5
15.	... I feel isolated during this course.	1	2	3	4	5
16.	... I feel that the amount of my interaction with the instruction this course increased.	1	2	3	4	5
17.	... I feel that the quality of my interaction with the instruction this course was better.	1	2	3	4	5
18.	... I am overwhelmed with information and resources in this course.	1	2	3	4	5
19.	... I have trouble using the technologies in this course.	1	2	3	4	5
20.	... I feel more anxious in this course.	1	2	3	4	5
21.	... this course requires more time and effort.	1	2	3	4	5
22.	... this course has improved my understanding of key concepts.	1	2	3	4	5

Course Format Preferences

23. If the same course is being offered in different formats, which course format would you prefer?
 A. Entirely face-to-face course format
 B. Blended course format (meaning some face-to-face activities are replaced with online activities)
 C. Entirely online course format (with no face-to-face class time)
24. If you had a choice between attending lectures face-to-face or accessing lectures online which would you choose?
 A. Attending lectures face-to-face
 B. Accessing online downloadable videos of lectures
 C. A combination of both
25. If you had a choice between doing the quizzes/tests on paper or online which would you choose?
 A. On paper
 B. Online
 C. A combination of both
26. If you had a choice between participation in classroom discussion or online discussion which would you choose?
 A. Class discussion
 B. Online discussion
 C. A combination of both

How much do you agree or disagree with the following statements?		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27.	I have strong time management skills.	1	2	3	4	5
28.	I am self-motivated to study.	1	2	3	4	5
29.	I am open to new methods of learning.	1	2	3	4	5
30.	I have good computer skills.	1	2	3	4	5

Please share additional comments or suggestions about this course.

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.....

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Figure 2 Questionnaire

The questionnaire is divided into four sections: first, questions on students' general satisfaction of the course; second, students' views on the time, content design, and workload from the course; third, the possibility of taking other blended courses in the future; finally, students' self-evaluation on their own autonomy.

3. Discussion of the findings

Generally, the students from both groups in the pilot courses express their satisfaction as well as the desire to have more of such blended courses though to different extends.

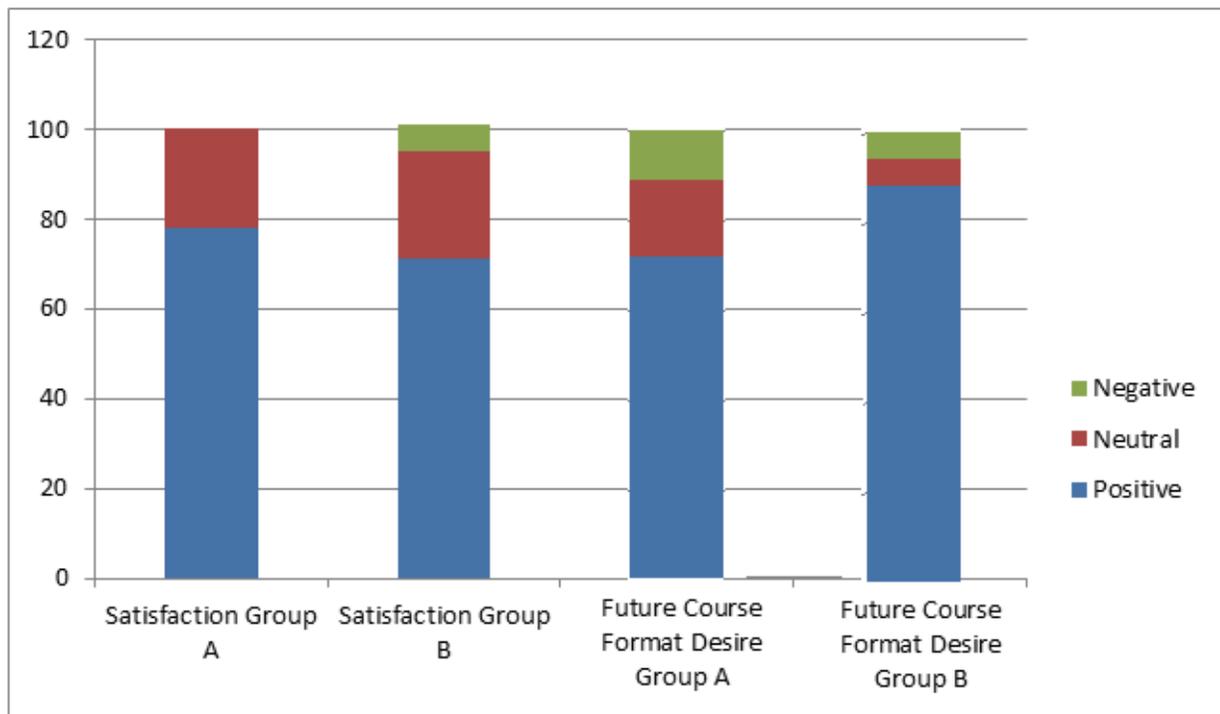


Chart 1. Findings on satisfaction and future course format desire

As can be seen in Chart 1 above, 78% of the students from Group A expressed their contentment with the course in comparison with 71% of the students from Group B, while as many as 6% of the students from Group B had negative opinion of the course. Surprisingly, more students in Group B than Group A showed their preference to take another blended course (88% and 72% respectively).

In short, though at different extends, the students taking the pilot blended GENGEEO course were very satisfied and the majority of them would like to take future blended courses, which is believed to the success of this pilot course.

3.1. Time allocation

Before discussing the findings on the course time allocation, it is necessary to note that the first group which is coded Group A including 50 students, using time and content design type A; and the other group is Group B including 54 students, using time and content design type B as illustrated Figure 3 and Figure 4 below:

- Week 1: In-class activities
- Week 2: In-class activities
- Week 3: Online Learning
- Week 4: Online Learning
- Week 5: Online Learning
- Week 6: Online Learning
- Week 7: In-class activities
- Week 8: In-class activities
- Week 9: In-class activities
- Week 10: Online Learning
- Week 11: Online Learning
- Week 12: Online Learning
- Week 13: Online Learning
- Week 14: In-class activities
- Week 15: In-class activities

Figure 3. Time allocation A

- Week 1: In-class activities
- Week 2: Online learning
- Week 3: Online Learning
- Week 4: Online Learning
- Week 5: Online Learning
- Week 6: In-class activities
- Week 7: Online
- Week 8: In-class activities
- Week 9: Online learning
- Week 10: Online Learning
- Week 11: Online Learning
- Week 12: In-class activities
- Week 13: Online Learning
- Week 14: In-class activities
- Week 15: In-class activities

Figure 4. Time allocation B

As can be seen from Figure 3, Group A had seven face-to-face sessions which accounts for 47% of all the course sessions) and eight online sessions (53%) while Group B, as shown in Figure 4, had six face-to-face sessions (40% of all the course sessions) and nine online sessions (60%).

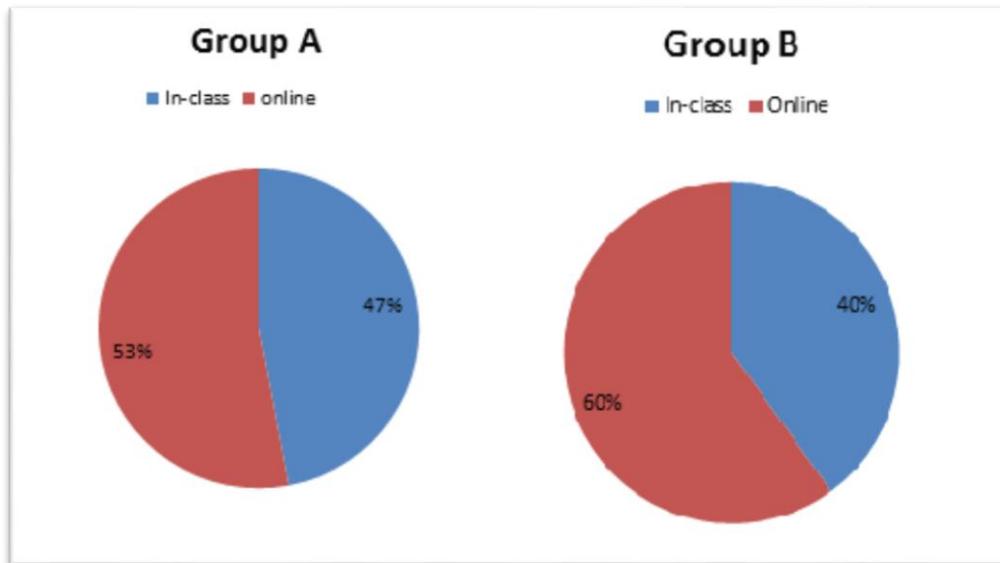


Chart 2. Time allocation

Additionally, as the figures above indicates, Group A experienced 3 blocks of face-to-face sessions, one at the beginning, another in the middle and the other at the end of the course; whereas, Group B had a scattered allocation of traditional face-to-face sessions, which seems to be random: one at the beginning of the course, three in the middle, and two at the end. There is not much to discuss here because it is important that we look at the content allocation to evaluate the time allocation here.

According to the general description of Allen and Seaman (2010), both groups experienced the same model of educational instruction with little difference in the quality and effectiveness. However, obviously the time allocation between face-to-face and web-based learning determines the delivery methods of the content as well as learning activities. Therefore, the different time allocation would definitely lead to different students' experience of the courses which later on caused different opinions as shown in the next section.

3.2. Content design

As discussed early, the amount of time the students learn in-class face-to-face sessions and from web-based sources determined the delivery of content and the conduction of learning activities. Different delivery and conduction methods surely create different impressions on students. Therefore, an analysis of the content and activity design of both Group A and B is vital.

Shown in Figure 5 and 6 below are the schemes of the content and activity design of the two classes in Group A and two classes in Group B respectively:

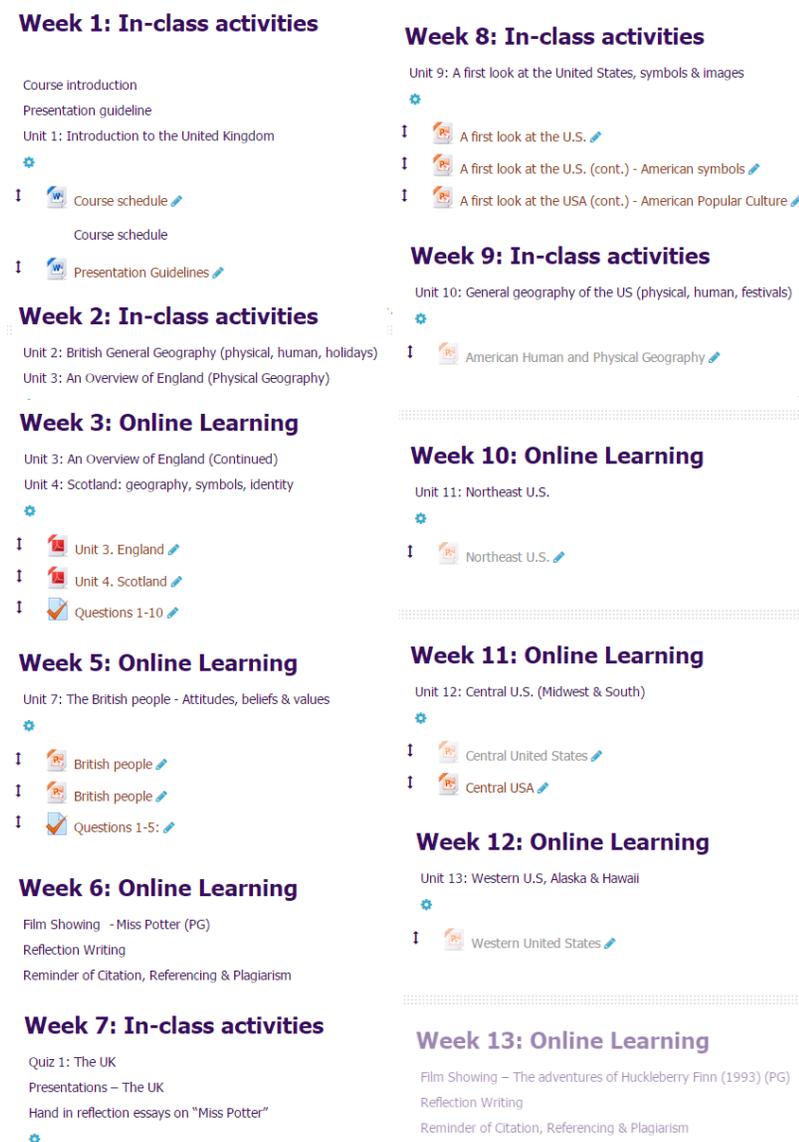


Figure 5. Content and activity scheme type A

As can be seen from Figure 5, Group A could experience both lectures and discussions on the new contents in a combination of face-to-face and online manner, whereas quizzes were done totally in class. However, it is advisable that quizzes should be done on the platform to save the lecturers' time as they can be graded automatically by the e-learning system. In order to do that, quizzes should be designed more carefully taking into consideration the time limit as well as the question types to avoid cheating among students.

Different from Group A, Group B learned all the lectures and conducted the majority the discussions online, and the face-to-face sessions are utilized for mainly assessment, i.e. presentations and quizzes.

Week 1: In-class activities

Course introduction
Presentation guideline
Unit 1: Introduction to the United Kingdom

- 1 Presentation Guidelines
- 1 Essay guidelines
- 1 Course schedule

Week 2: Online learning

Unit 1: A first look at the UK
Unit 2: British General Geography (physical, human, holidays)

- 1 Unit 1. A first look at the UK
- 1 Unit 2. British General Geography
- 1 An explanation to British habit of talking about the weather
- 1 British national Anthem
- 1 An introduction to Britain
- 1 British accents

Week 3: Online Learning

Unit 3: An Overview of England (Continued)
Unit 4: Scotland: geography, symbols, identity

- 1 Unit 3. England
- 1 Unit 4. Scotland
- 1 A Scottish folk song
- 1 Mysterious stonehenge
- 1 An introduction of London
- 1 Some beautiful sights in Scotland

Week 4: Online Learning

Unit 5: Wales: geography, symbols, identity
Unit 6: Northern Ireland: geography, symbols, identity

- 1 Unit 5. Wales
- 1 Unit 6. Northern Ireland
- 1 A video introducing Wales
- 1 a video about the differences between English and Welsh
- 1 A video explaining Saint Patrick's Day
- 1 An Irish dance - a taste of Ireland
- 1 A mini-quiz on Wales
- 1 A mini-quiz on Northern Ireland

Week 5: Online Learning

Unit 7: The British people - Attitudes, beliefs & values

- 1 British Identity
- 1 British Beliefs and Values

Week 6: In-class activities

1. Presentations on the UK
2. Introduction of Reflective Writing
3. Reminder of Citation, Referencing & Plagiarism

Week 7: Online

1. Film watching
2. Reflective writing

Week 8: In-class activities

1. Quiz on the UK
2. Reflective writing submission

Week 9: Online learning

Unit 9: A first look at the United States, symbols & images
Unit 10: General geography of the US (physical, human, festivals)

- 1 Unit 9: Symbols of the US
- 1 Unit 9: A first look at the US
- 1 US National Anthem
- 1 American people are smart???
- 1 Pledge to the flag
- 1 Unit 10. Physical Geography
- 1 Unit 10. Human geography
- 1 US location, size and regions
- 1 Quiz on US geography

Week 10: Online Learning

Unit 11: Northeast U.S.
Unit 12: Central U.S. (Midwest & South)

- 1 Unit 11. Eastern region of the US
- 1 History: 13 first colonies
- 1 Maine - the eastern most state of the USA
- 1 Washington D.C. - the capital
- 1 Unit 12 Central US
- 1 Great Lakes
- 1 Mississippi River
- 1 Mount Rushmore

Week 11: Online Learning

Unit 13: Western U.S. - Alaska & Hawaii
Unit 14: American Traditional Beliefs and Values

- 1 American Beliefs and Values
- 1 American Values and Beliefs_Traditional
- 1 Modern Values and Beliefs
- 1 Challenging the values
- 1 Western America
- 1 Alaska and Hawaii

Week 12: In-class activities

Presentations on the US

Week 13: Online Learning

Film Showing - The pursuit of happiness (2006) (PG)
Reflection Writing
Reminder of Citation, Referencing & Plagiarism

- 1 Comments of Essay 1
- 1 Film to watch for Essay 2
- 1 Essay questions

Week 14: In-class activities

1. Quiz on the US
2. Reflection essay submission

Figure 6. Content and activity scheme type B

Clearly, the content design of Group A and B are not what Kaur (2013) and Pelz (2004) describes as an effective blended course, that is, traditional face-to-face sessions should be used to deliver new and difficult content; nevertheless, Group B looks worse. Hence, it is expected that the findings from the survey questionnaire can show some reaction from Group B's students in accordance with the not-so-appropriate content design and allocation.

Chart 3 below indicates the students' preference of different methods of delivery, namely online, in-class and combination in accordance with three main course activities, i.e. lectures, quizzes and discussions.

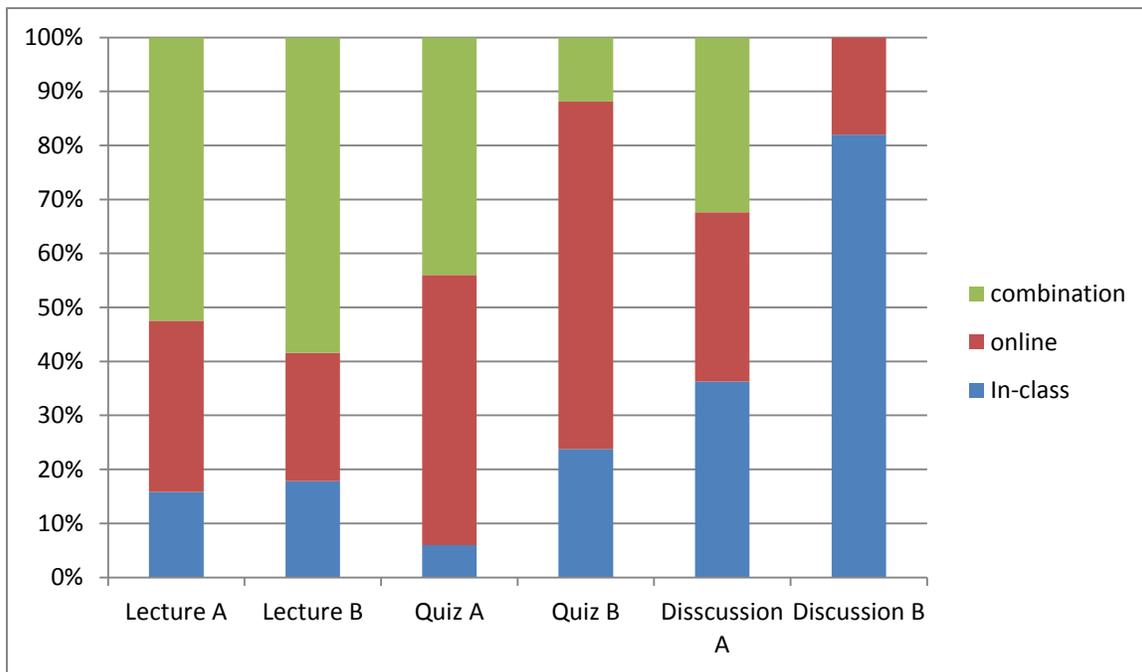


Chart 3. Learning activity preference

In terms of lectures, as it was predicted, there is only a slight difference between Group A and B due to the manageable content of the course which is mainly facts and figures concerning American and British geography and culture. In terms of quizzes, both A and B did quizzes in-class; however, fewer students from Group A in comparison with Group B (6% and 14% respectively) wanted to continue doing so if given another opportunity to learn in the course. As discussed earlier in the paper, the faculty lecturers believe quizzes should be done online, which is agreed by 50% of Group A's students and 65% of Group B's students. Finally, concerning discussion, as many as 82% of Groups B students wanted to do the discussion in class, face to face with the lecturers and other classmates compared to only 37% students from Group A. This is understandable as Group B did not run any discussion session in the class; all of them were held online.

In short, different time allocation between online and in-class sessions causes different content delivery and learning activity organization methods, which then entails different satisfaction level with the course. As regards students' satisfaction with how the learning activities were organized during the course, students from Group A derived more satisfaction than Group B; hence, it may lead to a conclusion that blended GENGEIO type A satisfied students more than type B.

IV. CONCLUSION

Although there are theories on models, principles and characteristics of an effective blended learning courses, recommendations on the design in practice are not as available. Therefore, the pilot GENGEEO courses with two different time allocation, content and activity design were a good start to widely implement GENGEEO in forms of blended courses later in ULIS.

For the time being, as the students' autonomy and time management skill are not as good as expected (revealed in the survey questionnaire), face-to-face sessions is well needed. The findings from the pilot GENGEEO suggest that the face-to-face and online sessions should be at least equal; that is, in-class sessions should account for at least 50% of the course time. In other words, the time shared between face-to-face and web-based learning of Course type A is more preferable than Course type B.

Additionally, the majority of the face-to-face time should be allotted for discussion rather than merely teachers delivering lectures. As shown in the findings, the students preferred much more face-to-face discussion than what they did in the pilot course while they were content with a combination of in-class and online lectures. It is suggested that lecture notes be posted on the platform and made accessible in advance so that the students can access and prepare for the in-class discussions.

Another suggestion to consider is that the face-to-face sessions should be bestrewn so that the teachers can help remind and reinforce learning strategies as well as motivate students in their self-paced learning sessions. Furthermore, it is highly recommended that the current in-class quizzes be changed in order that students can do them online though strict measures must be taken to prevent students' cheating.

Last but not least, the findings gained from the pilot blended GENGEEO courses also urge a better preparation of web-based sources in terms of quantity as well as quality, such as lecture notes, reading materials, videos, photos and maps in order to facilitate better the students' self-paced learning.

In conclusion, the pilot blended GENGEEO provided the faculty lecturers with precious recommendations to design better blended GENGEEO course for the up-coming academic year. In terms of time allocation, a future blended GENGEEO will surely have equal share of time between face-to-face and web-based learning. In terms of content and activities, most lecture notes and quizzes will be web-based while it is advisable that discussions be mainly held in class in order to support students' better understanding of the content as well as to increase the interaction between lecturers and students.

BIBLIOGRAPHY

Allen E., and Seaman, J. (2010) Class differences: Online education in the United States 2010. BABSON survey research group. BABSON college.

Dziuban, C. Hartman, J. and Moskal, P. (2004) Blended learning. Research Bulletin. Volumn 2004, Issue 7. Educause.

E-Learning resources (2012). Retrieved May 11, 2017 from http://www.grayharriman.com/blended_learning.htm

Ellis, R. C. T., Wood, G. D., & Thorpe, T. (2004). Technology-based learning and the project manager. *Engineering, Construction and Architectural Management*, 11(5), 358–365.

Frederickson, N., Reed, P., & Clifford, V. (2005). Evaluating Web-supported learning versus lecture-based teaching: Quantitative and qualitative perspectives. *Higher Education*, 50(4), 645–664.

Garrison, D. R. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*.

Graham, C. R. (2006). Blended learning systems: Definition, current trends and future directions. In *Handbook of blended learning: Global Perspectives, local designs*. San Francisco, CA: Pfeiffer.

Hancock, S., & Wong, T. (2012). Blended Learning. Retrieved May 11, 2017 from http://sites.wiki.ubc.ca/etec510/Blended_Learning#cite_note-3

Hofmann, J. (2011). Soapbox: Top 10 challenges of blended learning. Retrieved May 11, 2017 from <http://www.trainingmag.com/article/soapbox-top-10-challenges-blended-learning>

Holden, Jolly T., and Westfall, Philip J.-L. (2006) (2nd Ed.). An instructional media selection guide for distance learning. United States Distance Learning Association. Retrieved on May 11, 2017 from <http://faculty.coehd.utsa.edu/pmcgee/distance/USDLA-Media-Guide.pdf>

Laster, S. O., Picciano, A. G. & Sorg, S. (2005). Redefining blended learning Presentation at the 2005 Sloan-C Workshop on Blended Learning, Chicago, IL.

Martyn, M. (2003). The hybrid online model: Good practice. *Educause Quarterly*. Retrieved May 11, 2017 from <http://www.educause.edu/ir/library/pdf/EQM0313.pdf>.

Kaur, M. (2013) Blended Learning - Its Challenges and Future. *Procedia - Social and Behavioral Sciences* 93, 612 – 617

Pelz, B. (2004). Three principles of effective online pedagogy. *Journal of Asynchronous Learning Networks*, 8(3). Retrieved on May 14, 2017 from <http://www.ccri.edu/distancefaculty/Online%20Pedagogy%20-%20Pelz.pdf>

Peters, M. (2009). Executing blended learning. Retrieved May 11, 2017 from clomedia.com

Savery, J.R. (2005) Be VOCAL: Characteristics of Success Online Instructors. *Journal of Interactive Online Learning*. 4:2, Fall 2005. Pg. 141.

The Oxford Group (2013) Blended learning – Current use, Challenges and Best Practice, Annual report.

Watson, J. (2008). Blending learning: The convergence of online and face-to-face education. Retrieved May 11, 2017 from <http://www.inacol.org:> http://www.inacol.org/research/promisingpractices/NACOL_PP-BlendedLearning-lr.pdf

Woodall, D. (2010). Blended learning strategies: Selecting the best instructional method. *Skillsoft Learning White Paper*.